

AYURVEDA

Roga Nidana

&

Vikriti Vigyana

Essentials of Nidan Panchaka



Prof. Vidula Gujjarwar

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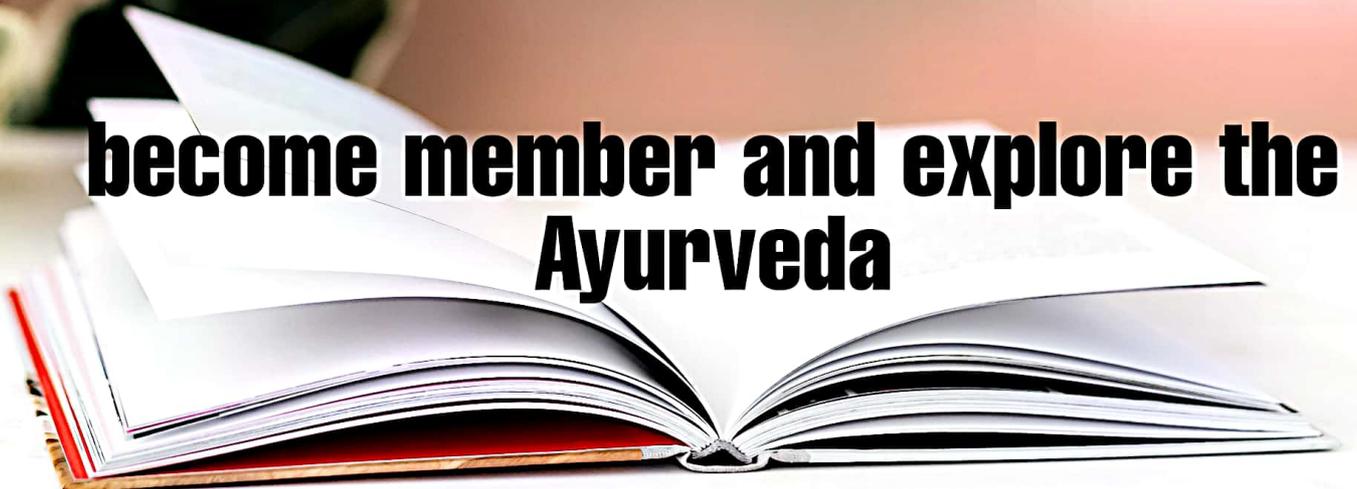
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Gratitude

Dedicated to my beloved father,

Late. Prahakar A. Rajguru

M.A., Ph.D.



I am obliged for your tall contributions made in my life...
By examples you taught, with patience you guided....
With gratitude I thank you.....

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Syllabus of Rognidana evum Vikriti Vigyana as per Central Council of Indian Medicine—Paper two

Paper II 100 Marks

Part A

50 Marks

Systematic study of Nidana Panchaka of following diseases (Including Upadrava, Arishta and Sadhyasadhya).

I. Diseases of Rasavaha Srotas (1-2)

- 1(a) Jwara (Jwarabheda-Ama, Pachyamana and Nirama Jwara, Agantukajwara, Punaravartaka Jwara, Vishama Jwara, Dhatugata Jwara, Charakokta Sannipata Jwara (3-35).
- 1(b) General mechanism of Fever(36-38), Introduction to the Aetiopathogenesis of Malaria (39-41), Typhoid (42), Dengue fever(43-45), Influenza (46) and Chikungunya (47).
- 2(a) Pandu (48-54), Amavata (55-58), Hridroga (59-64), Shotha (65-71).
- 2(b) Introduction to Anaemia & its Classification(72-75), Rheumatic fever(76-78), Rheumatoid Arthritis(79-81), Hypertension (82-86), Angina (87-89), Ischaemic Heart Disease (93), Myocardial Infarction (90-92) and CCF (94).

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2. Introduction to Hepatomegaly(139), Splenomegaly(140), Leukaemia (141-142), Thalessemia (143), Sickle cell Anaemia. (144-147)
3. Introduction to Urticaria(148-150), Psoriasis(151-152), Eczema(153), Pemphigus(154).

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* Numbers are in () are page numbers.

•••

1. Definition

The channelled system which deals with circulation of nutrition in required form to every cell and tissue and deals with nourishment of all the body systems is called as Rasavaha Srotas. Organs related to circulation are included under Rasavaha Srotas.

2. Origin of Rasavaha srotas: (Moola-sthana)

रसवहानां स्रोतसां हृदयं मूलं दश च धमन्यः। C.S. Vi. 5/8
रसवहे द्वे तयोर्मूलं हृदयं रसवाहिन्यश्च धमन्यः। S.S.Sh.9/15.

Rasavaha srotas originates from heart- *Hridaya* and *Dasha Dhamani*- (ten) vessels carrying rasa dhatu.

Rasavaha srotas are two in number and they originate from heart- *Hridaya* and lymphatic ducts- *Rasavahini dhamani*.

3. Causes of vitiation of Rasavaha srotas

गुरुशीतमतिस्निग्धमतिमात्रं समश्नताम्।
रसवाहिनो दुष्यन्ति चिन्त्यानामतिचिन्तनात्।। C.S.Vi. 5/13.

Causes responsible for vitiation of Rasavaha srotas:

- 1. Intake of food which is hard to digest:-** Such type of food causes indigestion resulting in formation of unhealthy Rasa.
- 2. Intake of food which is cold in quality as well as nature:** Excessive cold natured food causes diminution in the power of digestive fire (Agni), thus to create less appetite (Agnimandya) and further damage to Rasavaha srotas.

3. Intake of excessively oily, fatty, unctuous type of food : Such food contents lower down the power of digestive fire (Agni) and thus formation of healthy Rasa dhatu does not occur.

4. Overeating: Excessive intake of food causes diminution in the power of digestive fire (Agni) hence formation of healthy rasa dhatu does not occur and it causes vitiation of Rasavaha srotas.

5. Brooding: Constant thinking about any subject to the extent. Brooding leads to diminution in the power of digestive fire (Agni) causing vitiation of Rasavaha srotas.

4. Symptoms of Rasavaha srotas vitiation

अश्रद्धाचारुचिचास्यवैरस्यमसज्जता।
हस्तासो गौरवं तन्द्रायाङ्गमदोज्वररत्नमः।
पाण्डुत्वं स्रोतसां रोधः क्लैद्यं सादः कृशाङ्गता।।
नाशोन्मेष्यथाकालं बलयः पलितानि च।
रस प्रदोषजा रोगाः-----।। C.S.Sa. 28 /9-11.

1. Loathing of food.
2. Insipid mouth.
3. Inability to identify taste of food.
4. Nausea.
5. Heaviness in body.
6. Lassitude.
7. Body ache.
8. Fever.
9. Giddiness.
10. Paleness of the skin.
11. Sterility.

12. Weight loss.
13. Diminished power of digestive fire.
14. Untimely wrinkling of skin.
15. Premature greying of hair.

5. Symptoms of injured srotas

तत्र विद्धस्य शोषः प्राणवह विद्धवच्च मरणं तल्लिङ्गानि च।
S.S.Sh. 9/12

Rasavaha srotas on getting injured displays following symptoms:

1. Shosha-Diminution in body strength, emaciation of body.
2. Other features are similar to injured symptoms of Pranavaha srotas.
3. Death.

...

Chapter 2 JWARA

Disease at a glance

- Nature of Disease: - Acute.
- Major Involving Dosha - Vata, Pitta, Kapha
- Major Involving Dushya - Rasa. And further dhatu in later severe stages.
- Site of Manifestation: Amashaya
- Srotas: Rasavaha Srotas
- Types - Eight
- Cardinal Feature: Abnormal rise in body temperature, mental irritation.

Prognosis

- Curable: Single dosha dominant Jwara with onset during particular season. Jwara occupying up to Rasa, Rakta, Mamsa and Meda dhatu levels. (Dhatugata Jwara)
- Difficult to cure: Jwara occurred during rainy season with dominance of Vata dosha.
- Incurable: Jwara occupying deeper dhatu levels and Jwara on displaying various serious symptoms.

Diseases for differential diagnosis

1. Rajayakshma
2. Pratishtyaya.
3. Ajeerna.
4. Pittaja Kasa.
5. Tamaka (Pratamaka) Shwasa.
6. Gulma.
7. Vidradhi.
8. Aupasargika roga.
9. Vranashotha.
10. Aamvata.

Reference reading

- Madhavidana - Jwara-Chapter 2
- Charak Samhita Nidanasthan. Chapter 1.
- Charak Samhita Chikitsasthan. Chapter 3
- Sushruta Samhita Uttaratantra. Chapter 39
- Ashtanga Hridaya Nidanasthan. Chapter 2
- Vangasena Jwara Chapter
- Yogarajnakara Jwara Chapter.
- Kashyapa Samhita Jwara Chapter.
- Bhavaprakasha Jwara Chapter.
- Sanskrit English Dictionary -Apte Shabdakosha.

1. Introduction

ज्वरपादौ प्रवक्ष्यामि स रोगानीकराद् स्मृतः।
रुद्रकोपानिसम्भूतः सर्वभूतप्रतापनः।।
तेस्तेर्नामभिरत्येषां सत्त्वानां परिकीर्त्यते।
जन्मादौ निघने चैव प्रायो विशति देहिनम्।।
अतः सर्वविकारणामयं राजा प्रकीर्तितः।।
ऋते देवमनुष्येभ्यो नान्यो विषहते तु तम्।।
कर्मणा लभते यसाद् देवत्वं मानुषादपि।
पुनश्चैव स्युतः स्वर्गान्मानुष्यमनुवर्तते।।
तस्मात्ते देवभावेन सहन्ते मानुषा ज्वरम्।
शेषाः सर्वे विषघ्नन्ते तैर्यथोना ज्वरार्दिताः।। S.S.Utt. 39/ 8-13.

Ayurveda explains ' fever'- most common medical condition- with the term Jwara. Jwara is a serious natured disease condition due to its etiopathogenesis, signs , symptoms, complications and types. Scope of Ayurveda to explain Jwara is very wide that it claims the existance of this disease everywhere. Jwara can be an independant disease or a sign, a symptom, a prodromata feature, a complication or a terminal feature to almost all the other diseases applicable to human life. Secondly, Jwara is assumed to be present right from the birth to death of every living being and assumed as acting like a medium to wash off the past and make the soul free to rebirth as a new identity. That is how Jwara is taken as a synonym to the term- Vyadhi, meaning- a disease. Jwara that is fever or febrile condition is the most commonly observed state in all the age groups. Further detailed pathogenesis is described as Nidana Panchaka of Jwara in this chapter.

2. Definition:Paribhasha

ज्वरप्रत्यसिकं तिष्ठ्यं सन्तापो देहमानसः।
ज्वरेणाविशता भूतं न हि किञ्चन तपते।। C.S.Ch.3/31.

Cardinal feature of Jwara is explained as 'Rise in body temperature associated with mental irritation and

unpleasantness. No living being in this world can escape from threat of getting afflicted by Jwara. Therefore, Jwara is considered as the king of all the diseases.

संताप हेतुत्वात् ज्वरः ।

C.S.Ch.3/13 (Jejjata commentary).

The disease in which the body becomes abnormally warm and the mind becomes irritated or agitated is called as Jwara. This is the primarily important disease with a serious nature.

3. Dominance of Jwara over other diseases

ज्वरो रोगपतिः पाम्ना मृत्युरेजोशनोऽन्तकः ॥

क्रोधो दशादक्षाध्वरध्वंसो रुद्रध्वनयनोद्भवः ॥

जन्मान्तयो मोहमयः संतापात्सापचारजः ।

विविधैर्नामभिः क्रूरो नानायोनिसुवर्तते ॥ A.H. Ni. 2/ 1-2.

देहिन्द्रियमनस्तापी सर्वरोगाग्रजो बली ।

ज्वरः प्रधानो रोगाणामुक्तो भगवता पुरा ॥ C.S.Ch.3/4.

Jwara is the most powerful, and fearsome disease as compared to all the diseases which can occur to humans and other animals. Mortality rate of Jwara is very high. It is assumed that Jwara destroys the vital power-Oja of the patient and becomes responsible for his death. Jwara is the disease which is assumed to be originated as a result of anger and opening third eye of Lord Shiva. Jwara can be caused due to various predisposing factors. It can occur to all the living creatures and bears different names for various species (For e.g. Jwara in Elephants is called as Palaka, in horses- Abhitapa etc.)

4. Historical sketch of Jwara

ज्वरस्त्रिपादस्त्रिशिरः षड्भुजो नवलोकनः ।

भस्मप्रहरणो रौद्रः कालान्तकयमोपमः ॥

Ma. Ni. (Bhattarharichandra commentary)

Jwara is considered as the most dreadful

disease present at every stage of life. It is present at birth and death of every human life to wash off the memories of past and previous life respectively. In Purana (sacred work composed by Maharshi Vyasa) Jwara is mentioned not only as a disease but it has been assumed as a personality. Jwara is fictitiously assumed as having three legs, three heads, six hands and nine eyes. It wears ash as its clothing. Jwara was born when Lord Shiva expressed his extreme anger by opening the third eye. This disease is explained with so many ideologies because of its serious and fatally harmful nature.

5. Route of development : Marga

Bahya-Abhyantara : The disease affects internally as well as externally.

6. Predisposing factors : Nidana

दोषाः प्रकृपिताः स्वेषु कालेषु स्वैः प्रकोपणैः ।

व्यायु देहमशेषेण ज्वरमापादयन्ति हि ॥ S.S.Ur. 39/15-16.

मिथ्यातियुक्तेरपि च स्नेहाद्वैः कर्मभिर्नृणाम् ।

विविधअभिघाताच्च योगोत्थानात् प्रपाकतः ॥

श्रमात् क्षयात् जीर्णञ्च विपात्तात्सुर्पर्यायात् ।

ओषाधी पुष्पगंधाच्च शोकानक्षत्र पीडया ॥

अभिचाराभिशापाभ्यां मनोभूताभिश्च ज्ञया ।

स्त्रीणामप्रजातानां प्रजातानां तथाऽहितैः ॥

स्तन्यावतरणे चैव ज्वरो दोषैः प्रवर्तते । S.S.Ur. 39/19-22.

1. Aggravation of dosha takes place due to acceptance of relevant causative factors. Further, these dosha spread all over the body in respective time and produce Jwara
2. Faulty application of Panchakarma procedures such as excessive application of oil and steam.
3. Repeated physical injuries and traumas.
4. Affliction of other serious diseases. External or internal abscesses or formation of suppurative lesions in the body.

5. Excessive physical exertion.
6. Severe emaciation of body.
7. Chronic Indigestion.
8. Poisoning.
9. Intake of incompatible food.
10. Abnormal (seasonal) climatic changes.
11. Inhalation of poisonous smells or accidental smelling of poisonous flowers.
12. Affliction of sorrow.
13. Getting affected due to the curses of 'Nakshatra' i.e. an asterism in the moon's path.
14. As a bad effect caused by ghosts or as an effect of black magic done by wicked personalities.
15. As an effect of curse given by the God or other super natural forces.
16. Imbalance of mental status due to uncontrollable emotions like sorrow or sexual desire.
17. Procedural defects during child birth. Misbehavior of the mother after delivery or during the stage of lactation.

7. Pathogenesis : Samprapti

दुष्टाः स्वहेतुभिर्दोषाः प्रायमाशयमूजगा ।

सहिता रसभागत्य रसस्वेद्रवाहिणाम् ॥

स्त्रोतसां मार्गमावृत्य मन्दीकृत्य हुताशनम् ।

नितस्य बहिरुष्णार्णं पक्वितस्थानाच्च केवलम् ॥

शरीरं समभिव्याय स्वकालेषु ज्वरागमम् ।

जनयत्यथ वृद्धिं वा स्ववर्णं च त्वगारिषु ॥

S.S.Ur. 39/16-18.

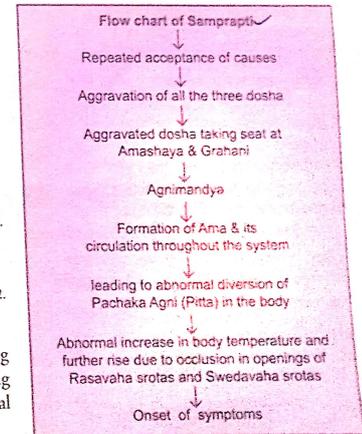
मिथ्याहारविहाराभ्यां दोषा ह्यामाशयाश्रया ।

बहिर्निस्य कोष्ठानि ज्वरा सु रसानुपाः ॥

Ma. Ni - Jwara-chapter-2/2.

Stepwise presentation of Jwara samprapti

1. Dosha get aggravated due to long standing acceptance of predisposing factors and come across to take abnormal seat at Amashaya as well as at Grahani.



Common clinical pathogenesis in Jwara

1. Wavering of eyes
2. Yawning
3. Body ache
4. Heaviness of body
5. Manipulation
6. Insipid mouth
7. Cloudy mind
8. Loss of pleasure or mental serenity
9. Feeling of cold
10. Stupor
11. Heaviness and pain in the eyes with increased lachrymal secretions
12. Photophobia
13. Indigestion
14. Dyspnoea
15. Drowsiness
16. Abnormal stooping of body
17. Pain in calf muscles
18. Intolerance and hatred towards good words of advice
19. Desire to eat salty, sour and pungent food items and loathing of sweet food items
20. Dislike toward mixing with a group of small children- intolerance to noise
21. Intense thirst
22. Irregular and undue desire and dislike towards cold, heat, air [wind], water and shadow
23. Tremor
24. Insomnia
25. Sour teeth
26. Loss of body strength
27. Lethargic working with insufficiency to complete the job in time
28. Loss of interest in performing all daily routines like, wearing clothes, make up etc. also loss of desire to eat or drink
29. Coldness
30. Shivering with feeling of cold
31. Pale, lustreless skin

Premonitory Factors - Purvaroop

These premonitory factors are for every type and give information about the forthcoming type of heat.

- 1. Wavering of eyes
- 2. Yawning
- 3. Body ache
- 4. Heaviness of body
- 5. Manipulation
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- 7. Cloudy mind
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- 30. Shivering with feeling of cold
- 31. Pale, lustreless skin

- M. Jaeger
- N. Restlessness
- O. Disorientation of eye
- P. Impaired mental faculties to change the taste.

36. Abnormal change in behaviour and mentality.

8.2 Special premonitory factors:

- (a) **Vishesh Purvaroop**
- (b) सामान्यतो, विशेषतः (सुप्तावस्थां समीरणात् । पित्ताग्रयोर्दारः कफाद्यान्नापिनन्दनम् ।) सर्वलिङ्गमवायः सर्वदोषप्रकोपजे । द्रव्योद्भूयते रूपेण संसृष्टं दृढजं विदुः ।। S.S.Ur. 39/27-28.

These features give some faint but directive idea about the type and dominance of dosha in forthcoming pathogenesis of Jwara.

- 1. Vata dominant Jwara = Yawning.
- 2. Pitta dominant Jwara = Sensation of burning in eyes.
- 3. Kapha dominant Jwara = Loss of appetite.

9. Effect of Jwara: Jwara Prabhava

संतापः सारुचितृणासांगमर्दोहदिव्यया ।। ज्वरप्रभावो, जन्मादौ निघने च महत्तमेः । प्रकृतिश्च प्रवृत्तिश्च प्रभावश्च प्रदर्शितः ।। C.S.Ch.3/26.

Presence of Jwara is estimated by observing symptoms like loathing of food, thirst, body ache, pain in heart. Jwara is assumed to create great sort of delirium at the time of birth and death of every living individual. By this virtue Jwara is explained according to its nature, course of action and its effect.

10. Clinical features: Roopa

- शारीरो जायते पूर्वदिहे, मनसि मानसः । वैचिह्नंमरुतिलानिर्मनसस्तापलक्षणम् । इन्द्रियाणां च वैकृत्यं ज्ञेयं संताप लक्षणम् ।। C.S.Ch.3/36-37.
- देहेन्द्रियमनस्तापकरः, प्रज्ञाबलवर्णहर्षोत्साहहासकरः, श्रमकलममोहाहारोपरोधसंजननः । C.S.Ni.1/35.
- स्विदावरोधः सन्तापः सर्वांग ग्रहणं तथा । सुगन्धत्र रोगे च स ज्वरो व्यपदिश्यते ।। S.Ur. 39/13.) भा. 2/1
- ज्वरप्रत्यालिकं लिङ्गं संतापोदेहमनसः । ज्वरणाविशता भूतं न हि किञ्चित् तप्यते ।। C.S.Ch.3/31.

Cardinal feature
Rise in body temperature and irritation of the mind.

Other general clinical features:

- 1. Disturbed mind.
- 2. Restlessness.
- 3. Drowsiness.
- 4. Loss of concentration.
- 5. Abnormal functioning of vital powers.
- 6. Insipid mouth.
- 7. Body ache.
- 8. Thirst.
- 9. Body ache, Pain in the chest.
- 10. Unstable, wavering mind.
- 11. Raised body temperature.
- 12. Loss of sweating.

11. Types : Prakara

Total 08 types of Jwara are described.



दक्षापमानसंकुद्धरुद्रनिःधाससंपवः । ज्वरोऽष्टधा पृथक्चन्द्रसंवागनुजः स्मृतः ।। M. Ni - Jwara - chapter-2/1.

द्विविधो विधिभेदेन ज्वरः शारीरमानसः । पुनश्च द्विविधो दृष्टः सौम्यक्षाम्नेय एव वा ।। अन्तर्गो बहिर्गो त्रिधा पुनरुच्यते । प्राकृतो वैकृतश्चैव साध्यश्चसाध्य एव च ।। पुनश्च पंचविधो दृष्टो दोषकालबलाबलात् । संततः सततोच्यदुःसुतोयक चतुर्विको ।। पुनश्च भेदेन घातुनां सप्तधा मतः ।। भिन्नः कारणभेदेन पुनरष्टविधो ज्वरः ।। C.S.Ch.3/32-35.

2. Heaviness in the body.
3. Hyper salivation.
4. Morbid sweet taste in mouth.
5. Feeling as if heart is coated with something.
6. Strenuous breathing.
7. Chronic sinusitis.
8. Nausea and vomiting.
9. Coughing.
10. Stiffness of the body.
11. Abnormally pale coloured skin etc. (nails, conjunctiva etc.).
12. Formation of cold abscesses.
13. Stupor.
14. Urticaria.

11.4 Dwidoshaja (Dwandwaja) [two dosha dominant] Jwara

1. VATA-PITTA DOMINANT JWARA

शिरोर्नि मूर्च्छावमि दाह मोह कण्ठसाय शोषा रति पर्वभेदाः ।
उन्निरततुङ् प्रमोभोहर्यं जृम्भातिवाक्त्वं च चलात्सपित्तात् ॥
A.H.Ni.2 /24.

तृष्णा मूर्च्छाप्रभो दाहः स्वप्ननाशः शिरोरुजा ।
कण्ठसायशोषो वम्यु तेमहर्षोऽरुचिस्तमः ।
पर्वभेदश्च जृम्भा च वातपित्तज्वराकृतिः ॥ S.S.Utt. 39/47.

1. Headache.
2. Stupor.
3. Vomiting.
4. Sensation of burning.
5. Delirium.
6. Dryness of mouth and throat.
7. Restlessness.
8. Pain in joints.
9. Insomnia.
10. Thirst.
11. Giddiness.
12. Horripilation.
13. Yawning.
14. Irrelevant excessive speech.

2. VATA- KAPHA DOMINANT JWARA

स्तेमित्वं पर्वणा भेदो निद्रा गौरवेव च ।
शिरोग्रहः प्रतिश्यावः कासः स्वेदाप्रवर्तनम् ॥
संतापो मध्यवेगश्च वातश्लेष्मज्वराकृतिः ।

S.S.Utt.39/48-49.

तापहान्यरुचिपर्वशिरोरुक्पीनसश्चसनकारविवन्धाः ।
शीतजाड्यतिमिरप्रमतन्नाः श्लेष्मवातजनितज्वरलिङ्गम् ॥
A.H.Ni.2 /25.

1. Numbness in the body.
2. Pain in joints.
3. Excessive Sleep
4. Heaviness in the body.
5. Heaviness in the head.
6. Common cold and cough.
7. Loss of sweating.
8. Moderate grade fever.

3. KAPHA- PITTA DOMINANT JWARA

लित्तित्वत्तास्यता तन्द्रा मोहः कासोऽरुचिस्तृषा ।
मुहुर्दाही मुहुः शीतंश्लेष्मपित्तज्वराकृतिः ॥ S.S.Utt.39/50.
शीतलाम्बस्वेददाहाव्यवस्था तृष्णाकासश्लेष्मपित्तप्रवृत्तिः ।
मोहस्तन्त्रालित्तित्वत्तास्यता च ज्ञेयं रूपं श्लेष्मपित्तज्वरस्य ॥
A.H.Ni.2 /26.

1. Coated mouth and tongue with morbid bitter taste.
2. Stupor.
3. Delirium.
4. Cough
5. Thirst.
6. Alternate feeling of warmth and cold.

11.5 Sannipatika [three dosha dominant] Jwara

विषमापनाददनपनादन्नपरिवर्तित्वितुल्यापत्तेरसात्यगन्धोप-
ग्राणाद्विषोपहतस्य
चोदकस्योपयोगात् गरम्यो गिरिणां चोपश्लेष्मात्, स्नेहस्वेदवम
नविरेचनास्थापनानुदासनशिरोविरेचनानामयथावलयोगात्,
मिथ्यासंसर्जनात् वा, स्त्रीणां च विषमप्रजातानां, प्रजातानां च
मिथ्योपयोगात्,
यथोक्तानां च हेतुनां मिथ्रीभावात्ययानिदानं द्रन्धानाम्यतमः
सर्वे वा

त्रयोदोषा युगपत्प्रकोपापघ्नन्ते, ते प्रकृपितास्यैवानुपूर्वा
ज्वरमभिर्वर्तयन्ति ॥ C.S.Ni. 1/32.
विरुद्धभोजनात् कालात् परिणामाच्च कर्मणाम् ।
प्रकृप्यनिलः शीघ्रं सोऽस्यानिमुपहन्त्यु ॥

Kashyapa Samhita

Predisposing factors

1. Intake of incompatible food.
2. Starvation.
3. Change in regular diet.
4. Abnormal climatic changes.
5. Inhalation of poisonous odours.
6. Usage of poisonous water.
7. Poisoning.
8. Erroneous application of Panchakarma procedures.
9. Erroneous conduction of post Panchakarma regimen (sansarjan krama)
10. Climbing high glaciers.
11. Abnormality in labour procedure.
12. Faulty application of post partum regimen.

Continual acceptance of these predisposing factors causes aggravation of all the three dosha to create Sannipatika Jwara. All characters of all the three dosha are displayed in Sannipatika Jwara.

Clinical features : Roopa

सर्वजो लक्षणेः सर्वदाहोऽत्र च मुहुर्मुहुः ।
तद्वच्छीतं महानिद्रा दिवा जागरणं निशि ॥
सदा वा नैव वा निद्रा महास्वेदोऽति नैव वा ।
शीतनर्तनहास्यादि विकृते ह्यप्रतनम् ।
साशुणी कलुपे रक्ते पुने लुलितपक्ष्माणि ॥
अक्षिणी पिण्डिकापार्थमद्वयवास्थिरुप्रमः ।
सखनौ सरुजो कर्णो कण्ठः शूके रियाचितः ॥
परिदग्धा खरा जिह्वा गुरुः स्रस्ताङ्गसन्धिता ॥
रक्तपित्तकफष्ठोवो लोलनं शिरसिऽतिरुक् ॥
कोष्ठानां श्यावत्वानां मण्डलानां च दर्शनम् ।
हृद्गथा मलसंसद्गः प्रवृत्तिर्वाल्पशोऽति वा ॥
स्निग्धास्यता बलप्रंशः स्वरसादः प्रलापिता ॥
दोषपाकश्चिरात्तन्द्रा प्रतत कण्ठकूजनम् ॥

A.H.Ni.2 /27-32

सुर्वांगता, स्तम्भः, उन्मादः श्यावदंतता, चेतनाच्छ्रुति ।
S.S.Utt. 39/35-37

वातांगात्राभिसंजनम् । Kashyap Samhita

Sannipatika Jwara displays features of all three dosha equally. Hence, contradictory symptoms such as sudden feeling of cold followed by feeling of warmth are usually observed in Sannipatika Jwara.

1. Sudden Sensation of burning or feeling of cold.
2. Drowsiness during daytime and insomnia during night (complete loss of sleep or excessive drowsiness).
3. Excessive or no sweating.
4. Abnormal desire to sing, dance or laugh.
5. Eyes become turbid, reddened, bulging out of the eye socket with hyper lacrimation. Eyelids become loose as if fallen down from the place.
6. Pain in calf muscles.
7. Pain at flanks, head, bones and joints.
8. Syncope.
9. Ringing of ears. Pain in ears.
10. Itching in throat.
11. Tongue looks as burntup, red colored and rough.
12. Joints and body become loose.
13. Purulent, sticky sputum. Hemoptisis.
14. Tremor in head and headache.
15. Formation of reddish black round patches on the skin.
16. Chest pain.
17. Complete stasis of urine and feces or obstructed production or excessive production of urine and fecal material.
18. Sticky coated mouth, enteritis.
19. Loss of voice with severe debility.
20. Patient talks irrelevantly, sighs uncomfortably and becomes delirious.
21. Body systems start failing.

22. Symptoms like dyspnoea, coughing, insipid mouth, disorientation of mind, heaviness in stomach, loss of speech, loss of sensation in body, irrelevant behaviour and feeble mind are observed.

1. THIRTEEN TYPES OF SANNIPATIKA JWARA ACCORDING TO CHARAKA SAMHITA

Charaka samhita has explained thirteen types of Jwara forming due to different combinations of dosha.

सन्निपातज्वरस्योर्ध्वं त्रयोदशविधस्य हि ।
 प्राक्सूत्रितस्य वक्ष्यामि लक्षणं वै शूयक्, धृयक् ॥
 प्रमः पिपासा दाहश्च गौरवं शिरसोऽतिरुक् ।
 वातापित्तोत्पन्ने विद्वालिङ्गं मन्दकफे ज्वरे ॥
 शैल्यं कासोऽरुचिर्लज्जापिपासादाहरुच्यया ।
 वातश्लेष्मोत्पन्ने व्याधौ लिङ्गं पित्तारे विदुः ॥
 छर्दिः शैल्यं मुहूर्दाहस्तृणा मोहोऽस्थिवेदना ।
 मन्दवाते व्यवसन्ति लिङ्गं पित्तकफोत्पन्ने ॥

सन्ध्यस्थि शिरसः शूलं प्रलापो गौरवं प्रमः ।
 वातोत्पन्नेऽस्य द्धुनगे तृणा कण्ठास्यशुष्कता ॥
 खत विष्णुत्रता दाहः स्वेदस्तुब्द बलसंशयः ।
 मूर्च्छां चेति त्रिदोषे स्याल्लिङ्गं पित्ते परीयसि ॥
 आलस्यारुचिहल्लासदाहवस्यरतिप्रमैः ।
 कफोत्पन्नं सन्निपातं तन्नाकासेन चादिशेत् ॥
 प्रतिश्यायछर्दिरालस्यं तन्नारुच्याग्निमार्दवम् ।
 हीनवातेपित्तमध्ये लिङ्गं श्लेष्माधिके मतम् ॥
 हरिद्रामूत्रनेत्रलं दाहस्तृणाप्रमोऽरुचिः ।
 हीनवाते मध्यकफे लिङ्गं पित्ताधिके मतम् ॥
 शिरोरुच्येषुः श्वासः प्रलापश्चछर्दिरीचकौ ।
 हीनपित्ते मध्य कफे लिङ्गं स्यान्मारुताधिके ॥
 शीतको गौरवं तन्ना प्रलापोऽस्थिशिरोऽतिरुक् ।
 हीनवाते वातमध्ये लिङ्गं श्लेष्माधिके विदुः ॥
 श्वासः कासः प्रतिश्यायो मुखशोषोऽतिपार्श्वरुक् ।
 कफयिने पित्त मध्ये वाताधिके मतम् ॥
 चर्चोभेदोऽग्निदौर्बल्यं तृणा दाहोऽरुचिप्रमः ।
 कफहीने वातमध्ये लिङ्गं पित्ताधिके विदुः ॥

C.S.Ch.3/90-101.

S. No.	Aggravated Dosha	Normal Dosha	Reduced Dosha	Clinical Features
1.	Vata, Pitta	--	Kapha	Giddiness, thirst, sensation of burning, heaviness of body, severe head ache.
2.	Vata, Kapha	--	Pitta	Feeling of cold, cough, insipid mouth, lassitude, thirst, sensation of burning, pain.
3.	Kapha, Pitta	--	Vata	Vomiting, feeling of cold or sensation of burning, thirst, delirium. Pain in bones and joints.
4.	Vata	--	Kapha Pitta	Pain in bones and joints, headache, incoherent speech, heaviness in the body, dryness of mouth and throat.
5.	Pitta	--	Vata Kapha	Bleeding via urine and faeces, sensation of burning, sweating, thirst, loss of body strength, fainting.
6.	Kapha	--	Vata Pitta	Stupor, insipid mouth, nausea, lassitude. Sensation of burning, vomiting, restlessness, lassitude, cough, giddiness.
7.	Kapha	Pitta	Vata	Common cold, vomiting, stupor, lassitude, insipid mouth, indigestion.
8.	Pitta	Kapha	Vata	Yellowish tinge to eyes and urine, sensation of burning, thirst, giddiness, insipid mouth.

S. No.	Aggravated Dosha	Normal Dosha	Reduced Dosha	Clinical Features
9.	Vata	Kapha	Pitta	Pain in the eyes, sensation of burning, tremors, dyspnoea, incoherent speech, vomiting, loss of ability to identify taste.
10.	Kapha	Vata	Pitta	Feeling of cold, lassitude, incoherent speech, pain in the skeleton.
11.	Vata	Pitta	Kapha	Dyspnoea, cough, common cold, pain in flanks, dryness of mouth.
12.	Pitta	Vata	Kapha	Unformed motions, indigestion, thirst, sensation of burning, insipid mouth, giddiness.
13.	When All The Three Dosh Are In Equal State			Symptoms explained under Sannipatika Jwara are observed.

Classification of Jwara Sannipata According to Madhavnidna-Bhaluki Tantra

S. No.	Dosha	Name	Clinical features
1.	Vata-Pitta dominant type.	Babhru.	Fever, body ache, thirst, dryness of palate, difficulty in eye movements, abdominal distension, stupor, insipid mouth, dyspnoea, giddiness, fatigue.
2.	Pitta-Kapha dominant type.	Falgu.	Cold skin, pain in the right flank, obstructed feeling in the chest and throat, head ache, dyspnoea, hiccup, difficulty to open the eyes.
3.	Kapha-Vata dominant type.	Makaree.	Fever with chills, drowsiness, thirst, pain in flanks with feeling of obstruction heaviness in the head, stupor.
4.	Vata dominant type.	Visphuraka.	Thirst, fatigue, drowsiness, pain in flanks, diminished eyesight, pain in calf muscles, sensation of burning in the body, heaviness and lack of strength in thighs, loss of body strength, bleeding via urine and faeces.
5.	Pitta dominant type.	Shighrakari.	Sensation of burning, high grade fever, watery loose motions [visuchika], pain in small joints, incoherent speech, heaviness in the body, fatigue, pain at umbilicus, pain in flanks, life expectancy is short [patient dies within 24 hours]
6.	Kapha dominant type.	Faffana/ Kaphana	Fever with chills, drowsiness, heaviness in the body, stupor, lassitude, vomiting, fainting, thirst, sensation of burning, insipid mouth, feeling of obstruction in the heart, expulsion of the sputum, morbid sweet feel of the mouth, deafness, heaviness of the tongue with difficult pronunciation, diminished eyesight.

2. JWARA SANNIPATA EXPLAINED BY VANGASENA

प्रवृद्धहीनमथ्यैः सुवातपित्त कफैश्च यः ।
तेन रोगास्त एवोक्ता ययारोग वताश्रयाः ।
प्रलापायाससंगोहकम्पूखदारतिप्रमाः ।
मन्यास्तभेन मुलुश्च तत्राप्येतद्विशेषणम् ॥ Vangasena-380.
मध्यमप्रवृद्धहीनेश्च सन्निपातो यदा भवेत् ।
तस्य रोगास्त एवोक्ता ययारोग वताश्रयाः ॥
मोहप्रलापपूर्वकाः स्वस्तभकम्पशिरोग्राहाः ।
कासश्वातो प्रमत्तान्ना संज्ञानाशो हृदि ग्रहः ॥
क्षेत्रे रक्तं विद्युन्वति तत्राप्येतद्विशेषणम् ।
अर्वाक् त्रिरात्रान्मुलुश्च तन्नी वास्तथ्यलोचनः ।
एषां अत्र नामानि याव्यक्रकचपाकलाः ॥
Vangasena-381-383.

सर्वदोषैः प्रकुण्ठितं सन्निपातं निबोध मे ।
त्रयाणां च दोषाणां सर्वरूपाणि लक्षणयेत् ॥

Vangasena-381-383.

Vangasena-384-391.

Sr. No.	Aggravated Dosha	Normal Dosha	Reduced Dosha	Name of Sanniipata Jwara	Clinical Features
1.	Vata	--	Pitta-kapha	Visphuraka.	Cough, dyspnoea, syncope, irrelevant speech, delirium, tremors, pain in flanks, yawning, bitter taste in mouth,
2.	Pitta	--	Kapha-vata	Shighrakaree/Ashukari	Loose motions, giddiness, syncope, mouth ulcers, formation of red spots on the skin, severe sensation of burning, patient dies within 24 hours.
3.	Kapha	--	Vata-pitta	Kampana.	heavyness in body, incoherent speech, drowsiness, eyes remain open and pupils fixed, morbid sweet feel of mouth.
4.	Vata-Pitta	--	Kapha	Babhrū.	Fever, body ache, thirst, dryness of palate, difficulty to open eyes, abdominal distension, stupor, insipid mouth, dyspnoea, cough, giddiness, fatigue, delirium.
5.	Pitta-Kapha	--	Vata	Falgu.	Cold skin, pain in the right flank, obstructed feeling in the chest and throat, head ache, dyspnoea, hiccup, difficulty to open the eyes.
6.	Vata-kapha	--	Pitta	Makaree.	fever with chills, drowsiness, thirst, pain in flanks with feeling of obstruction heavyness in the head, stupor.

यानि ज्वरचिकित्सायां रुपाण्युक्तानि कुल्लशः ।
तैः सनीव सम्पूर्णविक्षेयः कूटपाकलः ॥
व्याधीभ्यो दारुणेभ्यश्च वज्रशस्त्रानिसन्निभिः ।
केवलोच्छ्वासपरतः स्तब्धाङ्गः स्तब्धलोचना ॥
त्रिरात्रपरमेतस्य जन्तोर्हरति जीवितम् ।
तदावश्यन्तु तं दृष्ट्वा मूढो व्याहते यतः ॥
घर्षितो राक्षसैर्नूनमेलायां चरन्ति ये ।
अश्रया बुवते केचिद्यथक्षिण्या ब्रह्मराक्षसैः ॥
पिशाचैर्गुल्यकेश्वैव तथान्यैर्मत्स्रै हतम् ।
कुलदेवार्चनाधीनं घर्षितं कुलदेवतेः ॥
नक्षत्रपीडामरं गकर्मति चारं ।
वदन्ति सन्निपातन्तु भिषजाः कूटपाकलम् ॥
कूटस्थेजीयते दोषैर्बलिभिः कूटपाकलम् ।
त्रयोदशविधं प्रोक्तं सन्निपास्य लक्षणम् ॥

Sr. No.	Aggravated Dosha	Normal Dosha	Reduced Dosha	Name of Sanniipata Jwara	Clinical Features
7.	Kapha	Pitta	Vata	Vaidarika.	Mild back and lumbar pain, Sensation of burning restricted in the central portion of the body, Pain in the body, especially at neck or face, Giddiness, Fatigue, Headache, Pain in the chest, Difficulty in speaking, Difficult movements of the eyes, Dyspnoea, Cough, Hiccup, Coma, Swelling at the base of the ear.
8.	Kapha	Vata	Pitta	Karkotaka.	Severe sensation of burning, Loss of speech, Buccal cavity becomes bright red in colour, Difficulty in expulsion of sputum, Intense pain in flanks, Severe pain in the chest, Difficult movements of the eyes, Dyspnoea, Hiccup, Blamished, Rough surfaced tongue, Pricking sensation in the throat, Incontinence of motions and urination, Severe wheezing, Dryness of tongue, buccal cavity and lips, Drowsiness, Loss of the digestive capacity, Loss of the normal skin glow, Irrelevant, abnormal actions, Haemoptisis.
9.	Vata	Pitta	Kapha	Sammohaka	Irrelevant speech, delirium, tremors, syncope, restlessness, fatigue, paralysis.
10.	Pitta	Kapha	Vata	Yamya.	Severe Sensation of burning, Suppurative lesion formations at liver, spleen, intestines and lungs, Excretion of pus via mouth and anus.
11.	Vata	Kapha	Pitta	Krakacha.	Incoherent speech, Fatigue, Loss of orientation of the surrounding, Body tremors, Fainting, Restlessness, Giddiness, Stiffness in the neck.
12.	Pitta	Vata	Kapha	Pakala.	Delirium, Incoherent speech, Fainting, Stiffness of the body, Body tremors, Head ache, Cough, Dyspnoea, Giddiness, Lassitude, Partial Comatose condition, Obstruction in the chest, Bleeding from various apertures of the body, Fixed gaze of the eye.

Sr. No.	Aggravated Dosha	Normal Dosha	Reduced Dosha	Name of Sannipata Jwara	Clinical Features
13.	Vata-pitta-kapha	--	--	Kutapakala. (Aacharya vaghbhata has named Kutapakala. Sannipata as Abhinyasa and Hatujasa sannipata)	The condition of the patient is very serious and extremely critical. His body becomes stiff and motionless like a wooden log with fixed gaze of eyes. Only process of respiration indicates the presence of life. Aggravation of all the three dosha is very serious and end of the life is almost certain. Patient dies within three days of development of this type of sannipata.

3. OTHER TYPES OF JWARA SANNIPATA

Abhinyasa [Hataujasa] Sannipata

त्रयश्च कुरिता दोषाउत्स्रोतोऽनुगा भृशम् ।
आमा विबद्धा प्रथिता बुधीन्द्रियमनोऽनुगा ॥
जनयन्ति महाधरमभिन्यासं ज्वरं नृणाम् ।
प्रसव्यात्रस्त्वनामी सद्येष्टोच कांक्षते ॥
न च वृद्धीभवेत्स्य समर्थरुप दर्शने ।
न च गन्धस्य स्पर्शशब्दान्नाप्याथ बुध्यते ॥
शिरो लोढयतेऽभीक्ष्णमाहारं नाभिनन्दति ।
कूजत तुद्यते चैव प्रतिपत्तिश्च हीयते ॥
प्रत्याख्येयः स भूमिष्ठं कश्चिदेवात्र सिध्यति ॥

Vāngasena- 496-500.

निद्रोपेयमभिन्यासं शिष्टं विद्वाद्यतौजसम् ॥

संन्यस्तमात्रं संन्यासं विद्यात्सर्वात्मिके ज्वरे ॥ S.S.Ut. 39/42.
All the three dosha aggravate and take abnormal seat at the heart, mind and the brain also get afflicted by the action of these aggravated dosha and a fatal condition of sannipatika jwara forms which is called as Abhinyasa sannipata.

Clinical features

Aggravated dosha take seat at the chest and further create the abnormality to brain, vital organs and mind to create very serious symptoms.

1. Severe stiffness of body.
2. Loss of ability to speak.
3. Loss of ability for body movements.
4. Loss of all desires.
5. Inability to identify smell, taste, sound or touch.
6. Tremor [especially at head].
7. Inability to swallow food.
8. Patient constantly wheans.
9. Pricking type of pain in the body.
10. Partial comatose condition.
11. Incurable, very serious type of fever.

Aacharya Sushruta has named Abhinyasan sannipata as **Sanyasa sannipata** with excessive sleep as an additional feature and defined it as an Arishta symptom causing certain death of the patient.

4. THIRTEEN TYPES OF JWARA SANNIPATA
EXPLAINED BY YOGARATNAKARA AND
BHAVA PRAKASHA

संन्यिकशान्तकश्चैव रुदाहचित्तविप्रमः ।
शीताङ्गुत्तान्द्रिकश्चैव कण्ठकुब्जश्च कर्णकः ॥
विद्यतो भुग्नेत्रश्च रक्तच्छीवी प्रलापकः ।
जिह्वकश्चेत्यभिन्यासः सन्निपातस्त्रयोदशः ॥

Yogaratanakara- Jwara.

शीतांगुस्त्रिग्लोद्भवज्वरगणे तन्त्री प्रलापी ततो ।
रक्तच्छीवयिता च तत्र गणितः सम्भुग्नेत्रसाथा ॥
साभिन्यासकजिह्वकश्च कथितः प्रसन्धियोऽथान्तको ।
रुदाहः सहचित्तविप्रम इह द्वौ कर्णकर्णकण्ठग्रहौ ॥

Bhavaprakasha- Jwara.

1. Sandhika sannipata.
2. Antaka sannipata.
3. Rugdaha sannipata.
4. Chittavibhrama sannipata.
5. Sheetanga sannipata.
6. Tandrika sannipata.
7. Kanthakubja sannipata.
8. Karnaka sannipata.
9. Bhugnanetra sannipata.
10. Raktasthivi sannipata.
11. Pralapaka sannipata.
12. Jimvaka sannipata.
13. Abhinyasa sannipata.

1. Sandhika Sannipata

पूर्वरूपकृतं शूलसम्भवं शोषवात बहु वेदनान्वितम् ।
श्लेष्मतापबलहानिजागरं सन्निपातमिति सनदधिकं वदेत् ॥

Yogaratanakara-Jwara.

व्याथितिशयिताभवेच्छयद्युत्सुता सन्धिषु
प्रभूतकफामुखे विगतनिद्रता कासरुक् ।
समस्तमित- किरितं भवति लक्ष्य यत्र ज्वरे
त्रिदोषजनिते बुधैः स हि निपदयते संन्यिकः ॥

Bhavaprakasha-Jwara.

1. Pain in joints is the premonitory feature of this type.
2. Severe body ache.
3. Production of frothy sputum.
4. Emaciation of the body.
5. Body warmth.
6. Fatigue.
7. Swollen, painful joints.
8. Cough.
9. Insomnia.
10. Sticky coating of mouth.

2. Antaka Sannipata

दाहं परितापमानतनौति ।
मोहं ददाति विदग्धाति शिरः प्रकम्पम् ॥
हिवकां तनोति कसनं च समाचुहोति ।
जानीहि तं विबुधवर्जितमन्तख्यम् ॥ Yogaratanakara- Jwara
यसिल्लक्षणमेतदस्ति सकलेर्दोषैरुदीयते ज्वरेऽजसं
मूर्खविद्यूनं सकसनं सर्वांगपीडाधिकं
हिवकाश्वासदाहमोहसहिता देहेऽतिसन्तपता
वैकल्यश्च वृथा वचांसि मुनिभिः संकीर्तितः सोऽन्तकः ॥
Bhavaprakasha-Jwara.

1. Dyspnoea.
2. Fever.
3. Delirium.
4. Shaking, tremulent head.
5. Hiccup.
6. Dyspnoea.
7. Cough.
8. Sensation of burning.
9. Delirium.
10. Fatigue.
11. High grade fever.
12. Functioning disability of the organs and systems.
13. Difficulty to speak, Incoherent speech.

3. Rukdaha Sannipata

प्रलापपरितापप्रबलमोहमान्धश्रमः ।
परिभ्रमणवेदनाव्यथितकण्ठमन्याहनुः ॥
निस्तारुपाकरः श्वसनकासहिक्काकुलः ।
स कष्टतरसाधनोभवति हन्ति रुक्याहकः ॥

Yogaratanakara- Jwara

दाहोऽधिको भवति यत्र तुषा च तीव्रा
श्वासप्रलापविरुचिप्रमोहपीडाः ।
मन्याहनुव्ययनकण्ठरुजः श्रमश्च रुदाहसंज्ञा
उदितस्त्रिभवे ज्वरोऽयम् ॥ Bhavaprakasha- Jwara.

1. Incoherent speech.
2. Fever.
3. Delirium.
4. Diminution of bodily movements.
5. Fatigue.

6. Giddiness.
7. Pain at throat, neck and chin.
8. Severe thirst.
9. Dyspnoea.
10. Cough.
11. Hiccup.
12. Sensation of burning.
13. Insipid mouth.

4. Chittabhrama Sannipata

यदि कश्चनरि सुप्तं जायते कायपीडा ।
भ्रम मत्परितापो मोहवेकल्पभावः ।
विकल्पनयनहासो गीतनृत्यप्रतापेऽ
निश्चिन्तितमसाद्यं केऽपि चित्तप्रनाड्यम् ॥

Yogaratanakara- Jwara

नाचति नृचति हसति प्रतापति विकृतं निरिखते मुष्यते ।
दाहव्यामयातो नारस्तु चित्तप्रमे ज्वरे भवति ॥

Bhavaprakasha- Jwara.

1. Various types of pain in the body.
2. Giddiness.
3. Delirium.
4. Fever.
5. Disoriented state of the mind.
6. Weakness in the organs and systems.
7. The patient performs abnormal activities like dancing, singing, laughing, irrelevant speaking etc. His mind is totally unstable.

5. Sheetanga [Sheetagatra] Sannipata

हिमसदृशप्रयोगे वेपथुश्चास हिक्का ।
शिथिलनयकलाङ्ग खीन्ननादोग्रतापः ॥
क्लमयुद्धयुक्तासच्छर्द्यतीमारयुक्तास्त्वरित
मरणहेतुः शीतपात्रः प्रभावात् ॥ Yogaratanakara- Jwara
हिमशिथिलगौरः सत्रिपातज्वरीयः श्वयम कस्यनहिक्का मोह
कम्पप्रतापैः । क्लमवहुकफवातादाहवन्मपीडास्त्वविकृति-
पिपातः शीतपात्रं य उच्यते ॥ Bhavaprakasha- Jwara.

1. Body becomes icy cold to touch.
2. Tremor.
3. Dyspnoea.
4. Fatigue.

5. Sensation of burning.
6. Hiccup.
7. Loss of body strength.
8. Diminished voice.
9. High grade fever.
10. Cough.
11. Vomitting.
12. Loose motions.
13. Incoherent speech.
14. Disoriented state of mind.

6. Tandrika Sannipata

प्रभूतातन्द्रातिज्वरकफपिपासाकुलतरो ।
भवेच्छ्यामा जिह्वा शूल कठिना कण्ठकवृत्तः ॥
अतीक्ष्णश्वशाक्लमधुपिपासाशुतिरुजो ।
भृशं कण्ठे जाड्यं शयनमनिषं तंत्रिकगदे ॥

Yogaratanakara- Jwara

तन्द्रातीव ततस्तृषा ऽतिसरणं श्वासोऽधिकः कासरुक्
सन्नापातितनुर्गलः श्वयथुना सार्द्धञ्च दाहस्तथा
यत्र स्यात्स हि तंत्रिको निगदितो दोषत्रयोत्योज्वरः ॥

Bhavaprakasha- Jwara.

सत्रिपात ज्वरस्थान्ते कर्णमूले सुदारुणः ।
शोथः सञ्जायतेन कश्चिदेव प्रमुच्यते ॥
ज्वरस्य पूर्वज्वरव्यती वा ज्वरान्तो वा श्रुतिमूलशोथः ।
क्रमदसाद्यः खलु कटसाद्यः सुखेन साध्यो मुनिभिः
प्रदिष्टः ॥ Yogaratanakara- Jwara

1. Severe lassitude with loss of orientation.
2. High grade fever.
3. Excessive production of sputum.
4. Intense thirst.
5. Blackish discoloration of tongue with formation of hard spikes on its surface.
6. Loose motions.
7. Dyspnoea.
8. Fatigue.
9. Body warmth.
10. Pain in ears with diminished capacity of hearing.
11. Inflammation of throat with itching and feeling of heaviness.

12. Cough.
13. Sensation of burning.

7. Kanthakubja Sannipata

शिरोतिकंठग्रहदाहमोह कम्पज्वरावतसमीरणार्तिः ।
हनुग्रहस्तापविलापमूर्च्छाः स्यत्कण्ठकुब्ज खलु कटसाद्यः ॥

Yogaratanakara- Jwara

कण्ठः शूकशतावरुद्धवदतिश्वासः प्रतापोऽरुचि
र्दाहोदेहरुजा तुषापि च हनुत्लंभः शिरोतिस्तथा ।
मोहो वेपथुना सहेति सकलं लिङ्गं त्रिदोष ज्वरे
यत्र स्यात्स हि कण्ठकुब्जः उदितः प्राचै श्चिकित्सा-
बुधैः ॥ Bhavaprakasha- Jwara.

1. Headache.
2. Obstructed throat with Severe pricking sensation.
3. Delirium.
4. Tremor.
5. Fever
6. Manifestation of various disease of Rakta and Vata dominance.
7. Stiffness at mandibles.
8. Irrelevant speech.
9. Insipid mouth.
10. Sensation of burning.
11. Body ache.
12. Thirst.

8. Karnaka Sannipata

प्रलापश्रुतिहासकण्ठग्रहाङ्गव्यथाश्वासकासप्रसेकप्रभावम् ।
ज्वरं तापकर्णान्तयोर्गलपीडा बुधा कर्णकं कटसाद्यं
वदन्ति ॥ Yogaratanakara- Jwara
दोषत्रयेण जनितः किल कर्णमूलेतीव्र ज्वरे भवति तु
श्वयथुर्व्यथा च । कण्ठग्रहो वधिरता श्वसनं प्रलापः
प्रखेदमोहदहनानि च कर्णिकाख्ये ॥

Bhavaprakasha- Jwara.

Inflammation at ears, especially at base of the ear with intense pain. Onset of inflammation at ear base is suggestive of fatal nature of this type of Jwara sannipat. Also it defines certainty of death of the patient.

- a. Development of inflammation before the onset of fever is considered as very serious and incurable stage.
- b. Development of inflammation during the febrile stage is considered as critical to manage stage.
- c. Development of inflammation at the end of the febrile stage is considered as easily curable stage of the disease.

Clinical features

1. Pain in the throat.
2. Deafness.
3. Dyspnoea.
4. Incoherent speech.
5. Sweating.
6. Disoriented state of mind.
7. Hypersalivation.
8. Cough.

9. Bhugnanetra Sannipata

ज्वरलापचयः स्मृतिशून्यता, श्वसनभ्रमविलोचन-
मोहिताः । प्रलपनप्रमकम्पनशोफवास्त्यजति जीवितमाशु स
भ्रमदृक् ॥ Yogaratanakara- Jwara
भृशं नयनवक्रता श्वससनकासतन्द्रा भृशं ।
प्रलापमदवेपथुश्रवणहानिमोहस्तथा ॥
पुरो निखिलदोषजे भवति यत्र लिङ्गं ज्वरे ।
पुरातनचिकित्सकैः स इह भुम्ननेत्रो मतः ॥

Bhavaprakasha- Jwara.

1. Fever.
2. Loss of body strength.
3. Loss of memory.
4. Dyspnoea.
5. Displacement of eyes from their normal site.
6. Disorientation of mind.
7. Incoherent speech.
8. Delirium.
9. Tremors.
10. Lassitude.
11. Cough.

12. Deafness.
13. Edema.

10. Raktashtive Sannipata

रक्तशोथो ज्वरतवनिपुषा मोहशूलतिसारा ।
हिक्कास्थान प्रणग्द वयुश्वाससञ्ज्ञाप्रणाशाः ॥
श्यामा रक्ता विकृतासना मण्डलोत्थानरुपा ।
रक्तशोथो निगदिता इह ग्राहन्ता प्रसिद्धः ॥

Yogaratanakara- Jwara

निपुषो रुचौस्य रक्तसदृशं वण्णतनो मण्डलं
लोहितं नयने पुषालचिविश्वासातिसारप्रमाः
आशानञ्च विसंज्ञिता च परतं हिक्काङ्गीडाभूशं
रक्तशोथो विनि सन्निपातजनिते सिंगं ज्वरं जायते ॥

Bhavaprakasha- Jwara.

1. Spitting of blood with sputum.
2. Formation of reddish black circles on the body.
3. Red colured eyes.
4. Thirst.
5. Insipid mouth.
6. Vomitting.
7. Dyspnoea.
8. Loose motions.
9. Giddiness.
10. Abdominal distension.
11. Loss of orientation of the surrounding.
12. Disoriented state of mind.
13. Hiccup.
14. Body ache.
15. Sensation of burning.
16. Formation of reddish black circles on the surface of the tongue.

11. Pralapaka Sannipata

कमप्रलाप परितापनशीर्षपीडा ।
श्रौडप्रभावपवमानापरोऽ न्यचिन्ता ॥
प्रज्ञाप्रणाशविकलः प्रचुम्बवादः ।

क्षिप्रं प्रयाति पितृपालपदं प्रलापि ॥ Yogaratanakara-Jwara

यत्र ज्वरे निखिल दोषनितान्तरोपजायते प्रलाप बहुलाः
सहस्रीत्येताश्च । कमव्यथापतनदाहविसंज्ञताः स्यर्नाम्ना
प्रलापक इति प्रथितः पृथिव्याम् ॥ Bhavaprakasha-Jwara.

1. Excessive and contineous incoherent talking.
2. Body tremor.
3. Body ache.
4. Loss of balance of the body.
5. Sensation of burning.
6. Loss of orientation of the surrounding.
7. Irrelevant and unrealistic pompous talking about the self.
8. Display of unreal concern about the others.
9. Undue worrying or fright.

12. Jimvhaka Sannipata

श्वसनकासपरितापविह्वलः कठिनकण्ठकवृतातिजिह्वकः ।
बधिरमूकबलहानिलक्षणो भवति कष्टतरसाध्यजिह्वकः ॥

Yogaratanakara- Jwara

त्रिदोषजनिते ज्वरे भवति यत्र जिह्वा भूशं वृता
कठिनकण्ठकस्तदनु भूशं मूकता ।
श्रुतिक्षतिबलक्षतिश्वसनकाससन्तपयः
पुरातनभीषगहवरास्तमिह जिह्वकं चक्षते ॥

Bhavaprakasha-Jwara.

1. Dyspnoea.
2. Cough.
3. Body warmth.
4. The surface of the tongue becomes hard, rough and covered with spikes.
5. Inability to speak.
6. Deafness.
7. Weakness.

13. Abhinyasa Sannipata

दोषत्रयस्त्रिगुणत्वनिद्रावैकल्यनेश्वेतनकष्टवाम्पि ।
बलभ्रानाशाः श्वसनादिनिग्रहोऽ भिन्यास उक्तोऽनु

मृत्युकल्पः ॥ Yogaratanakara- Jwara

दोषास्तोन्नतरा भवन्ति बलिनः सर्वेऽपि यत्र ज्वरे
मोहो तीव्रं विचेष्टता विकलता श्वासो भूशं मूकता ।

दाहचिक्कणमाननं च दहनो मन्दो बलस्य क्षयः
सोऽ भिन्यास इति प्रकृतित इह प्राज्ञैर्भिवन्भिः पुरा ॥

Bhavaprakasha-Jwara.

Equal participation of all the three equally aggravated dosha causes Abhinyasa sannipata.

1. Morbid glory and smoothness observed on the face.
2. Excessive sleep and severe drowsiness.
3. Loss of body strength.
4. The patient becomes immobile and unconscious.
5. Difficult breathing.
6. Disoriented state of mind.
7. Inability to speak.
8. Sensation of burning.
9. Face and body becomes morbidly sticky.

5. FURTHER 13 TYPES OF JWARA SANNIPATA
EXPLAINED IN BY BHAVAPRAKASHA WITH DIFFERENT
NAMES AND ADDITIONAL SYMPTOMS

1. Kumbhipaka Sannipata

घोणाविवक्षारुद्रशोणासितलिहितं सान्द्रम् ।
विलुठन्मस्तकमपित कंभिपाकेन पीडितं विद्यात् ॥

Bhavaprakasha-Jwara..

1. Heavy flow of blackish red coloured, thick bleeding from the nose.
2. Patient frequently shakes his head.

2. Pronurna Sannipata

उल्लिख्य यः स्वमंगं क्षिपत्यधस्तत्रितान्मुच्छसिति ।
तं प्रोणुनावजुष्टं विचित्रकष्टं विजानीयात् ॥

Bhavaprakasha-Jwara..

Patient frequently bangs his body on the floor and produces loud expirations.

3. Pralapee Sannipata

स्वेदभ्रमांगभेदाः कस्यो दवयुर्वभिर्व्यथा कण्ठे ।
गात्रश्च गुर्वतीव प्रलापिजुष्टस्य जायते सिंगम् ॥

Bhavaprakasha- Jwara..

1. Sweating.
2. Giddiness.
3. Severe body ache.
4. Tremor.

5. Sensation of burning.
6. Vomitting.
7. Pain in throat.
8. Heavyness of the body.
9. Irrelevant speech.

4. Antardaha Sannipata

अंतर्दाहः शैल्यं बहिः श्वयद्युतिरपि तथा श्वासः ।
अंगमपि दग्धकलं सोऽन्तर्दाहादितः कथितः ॥

Bhavaprakasha- Jwara.

1. Internal Sensation of burning with feeling of cold at the exterior of the body.
2. Edema.
3. Restlessness.
4. Dyspnoea.
5. Blackish inflamed type of discoloration the skin.

5. Dandapata Sannipata

नक्तदिवा न निद्रानुपैति गृह्णाति मूढधीर्नभसः ।
उत्थाय दण्डपाती भ्रमातुरः सर्वतो भ्रमति ॥

Bhavaprakasha-Jwara.

1. Severe insomnia.
2. Patient constantly behaves in a perticular manner as if something is falling on him from the sky.
3. Uncontiousness.
4. Patient falls on the ground like a wooden stick on attempt to rise.

6. Antaka Sannipata

संपूर्तिशरीरं ग्रन्थिभिरभितस्तयोदं मरुता ।
श्वासातुरस्य सततं विचेतनस्यान्तकार्तस्य ॥

Bhavaprakasha-Jwara.

1. Formation of nodular lumps all over the body.
2. Severe abdominal distention.
3. Dyspnoea.
4. The patient is immobile and unconscious.

7. Enidaha Sannipata

परिधावतीगात्रे रुक्मात्रे सुन्ननपरिगहमिगणः।
वेपथुदन्तः सदाहस्येनो दाहन्वर्गनस्य ॥

Bhavaprakasha-Jwara.

1. Tremor.
2. Patient is under the continual impression as if attacked by animals and insects [deers, snakes, moths etc.]
3. Sensation of burning.
4. Body ache.

8. Haridra Sannipata

यस्याऽन्तिगतमं नवने मुन्यां मलस्ततोऽप्यधिकम्।
दाहोऽतिपरिना दाहस्य स हरिद्रिको ज्ञेयः ॥

Bhavaprakasha-Jwara.

- हृदिग्रा मेरुवर्णमं तद्वर्णं चः प्रनेहति।
स वै हरिद्रिको नाम चरभेदेनक्तः स्मृतः ॥ A.H.Ni.2.
1. Dark yellow discoloration of skin and eyes.
 2. Skin appears dull and lusterless like skin of a frog.
 3. Urine and faeces are of extremely yellow coloured.
 4. Sensation of burning internally with feeling of cold at the exterior of the body.

9. Ajaghosha Sannipata

छगलकयमानमंघः रकधरुजावन्निरुद्धगलरम्भः।
अजघोषसन्निपातादातासात्रः पुमान्भवति ॥

Bhavaprakasha-Jwara.

1. Foul smelling body odour resembling the smell of a goat.
2. Pain in the shoulders.
3. Throbbing, obstructed sensation in the throat.
4. Red colored eyes.

10. Bhutahasa Sannipata

शब्दादीनविगच्छति न स्वन्विषयान्यदीन्द्रियग्राभेः।
इमति भ्रमति परमं स ज्ञेयो भूतहासं इति ॥

Bhavaprakasha-Jwara.

1. Total loss of normal functions of vital organs e.g. loss of hearing ability etc.
2. Patient behaves abnormally, cries, laughs and screams loudly. His mentality becomes cruel.

11. Yantrapida Sannipata

वेन युहुज्वरे वेगाद्यन्त्रेणेवावपीड्यते गात्रम्।
रक्तं पित्तञ्च वनिद्यन्नापीड स विज्ञेयः ॥

Bhavaprakasha-Jwara.

1. Severe squeezing type of pain as if body is churned inside a machine.
2. Blood stained, sour vomiting.

12. Sanyasa

अतिपरि वमति कूजति गात्राण्यनितश्चिरं
संन्यासत्रिपातेप्रलपत्युग्राक्षिभंडलो भवति ॥

Bhavaprakasha-Jwara.

1. Loose motions.
2. Vomiting.
3. Patient continuously groans and throws his limbs in all directions.
4. Incoherent speech.
5. Appearance of patient is dreadful.

13. Sanshoshee Sannipata

मेचकं द्युपतिमेचकलोचनयुगुलो मलोत्सर्गात्।
संशोषिणि सितपिडकागण्डलयुक्तो ज्वरे नरो भवति ॥

Bhavaprakasha-Jwara.

1. Colour of the body and eyes turns black.
2. Excessive purgation and urination resulting into dehydration.
3. Formation of white colored circles and carbuncles on the skin.

6. AMISHRIBHUTA SANNIPATA

अन्यच्च सन्निपातोत्थो यत्र पित्तं पृथक् स्थितम्।
त्वचिकोष्ठेऽथवा दाहं विदधाति पुरोऽनु वा ॥

तद्वद्दातकफौ शीतं, दाहार्दिदुर्दारस्तयो ॥ A.H.Ni.2 /26.

त्वच्यो श्लेष्मानिलो शितपादौजनयतो ज्वरे।
तयोः प्रशान्तयोः पित्तमनो दाहि करोति च ॥
करोत्यादौ तथा पित्तं त्वदस्थं दाहमतीव च ॥
प्रशान्ते कुरुस्तार्मिशोतमनो च तावपि ॥
तावेतौ दाहशीतादौ ज्वरौ संसर्गतौ स्तुतौ।
दाहपूर्वतयोः कष्टः कृच्छ्राध्यथ स स्मृतः ॥

S.S.Utr. 39/59-61.

Acharya Vagbhata and Acharya Sushruta have explained this special type of Jwara sannipata. In this type fever develops due to action of all three dosha aggravated and residing at different places of koshtha. They do not combine to cause the pathogenesis of Jwara but initiate the onset by their morbid actions performed from different sites of the body. eg. Vata and Kapha reside in the skin while Pitta resides at koshtha or vice versa. The clinical features of this type are displayed in opposing style to one another.

7. TRINAPUSHPAKA SANNIPATA

पुष्पेभ्यो गन्धजसि तेजसिभ्यो यदा नरः।
उपादाय मनुष्यस्य प्राणापानौ नियच्छति ॥
सौख्यादनुसुतौ धातून् मर्माण्यपिच तेजसा।
कर्म चित्तं बलं ज्ञानं तदाऽस्याभ्येति मारुतः ॥
कर्मादिषु निरुद्धेषु स्वपितीति सुहृज्जनः।
मन्यते हतचित्तत्वाद्दोजस्युपरेते सति।
तस्यादितः शिरोरेगः ससंज्ञस्येव जायते।
विगन्धं च सुगन्धं च दृष्टाऽकसात् स मूर्च्छति ॥
तृणपुष्कानित्येव ज्वरं विद्याद्विचक्षणः ॥ S.S.Utr. 39/42.

This type of sannipata is explained by the commentator Dalhana as an interpolated part in Sushrut samhita. This type of sannipatika Jwara develops due to inhalation of sharp and strong fragrances of poisonous flowers or contact with the pollen grains of the same. It is called as Trinapushpaka Jwara. The minute pollens carried through the wind are the causative factors for this condition to occur. The patient becomes unconscious and appears

as if fast asleep. On awakening clinical features like headache and disorientation of mind are observed. Patient faints immediately after contacting any type of smell.

11.6 Agantu Jwara

आगन्तुखमो यस्तु स निर्विद्विष्वतुर्विधः।

अभिघातापिषङ्गामभीघाताभिघातः। C.S.Ch.3/111.
Aagantu Jwara is the eighth and last type of Jwara samprapti. It is further divided into four sub types as – Abhigataja, Abhishangaja, Abhicharaja and Abhishapaja Jwara.

The causative factors for this type of Jwara are always external, for e.g. external injury. Fever develops after affliction of such factors. A certain period of time passes between the affliction of the cause and actual onset of Jwara. This period varies person to person within three to seven days.

1. ABHIGATAJA JWARA

शस्त्रलोष्ठकशाकाच्छुष्करलितलद्विजैः।
तद्विद्यैश्च हते गात्रे ज्वरः स्यादभीघातजः ॥
तत्राभिघातजे वायः प्रायो रक्तं प्रदूषयन् ॥
सयथाशोकवेवर्ण्यं करोति सरुजं ज्वरम् ॥

C.S.Ch.3/112-113.

The prime cause for this type of Jwara is external physical injury. The injury involving the wounding of the skin by sharp weapons like swords, knives etc. or lacerated, punctured wounds owing to blow of hard substances like stones etc. Such injuries cause aggravation of Vata and vitiation of Rasa-Rakta dhatu to produce Abhigataja Jwara. Fever is associated with pain and inflammation of the affected site.

2. ABHISHANGAJA JWARA

कामशोकभयक्रोधैरभिषक्तस्य यो ज्वरः।
सोऽभिषंग ज्वरो ज्ञेयो यश्च भूताभिषंगजः ॥
कामशोकभयाद्वायुः, क्रोधस्त्रित्तं, त्रयोमलाः।
भूताभिषङ्गात् कुपन्ति भूतसामान्य लक्षणाः ॥

भूतिकारे व्याख्यातं तदद्विचलक्षणम् ।
विषवृत्तानिलत्वशांतयाऽप्येविसंभवेः ॥
अभिशाक्तस्य चाप्याहुर्व्यवेकेपिपङ्कजम् ।
चिकित्साया विषज्यैव स शमं लभते नरः ॥

C.S.Ch.3/114-117.

ध्याननिःस्वात्बहुलं लिङ्गं कामज्ज्वरे स्तुम् ।
शोकजे बाष्प बहुलं त्रासमार्यं भयज्ज्वरे ॥
क्रोधजे बहु संसर्गं भूतावेवे त्वगतुषम् ।
मूच्छानोहमदस्थानि भूयिष्ठं विषसंभवे ॥
केषाश्चिदेषां लिङ्गानां संतापो जायते पुरः ।
पश्वतित्वं तु केषाश्चिदेषु कामज्ज्वरादिषु ॥
कामादिजानां रेणुणां मन्येयामि तत् स्तुम् ॥

C.S.Ch. 3/122-125.

ग्रहवैशेष्यविषक्रोधभीशोककामजः । अभिपङ्कजम् ।
A.H.Ni.2 /40.

The fever which develops as a result of overpowering emotions like sorrow, fear, anger, sexual desire or as a result of poisoning or by getting afflicted by ghosts and spirits. This type of Jwara is called as Abishangaja Jwara.

1. Kama Jwara

कामज्ज्वरेऽहोहीनिद्राघोषवृत्तिः क्षयः ॥

A.H.Ni.2 /42.

The fever developed due to aggravation of vata dosha as a result of restless mind due to estrangement of the lovers is called as Kama Jwara. Symptoms like insipid mouth, sensation of burning are observed in this type of Jwara. Normal tendencies like fear for social restrictions, normal thinking capacity, coyness or bashfulness are obviously diminished in this type of Jwara due to nature of the cause.

2. Bhayaja Jwara

Fever developed due to aggravation of vata dosha as a result of sudden terrible fright due to seeing any ferocious event is called as

Bahayaja Jwara. The symptoms like startling, alert mind, restlessness are observed with fever

3. Shokaja Jwara

This type of fever develops as a result of beravement in the family or due to some shocking news. Vata dosha gets aggravated due to such cause and combines with Rasa and Rakta dhatu to cause Shokaja Jwara. Clinical features like crying, sorrowful mind, meek or depressed mood are observed with fever.

4. Krodhaja Jwara

Fever developed due to aggravated Pitta dosha as a result of hyperhostility or anger is called as Krodhja Jwara. Clinical features like body tremors, headache are observed with fever.

5. Vishaja Jwara

ओषधीगन्धजे मूच्छां सिरोरुच्यमयुः क्षयः ।

विषामूच्छातिसारस्य श्यावतादाहरुद्रदाः ॥ A.H.Ni.2 /41.

This type of Jwara develops due to poisoning or inhalation of poisonous flowers or pollens etc. All the three dosha are equally aggravated to cause this fever. Clinical features like fainting, disoriented state of mind, delirium, lassitude are mainly observed with loose motions, body tremor, stiffening of body part, sensation of burning, blackish discoloration of the face and body.

6. Bhutabhishangaja Jwara

This type of fever develops by getting afflicted by ghosts or indwelling spirits. Clinical features like abnormal behaviour, undue exaggerated body movement, incoherent talking, crying, laughing etc. are observed in this type with fever.

3. ABHICHARAJA JWARA

अभिचाराभिशापाभ्यां सिद्धानां यः प्रवर्तते ।
सन्निपात ज्वरे घोरः विज्ञेयः सुदुःसहः ॥
सन्निपातज्वरस्योक्तं लिङ्गं यत्तस्य तत् स्तुम् ।
चित्तेन्द्रियशरीणामर्तयोऽन्याश्च नैकशः ॥
प्रयोगं त्वभिचारस्य दृष्टा शापस्य चैव हि ।
स्वयं क्षुब्धाऽनुमानेन लक्ष्यते प्रशनेन वा ॥
वैविध्यादभिचारस्य शापस्य च तदालके ।
यथाकर्म प्रयोगेण लक्षणं स्याद् पृथग्विधम् ॥

C.S.Ch.3/118-121.

यौ तु शापभिचारजौ ।
सन्निपात ज्वरौ घोरौ तावत्सत्यतमौ मतौ ॥ A.H.Ni.2 /43.
तत्राभिचारिकर्मत्रैह्यमानस्य तथ्यते ।
पूर्वं चेतस्ततो देहस्ततो विस्फोटवृद्ध्युः प्रभैः ॥
सदाहमूर्च्छास्य प्रत्यहं वर्द्धते ज्वरः ॥ A.H.Ni.2 /44-45.

Jwara which develops as a result of black magic or jugglery is called as Abhicharaja Jwara. This type develops as a result of black rituals performed in respect of personal hatred or rivalry between two people. Clinical features like formation of abscesses on the body, thirst, giddiness, sensation of burning, fainting are observed with rising grade of fever.

4. ABHISHAPAJA JWARA

Fever which develops as a result of curse given by the God or the preceptor or any respectable personality is called as Abhishapaja Jwara. The clinical features are similar to sannipatika Jwara.

12. Classification of Jwara According To Site of onset [Vidhi Bheda]

12.1 Sharira Jwara-Manasa Jwara

शरीरे जायते पूर्वं देहे मनसि मानसः । C.S.Ch.3/36.

मनस्यभिहते पूर्वं कामाद्यैर्न तथा बलम् ।

ज्वरः प्राप्नोति वाताद्यैर्देहो यावन्न दुष्यति ॥

देहे चापिब द्रुते पूर्वं वाताद्यैर्न तथा बलम् ।

ज्वरः प्राप्नोति कामाद्यैर्नो यावन्न दुष्यति ॥ C.S.Ch.3/127.

Fever which occurs as a result of aggravation of dosha due to accepting various causative factors is called as sharira Jwara. The clinical features which are developed in sharira Jwara are related to the physic of the person. The fever which develops as result of mental agitation and irritation like getting overpowered by fear, anger, sexual desires etc. is called as manasa Jwara. Clinical features mostly start with mental expressions and are followed by physical symptoms.

12.2 Saumya Jwara- Agneya Jwara

योगवाहः परं वायुः संयोगादुभयाथऽकृत् ।
दाहकृतेजासा युक्तः शीतकृत् सोमसंश्रयात् ॥

C.S.Ch.3/37.

वातपित्तालकः शीतंउष्णं वातकफालकम् ।
ज्वरोव्यामिश्रलक्षणः ॥

C.S.Ch.3/37.

All the types of fever with dominance of Kapha dosha and association of Vata dosha are called as Saumya Jwara. This is because of the cold property of Kapha as well as Vata is dominant to form the sannipatika. On the other hand all the types of fever of Pitta dominance with association of Vata are called as Agneya Jwara. Here Vata helps to increase the hot quality of Pitta to cause Agneya Jwara.

12.3 Antarvegee Jwara-Bahirvegee Jwara

आन्तर्दाहोऽधिकस्तूष्णा प्रलापः स्वसनं भ्रमः ।

सन्ध्यस्थिशूलमस्वेदो दोषवचोविनिग्रहः ॥

अंतर्वेगस्य लिङ्गानि ज्वरस्यैतानि लक्ष्येत् ।

संतापोऽधिको बाह्यस्तूष्णादीनां च मर्ददम् ॥

बहिर्वेगस्य लिङ्गानि सुखसाध्यत्वमेव च ॥ C.S.Ch. 3/39-41.

Fever which produces severe clinical features like thirst, severe sensation of burning inside the body, irrelevant speech, difficult breathing, pain in bones and joints, loss of sweating and constipation is called as Antarvegee Jwara. This is a serious and critical type of Jwara.

Bahirvegee Jwara is a comparatively nonserious condition where increased body warmth with sensation of burning are main features. All clinical features of Aantarvegee Jwara occur with less severity in this type.

13. Prakruta Jwara-Vaikruta Jwara

प्राकृतः सुखसाध्यस्तु वसनाशुद्धवम् ।
उष्णतुष्णेन संबुद्धं पित्तं शरीरे कुच्यति ।।
चितः शीते कफश्चैव वसने स्पृहीयति ।
वर्षास्वल्पविपाकापिन्द्रोषधिपित्तया ।।
संघितं पित्तमुद्रिकं शद्यादिव्यतेजसा ।
ज्वरं संजनयन्त्याशु तस्य चानुबलः कफः ।।
प्रकृतैव विमर्ष्य तत्रानामशाद्भयम् ।
अपिन्द्रोषधिभिश्चैव मधुरभिश्चितः कफः ।।
हेमने सूर्यसंतपः स वसने प्रकुर्यति ।
वसने श्लेष्मणा तस्माज्ज्वरः सपुषजायते ।।
अवानमये तस्यापि वातपित्तं भवेदनु ।। C.S.Ch. 3/42-46.
वर्षा शरदसन्नेषुवाताद्यैः प्राकृतः क्रमात् ।
वैकृतोऽन्यः स दुःसाध्यः शुश्रूष्य प्राकृतोऽनिलात् ।।
A.H.Ni.2 /50.

Fever which develops as a result of natural climatic changes following a particular season is called as Prakruta Jwara. Onset of this type of fever is result of natural aggravation of specific dosha durring a specific season. For e.g. Kapaha dominant fever which occurs durring Spring- Vasant ritu, Pitta dominant fever which occurs durring Autumn -Sharada ritu or Vata dominant fever occurs durring Monsoon -Varsha ritu are the examples of Prakrut Jwara. On the other hand fever which develops as a result of dosha aggravation which occurs abnormally durring a particular season is called as Vaikruta Jwara. For e.g. Kapaha or Pitta dominant fever durring Monsoon-Varsha ritu or Vata or Pitta dominant fever durring Autumn-Sharada ritu are some examples of Vaikruta Jwara.

14. Sama Jwara-Vishama Jwara

अल्पहेतुर्विहिर्माणं वैकृतो निरुपद्रवः ।
एकाश्रयः सुखोपायो लघुपाकः सभो ज्वरः ।
निवमस्तद्विपर्यत्तीक्ष्णत्वात् संततो मतः ।।
तद्धत प्रेत ग्रहोत्था ये चत्वारो विषमागमात् ।
दुर्जन्यत्वाद्ग्रहप्रहपिहिहात् ।।
वैषम्यं संततादीनां दारुणत्वादुदाहृतम् ।
तथा सततकादीनां चतुर्णां कालकारिताम् ।।
विषमत्वं प्रवक्ष्यामि ज्वरणां जायते यथा
समस्ता द्वंद्वो वाऽपि धमनी रसवाहिनीः ।
दोषाः प्रपन्नः कुर्वन्ति विषमा विषमज्वरम् ।।
ज्वरितोऽप्यमानो वा मुक्तमात्रश्च यो नरः ।।
व्यायामगुर्वसात्यात्रमतिमात्रमयोजलम् ।।
पायसं कृशरं पिष्टं पतलं दधीमन्दकम् ।
पिण्याकमापिकृतीग्राम्यासुं तथाऽपिपम् ।
पंचविधानि चान्यानि विरुद्धानि गरुणीच ।।
सेवते च दिवास्वप्न मजीर्णाध्यशनानि च ।
ज्वरोऽभिवर्तते तस्य विषभो वा ऽऽशु जायते ।
दोषोष्णपरिक्लेषु कषायं यश्च सेवते ।।
लौल्याद्वास्नेहपानानि क्षीरसंतर्पणानिवा ।
दैवतानामभिध्यानाद् ग्रहसंस्पर्शनादपि ।।
सभो वान्तो विरिक्तो वा स्नेहपीतुनुवासितः ।
शीतोपचारं गुर्वन्नं व्यवयं यश्च सेवते ।।
तस्यपि सहसा वायुरस्थिमज्जान्तरं गतः ।
कुपितः कोपयत्यास श्लेष्माणं पित्तमेव च ।।
ततोऽस्य धातुवैषम्याद्विषभो जायते ज्वरः ।
सततोऽन्योऽप्युक्तो वाऽपि तृतीयः सचतुर्थकः ।।
Kashayapa Samhita-Jwara.

The fever which occurs due to acceptance of few predisposing factors, which is less serious occupying the external path [bahirvegee] and which does not posses any complications is called as Sama Jwara. On the other hand the fever which is critical to manage, very serious in nature and which develops as a result of affliction of ghosts and other supernatural powers is called as Vishama Jwara.

Kashyapa Samhita mentions special

predisposing factor responsible for the formation of Vishama Jwara as :

1. Physical of exertion.
2. Intake of incompatible and hard to digest type of food and milk .
3. Drinking large volumes of water.
4. Enjoying daytime sleep.
5. Intake of meat of large heavy bodied animals.
6. Excessive indulgence in sex.
7. Acceptance of heavy food items or performing sexual activity immediately after performing medicated emesis, purgation and oil enemavamana, virechana and anuvasana basti etc.

15. Classification of Jwara According to the Potency of Indulging Dosha

[Dosha Kala –Bala –Abala Bheda]

ज्वरः पंचविधः प्रोक्तो मलकालबलाबलात् ।
प्रायशः सन्निपातेन भूयसा स्पृदिश्यते ।।
सन्ततः सततोऽन्येऽस्तुतुतयकचतुर्थको ।। A.H.Ni.2 /56-57.

15.1 Santata Jwara

स्वोतोभिर्विसृता दोषा गुणो रसवाहिभिः ।
सर्वदेहानुगाः स्रब्धा ज्वरं कुर्वन्ति संततम् ।।
दशाहं द्वादशाहं वा सप्ताहं वा सुदुःसहः ।
स शीघ्रं शीघकारित्वात् प्रशमं याति हन्ति वा ।।
कालदूष्यप्रकृतिर्भिदोऽस्तुल्यो हि सन्ततम् ।
निष्पत्यनिकः कुरुते तस्माज्ज्वेयः सुदुःसहः ।
यथा धातूस्तथा मूत्रं पुरीषं चानिलादयः ।
सुगुपत्वानुपयन्ते नियमात् सन्तते ज्वरे ।।
स शुद्ध्या वाऽप्यशुद्ध्या वा रसादीनामशेषतः ।
सप्ताहादिषु कालेषु प्रशमं याति हन्ति वा ।।
यदा तु नाति शुद्ध्यन्ति न वा शुद्ध्यन्ति सर्वशः ।
द्वादशैते समुदिष्टाः सन्ततस्यात्रयात्तदा ।
विसर्गं द्वादशे कृत्वा दिवसेऽव्यक्तलक्षणं ।।

दुर्लभोपशमः कालं दीर्घमप्यनुवर्तते ।
इति बुध्वा ज्वरं वेद्य उपक्रमेत्सु सन्ततम् ।।
क्रियाक्रमविधौ युक्तः प्रायः प्रागपतर्पणेः ।।
C.S.Ch. 3/53-60.

बलीनो गुरवः स्वध्याविशेषेण रसाश्रितः ।
सन्ततं निष्पतिद्वंद्वा ज्वरं कुरु सुदुःसहम् ।। A.H.Ni.2 /59.
This is a Sannipatika type of Jwara which forms with dominance of Vata dosha and vitiation of Rasa dhatu in its pathogenesis. The participating three dosha are seriously aggravated with severe vitiation and involvement of Rasavaha srotas, all the seven dhatu and three mala. This morbidly associated factors i.e. three dosha, seven dhatu and three mala provide ultimate seriousness to the situation and Jwara becomes irresistibly incurable [Nishpratyanika].

Pathogenesis of Santata Jwara becomes very critical with inclusion of Grahani in it. Dosha become mixed with Amasama dosha and morbidly heavy to cause heaviness to Rasavaha srotas and serious type of fever develops. Period of fever varies between seven, ten or twelve days and this period may increase to twelve, fourteen or twenty two days depending upon the aggravation concentration of participating dosha.

The natural body resistance and course of treatment may affect the period of fever. Temperature returns to normal between the time gap of two episodes of fever. Dosha dominance also affects duration of febrile state.

Generally Vata dominant Santata Jwara covers seven days course, Pitta dominant Santata Jwara covers ten days course and Kapha dominant Santata Jwara covers Twelve days course of time. Although; this time schedule

varies as per the concentration of aggravated dosha in the pathogenesis of the fever.

Main feature of this type is constant presence of the fever i.e. avisargi Jwara. Abdominal distension and general weakness are the other features. Rise and fall in body temperature is seen in this type [muktanubandhitva of Jwara].

15.2 Satata Jwara

दोषो रक्ताश्रयः प्रायः करोति सततं ज्वरम् ।
अहोव्रतस्य स द्विः स्यात् ॥ A.H.Ni.2/69.
रक्तपात्वाश्रयः प्रायो दोषः सततकं ज्वरम् ।
सत्रयनिकः कुरुते कालवृद्धिसयालकम् ॥
अहोरात्रे सततको द्वौ कालानुवर्तते ॥ C.S.Ch. 3/61-62.

This is a sannipatika type of Jwara developing due to vitiation of Rakta dhatu. The febrile episode commences twice a day, twice a night or twice during the whole day and night. The frequency of febrile episodes increases with the concentration of aggravated dosha and may be as short as two hours gap between the attacks of fever. Fever with chills is main feature and sweating occurs at the end of febrile phase.

15.3 Anyedyushka Jwara

कालप्रवृत्तिद्वयाणां प्राथैवान्यतमाद्भ्रतम् ।
अन्वेहकं ज्वरं दोषो रुद्वय्या मेदोवहाः सिरः ॥
C.S.Ch. 3/63.

अन्वेहकं ज्वरं कुर्यादपि सत्रियं शोषितम् । C.S.Ch. 3/65.
Fever which sets in at any time during twenty four hours of the day is called Anyedyushka Jwara. In this type vitiation of Mamsa dhatu is prominent event along with dosha aggravation.

15.4 Tritiyaka Jwara

मेदोमांडोस्त्रुग्रीवके ।
प्राही पित्तनिदान्मूर्च्छास्त्रिकस्य कफपित्ततः ।
मृगुत्स्यमितकफास्त चैकहान्तरः स्तुतः ॥ A.H.Ni.2/70.

स प्रत्यनिकोजनयत्येककालमहनिशि ।
दोषैस्त्रिमज्जगः कुर्यात्तृतीयकचतुर्थको ॥ C.S.Ch. 3/64.
मांसस्वतांस्यनुगतो जनयेत्तु तृतीयकम् ॥ C.S.Ch. 3/66.
कफपित्तात्रिकप्राहीपृष्ठाद्भ्रतकफालकः ।
बातपित्ताच्छिरोप्राही त्रिविधः स्वात्तृतीयकः ॥
C.S.Ch.39/71.

Fever which sets in every alternate day is called as Tritiyaka Jwara. In this type vitiation of Meda dhatu is the main event along with dosha aggravation.

Three sub types are described for Tritiyaka Jwara.

- Kapha—Pitta dominant Tritiyaka Jwara: Main symptom along with fever is pain in the sacrum.
- Vata—Kapha dominant tritiyaka Jwara: Main symptom along with fever is pain in the back and sacrum.
- Vata—Pitta dominant Tritiyaka Jwara: Main symptom along with fever is headache.

15.5 Chaturthaka Jwara

चतुर्थको मले मेदोमज्जास्थान्यतमस्थिते ।
मज्जस्य एवेत्यपरे प्रभावं स तु दशयित् ।
द्विधा कफेन जंघाभ्यां स पूर्वशिरसोऽनिलात् ॥
A.H.Ni.2/72.

संश्रितो मेदसो मार्गं दोषश्चापि चतुर्थकम् ॥ C.S.Ch. 3/66.
This type of fever commences after a gap of two days. Vitiation of Meda, Mamsa, Asthi and Majja is the main event along with dosha aggravation in the pathogenesis of this type of jwara.

Main features according to dosha dominance are;

- Kapha dominant chaturthika jwara : pain in calf muscles.
- Vata dominant chaturthika jwara: fever commences with head ache.

3. Pitta dominant chaturthika jwara: Sensation of burning in middle portion of the body.

16. Concept of Viparyaya and Mukta anubandhitva of Jwara

विषम ज्वर एवान्यश्चतुर्थक विपर्ययः ।
त्रिविधो बाहुरेकोद्विधातुस्यः करोति यम् ॥
C.S.Ch. 3/73.

When aggravation of dosha increases and febrile phase remains continuous for two days with a gap of one day in between (opposite to Chaturthika Jwara), the condition is called as Chaturthika Jwara viparyaya.

Condition suggests for chronicity and seriousness of dosha aggravation.

All types of Vishama Jwara may turn from serious to non serious types and vice versa, according to dosh aggravation, acceptance of predisposing factors and other factors like seasonal changes, day and night effect, mental conditions of the patient etc. Poor immune power of body and illhealth may turn Chaturthika Jwara to Tritiyaka and onwards to Anyedyushka or Satata Jwara to Santata Jwara etc. and on the other hand good health and immunity can turn Santata Jwara to Satata type. This change in duration of febrile phase is called as Jwara Viparyaya.

When dosha get fully aggravated in their required concentration, fever develops. This concentration of dosha aggravation and consequent rise in fever decreases when various body factors fighting against the fever get stronger. This is called as **Mukta Anubandhitva of Jwara**. Re exacerbation of these temporarily subsided dosha may occur with acceptance of suitable predisposing factors. Fever may again re develop as a

result of this aggravation. Dosha remain dormant i.e. Leena, during the non febrile phase.

17. Other Types of Agantu Jwara

17.1 Mantharaka Jwara

ज्वरो दाहो प्रमोमोहो ह्यतिसारो वनि तृषा ।
अनिद्रा च मुखं रक्तं तालु जिह्वा च शुष्यति ॥
ग्रीवायां परिदृश्यन्ते स्फोटकाः सर्षपोपमाः ।
एभिस्तु लक्षणैर्विद्यान्मन्थराख्यं ज्वरं गृह्याम् ॥

Yogaratnakara-Jwara.

Mantharaka Jwara is a type of Vishama Jwara. Pitta dosha is dominant in the pathogenesis of Mantharaka.

Clinical features

- Onset of fever.
- Sensation of burning.
- Giddiness.
- Loose motions.
- Vomiting.
- Thirst.
- Insomnia.
- Red coloured face.
- Dryness to tongue and soft palate.
- Formation of small carbuncles at or around the neck resembling to size of a mustard seed.
- The symptomatology is similar to measles.

17.2 Durjala jata Jwara

This type of Jwara is described by Yogratnakara and Bhavprakash. It is caused due to consumption of polluted water. Generally it is caused during journey due to change in quality of water. Specific features are not clearly explained. This type may be considered as a type of Satata type of Jwara.

Clinical features

1. Fever.
2. Sensation of burning.
3. Giddiness.
4. Delirium.
5. Loose motions.
6. Vomiting.
7. Thirst.
8. Insomnia.
9. Dryness of tongue and pallate.
10. Small reddish colored skin eruptions of size of a sesame seed, at and around the neck. (similar to disease Sheetala)

18. Dhatugata Jwara

गुरुता इत्येत्यल्लेशः सदनं छद्यीचकौ ।
सस्ये तु ज्वरे सिद्धं देवं चास्योपजायते ॥
वल्गनीदीवनं दाहो मोहश्छर्दनविप्रयो ।
प्रतापः पिडका तृष्णा रक्तप्राप्ते ज्वरे नृणाम् ॥
निम्बिकोद्वेष्टनं तृष्णा सूक्ष्मपुष्पीयता ।
उष्णान्दर्भाहविकेवै स्नानिः स्यान्मांसमे ज्वरे ॥
भूयं स्वेदं तृष्णा मूर्च्छा प्रतापश्छर्दिव च ।
दौर्भग्यारेवको स्नानिर्भेदः स्वेचासहिष्णुता ॥
मेदोऽस्थानं कृज्जं श्वासी विकशछर्दिव च ।
विक्षेपं च गात्राणामेतदस्थिति ज्वरे ॥
तमः प्रवेशनं हिक्का काशः शैत्यं वगिरत्या ।
अन्तर्बहिः महाश्वासी गर्मच्छेदश्च मज्जने ॥
मरणं प्राणुयात्तत्र शुक्रस्थानगते ज्वरे ।
शेफसः तद्व्यता मोक्षः शुक्रस्य तु विशेषतः ॥

S.S.Utt.39/83-89.

This type of Jwara develops due to severe vitiation of each basic body element. This condition suggests for the seriousness of the disease. Maximum aggravation of dosha and vitiation of dhatu produce dhatugata stage of Jwara.

18.1 Rasagata Jwara

1. Heaviness of the body.
2. Nausea and vomiting.

3. Body ache.
4. Loss of taste identification.
5. Meek, distressed mood.
6. Increased yawning.
7. Body pain.

18.2 Raktagata Jwara

1. Haemoptisis.
2. Sensation of burning.
3. Loss of orientation.
4. Vomiting.
5. Giddiness.
6. Irrelevant talk.
7. Thirst.
8. Formation of red colored carbuncles on the body.
9. Delirium.

18.3 Mamsagata Jwara

1. Feeling of warmth.
2. Abnormal gestures.
3. Drowsiness.
4. Body odour.

18.4 Medogata Jwara

1. Increased sweating.
2. Thirst.
3. Stupor.
4. Irrelevant talk.
5. Vomiting.
6. Body odour.
7. Insipid mouth.
8. Drowsiness.
9. Irritated mental status.

18.5 Asthigata Jwara

1. Severe pain in the bones.
2. Wheezing and musical notes on breathing. Dyspnoea.
3. Loose motions.
4. Vomiting.
5. Abnormal bending of the body.

18.6 Majjagata Jwara

1. Giddiness and stupor.
2. Hiccup.
3. Cough.
4. Sensation of cold and sensation of burning at the same time.
5. Vomiting.
6. Severe difficulty in breathing.
7. Loss of functioning ability of vital organs

18.7 Shukragata Jwara

1. Abnormal penile erection with Seminal ejaculation in males.
2. Sudden death.

19. Classification According to Sama-Nirama Stages of Jwara

अरुचिश्चाविपाकश्च परुत्वमुदरस्य च ।
ग्रदयस्याविशुद्धिश्च तनत्रा चालस्यमेव च ।
ज्वरो विसर्गा बलवान् दोषाणामप्रवर्तनम् ।
लालप्रसेको हल्लासः सुत्राशो विसं मुखम् ॥
स्तब्धसुप्तगुरुत्वं च गात्राणां बहुमूत्रता ।
न विड्जीर्णा न च स्नानिज्वरस्वामस्य लक्षणम् ॥

C.S.Ch. 3/133-135.

19.1 Sama Stage

When Jwara develops due to presence of Ama, this type is called as Sama Jwara.

Clinical features

- a. Insipid mouth.
- b. Indigestion.
- c. Heaviness in the abdomen.
- d. Nausea.
- e. Lassitude
- f. Stupor.
- g. High grade fever.
- h. Constipation.
- i. Stiffness of the body.
- j. Frequent, profound urination.
- k. Drowsiness.

19.2 Pachyamana Stage

ज्वलेगोऽधिकस्तृष्णा प्रलापः श्वसनं प्रमः ।
मलप्रद्वित्तलेशः पच्यमानस्य लक्षणम् ॥ C.S.Ch. 3/136.

Clinical features

- a. Sharply rising, high grade fever.
- b. Thirst.
- c. Excessive motions.
- d. Nausea.
- e. Incoherent talk.
- f. Dyspnoea.
- g. Giddiness.

19.3. Nirama [Pakva] Stage of Jwara

सुखामता लघुत्वं च गात्राणां ज्वरार्दवम् ।
दोषप्रवृत्तिच्छाहो निरामज्वरलक्षणम् ॥ C.S.Ch. 3/137.

Clinical features

- a. Increase in appetite.
- b. Loss of body weight.
- c. Body temperature starts returning to normal.

20. Jeerna Jwara : Matured stage of fever

त्रिसप्ताहे व्यतीते तु ज्वरो यस्तनुतां गतः ।
स्नीहानिसादं कुरुते सजीर्णज्वर उच्यते ॥

M.Ni. (commentary) Chapter- Jwara.

Low grade fever which develops due to lesser severe aggravation of dosha and which continueously remains over a prolonged period of time to become chronic, is called as Jeerna Jwara. Lack of digestive capacity is the prominent feature in this stage with splenomegaly and sensation of burning of soles of hand and feet, eyes as the associated features. Imperfect and improper treatment can be considered as the cause of Jeerana Jwara.

21. Stages of Jwara According to Doshapaka and Dhatu Paka

शब्दद्वयौपर्यन्तकस्य पटुता बहेद्य यत्र क्रमार्।
वृष्णादिभ्रमणो ज्वरस्य मृदुता तं दोषपाकं वदेत्॥
ह्रस्वाभ्योर्निवेचनातिक्रमं तीव्रोज्वरस्युद् क्लमः।
श्यावाधिक्यमगोचकोऽतिरिति स्याद् धातुपाकृति॥

Yogarajmakara-Jwara.

निद्रानाशो हृदिस्त्रमो विटम्भोर्गौरवादि।
अतिवैलहानिश्च धातुनां पाकलक्षणम्।

M.Ni. Jwara- commentary.

दोषमकृतिवैगल्यं लघुता ज्वदेहयोः।
इन्द्रियाणां च वैमल्यं दोषाणां पाक लक्षणम्॥

M.Ni. Jwara- commentary.

21.1 Doshapaka

When aggravated dosha return to normalcy due to the proper dietetic regims and medicinal treatment, fever starts to subside, this stage is known as Doshapaka.

Clinical features

- Reforming of normal functioning capacity of vital organs- Indriya and digestive power- Agni. Also return of normal mental and physical composure.
- Remission in thirst symptoms etc.
- Feeling of lightness in the body.

Time required for returning of body temperature to normalcy:

वातिकः सप्तरत्रेण दशत्रेण पैत्तिकः
श्लेष्मिको द्वदशहाहेन ज्वरः पाकं नियच्छति॥

Vangasena -202

- Vata dominant Jwara requires seven days to gain Doshapaka stage.
- Pitta dominant Jwara requires ten days to gain Doshapaka stage.
- Kapha dominant Jwara requires twelve days to gain Doshapaka stage

21.2 Dhatupaka

When grade of fever keeps rising due to improper treatment, destruction of bodily elements starts and leads to a stage called as Dhatupaka. This condition suggests for incurability and seriousness of the disease.

Clinical features

- Severe pain at heart (chest) and umbilicus.
- Loose motions.
- High grade fever.
- Lassitude.
- Severe dyspnoea.
- Insipid mouth.
- Restlessness.
- Insomnia.
- Feeling of obstruction in the chest.
- Stasis of urine and stool.
- Loss of body power.
- Death.

22. Symptoms of emancipation of jwara : Jwara Moksha

ज्वरमोक्षे पुरुषः कूजन् चेष्टते।
श्र्वसन्निवर्णः स्विन्नाङ्गो वेपते लीयते मुहुः॥
प्रलपत्युष्णसर्वाङ्गः शीताङ्गश्च भवत्यपि।
विसंज्ञो ज्वरवेगार्तः सक्रोध इव वीक्ष्यति॥
सदोषशब्दं च शकृद्द्वं स्रवति वेगवत्।
लिङ्गान्येतानि जानीयाद्ज्वरमोक्षे विचक्षणः॥
बहुदोषस्य बलवान् प्रायेणाभिनवो ज्वरः।
सक्त्रियादोषपक्त्वा चेद्विमुञ्चति सुदारुणः॥
कुत्वा दोषवशाद्देवं क्रमात्पुनरन्ति ये।
तेषामदारुणो मोक्षो ज्वराणां चिरकारिणाम्॥

C.S.Ch.3/324-328.

धातून् प्रक्षोभयन् दोषो मोक्षकाले विलीयते।
तेन व्याकुलचित्तस्तु क्षीयमाण इवेहते॥ S.S.Utt. 39/321.
दाहः स्वेदोभ्रमस्तृष्णा कम्पविड्भीदसंज्ञिता।
कूजनं चास्यवैगन्ध्याकृतिर्ज्वरमोक्षणे॥

M.Ni. Jwara- 2/74.

विगतक्लमसंतापव्यर्थं विमलेन्द्रियम्।
युक्तं प्रकृतिसत्वेन विद्यत् पुरुषमज्वरम्॥ C.S.Ch. 3/329.

The course and nature of the fever to subside may occur by two modes i.e. daruna moksha and adaruna moksha.

22.1 Daruna Moksha : Crisis of Jwara

When aggravation of dosha is severe and grade of the fever is also high then usually fever subsides with Daruna moksha pattern. Before subsidal of the fever following features are developed;

- Sudden rise in the body temperature.
- The patient becomes serious.
- Body tremor and profuse sweating.
- Dyspnoea.
- Stupor.
- Paleness of the body.
- Incoherent talk.
- Agitated mental status.
- Sudden profound loose motions.
- Vomiting.
- Excessively hot or cold feel of the body.

22.2 Adaruna Moksha : Lysis of Jwara

This is the normal pattern of subsidal of the fever.

The clinical features are;

- Clinical features like fatigue, disorientation reduce and body strength returns to normal.
- Body pain reduces and the normal functioning of the body restarts.
- Feeling of lightness in the body.
- Desire to eat and drink.
- Sneezing with feeling of lightness of the head.
- Formation of mouth ulcers.
- Onset of sweating.

23. Complication : Upadrava

श्वसो मूर्च्छा रुचिश्छर्दिस्तृष्णातीसारविड्प्रहाः।
हिक्काकासाङ्गभेदाश्च ज्वरसयोपद्रवा दश॥
Vangasena - Jwara-840.

- Dyspnoea.
- Fainting.
- Insipid mouth.
- Thirst.
- Vomitting.
- Loose motions.
- Constipation.
- Hiccup.
- Cough.
- Body ache.

24. After effect : Udarka

अथवाऽपि पीपाकं धातुष्वेव क्रमान्मलाः।
यान्ति ज्वरमुकुर्वन्तस्ते यथाऽप्यपकुर्वते॥
दीनतां श्वयं नानि पाण्डुतां नात्रकामताम्।
कण्डूरुक्तोऽपिडकाः कयर्वन्त्यनि च ते मृदुम्॥
C.S.Ch.. 3/ 336-337.

- Edema.
- Depressed mental status.
- Severe itchesiness.
- Body itching.
- Urticaria.
- Indigestion.
- Splenomegaly.
- Grahani.
- Pandu.
- Impotency and Sterility.
- Emaciation of the body.

25. Prognosis : Sadhyasadhyatva

25.1 Curable: Sukha Sadhya

बलवत्त्वल्पदोषेषु ज्वरः साध्योऽनुपद्रवः।
सर्वथा विकृतिविज्ञाने प्रापसाध्य उदाहृतः॥ A.H.Ni.2/53.
Jwara is curable when it is caused to person with good body strength, with mild aggravation of

dosha, with less or no complications. On the other hand it becomes incurable over onset of all the symptoms.

Other features of curable type of Jwara

1. Kapha dominant Jwara occurred in Spring season - Vasanta ritu.
2. Pitta dominant Jwara occurred in Autumn - Sharada ritu.
3. Jwara reached upto Rasa dhatu level - Rasa dhatugata Jwara.
4. Jwara reached upto Rakta dhatu level - Rakta dhatugata Jwara.
5. Jwara reached upto Mamsa dhatu level - Mamsa dhatugata Jwara.
6. Jwara reached upto Meda dhatu level - Meda dhatu gata Jwara.

25.2 Difficult to cure: Kashtasadhya

अस्थिमज्जापतः कृच्छ्रोः । C.S.Ch. 3/ 83.

1. Vata dominant Jwara occurred in rainy season - Varsha ritu.

25.3 Incurable: Asadhya: Jwara becomes incurable on occurrence of symptoms such as;

हेतुभिर्वहुभिजातो बलिभिर्वहुलक्षणम् ।

ज्वरः प्राणान्तकृद्यश्च शीघ्रमिन्द्रियनाशनः ॥

C.S.Ch. 3/50-51.

1. Fever which develops due to accepting many predisposing factors at a time.
2. Clinical features are serious and several.
3. Loss of ability of functioning of various body systems.

ज्वरः क्षीणस्य शून्यता गम्भीरो दैर्घ्यरात्रिका ।

असाध्यो बलवान् यश्च केशसीमन्तकृत्स्वरः ॥

C.S.Ch. 3/52-53.

1. Severe emaciation of body.
2. General body edema.

3. Progression of Jwara to deeper body levels- Dhatugata stage of the fever.
4. Loss of scalp hair and formation of bald patches.

गम्भीरस्तु ज्वरो ज्ञेयोऽन्तर्दहिनं तूष्ण्यात् ।

आम्रदन्तनचात्यर्थश्वासकासीहमेन च ॥

S.S.Utr. 39/92-93.

1. Severe sensation of burning.
2. Intense thirst.
3. Severe abdominal distention.
4. Chronic cough with dyspnoea.

आरम्भाद्विषमो यस्तु यश्च वा दैर्घ्यरात्रिका ।

क्षीणस्य चातिरुक्षस्य गंभीरो यस्य हन्ति तम् ॥

विसंज्ञताम्यते यस्तु शेते निपतितोऽपि वा । S.S.U. 13 /15.

1. Long standing nature and period of the fever.
2. Caused to a very feeble person.
3. Dryness and Roughness of the body.
4. Loss of consciousness and senses.
5. Frequent falling down on the ground.

शीतार्दितोऽन्तरुष्णश्च ज्वरेण त्रियते नरः ॥

यो हृद्यरोमा स्वतास्रो हृदि संज्ञातशूलवान् । C.S.Ch. 3/ 51.

1. Feeling of cold.
2. Antarveege Jwara – fever reflecting to internal parts of the body.
3. Constant horripilations.
4. Delirium.
5. Comatose condition.
6. Feeling of cold with internal feeling of warmth.
7. Redness of the eyes.
8. Severe pain in the chest.

वद्रेण चैवोच्छ्वसिति तं ज्वरो हन्ति मानवम् ॥

हिक्काश्वाससमायुक्तं मूर्धं विप्रान्त लोचनम् ।

सन्ततोच्छवासिनं क्षीणं नरं क्षययति ज्वरः ॥

हतप्रभेन्द्रियं क्षीणं नरोचनिपीडितम् ।

गम्भीरं तीक्ष्णं वेगार्तं ज्वरितं परिवर्जयेत् ॥

S.S.Utr. 39/93 -94.

1. Oral breathing with difficulty.
2. Hiccup.

3. Dyspnoea.
4. Disoriented mind.
5. Having frightened looks(eyes)
6. Continual strenuous breathing.
7. Total loss of body strength.
8. Insipid mouth.

9. Patient displaying features like, loss of glory, perception of the sense organs, severe emaciation of body, loss of appetite and high grade fever shall be rejected for treatment.

शुक्रस्थस्तु न सिध्यति ॥

C.S.Ch. 3/ 38.

1. Jwara occupying deepest level- Shukra Dhatu- becomes incurable.
2. All the types of sannipatika Jwara are incurable.

सप्ताहाद्वा दशाहाद्वा द्वादशाहात्तथैव च ।

सप्रलापप्रमथ्वासस्तीक्ष्णो हन्याज्ज्वरो मतम् ॥

1. Vata dominant Jwara with incoherent talk as a symptom kills the patient within seven days.
2. Pitta dominant Jwara with giddiness as a symptom kills the patient within ten days.
3. Kapha dominant Jwara with dyspnoea as a symptom kills the patient within seven days.

26. Fatal symptoms : Arishta laxana

ज्वरो निहन्ति बलवान् गम्भीरो दैर्घ्यरात्रिकः ।

सप्रलापप्रमथ्वासः क्षीणं शूनं हतानलम् ॥

अक्षामं सक्तवचनं रक्तासं हृदि शूलिनम् ।

सशुष्ककासः पूर्वहि योऽपरह्नेऽपि वा भवेत् ॥

बलमांसविहिनस्य श्लेष्मकाससमन्वितः ॥ A.H.Sh.5/71-73.

1. High grade, long standing, chronic fever.
2. Incoherent speech.
3. Giddiness.
4. General edema.
5. Loss of speech.
6. Redness of eyes.
7. Emaciation of body.
8. Sharply rising morning or evening fever with dry cough.
9. Fever occurred to severely emaciated person with fever of Kapha dominance and with symptom like cough (etc.)

27. Dietary and behavioral regimen

27.1 Pathya

Wholesome regimen:

1. Langhana- fasting.
2. Intake of light, liquid, easy to digest type of food.
3. Intake of warm water.
4. Intake of shadangodaka.
5. Usage of hot/warm water for all the body cleansing procedures.

27.2 Apathya

Unwholesome regimen:

1. Intake of hard to digest, unctuous food.
2. Overeating.
3. Physical exertion.
4. Wearing specific color. (specially red color)
5. Usage of cold water for any routine pupose.

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1. Definition

Fever is defined as having a temperature above the normal range due to an increase in the body's temperature set-point. Yet there is no unanimous opinion about upper limit of normal temperature. Generally it is considered between 99.5 and 100.9 °F.

The increase in set-point triggers increased muscle contraction and causes a feeling of cold. This results in greater heat production and efforts to conserve heat. When the set-point temperature returns to normal a person feels hot, becomes flushed, and may begin to sweat. Rarely a fever may trigger a febrile seizure. This is more common in young children. Fevers do not typically go higher than 105.8 to 107.6 °F.

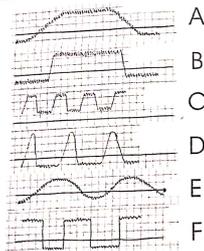
A wide range for normal temperatures has been found. Central temperatures, such as rectal temperatures, are more accurate than peripheral temperatures. Fever is generally agreed to be present if the elevated temperature is caused by a raised set point :

- Temperature in the anus (rectum/rectal) is at or over 37.5–38.3 °C (99.5–100.9 °F)
- Temperature in the mouth (oral) is at or over 37.7 °C (99.9 °F)
- Temperature under the arm (axillary temperature) or in the ear (otic temperature) is at or over 37.2 °C (99.0 °F)

Normal body temperatures vary depending on many factors, including age, sex, time of day, ambient temperature, activity level, and more. A raised temperature is not always a fever. For example, the temperature of a healthy person

rises when he or she exercises, but this is not considered a fever, as the set-point is normal. On the other hand, a "normal" temperature may be a fever, if it is unusually high for that person. For example, medically frail elderly people have a decreased ability to generate body heat, so a "normal" temperature of 37.3 °C (99.1 °F) may represent a clinically significant fever.

2. Types



Performance of the various types of fever

- a. Fever continues
- b. Fever continues to abrupt onset and remission
- c. Fever remittent
- d. Intermittent fever
- e. Undulant fever
- f. Relapsing fever

2.1 Continuous fever

Temperature remains above normal throughout the day and does not fluctuate more than 1 °C in 24 hours the fever is called as continuous fever.

Examples

- Lobar Pneumonia
- Typhoid
- Meningitis
- Urinary Tract Infection
- Typhus.

2.2 Intermittent fever

The temperature elevation is present only for a certain period, later cycling back to normal, the fever is called intermittent fever.

Examples

- Malaria
- Kala-Azar
- Pyaemia
- Septicemia.

Subtypes

1. QUOTIDIAN FEVER

With a periodicity of 24 hours, typical of Plasmodium falciparum or Plasmodium knowlesi malaria.

2. TERTIAN FEVER

(48-hour periodicity) typical of Plasmodium vivax or Plasmodium ovale malaria.

3. QUARTAN FEVER

(72-hour periodicity), typical of Plasmodium malariae malaria.

4. REMITTENT FEVER

Temperature remains above normal throughout the day and fluctuates more than 1°C in 24 hours this fever is called as remittent fever.

Examples;

1. Infective Endocarditis.
2. Brucellosis.
1. Pel-Ebstein fever: A specific kind of fever associated with Hodgkin's lymphoma,

being high for one week and low for the next week and so on. However, there is some debate as to whether this pattern truly exists.

2. A neutropenic fever, also called febrile neutropenia, is a fever in the absence of normal immune system function. Because of the lack of infection-fighting neutrophils, a bacterial infection can spread rapidly; this fever is, therefore, usually considered to require urgent medical attention. This kind of fever is more commonly seen in people receiving immune-suppressing chemotherapy than in apparently healthy people.

3. Febricula is an old term for a low-grade fever, especially if the cause is unknown. no other symptoms are present, and the patient recovers fully in less than a week.

3. Hyperpyrexia

Hyperpyrexia is a fever with an extreme elevation of body temperature greater than or equal to 106.7 °F. Such a high temperature is considered a medical emergency as it may indicate a serious underlying condition or lead to significant side effects. The most common cause is an intracranial hemorrhage. Other possible causes include sepsis, Kawasaki syndrome, neuroleptic malignant syndrome, drug effects, serotonin syndrome and thyroid storm. Infections are the most common cause of fevers; however, as the temperature rises other causes also become more common. Infections commonly associated with hyperpyrexia include roseola, measles and enteroviral infections. Immediate aggressive cooling to less than 102.0 °F has been found to improve survival. Hyperpyrexia differs from hyperthermia in that in hyperpyrexia the body's temperature regulation mechanism sets the body tempera-

ture above the normal temperature, then generates heat to achieve this temperature, while in hyperthermia the body temperature rises above its set point due to an outside source.

4. Hyperthermia

Hyperthermia is an example of a high temperature that is not a fever. It occurs from a number of causes including heatstroke, neuroleptic malignant syndrome, malignant hyperthermia, stimulants such as amphetamines and cocaine, idiosyncratic drug reactions, and serotonin syndrome.

Symptoms and signs

4. Lethargy
5. Depression
6. Anorexia,
7. Drowsiness,
8. Hyperalgesia,
9. Inability to concentrate.

5. Differential diagnosis

Fever is a common symptom of many medical conditions:

4. Infectious disease, e.g., influenza, HIV, malaria, Ebola, infectious mononucleosis, gastroenteritis, Lyme disease

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5. Various skin inflammations, e.g., boils, abscess
6. Immunological diseases, e.g., lupus erythematosus, sarcoidosis, inflammatory bowel diseases, Kawasaki disease, Still disease, Horton disease, granulomatosis with polyangiitis, autoimmune hepatitis, relapsing polychondritis
7. Tissue destruction, which can occur in hemolysis, surgery, infarction, crush syndrome, rhabdomyolysis, cerebral bleeding, etc.
8. Reaction to incompatible blood products
9. Cancers, most commonly kidney cancer and leukemia and lymphomas
10. Metabolic disorders: gout, porphyria
11. Inherited metabolic disorder: Fabry disease
12. Thrombo-embolic processes, e.g., pulmonary embolism or deep venous thrombosis
13. Persistent fever that cannot be explained after repeated routine clinical inquiries is called fever of unknown origin.
14. Teething is not a cause.

1. Definition

Malaria is a mosquito-borne infectious disease of humans and other animals caused by parasitic protozoans (a group of single-celled microorganisms) belonging to the Plasmodium type.

Malaria causes symptoms that typically include fever, fatigue, vomiting, and headaches. In severe cases it can cause yellow skin, seizures, coma or death. Symptoms usually begin ten to fifteen days after being bitten by the mosquito. If not properly treated, people may have recurrences of the disease months later. In those who have recently survived an infection, re-infection usually causes milder symptoms. This partial resistance disappears over months to years if the person has no continuing exposure to malaria. ICD classification of the disease is - ICD-10 B50-B54.

2. Types

1. Plasmodium Falciparum ✓ *Falci.*
2. Plasmodium Vivax ✓
3. Plasmodium Ovale ✓
4. Plasmodium Malariae ✓

3. Mode of transmission

The disease is most commonly transmitted by an infected female Anopheles mosquito.

1. The mosquito bite introduces the parasites from the mosquito's saliva into a person's blood.
2. The parasites travel to the liver where they mature and reproduce. Five species of Plasmodium can infect and be spread by humans. Most deaths are caused by P.

falciparum because P. vivax, P. ovale, and P. malariae generally cause a milder form of malaria. The species P. knowlesi rarely causes disease in humans.

4. Diagnosis

Malaria is typically diagnosed by the microscopic examination of blood using blood films, or with antigen-based rapid diagnostic tests. Methods that use the polymerase chain reaction to detect the parasite's DNA have been developed, but are not widely used in areas where malaria is common due to their cost and complexity. The risk of disease can be reduced by preventing mosquito bites by using mosquito nets and insect repellents, or with mosquito-control measures such as spraying insecticides and draining standing water.

Several medications are available to prevent malaria in travellers to areas where the disease is common

5. Main symptoms of Malaria

The signs and symptoms of malaria typically begin 8-25 days following infection; however, symptoms may occur later in those who have taken antimalarial medications as prevention. Initial manifestations of the disease—common to all malaria species—are similar to flu-like symptoms, and can resemble other conditions such as sepsis, gastroenteritis, and viral diseases. The presentation may include headache, fever, shivering, joint pain, vomiting, hemolytic anemia, jaundice, hemoglobin in the urine, retinal damage, and convulsions.

The classic symptom of malaria is paroxysm—a cyclical occurrence of sudden coldness followed by shivering and then fever and sweating, occurring every two days (tertian fever) in *P. vivax* and *P. ovale* infections, and every three days (quartan fever) for *P. malariae*. *P. falciparum* infection can cause recurrent fever every 36–48 hours, or a less pronounced and almost continuous fever.

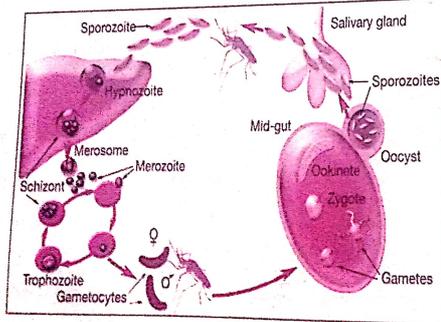
Severe malaria is usually caused by *P. falciparum* (often referred to as falciparum malaria). Symptoms of falciparum malaria arise 9–30 days after infection. Individuals with cerebral malaria frequently exhibit neurological symptoms, including abnormal posturing, nystagmus, conjugate gaze palsy (failure of the eyes to turn together in the same direction), opisthotonus, seizures, or coma.

6. Complications

Malaria has several serious complications. Among these is the development of respiratory distress, which occurs in up to 25% of adults and 40% of children with severe *P.*

falciparum malaria. Possible causes include respiratory compensation of metabolic acidosis, noncardiogenic pulmonary oedema, concomitant pneumonia, and severe anaemia. Although rare in young children with severe malaria, acute respiratory distress syndrome occurs in 5–25% of adults and up to 29% of pregnant women. Coinfection of HIV with malaria increases mortality. Renal failure is a feature of blackwater fever, where hemoglobin from lysed red blood cells leaks into the urine. Infection with *P. falciparum* may result in cerebral malaria, a form of severe malaria that involves encephalopathy. It is associated with retinal whitening, which may be a useful clinical sign in distinguishing malaria from other causes of fever.[16] Enlarged spleen, enlarged liver or both of these, severe headache, low blood sugar, and hemoglobin in the urine with renal failure may occur. Complications may include spontaneous bleeding, coagulopathy, and shock.

Malaria in pregnant women is an important cause of stillbirths, infant mortality, abortion and low birth weight, particularly in *P. falciparum* infection, but also with *P. vivax*.



7. Life cycle of Malaria parasites

A mosquito causes an infection by a bite. Then, sporozoites enter the bloodstream, and migrate to the liver. They infect liver cells, where they multiply into merozoites, rupture the liver cells, and return to the bloodstream. The merozoites infect red blood cells, where

they develop into ring forms, trophozoites and schizonts that in turn produce further merozoites. Sexual forms are also produced, which, if taken up by a mosquito, will infect the insect and continue the life cycle. In the life cycle of Plasmodium, a female Anopheles mosquito (the definitive host) transmits a motile infective form (called the sporozoite) to a vertebrate host such as a human (the secondary host), thus acting as a transmission vector. A sporozoite travels through the blood vessels to liver cells (hepatocytes), where it reproduces asexually (tissue schizogony), producing thousands of merozoites. These infect new red blood cells and initiate a series of asexual multiplication cycles (blood schizogony) that produce 8 to 24 new infective merozoites, at which point the cells burst and the infective cycle begins anew.

Other merozoites develop into immature gametocytes, which are the precursors of male and female gametes. When a fertilised mosquito bites an infected person, gametocytes are taken up with the blood and mature in the mosquito gut. The male and female gametocytes fuse and form an ookinete—a fertilized, motile zygote. Ookinetes develop into new sporozoites that migrate to the insect's salivary glands, ready to infect a new vertebrate host. The sporozoites are injected into the skin, in the saliva, when the mosquito takes a subsequent blood meal. Only female mosquitoes feed on blood; male mosquitoes feed on plant nectar, and do

not transmit the disease. The females of the Anopheles genus of mosquito prefer to feed at night. They usually start searching for a meal at dusk, and will continue throughout the night until taking a meal. Malaria parasites can also be transmitted by blood transfusions, although this is rare.

8. Recurrent Malaria

Symptoms of malaria can recur after varying symptom-free periods. Depending upon the cause, recurrence can be classified as either recrudescence, relapse, or reinfection. Recrudescence is when symptoms return after a symptom-free period. It is caused by parasites surviving in the blood as a result of inadequate or ineffective treatment. Relapse is when symptoms reappear after the parasites have been eliminated from blood but persist as dormant hypnozoites in liver cells. Relapse commonly occurs between 8–24 weeks and is commonly seen with *P. vivax* and *P. ovale* infections. *P. vivax* malaria cases in temperate areas often involve overwintering by hypnozoites, with relapses beginning the year after the mosquito bite. Re infection means the parasite that caused the past infection was eliminated from the body but a new parasite was introduced. Re infection cannot readily be distinguished from recrudescence, although recurrence of infection within two weeks of treatment for the initial infection is typically attributed to treatment failure. People may develop some immunity when exposed to frequent infections.

1. Definition

Typhoid fever also known as typhoid or enteric fever, is caused due to infection of bacteria, salmonella typhi. It is an acute type of illness. A less serious condition is caused due to salmonella paratyphi. The onset is gradual. Incubation period is usually 1 to 2 weeks while total duration of the disease is about 3 to 4 weeks. Salmonella bacteria are deposited in water or food by human carriers and then are spread to others. The bacteria can survive in water or dried sewage. About 3 to 5% of humans become carrier after first attack of acute illness.

2. Causative agent

The causative agent for the enteric fever belongs to the specific species called Salmonella. Enteric or typhoid fever is caused by *S. typhi* while paratyphoid is caused by *S. paratyphi* A, B, C.

3. Morphology

Gram negative, non-capsulated, non-spore forming, motile rods. They are aerobes require O_2 for growth.

4. Mode of infection

Infection is transferred via ingestion oral route infection of minimum 10 bacilli is sufficient for the formation of the full blown disease.

5. Pathogenesis

After gaining entry, the bacteria reach the gut and get attached to the epithelium of the intestinal villi. Further they penetrate the lamina propria and sub mucosa. Here they are phagocytosed by polymorphs and macrophages. The ability of the bacteria to multiply within the cell and resist to get killed is the major of their virulence. After this, bacteria enter the mesenteric lymph nodes where they multiply and via thoracic

duct enter the blood stream. The transient bacteremia occurs. During this stage bacteria get seeded in the gall bladder, liver, lungs and kidneys where further multiplication takes place. Towards the end of the incubation period there occurs a massive bacteremia. This is onset of the clinical presentation on the body. As bile is the good medium for the growth of the bacteria multiplication takes place in large quantity and bacteria are continuously discharged in the intestines now involving Payer's patches and lymphoid follicles of the ileum. They become inflamed and undergo necrosis and slough off leaving characteristic ulcers behind. Ulceration of the bowels leads to two major complications, perforation of the intestines and hemorrhage. The normal duration of the disease is three to four weeks.

6. Clinical features

1. During first week: Fever, head ache, bradycardia, constipation and loose motions.
2. End of the first week: Soft and palpable Spleen, red spots (Bittot's spots) centrally coated tongue, abdominal distension.
3. End of the second week: Delirium, coma, death.

Classical clinical features

1. Step ladder pyrexia fever of increasing nature.
2. Leucopenia
3. Centrally coated tongue.
4. Red spots.

S. paratyphi A,B,C produce paratyphoid which resembles the typhoid but it is mild in nature.

7. Lab diagnosis

Staining, culture, Widal reaction [after seven days of the onset]

1. Definition

Dengue fever (break bone fever) is a mosquito-borne tropical disease caused by the dengue virus. Dengue is transmitted by several species of mosquito within the genus *Aedes*, principally *A. aegypti*. The virus has five different types of infection with one type usually gives lifelong immunity to that type, but only short-term immunity to the others. Subsequent infection with a different type increases the risk of severe complications. Other risk factors for severe disease include female sex, high body mass index and viral load. Dengue can be life-threatening in people with chronic diseases such as diabetes and asthma.

2. Mode of transmission

1. Dengue virus is primarily transmitted by *Aedes* mosquitoes, particularly *A. aegypti*. These mosquitoes typically bite during the day, particularly in the early morning and in the evening, but they are able to bite and thus spread infection at any time of day all during the year. Other *Aedes* species that transmit the disease include *A. albopictus*, *A. polynesiensis* and *A. scutellaris*. Humans are the primary host of the virus, but it also circulates in non human primates. An infection can be acquired via a single bite. A female mosquito that takes a blood meal from a person infected with dengue fever, during the initial 2-10 day febrile period, becomes itself infected with the virus in the cells lining its gut. About

8-10 days later, the virus spreads to other tissues including the mosquito's salivary glands and is subsequently released into its saliva. The virus seems to have no detrimental effect on the mosquito, which remains infected for life. *Aedes aegypti* is particularly involved, as it prefers to lay its eggs in artificial water containers, to live in close proximity to humans, and to feed on people rather than other vertebrates.

2. Dengue can also be transmitted via infected blood products and through organ donation.
3. Other person-to-person modes of transmission have also been reported, but are very unusual.
4. The genetic variation in dengue viruses is region specific, suggestive that establishment into new territories is relatively infrequent, despite dengue emerging in new regions in recent decades.

3. Mechanism

When a mosquito carrying dengue virus bites a person, the virus enters the skin together with the mosquito's saliva. It binds to and enters white blood cells, and reproduces inside the cells while they move throughout the body. The white blood cells respond by producing a number of signaling proteins, such as cytokines and interferons, which are responsible for many of the symptoms, such as the fever, the flu-like symptoms and the severe pains. In severe infection, the virus production inside the body is greatly

increased, and many more organs (such as the liver and the bone marrow) can be affected. Fluid from the bloodstream leaks through the wall of small blood vessels into body cavities due to capillary permeability. As a result, less blood circulates in the blood vessels, and the blood pressure becomes so low that it cannot supply sufficient blood to vital organs. Furthermore, dysfunction of the bone marrow due to infection of the stromal cells leads to reduced numbers of platelets, which are necessary for effective blood clotting; this increases the risk of bleeding, the other major complication of dengue fever.

Incubation period: The incubation period ranges from 3 to 14 days, but most often it is 4 to 7 days.

4. Symptoms

1. People infected with dengue virus are asymptomatic (80%) or only have mild symptoms such as an uncomplicated fever. Few cases may show more severe illness (5%), and in a small proportion it may become life-threatening.
2. The course of infection is divided into three phases: febrile, critical, and recovery.

4.1 Symptoms of febrile stage

1. Fever- sudden-onset fever, biphasic - breaking and then returning for one or two days
2. Headache- typically located behind the eyes
3. Muscle and joint pains- (breakbone fever)
4. Skin rash that is similar to measles-petechiae
5. Mild bleeding from the mucous membranes of the mouth and nose.

6. Children often experience symptoms similar to those of the common cold and gastroenteritis (vomiting and diarrhea).
7. In a small proportion of cases the disease develops into the life-threatening dengue hemorrhagic fever, resulting in bleeding, low levels of blood platelets and blood plasma leakage, or into dengue shock syndrome, where dangerously low blood pressure occurs. This critical phase, while rare, occurs relatively more commonly in children and young adults.

4.2 Symptoms of critical phase

1. Leakage of plasma from the blood vessels which typically lasts one to two days.
2. Fluid accumulation in the chest and abdominal cavity
3. Depletion of fluid from the circulation
4. Decreased blood supply to vital organs leading to organ dysfunction.
5. Severe bleeding, typically from the gastrointestinal tract.

4.3 Symptoms of recovery stage

1. Re absorption of the leaked fluid into the bloodstream.
2. Severe itching
3. Second episode of skin rash with either a maculopapular or a vasculitic appearance, followed by peeling of the skin.
4. During this stage, a fluid overload state may occur; if it affects the brain, it may cause a reduced level of consciousness or seizures.
5. Fatigue - which may last for weeks in adults.

4.4 Associated symptoms

1. Inflammation of the brain by the virus

2. Impairment of vital organs like liver- acute liver failure
3. Neurological disorders such as transverse myelitis and Guillain-Barré syndrome.
4. Infection of the heart

4.5 Severe disease symptoms

Severe disease is marked by the problems of capillary permeability (an allowance of fluid and protein normally contained within blood to pass) and disordered blood clotting. These changes appear associated with a disordered state of the endothelial glycocalyx, which acts as a molecular filter of blood components. Leaky capillaries (and the critical phase) are thought to be caused by an immune system response. Other processes of interest include infected cells that become necrotic—which affect both coagulation and fibrinolysis (the opposing systems of blood clotting and clot degradation)—and low platelets in the blood, also a factor in normal clotting.

5. Diagnosis

The diagnosis of dengue is typically made clinically, on the basis of reported symptoms and physical examination.

1. Main points to confirm the diagnosis:
2. Mucosal bleeding
3. Skin rash,
4. Generalized pains
5. Liver enlargement
6. Nausea and ongoing vomiting
7. Worsening abdominal pain
8. Lethargy or restlessness
9. High hematocrit with low platelets
10. Serosal effusions

The tourniquet test: It is particularly useful

in diagnosing dengue, where no laboratory investigations are readily available, involves the application of a blood pressure cuff at between the diastolic and systolic pressure for five minutes, followed by the counting of any petechial hemorrhages; a higher number makes a diagnosis of dengue more likely with the cut off being more than 10 to 20 per 1 inch² (6.25 cm²).

6. Preventive majors

As there is no commercially available vaccine, prevention is sought by reducing the habitat and the number of mosquitoes and limiting exposure to bites. The primary method of controlling *A. aegypti* is by eliminating its habitats. This is done by getting rid of open sources of water, or if this is not possible, by adding insecticides or biological control agents to these areas. People can prevent mosquito bites by wearing clothing that fully covers the skin, using mosquito netting while resting, and/or the application of insect repellent.

Prevention can be better carried out with:

1. Advocacy, social mobilization and legislation to ensure that public health bodies and communities are strengthened;
2. Collaboration between the health and other sectors (public and private);
3. An integrated approach to disease control to maximize use of resources;
4. Evidence-based decision making to ensure any interventions are targeted appropriately; and
5. Capacity-building to ensure an adequate response to the local situation.

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1. Introduction

Influenza, commonly known as "the flu", is an infectious disease caused by an influenza virus. Symptoms can be mild to severe. Usually, the virus is spread through the air from coughs or sneezes. This is believed to occur mostly over relatively short distances. It can also be spread by touching surfaces contaminated by the virus and then touching the mouth or eyes. A person may be infectious to others both before and during the time they are sick. The infection may be confirmed by testing the throat, sputum, or nose for the virus. Frequent hand washing reduces the risk of infection because the virus is inactivated by soap. Wearing a surgical mask is also useful.

2. Common symptoms

1. High Fever-Fever and extreme coldness (chills shivering, shaking (rigor))
2. Common cold.
3. Sore throat,
4. Muscle pains,
5. Headache,
6. Cough
7. Nasal congestion
8. Sneezing
9. Body aches, especially joints and throat
10. Fatigue
11. Irritated, watering eyes
12. Reddened eyes, skin (especially face), mouth, throat and nose

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13. Petechial rash.

14. In children, gastrointestinal symptoms such as diarrhea and abdominal pain.

These symptoms typically begin two days after exposure to the virus and mostly last less than a week. The cough, however, may last for more than two weeks. In children, there may be nausea and vomiting, but these are not common in adults. Nausea and vomiting occur more commonly in the unrelated infection gastroenteritis, which is sometimes inaccurately referred to as "stomach flu" or "24-hour flu".

3. Complications

1. Viral Pneumonia,
2. Secondary Bacterial Pneumonia
3. Sinus Infections,
4. Worsening of previous health problems such as asthma or heart failure.

4. Types

Three types of influenza viruses affect people.

1. Type A,
2. Type B
3. Type C.

5. Prevention

Yearly vaccinations against influenza are recommended by the World Health Organization for those at high risk. The vaccine is usually effective against all types of influenza.

1. Definition

The word 'chikungunya' is thought to derive from a description in the Makonde language, meaning "that which bends up", "dry up" or "become contorted", because of the contorted posture of people affected with the severe joint pain and arthritic symptoms associated with this disease. Many erroneous spellings of the name of the disease are in common use.

2. History

The disease was first described by Marion Robinson and W.H.R. Lumsden in 1955, after an outbreak in 1952 on the Makonde Plateau, along the border between Mozambique and Tanganyika (the mainland part of modern day Tanzania).

Since its discovery in Tanganyika, Africa, in 1952, chikungunya virus outbreaks have occurred occasionally in Africa, South Asia, and Southeast Asia, but recent outbreaks have spread the disease over a wider range. Chikungunya is mostly present in the developing world.

3. Epidemiology

The epidemiology of chikungunya is related to mosquitoes, their environments, and human behavior. The adaptation of mosquitoes to the changing climate of North Africa around 5,000 years ago made them seek out environments where humans stored water. Human habitation and the mosquitoes' environments were then very closely connected. During periods of

epidemics humans are the reservoir of the virus. During other times, monkey, birds and other vertebrates have served as reservoirs.

Three genotypes of this virus have been described:

1. West African,
2. East/Central/South African,
3. Asian genotypes.

Explosive epidemics in Indian Ocean in 2005 and Pacific Islands in 2011, as well as now in the Americas, continue to change the distribution of genotypes. The physicians presumed the virus might be able to be transmitted from a mother to her fetus, but without laboratory confirmation.

4. Symptoms

The incubation period of chikungunya disease ranges from two to twelve days, typically three to seven. Between 72 and 97% of those infected will develop symptoms.

1. Severe pain in joints with stiffness.
2. Bending of limbs.
3. Fever- Biphasic fever- typically lasting from a few days to a week, sometimes up to ten days, usually above 39 °c (102 °f) and sometimes reaching 41 °c (104 °f).
4. Skin rash-maculopapular rash.
5. Malaise.
6. Muscle pain
7. Inflammation of the eyes -iritidocyclitis, or retinal lesions.
8. Headache
9. Fatigue
10. Nausea or vomiting

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Chapter 9 PANDU

Disease at a glance

- Nature of Disease: - Chronic.
- Major Involving Doshya- Pitta
- Major Involving Dushya- Rasa- Rakta
- Site of Manifestation: Heart
- Srotas: Rasavaha Raktavaha Srotas
- Types- Five
- Cardinal Feature: Pale coloured skin.
- Prognosis
- Curable When disease is in its initial condition.

Diseases for differential diagnosis

1. Grahani.
2. Gulma.
3. Agnimandya.
4. Yakrit- Pleeha vridhi.
5. Hridroga.
6. Arsha.
7. Jeema Jwara.
8. Pradara.

Reference reading

- Madhavidana Pandu Chapter 8.
- Sushrut Samhita-Uttaranta Chapter 44.
- Charaka Samhita Sutra Sihana Chapter 23.
- Charaka Samhita Chikitsa Stahana Chapter 16.
- Ashatnga Hridaya- Nidana Sihana Chapter 13.
- Ashatnga Hridaya- Sharira Sihana Chapter 5.
- Harita Samhita- Chapter Pandu Roga.
- Sanskrit English Dictionary - Apte Shabdakosha.

1. Introduction

Pandu Roga is an elaboration of a disease, which can be compared with a very common condition in today's human life, known as 'Anaemia'. Lack of healthy blood, easy tiredness and lack of glory are some major presenting features of this condition. In spite of all the amenities and prosperity, percentage of anaemia is fearfully growing in developing countries because of low graded and adulterated food, polluted water and air. Special efforts have been taken by Ayurveda to explain this deep rooted disease, common in all the age groups, with occasionally serious complications. Further detailed pathogenesis is described as Nidana Panchaka of Pandu in this chapter.

2. Definition : Paribhasha

सर्वेषु वैतेजिह पाण्डुभावो यतोऽधिकोऽतः खलु पाण्डुरोगः ।

S.S.Utt.44/4.

स कामला पानकिपाण्डुरोगः
कुम्भाह्वयो लाघकोलऽसाख्य विभाष्यते ॥

S.S.Utt. 44/ 6.

The disease in which the body and color of the skin becomes pale (resembling to pollens of *Ketaki*- flower of screw pine- *Pandanus tectorius*) is called as Pandu. It is also known as '*Kumbhanyo* or *Lagbaraka*'.

It is a chronic natured and serious disease condition.

3. Route of development: Marga : Abhyantara

Affliction of the disease is internal.

4. Predisposing factors : Nidana

क्षारास्लत्वणालुष्णविरुद्धासात्यभोजनात् ।
निष्पावमाहपिण्याकतिलतैलनिषेवणात् ॥
विदग्धेऽग्ने दिवास्नानादव्यायामानैयुनात्त्या ।
प्रतिकर्तुर्वैषम्याद्देहानां च विधारणात् ॥
कामचिन्ताभयभयक्रोधशोकरोहतचेतसः ॥

C.S.Ch.16/7-9.

व्यायाममग्नं लवणानि मधं मूदं दिवास्नानमतीव तीक्ष्णम् ।
निषेवमाणस्य प्रदूष्य रक्तं दोषास्त्वचं पांडुरतां नयन्ति ॥

S.S.Utt. 44/ 3.

- a. Intake of alkali, sour, salty, hot, incompatible food and food which is disliked by the self.
- b. Excessive intake of cereals, sprouts, sesame seeds and sesame oil (Sesamum indicum) etc.
- c. Day time sleep or sleep during stage of indigestion.
- d. Excessive physical exertion.
- e. Excessive indulgence in sex.
- f. Erroneous application of body purification procedures-Panchakarman.
- g. Abnormal climatic changes.
- h. Suppression of natural urges.
- i. As an effect of over powering emotions such as anger, worry, sexual desire, sorrow etc.
- j. Alcoholism.
- k. Intake of soil.

5. Pathogenesis : Samprapti

समुदीर्णं यदा पित्तं हृदये समवस्थितम् ।
वायुनां बलीनां क्षिप्तं संग्राह्यं धमनीदश ॥
प्रपन्नं केवलं देहं त्वङ्गं सांसतरमाश्रितम् ।
प्रदूष्य कफचानासृक् वर्णान् बहुविधास्वचि ॥

C.S.Ch.16/9-12.

दोषाः पित्तप्रधानास्तु यस्य कुच्यन्ति धातुषु ।
शैथिल्यं तस्य धातूनां गौरवं चोपजायते ॥
ततो वर्णवललेहा ये चान्येऽयोजसो गुणा ।
व्रजन्ति क्षयमत्यर्थं दोषदूष्यप्रदूषणात् ।
सोऽल्परक्तोऽल्पपेदको निःसारः शिथिलेन्द्रियः ।
वैदर्ष्यं भजते ॥

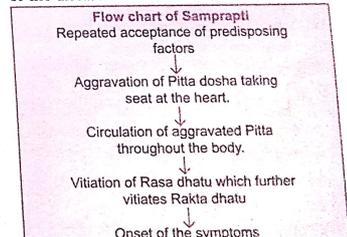
C.S.Ch.16/4-6.

Pitta dosha aggravates due to prolonged acceptance of predisposing factors and takes abnormal seat at the heart. The heart being the prime centre for the circulation of Rasa dhatu and Rakta dhatu, aggravated Pitta

circulates through it and reaches all over the body.

Aggravated Pitta also further vitiates Rasa dhatu to create heaviness and lethargy in the body. This event results in loss of natural color, glow of the skin as well as loss of body strength. Kapha, Vata, Rakta (blood), Mamsa (flesh) and Twaka (skin) are the other major contributing components in the Samprapti of Pandu. Various morbid shades of discolored skin are observed on the body according to the prevailing dosha in the Samprapti of Pandu. Pale, whitish discoloration of the skin is the obvious shade observed.

Vitiation of Rasa dhatu becomes further cause for malformation of Rakta dhatu to result in its depletion. This ultimately results in loss of body strength and onset of fatigue. Abnormal Rasa dhatu is the base cause for depletion of Rakta dhatu and thus for onset of the disease.



Components of pathogenesis: Samprapti ghataka

- Doshya: Pitta, Vata, Kapha
- Dushya: - Rasa-Rakta.
- Srotas: Rasavaha- Raktavaha srotas.
- Adhithana: Hridaya- Twak.
- Srotodushiti: Vimarmagamana, Sanga.
- Swabhava: Chirakan.
- Agni dushiti: Jatharagni, Rasa agni and Rakta agni.- Agnimandya.

6. Premonitory features : Poorvarupa

प्राणमस्य हृदयसन्दनं रुद्धता त्वचि।
सादश्रमः ॥

A.H. Ni.13/8.

लक् स्फोटन- स्त्रीवन-गानसाद- भृङ्गक्षण- श्रेक्षणकूट
शोभाः। विष्णुवृषीतत्वमयाविपाको भविष्यतस्य

S.S.Ut. 44/ 5.

पुरःसराणि ॥

पिपासालचिह्नत्वात्सैरोदाहोऽङ्गुलीवम्।
रक्तलोचनता तस्य पूर्वमस्य लक्षणम् ॥

Vangasena- Pandu.

1. Palpitations.
2. Roughness of skin.
3. Hyper salivation.
4. Lassitude
5. Desire to eat soil.
6. Swelling around the eyes.
7. Yellowish coloured urine and stool.
8. Indigestion.
9. Thirst.
10. Inispid mouth.
11. Nausea.
12. Sensation of burning in the chest.
13. Heaviness of body, Fatigue.
14. Redness of eyes.

7. Clinical features : Roopa

तेन गौवम्।

धातुनां स्याच्च शैथिल्यमोजसश्चगुणक्षयः।
ततोऽल्पवक्तमेदस्को निःसारः स्यात्शितिलेन्द्रियः ॥

मृद्यमानैरिभिर्नां द्रवता हृदयेन च।

शूनाशिकूट सदनः कोपनः स्त्रीवनोऽल्पवाक् ॥

अत्रद्विट् शिशिरद्वेषी शोणरोमा हतानलः।

सन्नसक्त्यो ज्वरी श्वासी कर्णशैवी भ्रमी श्रमी ॥

A.H. Ni. 13/4-6.

संभृतेऽसिन् भवेत् सर्वः कर्णशैवी हतानलः।

दुर्बलः सदनेऽत्रद्विट् भ्रम श्रम निरीडितः ॥

गात्रशूलज्वरश्वासगौरवाचिपात्रः।

मृदिनैरिव गात्रेश्च पिडितिन्यनैरिव ॥

शूनाशिकुटो हरितः शोणलोमा हतप्रमः।

कोपनः शिशिरद्वेषी निद्रालुः स्त्रीवनोऽल्पवाक् ॥

पिण्डकोद्वेष्यकटपूषादरुक्सदनानि च।

भवत्यारोहणयातेविशेषश्चास्य जायते ॥ C.S.Ch.16/11-16.

1. Cardinal feature: whitish discoloration and lack luster skin which resembles to pollens of screw pine- Ketaki pushpa (Screw Pine- Pandanus tectorius).

2. Heaviness and lethargy.

3. Reduction in vitality - Oja.

4. Reduction in normal quality and quantity of Rakta and Meda dhatu.

5. Severe weakness with crushing type of pain in body.

6. Cardiomegaly.

7. Swelling around the eyes.

8. Hyper hostile nature.

9. Hyper salivation.

10. Patient avoids to speak due to severe weakness.

11. Loathing of food.

12. Loathing of cold (atmosphere, food, water etc).

13. Loss of bodily hair.

14. Inability to walk or climb the heights due to severe weakness of thighs.

15. Fever.

16. Dyspnoea.

17. Excessive formation of ear wax and ear buzzing.

18. Paleness and whitish discoloration of nails, eyes, skin, lips and soft palate. Loss of body glow.

19. Loss of digestive capacity.

20. Drowsiness.

21. Thrashing, wrenching type of pain in the body especially in the calf muscles.

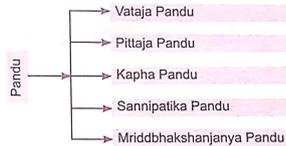
8. Types : Prakara

पाण्डुरोगाः स्तः पञ्च वातापित्तकफैस्त्रयः।

चतुर्थः सात्रिपातेन पंचमो भक्षणामृदः ॥

C.S.Ch.16/3.

Total five types of Pandu are described. These types are caused due to prevalence of dosha in the samprapti. Whereas, Mriddbhakshanjanya Pandu develops due to eating soil, although the quality of soil helps for aggravation of any of the three dosha and finally turns up into dosha dominant type of Pandu.



8.1 Vataja Pandu

आहाररूपचारेण वातलैः कुपितोऽनिलः।

जनयेत्कृष्णपांडुत्वं तथा रुक्कारुणांगताम् ॥

अंगमर्द रुजं तोदं कम् पाथीशिरुहजम् ॥

वर्चः शोषास्यवेरस्यशोफानाहबलक्षयान् ॥

C.S.Ch.16/17-18.

त्वङ्मूत्रनयानादीनां रुक्कृष्णारुणाभताः।

वातपाण्ड्वामये तोदकम्पानाहप्रमादयः ॥

Ma. Ni - Pandu chapter 8/4 .

Vata dosha aggravates due to acceptance of specific Vata aggravating factors and combines with Rasa dhatu to form Vata dosha dominant type of Pandu.

Symptoms

1. Color of the skin, nails, face, eyes, urine and stool changes to grayish black.
2. Dry and rough skin.
3. Pricking type of pain in the body.
4. Tremor.
5. Pain in the flanks.
6. Headache.
7. Constipation.
8. Inispid mouth.
9. Edema.

10. Abdominal distension.

11. Lassitude.

12. Giddiness.

8.2 Pittaja Pandu

पित्तलस्यचितं पित्तं यथोक्तेः स्वैः प्रकोपणैः।

दुषयित्वा तु स्वतादीन् पाण्डुरोगाय कल्पते ॥

स पीतो हरितापो वा ज्वरदाहसमन्वितः।

तृणामुच्छापिपासार्तः पीतमूत्रशकृन्नरः ॥

स्वेदनः शीतकामाश्च च चात्रमपिनन्दति।

कटकास्यौ न चास्योगमुपशेतेऽन्लमेव च ॥

उद्गारोऽस्यो विदाहश्च विदधेऽनेऽस्य जायते।

दौर्गन्ध्यमिन्न वर्चस्त्वं दौर्बल्यं तम एव च ॥ C.S.Ch.16/19-22.

पीतमूत्रशकृन्नेत्रो दाहतृष्णाज्वरन्वितः।

पित्तविदकोऽतितिपीतामः पित्तपाण्ड्वामयो नरः ॥

Ma. Ni - Pandu chapter 8/5.

Pitta dosha aggravates due to acceptance of specific Pitta aggravating factors and combines with Rasa dhatu to form Pitta dosha dominant type of Pandu.

Symptoms

1. Yellowish green discoloration of skin, nails, eyes, urine and stool.
2. Fever.
3. Sensation of burning.
4. Thirst.
5. Stupor.
6. Yellowish tinge to urine and stools.
7. Sweating.
8. Desire for cold surroundings and chilled food items.
9. Rancid feel of mouth.
10. Sour belching, acidity.
11. Foul smelling urine and stool.
12. Loathing of hot and sour food.

8.3 Kaphaja Pandu

दिवृद्धः श्रोत्रलैः श्लेष्मा पाण्डुरोगं स पूर्ववत्।

करोति गौरवं तन्ना र्छर्दि श्वेतावपासताम् ॥

प्रसेकं लोमहर्षं च सारं मूर्च्छां प्रमं क्लमम् ।
श्व्यासं कारं तथाऽऽलस्यमरुचिं चाक्स्वयग्रहम् ॥
शुक्लमूर्च्छाक्षिदचलं कटुरुक्षोणकामताम् ।
श्वययं मधुरस्यत्वमिति पाण्डुवामयः कफम् ॥

C.S.Ch.16/23.

Kapha dosha aggravates due to acceptance of specific Kapha aggravating factors and combines with Rasa dhatu to form Kapha dosha dominant type of Pandu.

Symptoms

1. Heaviness of body.
2. Lassitude.
3. Vomiting.
4. Hyper salivation.
5. Horripilation.
6. Debility.
7. Stupor.
8. Giddiness.
9. Dyspnoea.
10. Cough.
11. Fatigue.
12. Obstructed voice and difficult speaking.
13. Severe paleness of the skin with whitish tinge of nails, eyes, urine and stool.
14. Desire for hot, spicy, pungent, fried and crisp food items.
15. Insipid mouth with morbid sweet taste.

8.4 Sannipatika Pandu

सर्वत्रसेविनः सर्वे दुग्धा दोषस्त्रिदोषजम् ।
त्रिदोषलिङ्गं कुर्वन्ति पाण्डुरोगं सुदुःसहम् ॥ C.S.Ch. 16/25.
ज्वरारोचकहस्तासच्छर्दिर्गुष्णाक्लमान्तिः ।
पाण्डुरोगी त्रिभिर्दोषैस्त्याज्यः क्षीणो हतेन्द्रियः ॥

Ma. Ni - Pandu chapter 8/7.

तंज्जालस्यं श्वययुवनयुकासहल्लासशोषा ।
विच्छाभेदः परुषनयने सज्वरो वैशुधार्तः ॥
मोहस्तुष्णाक्लममयं नरस्याशु पश्येत्सुदूरं ।
त्याज्यो वैधैर्निपुणमतिभीः सन्निपातोत्य पाण्डुः ॥

Harita Samhita.

Acceptance of all predisposing factors cause aggravation of all the three dosha to cause Sannipatika type of Pandu.

Symptoms

मोहस्तुष्णाक्लममयं नरस्याशु पश्येत्सुदूरं ।
त्याज्यो वैधैर्निपुणमतिभीः सन्निपातोत्य पाण्डुः ॥

Harita Samhita.

1. Very serious type of Pandu.
2. Fever.
3. Insipid mouth.
4. Nausea.
5. Vomiting.
6. Thirst.
7. Lethargy.
8. Edema.
9. Cough.
10. Reduction in strength of body power.
11. Unformed feces.
12. Dryness of eyes. (formation of dark circles)
13. Fever.
14. Constant feeling of hunger.
15. Delirium.
16. Incurable and shall be rejected for treatment.

8.5 Mridbhakshanajanya Pandu

मृत्तिकादशनशीलस्य कुप्यत्यन्यतमो मलः ।
कषाया मारुतं, पित्तं मूषरा, मधुरा कफम् ॥
कोषयेन्मृदादीश्वरं रौक्ष्यादमुक्तं विरुक्षयेत् ।
पूयत्यपिपक्वेव स्रोतासि निरुणद्धि च ॥
इन्द्रियाणां बलं हत्वा तेजेवीर्योजसी तथा ।
पाण्डुरोगं करोत्याशु बलवर्णानिनाशनम् ॥
शून्यगंडाशिकृटभ्रू शून्यपात्रभिमेहनः ।
क्रिमिकोष्ठोऽतिसार्येत मलं सामूक् कफान्वितम् ॥

C.S.Ch.16/27-30.

Mridbhakshanjanya pandu develops in one who is prone to eat soil. Many times soil is eaten by young children and by elderly too

due to ignorance. Soil can be of sweet, salty or astringent taste, hence Kapha, Pitta or Vata dosha get aggravated and relevant type of Pandu is caused.

Symptoms

1. Obstruction of srotas due to clogging of mud in it.
2. Loss of strength of vital powers. (Indriya)
3. Loss of body strength and glory.
4. Loss of digestive power.
5. Severe oedema around the eyes, eye brows, legs, umbilicus and genitals.
6. Loose, unformed, sticky and blood stained faeces.

9. Complications : Upadrava

उपद्रवास्तोष्वरुचिः पिपासा
छर्दिर्ज्वरो मूर्च्छाऽऽलसादः ।
शोफस्तथा कण्ठगतोऽवललं
मूर्च्छां बलमो ह्रद्रवपीडनं च ॥

S.S.Utt. 44/ 13.

1. Insipid mouth.
2. Thirst.
3. Vomiting.
4. Fever.
5. Headache.
6. Loss of digestive power.
7. Edema.
8. Inflammation of throat.
9. Stupor.
10. Lassitude.
11. Pain in heart.

10. Prognosis : Sadhya-asadhya laxana

पाण्डुरोगश्चिरोलम्नः खरीभूतो न सिध्यति ।
कालप्रकर्षच्छूनो ना यश्च पीतानि पश्यति ॥
बद्धाल्पविट्कं सकफं हरितं योऽतिसार्यति ।
दीनः श्वेतातिदिग्भागश्छर्दिमूर्च्छां तृषादितः ॥
स नास्त्यसुकक्षयाद्यश्च पाण्डुः श्वेतत्वमानुयात् ॥

C.S.Ch.16/ 33.

Features of Incurable type of Pandu:

1. Chronic manifestation of Pandu.
2. Edema all over the body.
3. All the surrounding objects appear yellow stained to the patient.
4. Severe constipation with very hard and small stool formation.
5. Frothy, sticky greenish colored loose, unformed motions.
6. Gloomy appearance.
7. Severe paleness of the skin.
8. Vomiting.
9. Thirst.
10. Severe depletion of blood.

11. Fatal symptoms: Arishta laxana

पाण्डुरोगो यस्तु पाण्डुरोश्च यो भवेत् ।
पाण्डु संघातदर्शी च पाण्डुरोगी निवश्यति ॥

C.S.Su.23/39-40.

अनेषु शूनं परिहीणमध्यं ग्लानं तथाऽन्तेषु च मध्यशूनम् ।
गुदे च शोफस्य मुष्कयोश्च शूनं प्रताम्यंतमसंज्ञकल्पम् ॥
विचर्जयेत्पाण्डुकिं यशोऽर्थां तथाऽतिसारज्वरौ दितं च ॥

S.S.Utt.44/39-40.

पाण्डुरोगं श्वययुमान् पीताक्षिनखदर्शनः ॥ A.H.Sh.5/91.

1. Abnormally white teeth and nails. Pale whitish tinge to conjunctiva.
2. Development of severe edema on extremities or abdomen (or the patient who has developed edema on both these sites)
3. Development of oedema at anus and genitals.
4. Frequent fainting with prolonged state of unconsciousness.
5. Severe loose motions.
6. (constant/ high grade) fever. Such patients shall be rejected for treatment.

12. Dietary and behavioral regimen**12.1 Pathya**

wholesome regimen:

1. Intake of light, easy to digest type of food for e.g. old rice, barley, green gram etc.
2. Meat soup of wild animals and birds.
3. Diet rich in nutrition values.

12.2 Apathya

unwholesome regimen:

1. Intake of hard to digest, hot, sharp type of food.
2. Intake of peas, sesame cakes, red chilies, sour food items.
3. Physical exertion or exercise.
4. Acceptance of heat in any form.

...

Disease at a glance

- Nature of Disease: *chronic*.
- Major Involving Dosh- *Vata, Pitta, Kapha*.
- Major Involving Dushya- *Rasa, Meda, Majja*.
- Site of Manifestation: *Joints*
- Srotas: *Rasavaha Srotas*
- Types- *Seven*
- Cardinal Feature: *Painful swollen joints*.

Prognosis

- Curable in single dosha dominant type.
- Can be managed with medicines in two dosha dominant type.
- Difficult to cure in three dosha dominant type

Diseases for differential diagnosis

- Krosthukasheersha.
- Sandhigata Vata.
- Sarvangagata Vata.
- Vatakantaka.
- Vatarakta.

Reference reading

- Madhavidana – Amavata Chapter 24.
- Sanskrit-English Dictionary – Apte Shabdakosha.

1. Introduction

Joint disorders are the most commonly observed complaints in today's society. Changing life styles, malnourishment due to various causes, lack of physical activity are some prime predisposing factors. Ayurveda explains joint disorders with a deeper understanding. Amavata is a condition linked not only to joint disorder but to weakness of digestive fire and formation of poisonous and harmful content called as Ama. Morbid association of Ama with aggravated vata dosha gives rise to a very critical and chronic disease named as Amavata. Hereditary trait is also prevalent factor for onset of this disease.

Further detailed pathogenesis is described as Nidana Panchaka of Amavata in this chapter.

2. Definition : Paribhasha

स्तब्धं च कुरुतो गात्रमामवातः स उच्यते ॥ M.Ni. Amavata-Chapter-24/5.

The disease in which major joints are affected with appearance of symptoms like pain and swelling is called as Amavata. The body parts become stiff and difficult to move. Nature of the disease is very serious.

3. Route of development : Marga

Madhyama- Affliction of disease involves complicated structures such as joints and in later stages may affect vital points such as heart.

4. Predisposing factors : Nidana

विरुद्धाहारचेष्टस्य मन्दाग्नेर्निश्चलस्य च ।

स्निग्धं भुक्तवतो ह्यन्नं व्यायामं कुर्वतस्तथा ॥

वायुना प्रेरितो ह्यामः श्लेष्मस्थानं प्रधावति ।

तेनात्यर्थं विदधोऽसौ धमनीः प्रतिपद्यते ॥

वातपित्तकफैर्भूयो दूषितः सोऽञ्जो रसः ।

स्त्रोतांस्यभिष्यन्दयति नानावर्णाऽतिपिच्छलः ॥

जनमप्यशु दीर्घत्वं गौरवं हृदयस्य च ।
व्याधीनामात्रयो द्येष आमसंज्ञोऽतिदारुणः ॥
दुग्धपक्वपित्तान्नास्त्रिकसन्धिप्रवेशकौ ।
स्रब्धं च कुरुतो गात्रमामवातः स उच्यते ॥

M.Ni. Amavata-Chapter-24/1-5.

1. Intake of incompatible food items.
2. Practice of incompatible activities.
3. Diminished power of digestive fire.
4. Lack of physical exercise and activities-sedentary lifestyle.
5. Physical exercise immediately after consumption of unctuous food.

5. Pathogenesis : Samprapti

वायुना भेरितो ध्यानः श्लेष्मस्थानं प्रधावति ।
तेनात्यर्थं विद्ध्योऽसौ घमनीः प्रतिपद्यते ॥
वातपित्तकफैर्भूयो दूषितः सोऽमृजो रसः ।
स्त्रोतांस्त्र्यभिच्यन्दयति नानावर्णोऽतिरिच्छितः ॥
जनयत्यशु दीर्घत्वं गौरवं हृदयस्य च ।
व्याधीनामात्रयो द्येष आमसंज्ञोऽतिदारुणः ॥
दुग्धपक्वपित्तान्नास्त्रिकसन्धिप्रवेशकौ ।
स्रब्धं च कुरुतो गात्रमामवातः स उच्यते ॥

M.Ni. Amavata-Chapter-24/2-5.

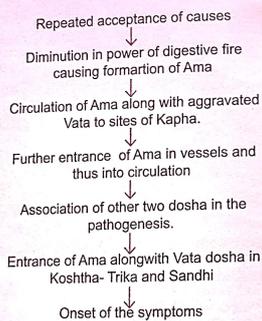
यत्रस्थमामं विरुजेल्लयेव देशं विशेषेण विकारजातैः ।
दोषेण येनावततं शरीरं तल्लक्षणैरामसमुदभवैश्च ॥

M.Ni. Amavata-Chapter-24/5.

Due to prolonged acceptance of predisposing factors, normal functioning of digestive fire- Jathara agni- diminishes and as a result ingested food is not properly digested and processed further for transformation into Rasa dhatu. Improperly digested Aahara rasa undergoes fermentation and decay to result into formation of a poisonous content called as Ama. Further, Ama gets absorbed into body system and gets leaded by already aggravated Vata dosha especially to sites of Kapha.dosha- such as stomach-*Amashaya*, *sandhi*- joints, chest- *ura stabha* and throat- *kantha* etc.

Ama further enters the vessels- *dhamani*- and subsequently into the circulation to combine with other already aggravated dosha and gets aggravated further. Ama vitates further to cause distress and weakness in the body and heaviness at heart due to its abnormally excessive unctuous nature. The disease is very serious in nature and challenging for treatment because of severe abnormal nature of Ama(Amarasa). Later, both Ama and Vata dosha aggravate simultaneously and entre gastro intestinal tract (koshtha) sacrum (trika) and joints (sandhi) to cause stiffness of the body. This disease is explained as Amavata.

Flow chart of Samprapti



Components of pathogenesis: Samprapti ghataka

- Dosha: Vata, Kapha, Pitta.
- Dushya: Rasa, Meda, Majja.
- Srotas: Rasavaha Srotas, Annavaha Srotas, Asthivaha Srotas.
- Adhithana: Sandhi.
- Srotodushiti: Vimarmagamana.
- Swabhava: Chirakarari
- Agni Dushiti: Jatharagni, Rasa Agni - Agnimandya.

6. Clinical features: Roopa

अङ्गमूर्च्छरुचिस्तृष्णा आलस्यं गौरवं ज्वरः ।
अपाकः शूलताऽङ्गनामामवातस्य लक्षणम् ॥
स कष्टः सर्वरीगाणां यदा प्रकुपितो भवेत् ।
हस्तपादशिरोगुल्फन्रिकजानुरुसन्धिषु ॥
करोति सरुणं शोथं यत्रदोषः प्रपद्यते ।
स देशो रुज्यतेऽत्यर्थं व्याविद्ध इव वृद्धिकेः ॥
जनयेत्सोऽग्निदीर्घत्वं प्रसेकारुचिर्गोदम् ॥
उत्साहहानिं वैरस्यं दाहं च बहुमूत्रताम् ॥
कुर्षीं कठिनतां शूलं तथा निद्राविपर्यम् ॥

M.Ni. Amavata-Chapter-24/6-10.

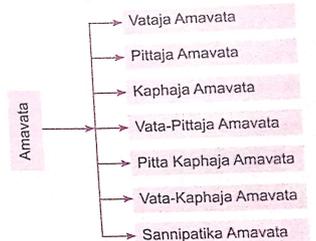
1. Pain all over the body.
2. Insipid mouth.
3. Thirst.
4. Loss of enthusiasm.
5. Heaviness of body.
6. Fever.
7. Indigestion.
8. Numbness at affected joint.
9. Condition becomes serious when aggravates and affects all the joints of hands, feet, head, ankle, sacrum, knee and thighs.
10. Severe inflammation with pain is produced wherever the morbid substance- Ama is located. Symptoms shift from site to site (joint to joint) as per shifting of Ama from one joint to another. This is caused due to nature of the disease. (vyadhi swabhava).
11. Affected sites- joints become extremely painful as if stung by a scorpion.
12. Diminution in power of digestive fire.
13. Hyper salivation.
14. Heaviness in the body.
15. Loss of enthusiasm.
16. Loss of taste.
17. Sensation of burning.
18. Excessive urination.
19. Hardness at loin.

20. Pain in abdomen.

21. Insomnia/ disturbed sleep.

7. Types:Prakara

Total seven types of Amavata are explained :



पितात्सदाहराणं च यशूलं पवनानुगम् ।
स्तिमितं गुरुकण्ठं च कफदुष्टं तमादिशेत् ॥

M.Ni. Amavata-Chapter-24/11.

Total seven types are described for Amavata.

- A. Single dosha dominant types of Amavata: 03
- B. Two dosha dominant types of Amavata (Dwandwaja): 03
- C. Three dosha dominant type of Amavata (Sannipatika): 01

7.1 Vataja Amavata

Excruciating type of pain.

7.2 Pittaja Amavata

Sensation of burning and redness at affected joints.

7.3 Kaphaja Amavata

Rigidity, heaviness, itching sensation at affected joints.

7.4 Vata- Pittaja Amavata

Onset of combination of symptoms of Vata and Pitta dominant Amavata.

7.5 Pitta-Kaphaja Amavata

Onset of combination of symptoms of Pitta and Kapha dominant Amavata.

7.6 Vata-Kaphaja Amavata

Onset of combination of symptoms of Vata and Kapha dominant Amavata.

7.7 Sannipatika Amavata

Onset of combination of symptoms of all the three dosha- Vata, Pitta and Kapha dominant Amavata.

These symptoms are observed specifically along with other common symptoms.

8. Prognosis: Sadhyasadyatva

एकदोषानुगः साध्यो द्विदोषो याथ उच्यते ।
सर्वदोषैः शोथः स कृच्छ्रः सान्निपातिकः ॥

M.Ni. Amavata-Chapter-24/12.

Curable : Single dosha dominant types of Amavata are curable- Sadhya types.

Manageable with proper medication: Two dosha dominant types of Amavata can be managed with continual proper medication and dietary regimen- Yappya types.

Difficult to cure : Three dosha dominant types of Amavata are very difficult to cure. - Kashtasadya types.

9. Complications: Upadrava

तृच्छर्दिभ्रममूर्च्छाश्च हृदग्रहं विड्विवह्वताम् ॥
जाड्यान्त्रकूजनममानाहं कष्टाचान्यातुप्रवाम् ॥

M.Ni. Amavata-Chapter-24/10.

1. Thirst.
2. Vomiting.
3. Giddiness.
4. Stupor.
5. Stiffness of heart.
6. Constipation.
7. Sluggishness.
8. Intestinal rumbling.
9. Abdominal distention.

10. Dietary and behavioral regimen**10.1 Pathya**

Wholesome regimen:

1. Fasting.
2. Intake of gruel or soup of horse gram, barley, garlic, red millet.
3. Intake of dry, light type of food.
4. Restricted diet and physical activities.

10.2 Apathya

Unwholesome regimen:

1. Intake of hard to digest, unctuous food.
2. Intake of curds.

Disease at a glance

- Nature of Disease: - Acute.
- Major Involving Dosha- Vata-Prana and Udana type of vayu, Avalambaka Kapha.
- Major Involving Dushya- Rasa, Rakta
- Site of Manifestation: Heart
- Srotas: Rasavaha Srotas
- Types- Five
- Cardinal Feature: Affliction to heart.

Prognosis

- Incurable in severe stage, critical to cure- in chronicity. Can be managed with utmost care and continual medication.

Diseases for differential diagnosis

1. Shwasa.
2. Rajayakshma.
3. Pandu.
4. Mano dainya- Depression

Reference reading

- Madhavi Nidana. Hridroga Chapter 29.
- Sushruta Samhita Uttartantra Chapter 43
- Charaka Samhita Sutrasthana Chapter 17
- Charaka Samhita Chikitsasthana Chapter 26.
- Ashtanga Hridaya Nidanasthana Chapter 5.
- Sanskrit English Dictionary - Apte Shabdakosha.

1. Introduction

Heart disease is always taken as serious disease and it produces certain anxiety in the mind of the patient and related people. Heart being a major vital organ with life of a person depending upon, heart disease becomes the main seriously thought and researched disease condition. In Ayurveda heart is considered as one of the three most vital points of the body i.e. Tri Marma. Trauma or disease of heart can lead to death. Similarly, pathogenesis of Krimija Hridroga also is unique concept described by Ayurveda thousands of years before which is later accepted by modern science. Further detailed pathogenesis is described as Nidana Panchaka of Hridroga in this chapter.

2. Definition : Paribhasha

हृदिबाधा प्रकुर्वन्ति हृद्रोगं तं प्रचक्षते ।

S.S.Utt.50/4.

हृदंगः कष्टदः ।

C.S.Su.17/26.

The disease in which the vital organ 'Hridaya' - the heart, gets afflicted or damaged to produce severe illness is called as Hridroga. The heart being the important vital organ of the circulatory system, the nature and the course of Hridroga is always critical. In many cases the disease is incurable and produces immediate threat to life.

3. Route of development : Marga

Madhyama-Madhyama- affliction of disease involves the vital point - heart.

4. Predisposing factors : Nidana

अत्युष्णपुर्ववक्रकायतिक्तश्रमाभिघाताध्यशनप्रयङ्गैः ।
संचिन्तनेवैगवियारणैश्च हृदामयः पञ्चविधः प्रदिष्टः ॥

M. Ni.chapter- Hridrog-29/1

व्यायामतीक्ष्णतिविकेचस्ति चिन्ताभयत्रासगदातिचाराः ।

छर्वापसंधारणकर्शनानि हृद्रोगकर्तुणि तथाऽभिघातः ॥ C.S.Ch. 26/77.

वेगाघातोष्णरुक्षात्रैरतिमात्रोपसेवितैः ।

विरुद्धाध्यशनाजीर्णैस्तत्त्वैश्चापि तिभोजनैः ॥ S.S.Utt. 43/3.

1. Intake of food which is hard to digest, astringent, bitter, over dried and over unctuous.
2. Intake of incompatible food items.
3. Excessive physical exertion.
4. Physical injury.
5. Over eating, repeated eating.
6. Excessive indulgence in sex.
7. Severe emotional stress due to affliction of emotions like anger, fear, worry, sorrow, mental stress etc.
8. Suppression of natural urges.
9. Erroneous applications of body purification procedures. For e.g. wrong application of Panchkarma procedures like Shodhana, Aptarpana, and Lekhana etc.
10. Improper application of medicated nasal oleation, medicated enema (Tikshna nasya, Tikshna basti) etc.
11. Intake of food which is not desired by the self.
12. Affliction of other severe, untreated diseases.
13. Sedentary life style.

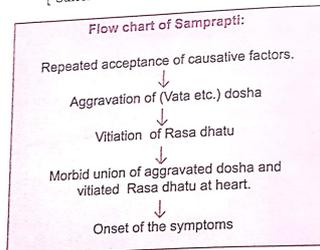
5. Pathogenesis : Samprapti

दूषयित्वा रसं दोषा विगुणा हृदयं गताः ।
कुर्वन्ति हृदये वाधां ह्रस्वमं तं प्रचक्षते ॥ S.S.Ur. 43/4.

Acceptance of predisposing factors lead to aggravation of (Vata etc.) dosha and further of Rasa dhatu. Aggravated dosha and vitiated Rasa dhatu take abnormal seat at already feeble heart. This morbid union [sthana sansraya] of contaminated Rasa dhatu with weakened heart produces serious disease condition called as Hridroga.

1. Rasa dhatu is site of initiation in pathogenesis of Hridroga. [Udhhava sthana]

2. Hridaya [Heart] is the site of formation in pathogenesis of Hridroga. [Adhishthana]
3. Prana vayu and Udana vayu are sites of presentation in pathogenesis of Hridroga. [Sanchara sthana]



Components of pathogenesis: Samprapti ghataka

- Dosh: Vata, Pitta, Kapha.
- Dushya: Rasa, Rakta.
- Srotas: Rasavaha srotas.
- Adhishthana: Hridaya- Heart.
- Srotodushhi: Sanga, Vimarmagamana, Siragranthi.
- Swabhava: Ashukari.
- Agni dushhi: Jathragagni, Rasa agni-Agnimandya.

6. Premonitory features : Purvaroop

These features are not specifically explained while explaining Hridroga. This must be due to the sudden onset and acute nature of the disease. Some commonly observed symptoms are enlisted below.

1. Fright, restlessness.
2. Sudden pain and heaviness in chest.
3. Palpitations.
4. Feeling of heavily loaded chest.
5. Difficult, interrupted breathing.

7. Clinical features: Roopa

वैद्यपर्यमूच्छज्वरकासहृदिका श्वासास्यवैस्वनुपात्रमोहाः ।
छर्दिकभोल्लेशरुजोऽर्चिद्य ह्रस्वगजाः सुविचितास्तथा-
ऽन्ये ॥ C.S.Ch.26/78.

1. Discoloration of skin.
2. Stupor.
3. Fever.
4. Coughing bouts.
5. Hiccup.
6. Dyspnoea.
7. Morbid taste of mouth.
8. Thirst.
9. Disoriented mind.
10. Vomiting.
11. Hyper salivation.
12. Pain in chest.
13. Insipid mouth.

1. Emotional stress - sorrow.
2. Undue fasting or starvation.
3. Excessive physical exertion.
4. Intake of dry, harsh and inadequate quantity of food.

Due to the acceptance of such factors Vata dosha aggravates and enters into already weakened heart to cause Vataja Hridroga.

Clinical features

वातेन शूल्यतेऽत्यर्थं तुद्यते स्फुटतीव च ।
भिद्यते शूल्यति स्तब्धं हृदयं शून्यता इव ॥
अकस्मादिनता शोको भवं शब्दासहिष्णुता ।
वेपथुर्वेदनं मोहः श्वासरोचोऽल्पनिद्रता ॥

A.H.Ni. 5/39-40.

आयस्यते मारुतजे हृदयं तुद्यते तथा ।
निर्मथ्यते दीर्यते च स्फोट्यते पाट्यतेऽपि वा ॥

S.S.Ur. 43/6.

वेपथुर्वेदनं स्तम्भः प्रमोहः शून्यता दरः ।
हृदि वातातुरे रूपं जीर्णं चात्यर्थवेदना ॥

C.S.Ch. 17/30-31.

8. Types : Prakara



हृदामयः पञ्चविधः प्रदिष्टः । Ma. Ni. chapter- Hridrog-29/1.

Total five types of Hridroga are explained.

8.1 Vataja Hridroga

शोकोपवासव्यायामरुक्षशुष्काल्पभोजनैः ।
वासुपविश्य हृदयं जनयत्युत्तमं रुजम् ॥
वेपथुर्वेदनं स्तम्भः प्रमोहः शून्यता दरः ।
हृदि वातातुरे रूपं जीर्णं चात्यर्थवेदना ॥ C.S.Su.17/30-31.

हृच्छून्यभावाद्भवशोषभेदस्तम्भाः समोहाः पवनाद्विशेषः ।
C.S.Ch. 26/79.

Special causes described for formation of Vataja Hridroga are:

1. Tremor.
2. Feeling as if (chest) is wrapped in (wet) cloth.
3. Feeling of stiffness in chest.
4. Feeling of hollowness (in the chest).
5. Disoriented mind.
6. Patient suffers from a variety of pain in chest like; cutting, throbbing, tearing, stabbing, thrashing, breaking, mincing, or pricking type of pain.
7. Heart dilates due to the morbid action of Vata.
8. Patient always appears miserable without any apparent reason. Develops intolerance towards loud noise or sound.
9. Breathing is interrupted and difficult.
10. Sleep deficiency insomnia.
11. Loss of ability to grasp the surrounding events.

12. Palpitations in the chest with irregular heartbeats.

8.2 Pittaja Hridroga

उष्णान्तरवणशार्कटुजीर्णभोजनैः ।
मद्यक्रोधातपैश्चाशु हृदि पित्तं प्रकुच्यति ॥
हृदाहस्तिकता वदन्ने तिक्ताप्लोद्रीणं श्रमः ।
तृष्णा मूर्च्छां श्रमः स्वेदः पित्तह्रोगलक्षणम् ॥

Ch. S. Ch. 17/32-33.

Special causes described for formation of Pittaja Hridroga are:

1. Intake of hot, sour, acidic, spicy, salty food.
2. Indigestion.
3. Intake of alcohol.
4. Hyper hostile nature.
5. Acceptance of direct Sun light for a prolonged time.

Due to prolonged acceptance of such causes Pitta dosha aggravates with all its qualities. It further combines with vitiated Rasa dhatu and takes abnormal seat at already feeble heart to form Pittaja Hridroga.

Clinical features

पित्तातमोदयनदाहभोहाः संत्रासतापज्वरपीतभावाः ॥

C.S.Ch.26/79.

तृष्णोष्णदाहचोषाः स्युः भैतिके हृदयक्लमः ।

धूम्रायनं च मूर्च्छां च स्वेदः शोषो मुखस्य च ॥ S.S.Utt.43/7.

1. Heartburn.
2. Delirium.
3. Bitter feel of the mouth.
4. Bitter-sour vomiting.
5. Mental distress.
6. Fever.
7. Yellowish discoloration of the skin.
8. Thirst.
9. Stretched feeling in chest, Heaviness in chest.
10. Weakness at heart (chest)

11. Sweating.
12. Body warmth.
13. Suffocation.
14. Dryness of mouth.
15. Fainting and giddiness.

8.3 Kaphaja Hridroga

अत्यादानं गुरुस्निग्धमचिन्तनमयेष्टनम् ।
निद्रासुखं चाप्याथिकं कफह्रोगकारणम् ॥
हृदयं कफह्रोगे युक्तस्तिमितभारिकम् ।
तन्द्रारुचिपरीतस्य भवत्यशमवृत्तं यथा ॥ C.S.Su.17/34-35.
स्तब्धं गुरु स्यात् स्तिमितं च गर्भं
कफात् प्रसेकज्वरकासतन्द्राः । C.S.Ch. 26/80.
गौरवं कफसंज्ञावोऽरुचिः स्तम्भोऽग्निमार्दवम् ।
माद्युर्यमपि चास्यस्य बलासाववते हृदि ॥ S.S.Utt.43/8.

Special factors described for formation of Kaphaja Hridroga are:

1. Excessive intake of food which is hard to digest and over unctuous.
2. Dull, sedentary life style.
3. Complete loss of mental activities like thinking.
4. Enjoying excessive sleep.

Due to prolonged acceptance of such causes, Kapha dosha aggravates with all its qualities. It further combines with vitiated rasa dhatu and takes abnormal seat at the already feeble heart to form Kaphaja Hridroga.

Clinical features

1. Lassitude.
2. Inspid mouth.
3. Feeling of stony hardness, heaviness or numbness in the chest as if carrying heavy loads.
4. Hyper salivation. Production of heavy, dense and large sputum.
5. (Low grade) Fever.
6. Bouts of coughing.
7. Lassitude.

8. Inspid mouth or mouth with morbid sweet feel.
9. Loss of appetite.

8.4 Sannipatika Hridroga

हेतुलक्षणसंसर्गदुच्यते सात्रिपातिकः ।

ह्रोगः कष्टदः कष्टसाध्य उक्तो महर्षिभिः ॥
C.S.Su.17/36.

विद्यात् त्रिदोषं त्वपि सर्वलिङ्गम् ।

C.S.Ch.26/80.

All the three dosha aggravate equally to form Sannipatika Hridroga. The symptoms of Vataja, Pittaja and Kaphaja Hridroga are collectively seen in Sannipatika Hridroga. All the developed symptoms are very serious and the nature of the disease is very critical.

8.5 Krimija Hridroga

त्रिदोषजे तु ह्रोगो यो दुराला निषेवते ।

तिलक्षीरुण्डादीनि प्रथितस्योपजायते ॥

मर्मकदेशे संवलेदं

सश्चास्योपपच्छति ।

संवलेदात् क्रिमयाश्चास्य भवन्त्युपहृतालनः ।

मर्मकदेशे संजाताः सर्पन्तो मक्षयन्ति च ॥

तुवमानं स हृदयं सूचिभित्ति मन्त्ये ।

छिद्यमानं यथा शस्त्रैर्जातकण्डूं महारुजम् ॥

ह्रोगं क्रिमिजं त्वेतैलिङ्गैरुद्व्या सुदारुणम् ।

त्वरेत जेतुं विद्वान्विकारं शीघ्रकारिणम् ॥ C.S.Su.17/36-40.

विद्यात् त्रिदोषं त्वपि सर्वलिङ्गं तौत्रातितोदं क्रिमिजं सकण्डूम् ।

C.S.Ch.26/80.

उत्प्लेषः ष्टीवनं तोदः शूलो हल्लासकस्तमः ।

अरुचिः श्यावनेत्रत्वं शोषश्च कृमिजे भवेत् ॥ S.S.Utt. 43/9.

Special causative factors described for formation of Sannipatika Hridroga

Excessive intake of sesame seeds (Sesamum indicum), milk, jaggery and food items made up from these contents. Intake of such food contents create a particular type of nodular

growth [Granthi] inside the heart. A harmful, poisonous content i.e. Kleda forms at the site of affection. Heart becomes seriously afflicted. Normal Rasa dhatu also gets transformed into Kleda. Formation of Kleda further generates maggots [krimi] at affected site of the heart. These maggots eat up and destruct the musculature of heart to form serious type of Hridroga called as Krimija Hridroga.

Clinical features

1. Severe pain in the chest as if pricked by needle or stabbed by a sharp weapon.
2. Nausea with hyper salivation.
3. Giddiness.
4. Strenuous breathing.
5. Inspid mouth.
6. Dark circles around the eyes.
7. Emaciation of body strength.
8. Generalized body edema.
9. Severe unbearable chest pain with feeling of itching.

9. Complications : Upadrava

प्रमक्लनौ सादशोषो ज्ञेयात्सेषामुपद्रवाः ।

वातादिजानां कृमिहीनानां ह्रोगेणामुपद्रवानाह ॥

S.S.Utt. 43/10.

Of Vataja, Pittaja, Kaphaja and Sannipatika Hridroga;

1. Giddiness.
2. Severe fatigue.
3. Feeble body elements.

Of Krimija Hridroga:

1. Hyper salivation.
2. Common cold.
3. Diseases of the head.
4. Generalized body edema.

10. After effects : Udarka

1. Intolerance of physical exertion.

2. Interrupted and Disturbed heart sounds.
3. Easy fatigability.
4. Miserable, depressed attitude.

11. Prognosis : Sadya asadhyatva

Heart is the most important organ of circulatory system and also is one of the three basic vital points of body hence all the types of Hridroga are always considered as incurable-Asadhyatva. Recent onset with minimal symptom presentation makes the disease controllable with continual medication – Yappa

12. Fatal symptoms: Arishta laxana

1. Development of Urdhva Shwasa and Chhinna Shwasa.
2. Grayish discoloration of the nails, eyes, urine and skin.
3. Cold extremities, synosis.
4. Severe uncontrolled pain in the chest.
5. Excessive sweating.

13. Dietary and behavioral regimen

13.1 Pathya

wholesome regimen:

1. Intake of light, easy to digest type of food, old rice thin gruel, sweet fruit juices.
2. Meat soup of wild animals, buttermilk, light nutritious diet.
3. Appropriate usage of ginger, paper, coriander etc.
4. Complete rest.

13.2 Apathya

unwholesome regimen:

1. Suppression of natural urges.
2. Intake of incompatible food. Intake hot, pungent, spicy type of food.
3. Mental stress, worry.
4. Physical exertion.
5. Indigestion, imbalanced diet,

...

Disease at a glance

- Nature Of Disease: Chronic
- Major Involving Dosha- Kapha, Pitta, Vata
- Major Involving Dushya- Rasa, Rakta
- Site Of Manifestation: Whole body.
- Srotas: Rasavaha Srotas
- Types- Different as per texts.
- Cardinal Feature: Oedema on body surface.

Prognosis

- Difficult to cure.

Diseases for differential diagnosis

1. Abhighata.
2. Vidradhi.
3. Gulma.
4. Pandu.
5. Udararoga
6. Hridroga.
7. Visarpa
8. Shleepada
9. Urustambha.

Reference reading

- Madhavnidana- Shotha- Chapter 36.
- Charak Samhita Chikitsasthan. Chapter 12.
- Charak Samhita Sutrasthan. Chapter 18.
- Ashtanga Hridaya Sharirasthan. Chapter 5.
- Ashtanga Hridaya Nidanasthan. Chapter 13.
- Vangasena-Chapter-22.
- Harita Samhita- Chapter- 25.
- Sanskrit- English dictionary -Apte Shabda-kosha.

1. Introduction

Ayurveda describes general or regional body swelling under the title of Shotha. It can be Sarvanga Shotha - occupying whole body or Ekanga Shotha: occupying specific portion of the body. It is a difficult disease for diagnosis and management. It may occur as an independent disease or as a complication to other serious diseases. Further detailed pathogenesis is described as Nidana Panchaka of Shotha in this chapter.

2. Definition : Paribhasha

उत्सेधं संहतं शोफं तमाहुः निचयादतः ।

A.H.Ni.13/21-23.

सर्वमुत्सेधं शोथमाहुः ।

M.Ni. Shotha-Chapter- 36/2.

The disease in which an unannounced elevation or mound on the skin is observed with a localized feeling of saturation is called as Shotha. 'Shopha' is the synonym. Generally oedema or the swelling of the body is considered as Shotha. This is a non serious disease condition of chronic nature.

3. Route of development : Marga

Bahya: Affliction of the disease is external.

4.1 Predisposing factors : Nidana

Causes for dosha dominant –Nija- type of Shotha

सामान्य हेतुः शोफानां दोषजानां विशेषतः ।
व्याधिकर्षोपवासदिक्षोणस्य भजतो द्रुतम् ॥
अतिमात्रमथान्यस्य गुर्वलस्मिधशीतलम् ।
लवणक्षारतीक्ष्णोष्णशाकाम्बु स्वपजागरम् ।
मूद्व ग्राम्यमांसवल्तूरपजीर्णश्रमैशुनाम् ॥
पदातेमार्गगमनं यानेन क्षोभिणाऽपि वा ।
श्वासकासातिसाराशौजठस्त्रदरज्वराः ॥
विषूच्यलसकच्छर्दिगर्भवीसर्पपाण्डवः ।
अन्ये च मिथ्योपक्रान्ता ।

A. H. Ni.- 13/24-28.

शुद्ध्यागमनस्तकृशाबलानां क्षयस्ततीक्ष्णोऽगुणस्यैवा।
दव्यामृच्छाकनिरोधिदुष्टगोपेष्टात्रनिवेगं च।
अर्शास्यवेद्या न च देहशुद्धिर्भोग्यातो विषभा प्रसृतिः।
सिञ्चोपचारः प्रतिकर्मणा च निजास्य हेतुः श्रययोः प्रदिष्टः॥
C.S.Ch. 12/5-6.

When a person, who is afflicted with some serious disease, who has become weak due to faulty applications of body purification procedures- Panchakarma or who has become weak due to long time starvation, accepts following causes:

1. Intake of food which is hard to digest, sour, unctuous, chilled, salty, of acidic or alkaline properties, sharp and hot.
2. Intake of food items which are with watery discharge [oozing], made up of unripe, immature grains.
3. Intake of food having opposite qualities.
4. Intake of contaminated or poisoned food, vegetables or water.
5. Imbalanced schedule of sleep and wakefulness.
6. Habitual consumption of soil.
7. Intake of dried meat or meat of animals residing at waterless, dry areas.
8. Excessive physical exertion during the state of indigestion.
9. Walking over a long distance.
10. Constant traveling in a shaky, jerking vehicle.
11. Injury to the vital points of the body.

These are the internal causative factors responsible to produce Nija Shotha.

Shotha may also occur as a serious complication to many other pathological conditions such as;

Vomiting- Chhardi, Delayed digestion- Alasaka, Cholera- Visuchika, Asthma- Shwasa, Cough- Kasa, Diarrhea- Atisara, Anaemia-

Pandu, Fever- Jwara, Ascites- Udara, Menorrhagia- Pradara, Fistula- Bhagandara, Haemorrhoides- Arsha, Leprosy- Kushtha., Skin rashes- itching-Kandu-Pidaka, Mis-carriage- Garbhapata, Dhatu kshaya- Diminution of basic body elements, Sutika Apachara- Misbehavior done by the mother during post natal stage.

4.2 Predisposing factors : Nidana : of Agantu Shotha

तत्रागन्तवच्छेदनभेदनभञ्जन-पिच्छनितेषण ग्रहारवधबन्धन-
वेष्टनमधनपीडनादिभिर्वा भल्लातकपुष्पफलरसात्पुनाशु-
कृमिशूकाहितपत्रलतागुल्मसंस्पर्शनैर्वास्वेदनपरिसर्पणाव-
भूतगैर्वा विषिणां सविषाविषप्राणिदंष्ट्रादन्तविषाणखनिपातैर्वा
सगरविषवातहिमदहनसंस्पर्शनिर्वाश शोथा समुपजायन्ते॥

C.S.Ch. 18/4 (commentary)

1. Cutting, stabbing, tearing, mincing, cracking, squeezing, pricking, churning etc. type of external injury to the body.
2. Contact with allergic substances like flower, fruit or juice of marking nut [Bibhitaka] Terminalia bellirica or Cow itch [Kapikachhu] Mucuna Prurines.
3. Contact with the roots, leaves or flowers of poisonous trees, shrubs and creepers.
4. Contacting or getting bitten by various poisonous types of insects.
5. Contact with urine or sweat of poisonous beasts or crawling of poisonous insects over the body.
6. Injury due to the bite of poisonous or non poisonous animals.
7. Prolonged contact with the icy cold winds over the sea shore or contact with fire.

These are external causative factors responsible to produce Agantu Shotha. Person who is specifically sensitive to any of above mentioned cause gets afflicted by Agantu Shotha.

5. Pathogenesis : Samprapti

बाह्याः सितः प्राप्य यदा कफासूक् पित्तानि संक्षयतीह वायुः।

तेर्बद्धमार्गः स तदा विसर्गयुत्सेधलिङ्गं श्रययुं करोति॥

उरस्थितैरुर्ध्वमधस्तु वायोः स्थानस्थितैर्मध्यगतैस्तुमध्ये।

सर्वाङ्गाः सर्वगतेः क्वचित्त्वैदेषैः क्वचित् स्याच्छ्रययु-
स्तदाख्यः॥

C.S.Ch. 12/8-9.

पित्तवत्कफानन्वायुर्दुष्टो दुष्टान् बहिःसितः।

नीत्वा रुद्धगतिस्तैर्हि कुर्यात्त्वङ्मांससंश्रयम्॥

उत्सेधं सहतं शोफं तमाहुर्निचयादतः। A. H. Ni.- 13/21.

मारुतः सर्व शोफानां गूलहेतुरुदाहृतः। Kashyapa Samhita.

दोषाः श्रययुर्मुख्यं हि कुर्वन्त्यामाशतस्थिताः।

पक्वाशयस्था मध्ये तु वर्चः स्थानगतास्त्वद्यः॥

कृत्स्नदेहमुनायाः कुरुः सर्वसरं तथा।

M.Ni. Shotha-Chapter- 36/15-16.

रसे सर्वनुमाः शोफाः सर्वदेहानुमाः रसाः।

Harita Samhita- Chapter- 25.

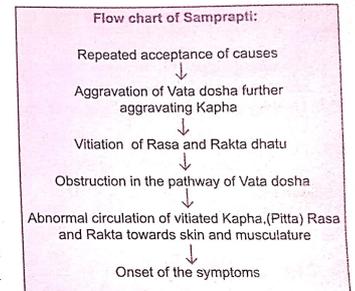
Vata dosha aggravates due to the acceptance of causes and further aggravate Kapha, Rasa and Rakta dhatu. Morbid action of Vata forces out Kapha and Rasa-Rakta towards external vessels of the body. Pathway of Vata gets obstructed itself again due to abnormal presence of these elements into the vessels. Protect Aggravated Vata, Rasa and Rakta irregularly circulate to take abnormal seat at the level of skin and musculature to produce an uneven mound on the skin which is termed as Shotha.

Mutravaha srotas mainly Vrikka is the site of presentation of pathogenesis of Shotha [Sanchara sthana].

Entire body or any localized area is the site of formation of pathogenesis of Shotha. [Udbhava sthana]

If dosha aggravation starts from Amashaya, Shotha develops at the upper portion of the body starting from mouth, if dosha

aggravation starts from the umbilicus, Shotha develops over the mid portion of the body and when dosha aggravation starts at Pakvashya, Shotha develops over the lower portion of the body starting from the feet. Rasa dhatu plays prime role of importance in the pathogenesis of Shotha because, formation and spread of disease is in accordance with abnormal Rasa dhatu.



Components of pathogenesis: Samprapti ghataka

- Dosha: Vata, Kapha, Pitta
- Dushya: Rasa, Rakta.
- Srotas: Rasavaha srotas.
- Adhithana: Twak-Mamsa- Skin & Musculature
- Srotodushhi: Sang, Vimarmagamana
- Swabhava: Chirakari.
- Agni dushhi: Jatharagni, Rasa agni and Rakta agni- Agnimandya

6. Premonitory features : Purvaroopo

उष्ण तथा स्याद्वन्धुः सिराणामायाम इत्येव च पूर्वरूपम्।

C.S.Ch. 12/10.

सिरायामः सिराप्रसरणवत् पीडा।

M.Ni. Shotha-Chapter- 36/17-20.

1. Body warmth.
2. Sensation of burning.
3. Sensation of stretching or pulling of the vessels.
4. Pain in the body.
5. Heaviness in the body.

7. Clinical features : Roopa

समौत्वं स्यादनवस्थितत्वं सोलेयनूलाऽथ शिरानतुल्यम् ।
सन्तोमहर्षोऽह्विकर्णता च सामान्यलिङ्गं ध्वयो प्रदिष्टम् ॥
C.S.Ch. 12/11.

1. Spreading type of oedema over the affected parts of the body.
2. Uneven elevation or swelling over the skin.
3. Heaviness in the body.
4. Abnormal warmth of the affected portion.
5. Horripilation.
6. Discoloration of skin.

8. Types : Prakara

दोषैः प्रयुद्धैः सर्वैरभिघाताद्विधादि ।

M.Ni. Shotha-Chapter- 36- 36/3.

त्रिविधो निजश्च सर्वार्थपात्राववाश्रितत्वात् । C.S.Ch. 12/3.

त्रयः शोथा भवन्ति वातपित्तश्लेष्मनिमित्ताः ते पुनर्द्विधा
निजागन्तुभेदेन । C.S.Su. 18/3.

एवं प्रकृतिभिस्तापामभिधमानो द्विविधस्त्रिविधश्चतु
र्विधः सप्तविधोऽष्टविधश्च शोफ उपलभ्यते पुनश्चैक
एवोत्प्रेषयामान्यादिति । C.S.Su. 18/15.

द्विधा वा निजयागंतु सर्वापैकाङ्गं च तम् ।

A.H.
Ni- 13/23.

Types of Shotha according to various texts:

Madhavnidana: 09

1. Single dosha dominant Shotha -03
2. Two dosha dominant Shotha - 03
3. Three dosha dominant Shotha -01
4. Abhigataja Shotha -01
5. Vishaja Shotha - 01

Charaka Samhita: 07

1. Single dosha dominant Shotha -03
2. As per cause difference: Nija Shotha and Aagantu Shotha -02
3. As per location difference: Sarvangaja Shotha occupying whole body- (Generalised) and Ardhangaja Shotha -occupying half the body(Localised) -02

Kashyapa Samhita:05

1. Vataja shotha.
2. Pittaja shotha.
3. Kaphaja shotha.
4. Saniipatika shotha.
5. Aagantu shotha.

8.1 Vataja Shotha

चलस्तनुत्वम्परुषोऽरुणोसितः प्रसुप्तिहर्षोर्तिसुतोऽनिमित्त
तः ।

प्रशाम्यति श्रोत्रमति प्रपीडितो दिवावली च स्वययुः
समीरणात् ॥ C.S.Ch. 12/12.

1. Thin, fast spreading type of oedema.
2. Rough, coarse feel of the affected area.
3. Greyish discoloration of skin.
4. Contractures of the affected part.
5. Pricking, throbbing, tearing type of pain with loss of sensation and / or pulsation at the affected site.
6. Increase and decrease in the symptoms is spontaneous and irregular.
7. Depression caused at affected site by application of pressure fills up rapidly and the surface becomes even.
8. Sensation of burning.
9. Swelling increases during the day time and subsides at night time. Many a times increase and decrease of the swelling is causeless.
10. Swelling reduces with hot and unctous applications.
11. As the site of initiation of Vataja Shotha

is Pakvashaya, the onset of the swelling is from legs and spreads all over the body over the course of time.

8.2 Pittaja Shotha

युद्धः सगन्धोऽसितपीतगवान् ध्रमज्वरस्वेदतृषामदान्चित्तेः ।
य उष्यते स्पर्शरुशिरामकृत् स पित्तशोयो भृशदाहपाकवान् ॥
C.S.Ch. 12/16.

1. Edema is of yellowish red color.
2. Generally starts from the middle portion of the body and spreads very fast.
3. Feel of the skin is very soft and warm with tenderness at affected ara.
4. Sensation of burning.
5. Body smell is particularly strong and pungent.
6. Suppuration of affected part.
7. Patient desires for cold things [cold water, chilled food etc.]
8. General features are red eyes, giddiness, fever, sweating, thirst, sensation of burning, and loose motions.

8.3 Kaphaja Shotha

गुरुः स्थिरः पाण्डुरोचकान्चितः प्रसेकनिद्रावमि-
वह्निमान्यकृत् । स कृच्छ्रजन्मप्रशमो निषिद्धितो न
चोन्नम्रेन्नत्रिवली कफालकः ॥ C.S.Ch. 12/14.

1. Swelling is stable, non moving, of pale, whitish color.
2. Associated with insipid mouth, hyper salivation.
3. Drowsiness.
4. Diminished power of digestive fire.
5. Pitting on pressure with delayed normalization.
6. Oedema becomes severe at night.
7. Secretion of bloody viscous discharge on injury.
8. Desire for hot (surface or weather)

8.4 Dwandwaja Shotha: Sannipatika Shotha

निदानाकृतिसंस्पर्शच्छ्वययुः स्याद्विदोषजः ।
सर्वाकृतिः सन्निपाताच्छोयो व्यामिश्रलक्षणः ॥
C.S.Su.18/10.

Dwandwaja Shotha is a type caused due to dominance of two dosha. It displays mixture of Symptoms of two dosha which are involved in the pathogenesis.

Shotha caused due to involvement of all the three dosha displays mixture of all the symptoms of all the three dosha.

8.5 Agantuja Shotha

1. ABHIGATAJA SHOTHA

अभिघातेन शस्त्रादिच्छेद-भेद-क्षतादिभिः ।
हिमानिलोदध्यनिलेर्भल्लात-कपिकच्छुजेः ॥
रसैः शुक्रैश्च संस्पर्शच्छ्वययुः स्याद्विसर्पवान् ।
भृशोष्मा लोहितभासः प्रावशः पित्तलक्षणः ॥
A.H.Ni. 13/38-39.

2. VISHAJA SHOTHA

विषजः सविषप्राणिपरिसर्पणमूर्त्नणात् ।
दंष्ट्रा दंतनखाघाताद् विषप्राणिनामपि ॥
विष्मूत्रं शुक्रोपहतमलवद्वस्त्रसङ्घरात् ।
विषवृक्षानिलसर्शाद्वयोमावर्चनानात् ॥
मृदुध्रलोऽवलम्बी च शीघ्रो दाहरुजाकरः ।
A.H.Ni. 13/40-41.

1. Fast development of oedema.
2. Feel at affected site Warm.
3. Oedema is of reddish colour.
4. Fast spreading type of oedema
5. Symptoms resemble to Pittaja Shotha
6. Oedema is soft to touch and slackened in nature.
7. Develops very speedily.
8. Oedema is associated with severe pain and sensation of burning.

9. Aama awastha of Shotha

Vangasena explains Aama awastha of Shotha:

कुशयो हृदयगुहिलस्रज्ज्वररोगोदेः।
दोषप्रवृत्तिर्नो यत्र व्याधिमानान्वितं वदेत् ॥

Vangasena-Chapter-22.

Symptoms

1. Loss of appetite.
2. Restless, upset feeling (in heart)
3. Lassitude.
4. Heaviness in stomach.
5. Retention of urine, sweat etc.

10 Complications : Upadrava

हृदि श्वातोऽश्चित्कृणां ज्वरोऽतीसार एव च।
रूपकोऽयं स्रोतव्यं शोफोपद्रवसंग्रहः ॥ C.S.Su. 18/15

1. Vomiting.
2. Dyspnoea.
3. Insipid mouth.
4. Thirst.
5. Fever.
6. Loose motions.
7. Fatigue- general weakness.

11. Prognosis: Sadyasadyatva

यो मध्यदेशे श्वयुः स कठः सर्वपथ्यः।
अर्धाङ्गिः रिष्टभूतः स्यात्प्रोक्ष्यं परिसर्पति ॥
श्यासः पिपासा हृदिश्च दोर्बल्यं ज्वरं एव च।
यस्य चात्रे रुचिर्नास्ति श्वयुः तं विवर्जयेत् ॥
अनन्योपद्रवकृतः शोथः पादसमुत्थितः।
पुरुषं हन्ति नारीं च मुखजो सुव्यजो द्वयम् ॥
नवोऽनुपद्रवः शोथः सान्ध्योऽसाध्यः पुरितः।
विवर्जयेत्कुस्युदराश्रितं तथा गले मर्मणि संश्रितं च ॥
स्थूलः खरश्चापि भवेद्विषय्यो यथापि बालस्थविरावलानां।

M.Ni. Shotha-Chapter- 36/17-20.

कुशस्य रोमैरवलस्य या भवेदुपद्रवैर्वा वभिपूर्वं कैर्युतः।
स हन्ति मर्मनुगतोऽयं राजिमान् परिस्रवेद्धीन बलस्य
सक्तीः ॥

C.S.Ch. 12/15.

1. Curable: Sadya type of Shotha: Shotha which is newly formed and is without complications.

2. Difficult to cure: Kashtasadhya:

Shotha which starts at middle part of the body and spreads allover the body.

Shotha which forms on the lower abdomen and then spreads to upper part of the body.

3. Incurable : Asadhya type of Shotha:

Shotha which has developed complications like, dyspnoea, thirst, vomiting, Fatigue, fever, loathing of food is incurable.

In a male patient, Shotha started from legs and spreading over rest of the body and in a female patient, Shotha developed over face and spreading to rest of the body becomes incurable.

Shotha formed as a complication to kidney disease is incurable.

Shotha developed in a weak patient, which is associated with complications like vomiting and which has occupied the vital points (Marma) and which has developed lines on its surface, becomes incurable.

Shotha which has developed on flanks, abdomen and throat becomes incurable.

Severe Shotha developed in very young or very old patients, which is hard to touch is incurable.

12 Fatal symptoms : Arishta laxana

तद्भ्रादाहरुचिच्छर्दिमूर्च्छाध्मानातिसारवान्।
अनेकोपद्रवयुतः पादाभ्यां प्रसृतो नरम् ॥
नारीं शोफो सुखाद्धन्ति कुक्षिगुह्यादिभावपि।
राजीचितः सर्वशर्दिज्वरश्चासातिसारिणम् ॥

A. H. Sh. 5/92-93.

ज्वरातिसारी शोफान्ते श्वयुधुर्वा तयोः क्षये।
दुर्बलस्य विशेषेण जायन्तेऽन्ताय देहिनः ॥

A. H. Sh. 5/94.

श्वयर्थुस्य पादस्थः परिस्रस्ते च पिण्डिके।
सीदतः सन्धिनी चैव तं भिषक् परिवर्जयेत् ॥

A. H. Sh. 5/95.

आननं हस्तपादं च विशेषाद्यस्य शुष्यतः।
शूयते वा विना देहात्स मासाद्यति पाद्यताम् ॥

A. H. Sh.- 5/96.

1. Lassitude .
2. Sensation of burning.
3. Insipid mouth.
4. Vomiting.
5. Abdominal distension.
6. Loose motions.
7. Edema which is associated with many complications.
8. Edema developed on legs and spreading allover the body- in male patients.
9. Edema developed on the face and spreading allover the body- in female patient, which occupies the flanks and external female genital organs.
10. Oedema which has formed lines on it and is with with secretions.
11. Which is associated with complications like fever, loose motions, and the patient has become extremely weak.
12. Patient who has developed edema on legs, due to which thighs and calf muscles become extremely weak (as if slacken off from their place) shall be rejected by the physician (for treatment) .
13. Patient who has developed severe edema allover the body but who's hands, legs and face is severely emaciated, dies within a month.

13. After effects: Udarka

1. Shosha- Depletion of basic body elements.
2. Emaciation of body.
3. Insipid mouth.
4. Diarrhea.
5. Fatigue.
6. Thirst.
7. Hiccup.
8. Cough.
9. Fever- Varabalasaka Jwara.

14. Dietary and behavioral regimen

14.1 Pathya

wholesome regimen:

1. Intake of milk, butter milk, pearl millet, garlic, horse gram, old barley and rice .
2. Rest- Evasion physical exercise.

14.2 Apathhya

unwholesome regimen:

1. Intake of meat of animals residing at marshy lands..
2. Intake of salt, dried vegetables, new grains, liquor – Gauda, starchy food, curds, sour food contents, sprouts, roasted grains, dried meat.
3. Intake of incompatible food.
4. Intake of hard to digest, food unlike by the self, acidic type of food.

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1. Definition

Anemia or anaemia also spelled anæmia is usually defined as a decrease in the amount of red blood cells (RBCs) or hemoglobin in the blood. It can also be defined as a lowered ability of the blood to carry oxygen. Anemia is the most common disorder of the blood with it affecting about a quarter of people globally. The name is derived from Ancient Greek: anæmia, meaning "lack of blood"

2. Symptoms

Anemia goes undetected in many people, and symptoms can be minor or vague. The signs and symptoms can be related to the underlying cause or the anemia itself.

1. Most common symptoms:
2. Weakness.
3. Fatigue.
4. General malaise.
5. Poor concentration.
6. Dyspnea on exertion.
7. In very severe cases.
8. Palpitations
9. Angina
10. Intermittent claudication of the legs
11. Symptoms of heart failure.
Symptoms on examination:
12. Pallor - pale skin, lining mucosa, conjunctiva and nail beds, but this is not a reliable sign. There may be signs of specific causes of anemia.
13. Koilonychia.
14. Jaundice.
15. Bone deformities -found in thalassemia major.

16. Leg ulcers -seen in sickle-cell disease.
17. In severe anemia- there may be signs of a hyperdynamic circulation: tachycardia, bounding pulse, flow murmurs, and cardiac ventricular hypertrophy.
18. Heart failure.
19. Consumption of non-food items such as ice, but also paper, wax, or grass, and even hair or dirt, may be a symptom of iron deficiency, although it occurs often in those who have normal levels of hemoglobin. Chronic anemia may result in behavioral disturbances in children as a direct result of impaired neurological development in infants, and reduced scholastic performance in children of school age.
20. Restless legs syndrome is more common in those with iron-deficiency anemia.

3. Predisposing Factors**1. Impaired red blood cell (RBC) production**—Disturbance of proliferation and differentiation of stem cells due to;

- a. Pure red cell aplasia
- b. Aplastic anemia affects all kinds of blood cells.
- c. Fanconi anemia - hereditary disorder or defect featuring aplastic anemia and various other abnormalities.
- d. Anemia of renal failure- due to insufficient erythropoietin production.
- e. Anemia of endocrine disorders
- f. Disturbance of proliferation and maturation of erythroblasts.
- g. Pernicious anemia-is a form of megaloblastic anemia due

- to vitamin B₁₂ deficiency dependent on impaired absorption of vitamin B₁₂. Lack of dietary B₁₂ causes non-pernicious megaloblastic anemia
- h. Anemia of folic acid deficiency-causes megaloblastic anemia
- i. Anemia of prematurity-by diminished erythropoietin response to declining hematocrit levels, combined with blood loss from laboratory testing, generally occurs in premature infants at two to six weeks of age.
- j. Iron deficiency anemia- resulting in deficient heme synthesis
- k. Thalassemias- causing deficient globin synthesis
 1. Congenital dyserythropoietic anemias, causing ineffective erythropoiesis
 - m. Anemia of renal failure

2. Increased RBC destruction (hemolytic anemias) -**A. Intrinsic (intracorporeal) abnormalities**—cause premature destruction. All of these, except paroxysmal nocturnal hemoglobinuria, are hereditary genetic disorders.

- i. Hereditary spherocytosis is a hereditary defect that results in defects in the RBC cell membrane, causing the erythrocytes to be sequestered and destroyed by the spleen.
- ii. Hereditary elliptocytosis is another defect in membrane skeleton proteins.
- iii. Abetalipoproteinemia causing defects in membrane lipids
- iv. Enzyme deficiencies like Pyruvate kinase or hexokinase deficiencies
- v. Hemoglobinopathies
- vi. Sickle cell anemia

B. Extrinsic (extracorporeal) abnormalities

- vii. Paroxysmal nocturnal hemoglobinuria
- i. Antibody-mediated anemia.
- ii. Warm autoimmune hemolytic anemia is caused by autoimmune attack against red blood cells, primarily by IgG. It is the most common of the autoimmune hemolytic diseases. It can be idiopathic, that is, without any known cause, drug-associated or secondary to another disease such as systemic lupus erythematosus, or a malignancy, such as chronic lymphocytic leukemia.
- iii. Cold agglutinin hemolytic anemia is primarily mediated by IgM. It can be idiopathic or result from an underlying condition.
- iv. Rh disease- one of the causes of hemolytic disease of the newborn
- v. Transfusion reaction to blood transfusions

C. Mechanical trauma to red cells

- i. Microangiopathic hemolytic anemias, including thrombotic thrombocytopenic purpura and disseminated intravascular coagulation
- ii. Infections, including malaria
- iii. Heart surgery
- iv. Haemodialysis

3. Blood loss and fluid overload (hypervolemia) - loss of blood due to;

- i. Anemia of prematurity from frequent blood sampling for laboratory testing, combined with insufficient RBC production

- ii. Trauma or surgery, causing acute blood loss.
- iii. Gastrointestinal tract lesions, causing either acute bleeds (e.g. variceal lesions, peptic ulcers or chronic blood loss (e.g. angiodysplasia).
- iv. Gynecologic disturbances, also generally causing chronic blood loss.
- v. From menstruation, mostly among young women or older women who have fibroids.
- vi. Infection by intestinal nematodes feeding on blood, such as hookworms and the whipworm *Trichuris trichiura*.

4. **Fluid overload:** Fluid overload (hypervolemia) causes decreased hemoglobin concentration and apparent anemia.

- i. General causes of hypervolemia include excessive sodium or fluid intake, sodium or water retention and fluid shift into the intravascular space.
- ii. Anemia of pregnancy is induced by blood volume expansion experienced in pregnancy.

4. Diagnosis

- i. Complete blood count- rbc count, hemoglobin concentration, MCV, hematocrit, MCH and MCHC
- ii. Flow cytometry which is an important tool in distinguishing between the causes of anemia. Examination of a stained blood smear using a microscope where automated analysis is unavailable.
- iii. Reticulocyte count.
- iv. Evaluation of erythropoiesis.
- v. Other tests: est, ferritin, serum iron, transferrin, RBC folate level,

serum vitamin B₁₂, hemoglobin electrophoresis, renal function tests.

5. Classification

Iron deficiency anemia is the most common type of anemia and it has many causes. RBCs often appear hypochromic (paler than usual) and microcytic (smaller than usual) when viewed with a microscope.

1. **Iron deficiency anemia:** is caused due to insufficient dietary intake or absorption of iron to meet the body's needs. Infants, toddlers, and pregnant women have higher than average needs. Increased iron intake is also needed to offset blood losses due to digestive tract issues, frequent blood donations, or heavy menstrual periods. Iron is an essential part of hemoglobin, and low iron levels result in decreased incorporation of hemoglobin into red blood cells. Iron deficiency is the most prevalent deficiency state on a worldwide basis. It is sometimes the cause of abnormal fissuring of the angular (corner) sections of the lips - **angular stomatitis**.

Worldwide, the most common cause of iron deficiency anemia is parasitic infestation hookworms, amebiasis, schistosomiasis and whipworms.

2. **Megaloblastic anemia:** it is the most common cause of macrocytic anemia, is due to a deficiency of either vitamin B₁₂, folic acid, or both. Deficiency in folate and/or vitamin B₁₂ can be due either to inadequate intake or insufficient absorption. Folate deficiency normally does not produce neurological symptoms, while B₁₂ deficiency does.

3. **Pernicious anemia:** It is caused by a lack of intrinsic factor, which is required

to absorb vitamin B₁₂ from food. A lack of intrinsic factor may arise from an autoimmune condition targeting the parietal cells (atrophic gastritis) that produce intrinsic factor or against intrinsic factor itself. These lead to poor absorption of vitamin B₁₂.

- 4. **Macrocytic anemia:** It can be caused by removal of the functional portion of the stomach, such as during gastric bypass surgery, leading to reduced vitamin B₁₂ folate absorption. Therefore, one must always be aware of anemia following this procedure. Other causes include, Hypothyroidism and Alcoholism
- 5. Macrocytic anemia can be further divided into "megaloblastic anemia" or "nonmegaloblastic macrocytic anemia". The cause of megaloblastic anemia is primarily a failure of DNA synthesis with preserved RNA synthesis, which results in restricted cell division of the progenitor cells. The megaloblastic anemias often present with neutrophil hypersegmentation.

The nonmegaloblastic macrocytic anemias have different etiologies (i.e. unimpaired DNA globin synthesis,) which occur, for example, in alcoholism. In addition to the nonspecific symptoms of anemia, specific features of vitamin B₁₂ deficiency include peripheral neuropathy and subacute combined degeneration of the cord with resulting balance difficulties from posterior column spinal cord pathology. Other features may include a smooth, red tongue and glossitis.

- 6. **Normocytic anemia:** It occurs when the overall hemoglobin levels are decreased, but the red blood cell size (mean corpuscular volume) remains normal.

Predisposing Factors

- 1. Acute blood loss
- 2. Anemia of chronic disease
- 3. Aplastic anemia (bone marrow failure)
- 4. Hemolytic anemia
- 7. **Diamorphic anemia:** A dimorphic appearance on a peripheral blood smear occurs when there are two simultaneous populations of red blood cells, typically of different size and hemoglobin content affecting the color of the red blood cell on a stained peripheral blood smear.
- 8. **Heinz body anemia:** Heinz bodies form in the cytoplasm of RBCs and appear as small dark dots under the microscope. Heinz body anemia has many causes, and some forms can be drug-induced. It is triggered in cats by eating onions or paracetamol. It can be triggered in dogs by ingesting onions or zinc, and in horses by ingesting dry red maple leaves.
- 9. **Hyper Anemia:** Hyperanemia is a severe form of anemia, in which the hematocrit is below 10%.
- 10. **Refractory anemia:** Refractory anemia, an anemia which does not respond to treatment, is often seen secondary to myelodysplastic syndromes. Iron deficiency anemia may also be refractory as a clinical manifestation of gastrointestinal problems which disrupt iron absorption or cause occult bleeding.

1. Definition

Rheumatic fever, also known as acute rheumatic fever (ARF), is an inflammatory disease that can involve the heart, joints, skin, and brain. The disease typically develops two to four weeks after a throat infection. General signs and symptoms include fever, multiple painful joints, involuntary muscle movements, and a characteristic but uncommon non itchy rash known as erythema marginatum. The heart is involved in about half of cases. Permanent damage to the heart valves, known as rheumatic heart disease (RHD), usually occurs after multiple attacks but may occasionally occur after a single case of ARF. The damaged valves may result in heart failure. The abnormal valves also increase the risk of the person developing atrial fibrillation and infection of the valves.

Acute rheumatic fever may occur following an infection of the throat by the bacteria *Streptococcus pyogenes*. If untreated, ARF occurs in up to three percent of people. The underlying mechanism is believed to involve the production of antibody against a person's own tissues. Some people due to their genetics are more likely to get the disease when exposed to the bacteria. Other risk factors include malnutrition and poverty. Diagnosis of ARF is often based on the presence of signs and symptoms in combination with evidence of a recent streptococcal infection.

Treating people who have sore throat with antibiotics, such as penicillin, decreases their risk of getting ARF. This often involves

testing people with sore throats for the infection, which may not be available in the developing world. Other preventative measures include improved sanitation. In those with ARF and RHD prolonged periods of antibiotics are sometimes recommended. Gradual return to normal activities may occur following an attack. Once RHD develops, treatment is more difficult. Occasionally valve replacement surgery or repair is required. Otherwise complications are treated as per normal.

2. Signs and symptoms

The disease typically develops two to four weeks after a throat infection fever,

1. Multiple painful joints,
2. Involuntary muscle movements,
3. Characteristic but uncommon non itchy rash known as erythema marginatum.
4. The heart is involved in about half of cases. Permanent damage to the heart valves usually only occurs after multiple attacks but may occasionally occur after a single case of ARF. The damaged valves may result in heart failure. The abnormal valves also increase the risk of the person developing atrial fibrillation and infection of the valves.
5. Abdominal pain.
6. Nose bleeds.

3. Pathophysiology

Rheumatic fever is a systemic disease affecting the peri-arteriolar connective tissue and can occur after an untreated Group A Beta hemolytic streptococcal pharyngeal

infection. It is believed to be caused by antibody cross-reactivity. This cross-reactivity is a Type II hypersensitivity reaction and is termed molecular mimicry. Usually, self reactive B cells remain anergic in the periphery without T cell co-stimulation. During a *Streptococcus* infection, mature antigen presenting cells such as B cells present the bacterial antigen to CD4-T cells which differentiate into helper T2 cells. Helper T2 cells subsequently activate the B cells to become plasma cells and induce the production of antibodies against the cell wall of *Streptococcus*. However the antibodies may also react against the myocardium and joints, producing the symptoms of rheumatic fever.

In acute rheumatic fever, these lesions can be found in any layer of the heart and is hence called pancarditis. The inflammation may cause a serofibrinous pericardial exudate described as "bread-and-butter" pericarditis, which usually resolves without sequelae. Involvement of the endocardium typically results in fibrinoid necrosis and verrucal formation along the lines of closure of the left-sided heart valves. Warty projections arise from the deposition, while subendocardial lesions may induce irregular thickenings called MacCallum plaques.

4. Chronic rheumatic heart disease

(RHD) it is characterized by repeated inflammation with fibrinous repair. The cardinal anatomic changes of the valve include leaflet thickening, commissural fusion, and shortening and thickening of the tendinous cords. It is caused by an autoimmune reaction to Group A β -hemolytic streptococci (GAS) that results in valvular damage. Fibrosis and scarring of

valve leaflets, commissures and cusps leads to abnormalities that can result in valve stenosis or regurgitation. The inflammation caused by rheumatic fever, usually during childhood, is referred to as rheumatic valvulitis. About half of patients with acute rheumatic fever develop inflammation involving valvular endothelium. The majority of morbidity and mortality associated with rheumatic fever is caused by its destructive effects on cardiac valve tissue. The pathogenesis of RHD is complex and not fully understood, but it is known to involve molecular mimicry and genetic predisposition that lead to autoimmune reactions.

5. Major criteria

- a. Polyarthritis: A temporary migrating inflammation of the large joints, usually starting in the legs and migrating upwards.
- b. Carditis: Inflammation of the heart muscle (myocarditis) which can manifest as congestive heart failure with shortness of breath, pericarditis with a rub, or a new heart murmur.
- c. Subcutaneous nodules: Painless, firm collections of collagen fibers over bones or tendons. They commonly appear on the back of the wrist, the outside elbow, and the front of the knees.
- d. Erythema marginatum: A long-lasting reddish rash that begins on the trunk or arms as macules, which spread outward and clear in the middle to form rings, which continue to spread and coalesce with other rings, ultimately taking on a snake-like appearance. This rash typically spares the face and is made worse with heat.

- c. Sydenham's chorea (St. Vitus' dance): A characteristic series of rapid movements without purpose of the face and arms. This can occur very late in the disease for at least three months from onset of infection.
- 6. Minor criteria**
- Fever of 38.2–38.9 °C (100.8–102.0 °F)
 - Arthralgia: Joint pain without swelling
- (Cannot be included if polyarthritis is present as a major symptom)
- Raised erythrocyte sedimentation rate or C reactive protein
 - Leukocytosis
 - ECG showing features of heart block, such as a prolonged PR interval (Cannot be included if carditis is present as a major symptom)
 - Previous episode of rheumatic fever or inactive heart disease

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1. Introduction

Rheumatoid arthritis (RA) is a long lasting autoimmune disorder that primarily affects joints. It typically results in warm, swollen, and painful joints. Pain and stiffness often worsen following rest. Most commonly, the wrist and hands are involved, with the same joints typically involved on both sides of the body. The disease may also affect other parts of the body. This may result in a low red blood cell count, inflammation around the lungs, and inflammation around the heart. Fever and low energy may also be present. Often, symptoms come on gradually over weeks to months.

While the cause of rheumatoid arthritis is not clear, it is believed to involve a combination of genetic and environmental factors. Vitamin D deficiency also may be taken as a cause for development of RA. The underlying mechanism involves the body's immune system attacking the joints. This results in inflammation and thickening of the joint capsule. It also affects the underlying bone and cartilage. The diagnosis is made mostly on the basis of a person's signs and symptoms. X-rays and laboratory testing may support a diagnosis or exclude other diseases with similar symptoms. Other diseases that may present similarly include systemic lupus erythematosus, psoriatic arthritis, and fibromyalgia among others.

2. Symptoms

- Inflammation of the synovial membrane- Joints become swollen, tender and warm,

and stiffness limits their movement. With time, multiple joints are affected. It starts with the hands, feet and cervical spine, but larger joints like the shoulder and knee can also be involved.

- Loss of movement, erosion of the joint surface, deformity and loss of function.
- Typical signs of inflammation are developed- affected joints being swollen, warm, painful and stiff, particularly early in the morning on waking or following prolonged inactivity. Increased stiffness early in the morning is often a prominent feature of the disease and typically lasts for more than an hour. Gentle movements may relieve symptoms in early stages of the disease. These signs help distinguish rheumatoid from non-inflammatory problems of the joints, often referred to as osteoarthritis. In arthritis of non-inflammatory causes, signs of inflammation and early morning stiffness are less prominent with stiffness typically less than one hour, and movements induce pain caused by mechanical arthritis. The pain associated with RA is induced at the site of inflammation and classified as nociceptive as opposed to neuropathic. The joints are often affected in a fairly symmetrical fashion, although this is not specific, and the initial presentation may be asymmetrical.
- Formation of rheumatoid nodule on the skin known as "necrotizing granuloma". Vasculitis of many forms- A benign form

occurs as microinfarcts around the nailfolds. More severe forms include reticularis, which is a network (reticulum) of erythematous to purplish discoloration of the skin caused by the presence of an obliterative cutaneous capillaropathy. Other types of skin involvement are pyoderma gangrenosum, Sweet's syndrome, drug reactions, erythema nodosum, lobe panniculitis, atrophy of finger skin, palmar erythema, diffuse thinning (rice paper skin), and skin fragility

5. Fibrosis of the lungs.

6. Kidneys- Renal amyloidosis can occur as a consequence of chronic inflammation.

7. Heart and blood vessels- People with RA are more prone to atherosclerosis, and risk of myocardial infarction (heart attack) and stroke is markedly increased. Other possible complications that may arise include: pericarditis, endocarditis, left ventricular failure, valvulitis and fibrosis.

8. Eyes-

The eye is directly affected in the form of episcleritis which when severe can very rarely progress to perforating scleromalacia.

9. Liver- Liver problems in people with rheumatoid arthritis may be due to the underlying disease process or as a result of the medications used to treat the disease.

10. Blood- Anemia is by far the most common abnormality of the blood cells which can be caused by a variety of mechanisms.

11. Nerves- Peripheral neuropathy and mononeuritis multiplex.

12. Constitutional symptoms- fatigue, low grade fever, malaise, morning stiffness, loss

of appetite and loss of weight, local osteoporosis.

3. Diagnosis

1. X-ray imaging of affected joints.
2. Examination of synovial fluid from affected joint.
3. MRI scanning.
4. Ultrasonography of the affected joint.
5. Blood tests- RA test.

4. Classification as per joint involvement

joint involvement, designating the metacarpophalangeal joints, proximal interphalangeal joints, the interphalangeal joint of the thumb, second through fifth metatarsophalangeal joint and wrist as small joints, and shoulders, elbows, hip joints, knees, and ankles as large joints:

1. Involvement of 1 large joint gives 0 points
2. Involvement of 2-10 large joints gives 1 point
3. Involvement of 1-3 small joints (with or without involvement of large joints) gives 2 points
4. Involvement of 4-10 small joints (with or without involvement of large joints) gives 3 points
5. Involvement of more than 10 joints (with involvement of at least 1 small joint) gives 5 points

5. Classification as per serological parameters

1. Negative RF and negative ACPA gives 0 points
2. Low-positive RF or low-positive ACPA gives 2 points

3. High-positive RF or high-positive ACPA gives 3 points

RA. A negative autoantibody result does not exclude a diagnosis of RA.

6. Classification as per observation in clinical practice

1. Two or more swollen joints
2. Morning stiffness lasting more than one hour for at least six weeks
3. The detection of rheumatoid factors or autoantibodies against ACPA such as autoantibodies to mutated citrullinated vimentin can confirm the suspicion of

7. Differential diagnosis

1. Gout.
2. Osteo arthritis.
3. Systemic lupus erythematosus (SLE)
4. Lyme disease
5. Reactive arthritis
6. Ankylosing spondylitis
7. Hepatitis C

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1. Definition

Hypertension (HTN or HT), also known as high blood pressure or arterial hypertension, is a chronic medical condition in which the blood pressure in the arteries is elevated. Blood pressure is expressed by two measurements, the systolic and diastolic pressures, which are the maximum and minimum pressures, respectively, in the arterial system. The systolic pressure occurs when the left ventricle is most contracted; the diastolic pressure occurs when the left ventricle is most relaxed prior to the next contraction. Normal blood pressure at rest is within the range of 100–140 mmHg systolic and 60–90 mmHg diastolic. Hypertension is present if the blood pressure is persistently at or above 140/90 millimeters mercury (mmHg) for most adults, different criteria apply to children.

Hypertension usually does not cause symptoms initially, but sustained hypertension over time is a major risk factor for hypertensive heart disease, coronary artery disease, stroke, aortic aneurysm, peripheral artery disease, and chronic kidney disease.

Hypertension is classified as either primary (essential) hypertension or secondary hypertension. About 90–95% of cases are categorized as primary hypertension, defined as high blood pressure with no obvious underlying cause. The remaining 5–10% of cases are categorized as secondary hypertension, defined as hypertension due to an identifiable cause, such as chronic

kidney disease, narrowing of the aorta or kidney arteries, or an endocrine disorder such as excess aldosterone, cortisol, or catecholamines.

Dietary and lifestyle changes can improve blood pressure control and decrease the risk of health complications, although treatment with medication is still often necessary in people for whom lifestyle changes are not enough or not effective. The treatment of moderately high arterial blood pressure (defined as >160/100 mmHg) with medications is associated with an improved life expectancy. The benefits of treatment of blood pressure that is between 140/90 mmHg and 160/100 mmHg are less clear, with some reviews finding no benefit and other reviews finding benefit.

2. Causes : Primary hypertension

1. Genetic structure: Hypertension results from a complex interaction of genes and environmental factors. Numerous common genetic variants with small effects on blood pressure have been identified as well as some rare genetic variants with large effects on blood pressure, but the genetic basis of hypertension is still poorly understood.
2. Age factor: Blood pressure rises with aging and the risk of becoming hypertensive in later life is considerable.
3. Environment: Several environmental factors influence blood pressure.
4. Diet: High salt intake raises the blood pressure in salt sensitive individuals, excessive alcohol consumption.

5. Life style: lack of exercise, obesity, stress, and depression can play a role in individual cases.
6. Early life events: Such as low birth weight, maternal smoking, and lack of breast feeding may be risk factors for adult essential hypertension, although the mechanisms linking these exposures to adult hypertension remain unclear.

Secondary hypertension: Secondary hypertension results from an identifiable cause.

1. Kidney disease : The most common secondary cause of hypertension. Hypertension can also be due to endocrine conditions: Cushing's syndrome, hyperthyroidism, hypothyroidism, acromegaly, Conn's syndrome or hyperaldosteronism, hyperparathyroidism and pheochromocytoma.
2. Obesity
3. Sleep apnea
4. Pregnancy
5. Coarctation of the aorta
6. As a side effect of certain prescription medicines, herbal remedies and illegal drugs.

3. Symptoms

Symptoms of primary hypertension are rarely accompanied by any symptoms and its identification is usually through screening, or when seeking healthcare for an unrelated problem.

Some common symptoms include;

1. Headaches -particularly at the back of the head and in the morning.
2. Lightheadedness .
3. Vertigo.
4. Tinnitus -buzzing or hissing in the ears.
5. Altered vision
6. Fainting episodes.

These symptoms, however, might be related to associated anxiety rather than the high blood pressure itself.

Symptoms of Secondary hypertension: Hypertension due to associated disease is called as Secondary hypertension. Symptoms of secondary hypertension with certain specific additional signs and symptoms may suggest secondary hypertension, i.e. hypertension due to an identifiable cause.

4. Examples

1. Cushing's syndrome frequently causes truncal obesity, glucose intolerance, moon face, a hump of fat behind the neck/shoulder, and purple abdominal stretch marks.
2. Hyperthyroidism frequently causes weight loss with increased appetite, fast heart rate, bulging eyes, and tremor.
3. Renal artery stenosis (RAS) may be associated with a localized abdominal bruit to the left or right of the midline (unilateral RAS), or in both locations (bilateral RAS).
4. Coarctation of the aorta frequently causes a decreased blood pressure in the lower extremities relative to the arms, and/or delayed or absent femoral arterial pulses.
5. Pheochromocytoma may cause abrupt –paroxysmal hypertension accompanied by headache, palpitations, pale appearance, and excessive sweating.[
6. Pregnancy- Hypertension occurs in approximately 8–10% of pregnancies. High blood pressure in pregnancy may be the first sign of pre-eclampsia, a serious condition of the second half of pregnancy and puerperium.

5. Symptoms of hypertension in children

- a. Neonates and young infants:
1. Failure to thrive, seizures
 2. Irritability
 3. Lack of energy
 4. Difficulty breathing
- b. Older infants and children:
1. Headache
 2. Unexplained Irritability
 3. Fatigue
 4. Failure to thrive
 5. Blurred Vision
 6. Nosebleeds
 7. Facial Paralysis

Hypertensive crisis: Severely elevated blood pressure equal to or greater than a systolic 180 or diastolic of 110—sometimes termed malignant or accelerated hypertension, is referred to as a hypertensive crisis, as blood pressure at this level confers a high risk of complications. People with blood pressures in this range may have no symptoms, but are more likely to report headaches (22% of cases) and dizziness than the general population. Other symptoms accompanying a hypertensive crisis may include visual deterioration due to retinopathy, breathlessness due to heart failure, or a general feeling of malaise due to kidney failure. Most people with a hypertensive crisis are known to have elevated blood pressure, but additional triggers may have led to a sudden rise.

A "hypertensive emergency" is diagnosed when there is evidence of direct damage to one or more organs as a result of severely elevated blood pressure greater than 180 systolic or 120 diastolic. This may include hypertensive encephalopathy, caused by brain swelling and dysfunction, and characterized by headaches

and an altered level of consciousness (confusion or drowsiness). Retinal papilledema and/or fundal bleeds and exudates are another sign of target organ damage. Chest pain may indicate heart muscle damage (which may progress to myocardial infarction) or sometimes aortic dissection, the tearing of the inner wall of the aorta. Breathlessness, cough, and the coughing up of blood-stained sputum are characteristic signs of pulmonary edema, the swelling of lung tissue due to left ventricular failure an inability of the left ventricle of the heart to adequately pump blood from the lungs into the arterial system. Rapid deterioration of kidney function (acute kidney injury) and microangiopathic hemolytic anemia (destruction of blood cells) may also occur. In these situations, rapid reduction of the blood pressure is mandated to stop ongoing organ damage. In contrast there is no evidence that blood pressure needs to be lowered rapidly in hypertensive urgencies where there is no evidence of target organ damage and over aggressive reduction of blood pressure is not without risks. Use of oral medications to lower the BP gradually over 24 to 48h is advocated in hypertensive urgencies.

6. Pathophysiology

In most people with established essential (primary) hypertension, increased resistance to blood flow (total peripheral resistance) accounts for the high pressure while cardiac output remains normal. There is evidence that some younger people with prehypertension or 'borderline hypertension' have high cardiac output, an elevated heart rate and normal peripheral resistance, termed hyperkinetic borderline hypertension. These individuals develop

the typical features of established essential hypertension in later life as their cardiac output falls and peripheral resistance rises with age. Whether this pattern is typical of all people who ultimately develop hypertension is disputed. The increased peripheral resistance in established hypertension is mainly attributable to structural narrowing of small arteries and arterioles, although a reduction in the number or density of capillaries may also contribute. Whether increased active arteriolar vasoconstriction plays a role in established essential hypertension is unclear. Hypertension is also associated with decreased peripheral venous compliance which may increase venous return, increase cardiac preload and, ultimately, cause diastolic dysfunction.

Pulse pressure (the difference between systolic and diastolic blood pressure) is frequently increased in older people with hypertension. This can mean that systolic pressure is abnormally high, but diastolic pressure may be normal or low - a condition termed isolated systolic hypertension. The high pulse pressure in elderly people with hypertension or isolated systolic hypertension is explained by increased arterial stiffness, which typically accompanies aging and may be exacerbated by high blood pressure.

Many mechanisms have been proposed to account for the rise in peripheral resistance in hypertension. Most evidence implicates either disturbances in the kidneys' salt and water handling (particularly abnormalities in the intrarenal renin-angiotensin system) and/or abnormalities of the sympathetic nervous system. These mechanisms are not mutually exclusive and it is likely that both contribute to some extent in most cases

of essential hypertension. It has also been suggested that endothelial dysfunction and vascular inflammation may also contribute to increased peripheral resistance and vascular damage in hypertension.

7. Diagnosis

Hypertension is diagnosed on the basis of a persistently high blood pressure. Traditionally, many institutes recommend three separate sphygmomanometer measurements at one monthly intervals for the diagnosis along with health checkup. Initial assessment of the hypertensive people should include a complete history and physical examination. With the availability of 24-hour ambulatory blood pressure monitors and home blood pressure machines, Once the diagnosis of hypertension has been made, physicians will attempt to identify the underlying cause based on risk factors and other symptoms.

Specific diagnostic tests pertaining to systemic diseases are tabulated below:

System	Tests
Kidney	Microscopic urinalysis, protein in the urine, BUN and/or creatinine
Endocrine	Serum sodium, potassium, calcium, TSH
Metabolic	Fasting blood glucose, HDL, LDL, and total cholesterol, triglycerides
Other	Hematocrit, electrocardiogram, and chest radiograph

8. Preventive majors

Much of the disease burden of high blood pressure is experienced by people who are not labelled as hypertensive.

1. Maintained normal body weight for adults (e.g. body mass index 20–25 kg/m²)

2. Reduced dietary sodium intake to <math><100\text{ mmol/day}</math> (<math><6\text{ g}</math> of sodium chloride or <math><2.4\text{ g}</math> of sodium per day)
3. Engagement in regular aerobic physical activity such as brisk walking (≥ 30 min per day, most days of the week)
4. Limited alcohol consumption to no more than 3 units/day in men and no more than 2 units/day in women
5. Consumption of a diet rich in fruit and vegetables (e.g. at least five portions per day);

Effective lifestyle modification may lower blood pressure as much as an individual antihypertensive drug. Combinations of two or more lifestyle modifications can achieve even better results.

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Chapter 17

INTRODUCTION TO ANGINA PECTORIS

1. Definition

Angina pectoris—Commonly known as angina, it is the sensation of chest pain, pressure, or squeezing, often due to ischemia of the heart muscle from obstruction or spasm of the coronary arteries. While angina pectoris can derive from anemia, cardiac arrhythmias and heart failure, its main cause is coronary artery disease, an atherosclerotic process affecting the arteries feeding the heart. The term derives from the Latin 'angere' meaning "to strangle" and 'pectus' ("chest"), and can, therefore, be translated as "a strangling feeling in the chest".

There is a weak relationship between severity of pain and degree of oxygen deprivation in the heart muscle. There can be severe pain with little or no risk of a myocardial infarction (heart attack) and a heart attack can occur without pain.

2. Predisposing factors

1. Major risk factors for angina include cigarette smoking, diabetes, high cholesterol, high blood pressure, sedentary lifestyle, and family history of premature heart disease.
2. Age (≥ 45 years for men, ≥ 55 for women)
3. Cigarette smoking
4. Diabetes mellitus (DM)
5. Dyslipidemia
6. Family history of premature cardiovascular disease (men <55 years, female <65 years old)

7. Hypertension (HTN)
8. Kidney disease (microalbuminuria or $\text{GFR} < 60\text{ mL/min}$)
9. Obesity (BMI $\geq 30\text{ kg/m}^2$)
10. Physical inactivity
11. Prolonged psychosocial stress

3. Conditions that exacerbate or provoke angina

1. Medications
2. Vasodilators
3. Excessive thyroid replacement
4. Vasoconstrictors
5. Polycythemia which thickens the blood causing it to slow its flow through the heart muscle
6. Hypothermia
7. Hypovolaemia
8. Hypervolaemia
9. Smoking.

4. Disease conditions supporting Angina

1. Profound anemia
2. Uncontrolled HTN
3. Hyperthyroidism
4. Hypoxemia
5. Tachyarrhythmia
6. Bradyarrhythmia
7. Valvular heart disease
8. Hypertrophic cardiomyopathy
9. Atherosclerosis

Myocardial ischemia can result from:

1. A reduction of blood flow to the heart that can be caused by stenosis, spasm, or acute occlusion (by an embolus) of the heart's arteries.
2. Resistance of the blood vessels. This

can be caused by narrowing of the blood vessels; a decrease in radius. Blood flow is proportional to the radius of the artery to the fourth power.

Reduced oxygen-carrying capacity of the blood, due to several factors such as a decrease in oxygen tension and hemoglobin concentration. This decreases the ability of hemoglobin to carry oxygen to myocardial tissue

5. Classification

5.1 Stable angina

Also known as effort angina, this refers to the classic type of angina related to myocardial ischemia. A typical presentation of stable angina is that of chest discomfort and associated symptoms precipitated by some activity (running, walking, etc.) with minimal or non-existent symptoms at rest or after administration of sublingual nitroglycerin. Symptoms typically abate several minutes after activity and recur when activity resumes. In this way, stable angina may be thought of as being similar to intermittent claudication symptoms. Other recognized precipitants of stable angina include cold weather, heavy meals, and emotional stress.

5.2 Unstable angina

Unstable angina (UA) also called as "crescendo angina", is a form of acute coronary syndrome. It is defined as angina pectoris that changes or worsens.

It has at least one of these three features:

1. It occurs at rest (or with minimal exertion), usually lasting 3–5 minutes
2. It is severe and of new onset (i.e., within the prior 4–6 weeks)
3. It occurs with a crescendo pattern (i.e.,

distinctly more severe, prolonged, or frequent than before).

UA may occur unpredictably at rest, which may be a serious indicator of an impending heart attack. What differentiates stable angina from unstable angina (other than symptoms) is the pathophysiology of the atherosclerosis. The pathophysiology of unstable angina is the reduction of coronary flow due to transient platelet aggregation on apparently normal endothelium, coronary artery spasms, or coronary thrombosis. The process starts with atherosclerosis, progresses through inflammation to yield an active unstable plaque, which undergoes thrombosis and results in acute myocardial ischemia, which, if not reversed, results in cell necrosis (infarction). Studies show that 64% of all unstable anginas occur between 10 PM and 8 AM when patients are at rest.

5.3 Cardiac syndrome X

Microvascular angina

Cardiac syndrome X, sometimes known as microvascular angina is characterized by angina-like chest pain, in the context of normal epicardial coronary arteries (the largest vessels on the surface of the heart, prior to significant branching) on angiography. The original definition of cardiac syndrome X also mandated that the patient display ischemic changes on exercise EKG (ST depressions with stress) despite normal coronary arteries. The primary cause of cardiac syndrome X is unknown, but factors which appear to be involved are endothelial dysfunction and reduced flow (perhaps due to spasm) in the tiny "resistance" blood vessels of the heart. Since microvascular angina is not characterized by major arterial blockages, it is harder to recognize and diagnose. Microvascular

angina was previously felt to be a rather benign condition, but more recent data has changed this attitude. Studies including the Women's Ischemia Syndrome Evaluation (WISE) suggest that microvascular angina is part of the pathophysiology of ischemic heart disease, perhaps explaining the higher rates of angina in women than in men, as well as their predilection towards ischemia and acute coronary syndromes in the absence of obstructive coronary artery disease.

6. Symptoms

1. Angina pectoris can be quite painful, but many patients with angina complain of chest discomfort rather than actual pain: the discomfort is usually described as a pressure, heaviness, tightness, squeezing, burning, or choking sensation.
2. Experience of anginal pain in the epigastrium (upper central abdomen), back, neck area, jaw, or shoulders. This is explained by the concept of referred pain, and is due to the fact that spinal level which receives visceral sensation from the heart simultaneously receives cutaneous sensation from parts of the skin specified by that spinal nerve's dermatome, without an ability to discriminate the two. Typical locations for referred pain are arms (often inner left arm), shoulders, and neck into the jaw. Angina is typically precipitated by exertion or emotional stress. It is exacerbated by having a full stomach and by cold temperatures. Pain may be accompanied by breathlessness, sweating, and nausea in some cases. In this case, the pulse rate and the blood pressure increases. Chest pain lasting only a few seconds is normally not angina such as precordial catch syndrome. Myocardial ischemia comes about when

the myocardia (the heart muscles) receive insufficient blood and oxygen to function normally either because of increased oxygen demand by the myocardia or because of decreased supply to the myocardia. This inadequate perfusion of blood and the resulting reduced delivery of oxygen and nutrients are directly correlated to blocked or narrowed blood vessels.

3. Nausea
4. Vomiting

7. Pathophysiology

Angina results when there is an imbalance between the heart's oxygen demand and supply. This imbalance can result from an increase in demand (e.g., during exercise) without a proportional increase in supply (e.g., due to obstruction or atherosclerosis of the coronary arteries).

However, the pathophysiology of angina in females varies significantly as compared to males. Non-obstructive coronary disease is more common in females.

8. Diagnosis

1. Angina should be suspected in people presenting with tight, dull, or heavy chest discomfort that is:
 - a. Retrosternal or left-sided, radiating to the left arm, neck, jaw, or back.
 - b. Associated with exertion or emotional stress and relieved within several minutes by rest.
 - c. Precipitated by cold weather or a meal.
2. Electrocardiogram (ECG) generally reported as normal/ an exercise ECG test - "treadmill test"
3. Coronary angiogram

1 Definition

Myocardial infarction (MI) or acute myocardial infarction (AMI), commonly known as a heart attack, occurs when blood flow stops to part of the heart causing damage to the heart muscle. The most common symptom is chest pain or discomfort which may travel into the shoulder, arm, back, neck, or jaw. Often it is in the center or left side of the chest and lasts for more than a few minutes. The discomfort may occasionally feel like heartburn. The phrase 'heart attack' is often used non-specifically to refer to a myocardial infarction and to sudden cardiac death. An MI is different from—but can cause—cardiac arrest, where the heart is not contracting at all or so poorly that all vital organs cease to function. It is also distinct from heart failure, in which the pumping action of the heart is impaired. However, an MI may lead to heart failure.

2. Symptoms

1. Chest pain : Most common symptom of acute MI and is often described as a sensation of tightness, pressure, or squeezing. Chest pain due to ischemia (a lack of blood and hence oxygen supply) of the heart muscle is termed angina pectoris. Pain radiates most often to the left arm, but may also radiate to the lower jaw, neck, right arm, back, and upper abdomen, where it may mimic heartburn. Levine's sign, in which a person localizes the chest pain by clenching their fists over their sternum,

has classically been thought to be predictive of cardiac chest pain, although a prospective observational study showed it had a poor positive predictive value. **Dyspnea** : shortness of breath. It occurs when the damage to the heart limits the output of the left ventricle, causing left ventricular failure and consequent pulmonary edema.

2. Diaphoresis : An excessive form of sweating—Cold sweat.
3. Weakness
4. Light-headedness
5. Nausea
6. Vomiting
7. Palpitations.
8. Loss of consciousness due to inadequate blood flow to the brain and cardiogenic shock.
9. Sudden death – Frequently due to the development of ventricular fibrillation can occur in MI

Atypical symptoms

10. Dyspnea,
11. Weakness
12. Sleep disturbances

3. Risk factors

1. High blood pressure
2. Smoking
3. Diabetes
4. Lack of exercise
5. Obesity
6. High blood cholesterol
7. Poor diet
8. Excessive alcohol.

4. Predisposing factors

1. Lifestyle factors : Smoking , obesity, job stress
2. Disease factors—Diabetes mellitus, high blood pressure, dyslipidemia/high levels of blood cholesterol , various acute and chronic infections including Chlamydia pneumoniae, influenza, Helicobacter pylori, and Porphyromonas gingivalis , Kawasaki disease.
3. Genetic factors: MI due to some genetic combinations.
4. Other causes: At any given age, men are more at risk than women, but because in general women live longer than men, ischemic heart disease causes slightly more total deaths in women. Family history of ischemic heart disease or MI, particularly if one has a first-degree relative (father, brother, mother, sister) who suffered a 'premature' myocardial infarction at or younger than age 55 years (men) or 65 (women). Women who use combined oral contraceptive pills have a modestly increased risk of myocardial infarction, especially in the presence of other risk factors, such as smoking. Heart attacks appear to occur more commonly in the morning hours, especially between 6AM and noon. Evidence suggests that heart attacks are at least three times more likely to occur in the morning than in the late evening. Old age increases risk of a heart attack.

5. Types

1. Pathological types: Two main types of acute myocardial infarction, based on pathology, are:
 - a. Transmural AMI is associated with atherosclerosis involving a major

coronary artery. It can be subclassified into anterior, posterior, inferior, lateral, or septal. Transmural infarcts extend through the whole thickness of the heart muscle and are usually a result of complete occlusion of the area's blood supply. In addition, on ECG, ST elevation and Q waves are seen.

- b. Subendocardial AMI involves a small area in the subendocardial wall of the left ventricle, ventricular septum, or papillary muscles. The subendocardial area is particularly susceptible to ischemia. In addition, ST depression may be seen on ECG in addition to T wave changes.

6. Diagnosis

1. Clinical history of ischemic type chest pain lasting for more than 20 minutes
2. Changes in serial ECG tracings.
3. Rise and fall of serum cardiac biomarkers
4. Autopsy, a pathologist can diagnose an MI based on anatomopathological findings.

7. Classification

Myocardial infarctions are generally classified into ST elevation MI (STEMI) and non-ST elevation MI (NSTEMI). A STEMI is the combination of symptoms related to poor oxygenation of the heart with elevation of the ST segments on the electrocardiogram followed by an increase in proteins in the blood related to heart muscle's death. They make up about 25 to 40 percent of cases.

Five main types of MI:

1. Type 1 – spontaneous MI related to ischemia due to a primary coronary event such as plaque erosion and/or rupture, fissuring, or dissection

2. Type 2 : MI secondary to ischemia due to either increased oxygen demand or decreased supply, e.g. coronary artery spasm, coronary embolism, anemia, arrhythmias, hypertension, or hypotension
3. Type 3 : Sudden unexpected cardiac death, including cardiac arrest, often with symptoms suggestive of myocardial ischemia, accompanied by new ST elevation, or new left bundle branch block (LBBB), or evidence of fresh thrombus in a coronary artery by angiography and/or at autopsy, but death occurring before blood samples could be obtained, or at a time before the appearance of cardiac biomarkers in the blood
4. Type 4 : Associated with coronary angioplasty or stents:
 - Type 4a : MI associated with percutaneous coronary intervention (PCI)
 - Type 4b : MI associated with stent thrombosis as documented by angiography or at autopsy
5. Type 5 : MI associated with CABG

8. Differential diagnosis

1. The differential diagnosis for MI includes other catastrophic causes of chest pain such as;
2. Pulmonary embolism,
3. Aortic dissection,
4. Esophageal rupture,
5. Tension pneumothorax
6. Pericardial effusion causing cardiac tamponade.

9. Prognosis

The prognosis after MI varies greatly depending on a person's health, the extent of the heart damage, and the treatment given.

10. Risk factors for death

1. Age
2. Hemodynamic parameters such as heart failure, cardiac arrest on admission
3. Systolic blood pressure,
4. ST-segment deviation,
5. Diabetes
6. Serum creatinine,
7. Peripheral vascular disease,
8. Elevation of cardiac markers.

Prognosis is worse if a mechanical complication such as papillary muscle or myocardial free wall rupture occurs. Morbidity and mortality from myocardial infarction has improved over the years due to better treatment.

11. Complications

Complications may occur immediately following the heart attack (in the acute phase), or may need time to develop (a chronic problem). Acute complications may include heart failure if the damaged heart is no longer able to pump blood adequately around the body; aneurysm of the left ventricle, myocardium; ventricular septal rupture or free wall rupture; mitral regurgitation, in particular if the infarction causes dysfunction of the papillary muscle; Dressler's syndrome; and abnormal heart rhythms, such as ventricular fibrillation, ventricular tachycardia, atrial fibrillation, and heart block. Longer-term complications include heart failure, atrial fibrillation, and an increased risk of a second MI.

INTRODUCTION TO CORONARY ARTERY DISEASE

(Ischemic Heart Disease)

1. Definition

Coronary artery disease (CAD), also known as ischemic heart disease (IHD), is a group of diseases that includes: stable angina, unstable angina, myocardial infarction, and sudden cardiac death. It is within the group of cardiovascular diseases of which it is the most common type.

2. Signs and symptoms

1. A common symptom is chest pain or discomfort which may travel into the shoulder, arm, back, neck, or jaw. Chest pain that occurs regularly with activity, after eating, or at other predictable times is termed stable angina and is associated with narrowings of the arteries of the heart.
2. Angina that changes in intensity, character or frequency is termed unstable. Unstable angina may precede myocardial infarction. In adults who go to the emergency department with an unclear cause of pain, about 30% have pain due to coronary artery disease
3. Heartburn.
4. Usually symptoms occur with exercise or emotional stress, last less than a few minutes, and get better with rest.
5. Shortness of breath may also occur and sometimes no symptoms are present
6. The first sign is occasionally a heart attack.

7. Other complications include heart failure or an irregular heartbeat.

Risk factors : High blood pressure, smoking, diabetes, lack of exercise, obesity, high blood cholesterol, poor diet, and excessive alcohol, among others. Other risks include depression. The underlying mechanism involves atherosclerosis of the arteries of the heart.

Diagnosis : A number of tests may help with diagnoses including electrocardio-gram, cardiac stress testing, coronary computed tomographic angiography, and coronary angiogram, among others.

3. Medication and prevention

Prevention is by eating a healthy diet, regular exercise, maintaining a healthy weight and not smoking. Sometimes medication for diabetes, high cholesterol, or high blood pressure are also used. There is limited evidence for screening people who are at low risk and do not have symptoms. Treatment involves the same measures as prevention. Additional medications such as antiplatelets including aspirin, beta blockers, or nitroglycerin may be recommended. Procedures such as percutaneous coronary intervention (PCI) or coronary artery bypass surgery (CABG) may be used in severe disease. In those with stable CAD it is unclear if PCI or CABG in addition to the other treatments improve life expectancy or decreases heart attack risk.

1. Definition

Heart failure (HF) is defined as congestive heart failure (CHF) which occurs when the heart is unable to pump sufficiently to maintain blood flow to meet the body's needs. Heart failure is a physiological state in which cardiac output is insufficient to meet the needs of the body and lungs. The severity of disease is usually graded by the degree of problems with exercise. Heart failure is not the same as myocardial infarction in which part of the heart muscle dies or cardiac arrest in which blood flow stops altogether. Other diseases that may have symptoms similar to heart failure include obesity, kidney failure, liver problems, anemia and thyroid disease. Heart failure is associated with significantly reduced physical and mental health, resulting in a markedly decreased quality of life.

2. Predisposing factors

1. Coronary Artery Disease.
2. High Blood Pressure
3. Atrial Fibrillation
4. Valvular Heart Disease
5. Alcoholism.

6. Infection.
7. Cardiomyopathy.
8. History of Heart Attack- Myocardial Infarction.
9. Viral infections.

3. Signs and symptoms

1. Shortness of breath- increases with exercise.
2. Limited ability to exercise.
3. Excessive tiredness.
4. Leg swelling.
5. Chest pain.

4. Types

1. Heart failure due to left ventricular dysfunction
2. Heart failure with normal ejection fraction

5. Diagnosis

1. Clinical history.
2. Physical examination.
3. Echocardiography.
4. Blood tests
5. Electrocardiography.
6. Chest radiography.

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1. Definition

The channelled system which deals with circulation of blood in required form to every system and thereto deals with nourishment of all the body systems is called as Raktavaha srotas. Organs related to blood circulation are included under Raktavaha srotas.

2. Origin of Raktavaha srotas: Moolasthanas

शोणितवहानां स्रोतसां यकृन्मूलं स्नीहा च ।

C.S.Vi. 5/8.

रक्तवहे द्वे, तयोर्मूलं यकृत् स्नीहानौ रक्तवाहिन्यश्च धमन्यः ।
S.S.Sh. 9/12.

1. Shonitavaha (Raktavaha) srotas originates from liver- yakrit and spleen- pleeha.
2. Raktavaha srotas are two in number and they originate from liver- yakrit spleen-pleeha and blood vessels- raktavahini dhamani.

3. Causes of Rakta dhatu vitiation

प्रदुष्टबहुतीक्ष्णोर्जौर्मदयैरन्यैश्च तद्विधैः ।
तथाऽतिलवणक्षारैस्तेः कटुभिरेव च ॥
कुलस्थमाषनिष्पावतिलतैलनिषेवणैः ।
पिण्डालुमूलकादीनां हरितानां च स्वनात् ।
दध्यन्तमस्तुसुक्तानां सुरासौविरकस्य च ॥
विरुद्धानामपकिलन्पूतिनां भक्षणेन च ।
भुक्त्वा दिवा स्वपतां ब्रवस्निग्धगुरुणि च ॥
अत्यादानं तथा क्रोधं भजतां चातपानलौ ।
छर्दिवेगं प्रतिघातात् काले चानवसेचनात् ॥
श्रमाभिघातात्संतापैरजीर्णाध्यशनैस्तथा ।
शरत्कालस्वभाच्च शोणितं सं प्रदुष्यति ।

C.S.Su. 24/5-10.

The factors causing vitiation to Rakta dhatu and Pitta dosha are the main causes for Raktavaha Srotas dusti:

1. Intake of adulterated liquor.
2. Intake of excessively salty, alkaline, sour, spicy, pungent, potently hot type of food.
3. Excessive intake of lentils, horse gram, a type of pod- Nishpava, sesame seeds or oil
4. Excessive intake of Pindalu- (Diascoria Alata), radish, green leafy vegetables etc.
5. Excessive intake of sour curds, whey, spirituous liquor-wine (Sura) or sour barley gruel (Sauviraka).
6. Intake of incompatible food contents or intake of stale, rotten or adulterated food.
7. Daytime sleep after eating fatty, unctuous food.
8. Avoiding of blood letting procedure [Rakta moksahna] when indicated. Accepting hot sun or working near the heat for longer times.
9. Suppression of natural urge to vomit.
10. Avoiding of bloodletting (Raktamokshana) procedure during Autumn-Sharada ritu.
11. Excessive physical exertion.
12. Physical trauma.
13. Hyper hostile nature.
14. Indigestion and repeated excessive eating.
15. As natural environmental effect of Autumn -Sharada Ritu. (Sharada ritu is a natural enhancer for Raktapitta disease).

16. Excessive intake of meat as well as of animals residing at dry or wet lands e.g. Fish, beef, pork etc.

4. Causes for vitiation of Raktavaha srotas

विदाहिन्यपानानि लिङ्गोष्णानि द्रवाणि च।
रक्तवाहिनीं दूष्यन्ति भजतां चातपानलौ॥ C.S.Vi. 5/14.

यस्माद्रक्तं विना दौषर्णं कदाचित् प्रकुर्यति।
तस्मात्तस्य यथा दोषं कालं विद्यात् प्रकोपणे॥ S.S.Su.21/25.

1. Intake of food and drink which is sharp and acidic in nature: It causes burning of natural smooth composition of Rasa dhatu which results in formation of abnormal Rakta dhatu and hence causes vitiation of Raktavaha srotas.
2. Intake of fatty food: Excessive fatty food contents lower down the power of Agni and thus formation of healthy Rakta dhatu does not occur hence causes vitiation of Raktavaha srotas.
3. Intake of food hot by quality as well as nature: Food contents which are hot by quality and character cause burning out of Rasa dhatu which hinders process of Rakta dhatu formation. It causes vitiation of Raktavaha srotas.
4. Intake of excessively liquid food: Excessive liquid type of food contents cause imbalance in ratio of solid and liquid of blood and also of the body and causes vitiation of Raktavaha srotas.
5. Excessive contact with the Sun or heat: Accepting excessive heat in the form of direct sunlight or by any other mode causes burning of Rasadhatu and hence abnormal Rakta dhatu is produced. It causes vitiation of Raktavaha srotas.

पित्तं प्रकोपणैव चाभीक्ष्णं द्रवलिङ्गमुलभिराहारैर्दिवा-
स्वप्नक्रोधानलातपश्चाभिघाता जीर्णाविरुद्धशयना-
दिभिर्विशेषैस्त्वक् प्रकोपमापद्यन्ते। S.S.Su.21/25.

1. All the pitta dosha aggravating factors are equally responsible for Rakta dhatu vitiation.
2. Intake of excessively liquid, unctuous, fatty, hard to digest food.
3. Excessive daytime sleep.
4. Hyper hostile nature.
5. Excessive acceptance of heat, sunlight, physical exertion, injury.
6. Indigestion.
7. Intake of mixture of incompatible food contents.
8. Repeated eating before digestion of previously ingested food.

यस्माद्रक्तं विना दौषर्णं कदाचित् प्रकुर्यति।
तस्मात्तस्य यथा दोषं कालं विद्यात् प्रकोपणे॥ S.S.Su.21/25.

Rakta dhatu can not vitiate on its own. Involvement of some aggravated dosha is essential for vitiation of Rakta dhatu. Hence, specific time period of vitiation of Rakta dhatu may be calculated according to involved dosha (in that particular samprapti).

5. Symptoms of Raktavaha srotas dushti

वक्ष्यन्ते रक्त दोषजाः-----।
कुष्ठ वीर्यं पिडकारक्तपित्तमसृष्टरः।
गुदमेद्गास्यपाकश्च लीहागुल्मोय विद्रधिः।।
नीलिका कामला व्यङ्गं पिलवस्तिलकालकाः।
दुदुश्मर्दलं शित्रं पापाकोटास्रमंडलम्।।
रक्तप्रदोषात् जायन्ते-----। C.S.Su.28 /11-13.

Actually all major disease pathologies are described as symptoms of vitiation of Raktavaha srotas. it shows the importance and severity of Raktavaha srotas.

1. Kushtha- Skin diseases varying from major to minor quality.
2. Visarpa- Herpetic infections.
3. Arbuda, Pidaka- abscess and furuncles.

4. Raktapitta : Abnormal outburst of vitiated blood via body orifices.
5. Rakta pradara : Menorrhagia.
6. Gudapaka : Proctitis.
7. Aasyapaka : Stomatitis.
8. Medhrapaka : Inflammation of genital organs.
9. Pleeharoga : Spleen disorders.
10. Gulma : Tumor.
11. Excessive formation of Pilava, Tilakalaka, Neelika, Vyanga- formation of moles on the skin.
12. Kamala : Jaundice.
13. Dadru : Type of eczema.
14. Charnadala : Type of eczema..
15. Shwitra : Leucoderma..
16. Pama : Type of eczema..

17. Kotha : Urticaria.
18. Asramandala : Sub cutaneous haemorrhage.

6. Symptoms of injured Raktavaha srotas

तत्र विद्रघस्य श्यावाङ्गता ज्वरो दाहः पाण्डुता शोणितमग्नं
रक्त नेत्रता चेति। S.S.Sh.9/12.

Raktavaha srotas on getting injured displays following symptoms :

1. Greyish : Blue discoloration of the body.
2. Fever.
3. Sensation of burning.
4. Paleness of the skin.
5. Haemorrhages.
6. Reddening of eyes.

3. PREMONITORY FEATURES: PURVA-ROOPA

1. Abdominal discomfort.
2. Obstructed passing of stool and urine.
3. Loathing of food.

4. CLINICAL FEATURES: ROOPA

1. White coloured stools resembling that of the crushed sesame seeds.
2. Dark yellow coloured urine, skin, nails and eyes.
3. Fatigue.
4. Insipid mouth.
5. Hiccups.
6. Fever.
7. Dyspnoea.
8. Tenderness and pain at site of Pittashya.

4.2 Bahupitta Kamala

पाण्डुरोगितुयोऽत्यर्थं पित्तलानि निषेवते ।
तस्य पित्तममृगमांसं दग्ध्वा रोगाय कलते ॥
हास्त्रिनेत्रः स भृशं हासित्वञ्जखाननः ।
रक्तपीतशकृन्मूत्रो भेकवर्णो हतेन्द्रियः ॥
दाहविषाकदोर्वल्यसदनारुचिकर्षितः ।
कामला बहुभित्तेषा कोटशाखाश्रवा मता ॥

C.S. Ch.16/34-35.

1. PREDISPOSING FACTORS : NIDANA

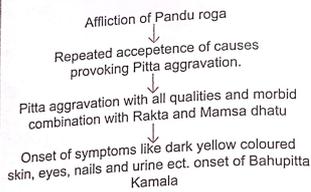
1. Excessive intake of pungent, spicy and hot food.
2. As a complication- upadrava- of Pandu roga.

2. PATHOGENESIS : SAMPRAPTI

When the person who is already suffering from Pandu roga consumes food of hot and spicy nature, Pitta dosha aggravates with all its qualities to produce Bahupitta or Koshtha shkhashrita Kamala. This type can also cause without the previous history of Pandu. Aggravated Pitta dosha further vitiates Rakata and Mamsa dhatu to form Bahupitta this type of Kamala.

The origin of disease is in the Rasavaha strotas, onset is in the Rakta and Mamsa dhatu while spread is all over the body.

Flow chart of Samprapti:



Components of pathogenesis: Samprapti ghataka

- Doshya: Pitta, Vata
- Dushya: Rakta.
- Srotas: Raktavaha strotasa.
- Adhishthana: Yakrit, Twacha.
- Srotodushti: Atipravritti, Vimarga-gamana.
- Swabhava: Ashukari.
- Agni dushti: Jatharagni, Rasa agni and Rakta agni-Agnimandya.

3. PREMONITORY FEATURES: PURVA-ROOPA

1. Fever.
2. Burning sensation of the body.
3. Restlessness.

4. CLINICAL FEATURES : ROOPA

1. Dark yellow coloured urine, eyes, nails, skin and stools.
2. This yellow shade changes to darker shades of brown resembling to colour of toad skin.
3. Sensation of burning.
4. Fever.
5. Restlessness.
6. Weakness.
7. Body ache.
8. Destruction of blood.

5. Complications : Upadrava

1. Development of complication like Kumbha Kamala and Halimaka.
2. Severe swelling of the body.
3. Fever.
4. Fainting and giddiness.
5. Difficulty in breathing.

6. After effects : Udarka

1. Burning sensation of the body.

7. Prognosis : Sadhya-Asadhyatva

सक्ताक्षिमुखच्छदिविण्मूत्रो यश्च ताम्यति ।
दाहारुचितुषानाहतन्द्रा मोहसमन्वितः ॥
नद्यान्मीसंज्ञः क्षिप्रं हि कामलावान् विपद्यते ।

C.S.Ch.16/34-38.

Rudhpatha Kamala is easy to cure-sukha sadhya- by nature of the disease

Bahupitta Kamala is difficult to cure-kashta sadhya or incurable- asdhyatva.

Bahupitta Kamala is said to be incurable or asadhyatva when following symptoms arise;

1. Red coloured eyes and mouth [as if filled with blood.]
2. Dark yellow coloured urine and stools.
3. Burning sensation.

4. Insipid mouth.
5. Thirst.
6. Abdominal distention.
7. Lassitude.
8. Delirium.
9. Loss of digestive fire.
10. Cold extremities.
11. The patient perceives white colored objects as yellow colored.

8. Dietary and behavioral regimen

8.1 Pathya : wholesome regimen

1. Intake of light, easy to digest type of food.
2. Complete aversion of Pitta dosha provoking food and behavioral routines.
3. Recipes prepared from buffalo milk enriched with bitter quality medicines (Guduchi- Tinospora Cardifolia)
4. Complete rest

8.2 Apathya : unwholesome regimen

1. Intake of hard to digest, hot, sharp type of food.
2. Physical exertion or exercise.

Chapter
23

KUMBHA KAMALA

Definition : Paribhasha

कालान्तर्गत् खरीभूता कृच्छ्रा स्यात् कुम्भकामला। कुण्ठपीतशकृन्मूत्रो भृशं शूनश्च मानवः॥ C.S.Ch.16/37.

Paribhasha

When Bahupitta Kamala becomes chronic and affects gastrointestinal tract-Koshtha- It is called as Kumbha Kamala. This stage is considered as further serious phase of Kamala. Dark brownish- yellow coloured skin, urine, stools and eyes are typical features of the disease. Body is swollen and joint pain is prominent. This is very critical -Krichhrasadhya- type of Kamala.

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CHAPTER 24 PANAKAI

Definition : Paribhasdha

It is a further more serious stage of Bahupitta kamala. The whole body turns to dark yellow discoloration. Eyes become pale, fever is observed, stools become loose and unformed. Sushruta terms this condition as 'Apanaki'.

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Chapter
25

HALIMAKA

1. Definition : Paribhasha

यदा तु पाण्डोर्वर्णः स्याद्धरीतश्यावपीतकः।
बलोत्साहक्षयस्तन्ना भेदानित्वं मृदूच्चरः॥
स्त्रीष्वहर्षोऽङ्गुर्दृश्यः श्वासतृष्णाकृचिर्भ्रमः।
हलीमकं तदा तस्य विद्यादभिलपित्तः॥

C.S.Ch.16/132-133.

Halimaka is similar disease condition to pathogenesis of Kamala and Pandu. The main event of the Samprapti is abnormalities of Vital capacity- Oja Vikruti. This disease is said to be incurable [asadhya].

2. Clinical features: Roopa

The main symptoms of the disease are;

1. Whitish green-yellow shades of discoloration of the body.
2. Severe weakness.
3. Giddiness.
4. Loss of energy.
5. Anorexia.
6. Low grade fever.
7. Dyspnoea.
8. Thirst.
9. Insipid mouth.
10. Stupor.
11. Body ache.
12. Loss of libido.

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CHAPTER 26

LAGHARAKA

Diseases for differential diagnosis

1. Yakrut vikara.
2. Pittaja Pandu.
3. Sannipata Jwara.
4. Gulma.
5. Arbud.
6. Vidhradhi.

Reference reading

- Charaka Samhita Chikitsa Sthana -Chapter 16.
- Sushrut Samhita Uttar Tantra -Chapter 44.
- Sanskrit-English Dictionary -Apte Shabdakosha.

Definition : Paribhasha

ज्वराङ्गुमर्दभ्रमसादतन्त्राक्षयान्त्रितो लाघरोऽलसाख्यः॥ S.S. Utt. 44/12.

Further advanced and more severe stage of disease Kamala is identified as Lagharaka. Symptoms like fever, body ache, giddiness, general weakness, stupor and reduction in concentration of basic body elements are displayed in this stage.

The synonyms of the disease condition are; Lagharasa, Laghara and Lodhara.

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Chapter 27 RAKTAPITTA

Disease at a glance

- Nature of Disease: Acute.
- Major Involving Doshya- Pitta
- Major Involving Dushya- Rakta
- Site of Manifestation: Liver
- Srotas: Raktavaha Srotas
- Types- Three
- Cardinal Feature: Bleeding From Body Orifices.

Prognosis

- Curable When disease is in its initial condition.

Diseases for differential diagnosis

1. Nasa Arsha.
2. Gudaja Arsha.
3. Urakshala.
4. Rakta Atisara.
5. Rakataja Pravahika.
6. Rakta Pradara.

Reference reading

- Madhavidan Raktapitta Chapter 9
- Charak Samhita Nidanasthan. Chapter 2
- Charak Samhita Chikitsasthan. Chapter 4
- Sushruta Samhita Uttaratantra. Chapter 45
- Ashtanga Hridaya Sharirasthan. Chapter 5
- Ashtanga Hridaya Nidanasthan. Chapter 3
- Sharangdhara Samhita. Khanda - first. Chapter 7
- Sanskrit-English dictionary
- Apte Shabda-kosha.

1. Introduction

महागदं महावेगं अग्नीवत् शीघ्रकारि च। C.S.Ch.4/5.

Disease Raktapitta manifests itself with absolute rapidity and spreads all over the body like fire. It invades the body in all possible directions and becomes critical if not diagnosed or treated properly. Further detailed pathogenesis is described as Nidana Panchaka of Raktapitta in this chapter.

2. Definition : Paribhasha

संयोगात् दूषणात् तत्तु सामान्याद् गंधवर्णयोः।
रक्तस्य पित्तमाख्यातं रक्तपित्तं मनिषिभिः।। C.S.Ch.4/9.

The disease in which morbid Pitta dosha mixed with vitiated Rakta dhatu is expelled via body apertures without any specific cause like injury or trauma, is called as Raktapitta. This bleeding is possible through body apertures like nose, ears, eyes and anus, genitals or sometimes via skin. Bleeding without any particular underlying cause is the cardinal feature of this disease. Raktapitta is the disease in which Rakta dhatu and Pitta dosha are involved simultaneously acquiring each other's qualities and nature.

3. Route of Development : Marga: Bahya-Abhyantara

Affliction of the disease is internal as well as external.

This disease is described as 'Daruna Aashukari' meaning very fast progressing and severe natured disease.

महागदं महावेगं अग्नीवत् शीघ्रकारि च। C.S.Ch.4/5.

Disease Raktapitta is very acute in nature. The onset is sudden and progress is very fast.

4. Predisposing factors : Nidana

यदा जतुर्भवकोद्दालककोरदूषप्रयाप्यन्नानि, शुद्धते, भृशोष्णतीक्ष्णमपि चान्यदन्नजातं निश्वावमाषकुलत्युष्णक्षारोप-संहितम्, दधि-दधिमण्डोदधित्कद्वारास्त्रकाञ्चिकोपसेकं वा, वाराहमहिषा



विकमालयग्यभिशितं, पिण्याकपिण्डालुशुक्लशाकोप-हितं, मूलकसर्पपतशुनकरञ्जिशिगुमधुशिशु; भृशुणसुसुखसुस-कुठेकगण्डोरककालमालकपर्णसिक्खकफणिञ्जकोपदेश, सुरासी वीतुपोदकमेरुपेदकमथुलकशुकुवकुवलयदराम्ल-प्रायानुपानं च, पिष्टान्नोत्तभूषिष्ठम्; उष्णाभित्तो वाऽतिमात्रमतिवेलं वाऽऽसं पयः पिबति, पयसा समश्नति रोहिणीकं, काणकोपेतं वा सर्पपतेलक्षारसिद्धं, कुलत्थपिण्याकजाश्ववलकुचपद्वै; शोन्तिकैर्वा सहक्षीरं पिवत्युष्णापित्तः।। C.S.Ni.2/4.

1. Excessive consumption of food contents like *Yavaka*, *Uddalaka*, *Koradusha*. (types of grain)
2. Excessive intake of food contents of hot and irritating type mixed with horse gram, black gram, lentils with alkalies
3. Intake of curd, curd water, sour buttermilk, sour gruel.
4. Excessive intake of meat of animals like pig, buffalo, sheep, fish and cow.
5. Intake of oil cake, *pindalu* (kind of vegetable) or dried vegetables.
6. Excessive intake of salad containing radish, mustard, garlic, *karanja*- (Milletia Pinata), drumstick etc.
7. Intake of *Phaninjibhaka* followed by *sura*, *sauviraka*, *medaka*, *madhula* etc. (type of liquors).
8. Excessive intake of starchy food.
9. Frequent and excessive intake of milk after exposure to heat.
10. Intake of milk with a vegetable called as *Robinika*.
11. Intake of meat of *Kanakapota*- a type of pigeon- boiled with mustard oil or alkalies.
12. Consumption of milk with lentils.
13. Intake of oil cake or fruits of Indian berry.

5. Pathogenesis : Samprapti

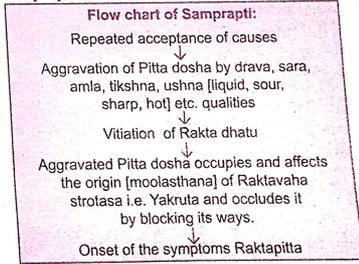
विदग्धं स्वगुणैः पित्तं विदहत्याशु शोणितम्।
ततः प्रवर्तते रक्तमूर्च्छं चाद्यो द्विधापिवा।। S.S.Ut. 45/4.

तस्मिन् प्रमाणात् प्रवृत्ते पित्तं प्रकृषितं शरीरमनुसर्पदयदेव यकृत्सिलहप्रवाणां लोहितवहानां च स्त्रोतसां लोहिताभिर्बिन्द-गुरूणि
सुरवान्यासाद्य प्रतिरून्ध्यात् तदेव लोहितं दूषयति।।

C.S.Ni.2/4.

कृषितं पित्तैः पित्तं द्रव्यं च मुच्छिते।
तेभ्यस्त्र्यरूपत्वमागम्य व्यानुत्स्तनुम्।। A. H. Ni.3/2.

Repeated acceptance of causes produces aggravation of Pitta dosha by liquid, sour, sharp, hot etc. qualities and also vitiates Rakta dhatu. Pitta specifically increases with its drava- liquid- and sara- flowing- qualities while Rakta dhatu vitiates due to abnormal aggravation of Pitta dosha. This occurs because of the similarities between the qualities and nature of Rakta and Pitta [Ashraya- Ashrayee bhava]. Aggravated Pitta dosha occupies and affects the origin [moolasthan] of the Raktavaha srotasa i.e. Yakruta and occludes it by blocking its ways. Here the qualities of Pitta dosha (like laghu-light-, visra- rancid smelling- etc.) are accepted by Rakta dhatu and Pitta dosha accepts the colour and smell of Rakta dhatu. In short total mixing occurs in between the two contributing factors. This is first step in samprapti of Raktapitta. Main site for the formation of the disease is Raktavaha srotasa. Three types are formed as per the involvement of particular dosha in the samprapti.



Components of pathogenesis:
Samprapti ghataka

- Dosh: Pitta
- Dushya: Rakta.
- Srotas: Raktavaha srotasa.
- Adhsthana: Yakrit and Pleeha.
- Srotodushti: Atipravritti, Vimama-gamana.
- Swabhava: Ashukari.
- Agni dushti: Jatharagni, Rasa agni and Rakta agni- Agnimandya.

6. Prodromal features : Purvaroopo

शिरोगुरुत्वं अरुचिः शीतेच्छा धूमकोऽप्लवकः ।
छर्दिश्छर्दितवैभक्त्यं कासः श्वासो भ्रमः क्लमः ॥
लोहितमत्स्यामगन्धारस्यत्वं स्वरक्षयः ॥
रक्ताहासिदिरहितवर्णता नयनापु ।
नीललोहितपितानां वर्णानाम् विवेचनम्
खने तद्वर्णशित्वं भवत्यसिन् भविष्यति ॥

A. H. Ni 3/4-6.

अनत्राभिलाषा भुक्तस्य विदाहः शुक्ताम्लगंधरसोद्गार
अंगवासदः मात्राणां सदनं परिदाहः रक्तहरित-
हासित्वं अंगवयव शकृत्सूत्रस्वेदलालासिंधापा-
स्यकर्णमिलानां पिंडकोलिकापीडकानां अंगवेदना ॥

C.S.Ni. 2/6.

1. Heaviness in the head.
2. Insipid mouth
3. Desire of chilled eatables or drinks.
4. Feeling like smoke coming out from nose and mouth.
5. Acidity.
6. Vomiting. Vomitus is sour and of morbid look
7. Cough.
8. Dyspnoea.
9. Giddiness.
10. Fatigue.
11. Loathing of food.
12. Foul smell to mouth like that of rusted iron or decaying fish.
13. Loss of voice.

14. Reddish yellow colour of eyes.
15. Dreaming about bright red or yellow coloured flames.
16. Loss of appetite.
17. Sensation of burning.
18. Dirty yellowish red colour to ear and nose discharge and to stools and urine.
19. Formation of boils.
20. Body ache.

7. Clinical features: Roopa

Cardinal feature of the disease: Bleeding via any of the body orifices according to the type of Raktapitta.

There is no particular explanation available about the symptoms of the disease. **The disease is very acute in the nature and that is why there may not be the presentation possible for any other symptom except bleeding through various body apertures.**

Also few prodromal features remain continued as the symptoms of the disease. Some of the symptoms can be described as,

1. Expulsion of morbid Rakta and Pitta-bleeding from various body apertures.
2. Loathing of food.
3. Weakness.
4. Whitish discoloration of the skin.
5. Fever.
6. Thirst.
7. Restlessness.

8. Types : Prakara

ऊर्ध्वं नासाक्षिकर्णस्यैमेद्वयोनिगुदैधः ।

कुपितं रोगकूपैश्च समसैस्तत्प्रवर्तते ॥ A. H. Ni.3/7-8.

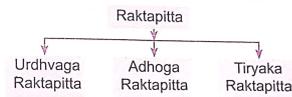
ऊर्ध्वं कफसंसृष्टमधोगं मारुतानुगम् ।

दिमार्गं कफवाताभ्यामुभाभ्यामनुबध्यते । C.S.Ch.4/24.

रक्तपित्तं त्रिधा प्रोक्तमूर्ध्वं कफ संश्रयम् ।

अधोगं मारुतं ज्ञेयं तद्वयेन द्विमार्गम् ॥

Sharangdhara Samhita- Prathama Khanda.



Three types of Raktapitta are described. These types are made according to the way by which the bleeding occurs.

Cause for three different ways of presentation of Raktapitta

8.1 Urdhvaga Raktapitta

When Kapha dosha contributes to the samprapti of Raktapitta, morbid mixture of Pitta dosha and Rakta dhatu progress upwards i.e. towards Aamashaya to produce Urdhvaga Raktapitta i.e. bleeding from orifices by upper portion of the body i.e. via mouth, ear, nose, eyes etc.

8.2 Adhoga Raktapitta

When Vata dosha contributes to the samprapti of Raktapitta, the morbid mixture of Pitta dosha and Rakta dhatu progresses downwards i.e. towards Pakvashaya to produce Adhoga Raktapitta i.e. bleeding from orifices of lower body portion i.e. anus, urethra and vagina or penis.

8.3 Tiryaka Raktapitta

If all the three dosha are similarly involved in the samprapti, the morbid mixture of Pitta dosha and Rakta dhatu progress towards the skin and bleeding occurs from hair follicles all over the body. It is called as Tiryaka Raktapitta.

8.4 Specific clinical features according to dominance of dosha:

According to involvement of the particular

dosha, few features are explained as the dosha dominant features.

सान्द्रं सपांडुं सनेहं पिच्छलं च कफान्वितम् ।
श्यावारुणं सफेनं च तनु रूक्षं च वातिकम् ।
रक्तपित्तं कषायामं कृष्णं गोमुत्रसंनिभम् ।
मेचकागार धूमाभर्मजनामं च पैत्तिकम् ।
संसृष्टलिंगं संसर्पात्रिलिंगं सन्निपातिकम् ।
गतिरूर्ध्वमधश्चैव रक्तपित्तस्य दर्शिता ।
उर्ध्वासप्तविधद्वारा द्विद्वारा त्वधरा गतिः ॥ C.S.Ch. 4/15.

8.5 Kapha dominant features

Whitish, thick type of bleeding.

8.6 Pitta dominant features

Cow urine coloured, shining type of bleeding.

8.7 Vata dominant features

Blackish coloured, thin, foamy type of bleeding.

9. Possible ways for Raktapitta to occur

1. Urdhvaga Raktapitta: Expulsion of abnormal Pitta and Rakta through eyes, nose, ears and mouth.
2. Adhoga Raktapitta: Expulsion of abnormal Pitta and Rakta through anus, vagina and urethra.
3. Tiryaka Raktapitta: Expulsion of abnormal Pitta and Rakta through hair follicles of the skin.

10. Table summary of classification of Raktapitta

As per route of onset	Urdhvaga Raktapitta
	Adhoga raktapitta
	Tiryaka raktapitta
As per predominant dosha in samprapti	Vataja Raktapitta
	Pittaja Raktapitta
	Kaphaja Raktapitta

11. Complications : Upadrava

दोषैर्बल्यं श्वासवमुपद्रवस्तद्विदाहभूच्छा।
भुवते चान्ने विदाहस्त्वद्युतिनि सिदाहदयतल्या च पिडा।।
तृष्णा कण्ठस्य भेदा शिरसि च दहनं भूतिनिष्ठीवनं च
द्वेषोभक्तैः विषाको विरतिपि स्वते रक्तपित्तोपसर्गाः।।
S.S.Utt.45/10.

1. General weakness.
2. Dyspnoea.
3. Cough.
4. Sensation of burning.
5. Stupor.
6. Fever.
7. Drowsiness.
8. Vomiting.
9. Heavy chest. Chest pain.
10. Thirst.
11. Change in voice quality.
12. Foul smelling sputum.
13. Loathing of food.
14. Indigestion.
15. Restlessness.
16. Loss of libido.

12. After effects : Udarka

1. Pandu.
2. Weakness.
3. Enlargement of liver and spleen.
4. Loss of libido.
5. Inability to contact heat.

13. Prognosis : Sadhyasadyatva

उर्ध्वं साध्यमधो यायमसाध्यं युगपद्गतम्।

S.S.Utt.45/7

एकमार्गं बलवतो नातिवेगं नवोत्थितम्।।

रक्तपित्तं सुखे काले साध्यः स्यान्निरुपदम्।। Ch.Ch.4/22

एकदोषानुगुं साध्यं द्विदोषं यायमुच्यते।।

य त्रिदोषमसाध्यं स्यान्नदानेतिवेगवत्।

व्याधिभिः क्षीणदेहस्य वृद्धस्यानश्रतश्च यत्।।

Ch.Ch.4/13-14.

सप्त छिद्राणि शिरसि द्वे चाद्यः, साध्यमूर्ध्वगम्।

यायं त्वयोगं, मार्गं तु द्वावसाध्यं प्रपद्यते।
यदा तु सर्वाच्छिद्रेभ्यो रोमकूपेभ्य एव च।
वर्तते तामसंख्येयां गतिं तस्याहुन्तिकीम्।।

C.S.Ch.4/15-17.

Generally Raktapitta is difficult to treat. Chances for cure are explained as per the types.

13.1 Curable : Sadhya

1. Urdhava Raktapitta.
2. Bleeding occurring via single [upper or lower] route. Also bleeding occurring due to single dosha involvement.
3. Acute or new onset of disease.
4. Quantity of the bleeding is less and it is slow in nature.
5. In young patients with good body strength. [Sharira bala].
6. Raktapitta developed during late autumn-Hemanta or Shishira ritu.
7. Raktapitta without any other complications.

13.2 Curable with continual management : Yapya

Type which can be maintained with medicines:

1. Adhoga type of Raktapitta.
2. With involvement of more than one dosha.

13.3 Incurable : Asadhya

1. Raktapitta manifested in elderly patients.
2. Patient who has become severely weak and also afflicted by other serious diseases.
3. Patient with complete loss of appetite.
4. With involvement of all the three dosha.

One should give a thought towards the success achieved by treatment as per the types.

Urdhvaga Raktapitta is told as curable that means comparatively treatable because, it can

be best treated by Virechana chikitsa as per the sutra प्रतिमार्गं च हरणम्।।

Medicated purgation-Virechana karma- is the ultimate treatment for alleviation of aggravated Pitta dosha Virechana clears aggravated Pitta out of the body. It also purifies Rakta dhatu. There are several formulations available for Virechana karma and they are much easily accepted by the patient. All these points make Urdhvaga Raktapitta a curable type.

On the other hand, for treatment of Adhoga Raktapitta Medicated emesis- Vamana karma- is the procedure of choice. The procedure of Vamana is tiresome to the patient, formulations for Vamana are also not palatable. Vamana is not the specific treatment advised for removal of aggravated Pitta dosha, also Vamana karma does not work on Rakata dhatu and on Vata dosha aggravation. That is why Adhoga Raktapitta is told as critical to maintain - which requires constant medication, or at times completely incurable.

Tiryakagata Raktapitta remains totally incurable with any of the treatments.

14. Fatal symptoms : Arishta lakshana

रक्तपित्तं भृशं रक्तं कृष्णमिन्द्रधनुषभम्।

ताम्रहास्त्रिहरितं रुषं रक्तं प्रदशयित्।।

रोमकूपप्रविमुक्तं कण्ठास्यहृदये सजत्।

वाससोऽरक्षजनं भूति वेगवच्चाति भूरि च।।

वृद्धं पांडुज्वरच्छर्दिकासशोफातिसारिणम्।।

A. H. Sh.5/74-75.

मांसप्रक्षालनाभं ववथितपिब च यत् कर्दमाम्भोनिभं वा।
भेदः पूयास्त्रकलं यकृदिव यदि वा पक्वजम्बूफलाभम्।।
यत् कृष्णं यच्च नीलं भृशमतिकृष्णं यत्र क्षोवता
विकारास्तद्वर्ज्यं रक्तपित्तं सुस्पतिधनुषा यच्च तुल्यं विभालि।।
S.S.Utt. 45/11.

1. Bleeding of various abnormal colours like green, black, gray and yellow etc.
2. Bleeding through skin.
3. Bleeding which leaves stains on the cloth after washing.
4. Foul smell of the bleeding.
5. Heavy spurting type of bleeding.
6. Severe loss of blood from the body.

15. Dietary and behavioral regimen**15.1 Pathya**

wholesome regimen:

1. Fasting.
2. Intake of light, easy to digest type of food. For e.g. old rice, green gram, lentils etc.
3. Rest.

15.2 Apathya

unwholesome regimen:

1. Physical exertion.
2. Acceptance of direct heat in any form.
3. Hyper hostility, mental irritation.
4. Intake of food items which can provoke Pitta dosha and vitiate Rakta dhatu. for e.g. peas, sugar cane, jack fruit etc.

Disease at a glance

- Nature of Disease: Chronic.
- Major Involving Dosha- Vata.
- Associated dosha: Pitta, Kapha.
- Major Involving Dushya- Rakta
- Site of Manifestation: Joints.
- Srotas: Raktavaha Srotas

Types

- Cardinal Feature: Affliction of small joints at preliminary stage. - Great toe

Prognosis

- Curable: Single dosha dominant types with new onset.
- Difficult to cure: Two dosha dominant types.
- Incurable: Three dosha dominant type with chronicity and complications.

Diseases for differential diagnosis

1. Amavata.
2. Sandhigatavata.
3. Krosthukasheersha.

Reference reading

- Madhavanidana Vatarakta Chapter 23.
- Ashtanga Hridaya Sharir Sthana Chapter 5
- Charaka Samhita Chikitsa sthana Chapter 29
- Sushrut Samhita Nidana Sthana Chapter 5
- Sanskrit English dictionary
- Apte Shabda-kosha.

1. Introduction

Disease Vatarakta originates from morbid union of Vata dosha with Rakta dhatu. The disease is predominant for smaller joints to start with. Nature and severity varies person to person and associated with painful inflammatory condition of the joints. Commonly originates at smaller joints, primary site of affliction is observed at great toe. Other joints are affected with advancement of the disease. Further detailed pathogenesis is described as Nidana Panchaka of Vatarakta in this chapter.

2. Synonyms : Paryaya Nama

1. **Khudavata** : Khudaka means (ankle) joint. The disease affects mainly to the ankle joints and so called as 'Khudavata'.
2. **Vatabalasaka** : It suggests for the covering of Vata dosha on Rakta dhatu also the main role of Vata dosha in the samprapti.
3. **Adhyaroga** : Generally this disease affects the wealthy people who always eat heavy, fatty, sweet food and tend to avoid any type of exertion.

3. Route of development: Marga: Madhyama, Daruna.

Primary affliction of the disease is internal involving the joints. Nature of the disease is chronic and painful.

4. Predisposing factors : Nidana

लवणाम्बकटुक्षारस्निग्धोजीर्णभोजनैः ।
 क्लिप्तशुक्रान्मुजाम्कर्मविष्याकमूलकैः ॥
 कुलत्पमापिभावाशलादि पल्लेषुभिः ।
 दध्यालालसौरशुक्रतक्रमुगवैः ॥
 विरुद्धाध्यशनक्रोधविवास्वन्प्रजागरेः ।
 प्रायशः सुकुमाराणां मिथ्यासुखभोजिनाम् ॥
 अयङ्क्रमणशीलानां कुप्यते वातशोणितम् ॥
 अभिघातादशुद्ध्या च प्रदुष्टे शोणिते नृणाम् ॥
 कपाय कटुविताल्परुक्षाहरादभोजनात् ॥

हयोद्भयानयानाबुक्रोडापलवनलङ्घनैः ।
 उष्णेचात्यध्ववैषम्याद्व्यवायवेगनिग्रहात् । C.S.Ch.29/5-10.

1. Excessive intake of salty, sour, pungent, alkaline, unctuous, hot (by potency) type of food. Repeated eating in a state of indigestion.
2. Intake of rotten, decaying and dried meat or meat of animals residing at marshy lands.
3. Excessive intake of vegetables like radish, residue of churned oil seeds (*pinayaka*), lentils, black gram, cow pea, asafoetida (*shala*), sweets made up of sesame seeds (*Sesamum indicum*) and sugar leafy vegetables, mutton, sugarcane juice.
4. Excessive intake of curds, fermented drinks like sour buttermilk, sour gruel (*kanji*), spirited liquor- wine,
5. Intake of incompatible food contents [*Virudhbahara*].
6. Over eating.
7. Anger, hyper hostile nature.
8. Irregular sleep and wake up schedule- Excessive daytime sleep or keeping awake till late night.
9. The disease is dominant in people with delicate physis : The persons who are not used to hard tasks of life- and who tend to eat sweet food items. Also to the people who tend to sit for longer times without any kind of physical exercise. The disease is also seen to be dominant in people who keep themselves joyful with total lack of worrying. These are the dietary and conventional causes responsible for Vata dosha and Rakta dhatu vitiation and further morbid combination. Apart from these, some special causes related to the behavior are also explained as under;
10. Physical trauma.
11. Not performing the bloodletting procedure [Raktamokshana] at appropriate time.
12. Intake of astringent, pungent, bitter food contents.
13. Inadequate eating prolonged starvation.
14. Traveling a long distance on elephant, camel or horse and keeping the legs in dangling condition.
15. Excessive swimming, playing in water.
16. Prolonged fasting or starvation.
17. Excessive running or bouncing.
18. Walking under scorching Sun by uneven roads.
19. Excessive practice of sex.
20. Suppression of natural urges.

5. Pathogenesis : Samprapti

वासुर्विबुद्धो वृद्धेन रक्तेनावारितः षधिः ।
 कृत्स्न संदूषयेद्रक्तं तज्ज्ञेयं वातशोणितम् ॥
 खुडंवातबतासाख्यमाढयवातं च नामभिः ॥

C.S.Ch.29/10-11.

तस्य स्थानं करोपादावद्गुल्यः सर्वपादावगुल्यः सर्वसंघयः ।
 कृत्वाऽऽदौ हस्तपादे तु मूलं देहे विधावति ॥
 सौक्ष्म्यात् सर्वरसत्वाच्च पवनस्यासुजस्तस्य ।
 तद्द्रवत्वाच्च सरत्वाच्च देहं गच्छन् सिरायनैः ॥
 पर्वस्वभिहतं क्षुद्रं वक्रत्वादवतिष्ठते ।
 स्थितं पित्तादि संसृष्टं तास्ताः सृजति वेदनाः ॥
 करोति दुःखं तज्ज्ञेयं तस्मात् प्रायेण संधिषु ।
 भवन्ति वेदनास्तास्ता अत्यर्थं दुःसहा नृणाम् ॥

C.S.Ch.29/12-15.

तत्र बलवद्विग्रहादिभिः प्रकुपितस्य वायोर्गुल्फाध्यशन-
 शिलस्य प्रदुष्टं शोणितं मार्गमावृत्त्वं
 वातेन सहैकीभूतमुपपद्मत्तत्तन्निमित्तां वेदनां जनयतीति
 वातरक्तम् ॥

S.S. Chi. 5/4.

Due to repeated acceptance of dietetic and behavioral causes (especially like continuous

traveling on elephant or camel etc.) Vata dosha increases and further vitiates Rakta dhatu. The pathway of Vata dosha is obstructed by Rakta dhatu. Due to this obstruction, Vata dosha abnormally increases by all its qualities to produce the disease particularly at smaller joints called as Vatarakta.

This disease develops with morbid combination of dietetic and behavioral causes e.g. improper food habit which produces morbid increase in Vata dosha, it also creates weakness to Rakta dhatu. Further, cause like long and persistent uncomfortable travel via camel, elephant or horse etc. (in present era long drive on a motor bike or daily journey in an uncomfortable or crowded vehicle) enhances accumulation of already exacerbated Vata-Rakta union prominently into smaller joints of the legs and further spreads to other joints. Also, smaller joints such as joints of fingers have closely related blood vessels which are curved as per the shape of the joint. This condition helps for saturation of increased dosha as well as dushya at that place.

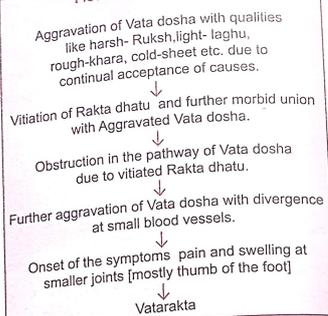
The disease starts mainly with smaller joints like joints of the fingers [metacarpal or metatarsal joints] and spreads in the bigger joints as the time passes and ultimately becomes chronic. The disease is commonly observed to be started always with the thumb of the foot.

1. **Udbhava sthana:** origin of the disease is in the Rakta dhatu, onset in the joints.
2. **Sanchara sthana:** Spread of the disease is via blood circulation.

6. Premonitory features : Purvaroopo

स्वेदोत्थं न वा कार्प्यं सर्शाञ्जलं क्षतेतिरुक्।
सन्धिशीथिल्यालसं सदनं पिडकोद्गमः।

Flow chart of Samprapti:



Components of pathogenesis: Samprapti ghataka

- Dosha: Vata.
- Dushya: Rakta.
- Srotas: Raktavaha srotas.
- Adhishthana: Parvasandhi.
- Srotodushti: Sanga, vimargagamana.
- Swabhava: Chirakari.
- Agni dushti: Jatharagni, Rakta dhatu agni -Agnimandya

जानुजङ्घोरुकटचंसहस्तपादांगसंधिषु। निस्तोदः स्फुरणं
भेदोमुरुत्वं सुप्तिये च। कण्डूः संधिषु रुग्भूत्वा भूत्वा
नश्यति चासकृत्।

वैवर्धं मण्डलोत्तिवार्त्तिसृक् पूर्वलक्षणम्॥
C.S.Ch.29/ 16-18.

क्षतेऽतिरुगिति यदि कारणान्तरात् क्षतं स्यात्तदाऽतिशयं
रुजा स्यात् तद्देशस्य दुष्टत्वात्।

M.Ni. - commentary-chapter- Vatarakta-23/5-7.

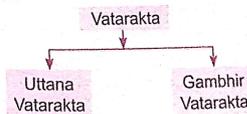
तस्य पूर्वरूपाणितोददाहकण्डूशोफस्तम्भत्वकारुष्यसिरासा
युधमनीस्यदनसक्थिदोर्बल्यानि श्यावारुणमण्डलोत्पत्तिश्चा-
कस्मात् पाणिपादतलाङ्गुलिगुल्फमणिवन्ध्रभृतिषु तत्रा-
प्रतिकारिणोऽपचारिणश्च रोमोव्यक्ततरः तस्य लक्षणमुक्तं
तत्राप्रतिकारिणो वैकल्यं भवति॥ S.S.Ni. 5/4.

1. Excessive sweating or complete lack of sweating at the affected site.
2. Skin discoloration.
3. Loss of sensation towards touch.
4. Excessive pain on wounding.
5. Untied, loose feeling in the joints.
6. Lethargy.
7. Body ache.
8. Formation of painful boils especially on the knee, sacral and lumbar joints. Fingers become swollen and painful. A typical pricking type of pain is felt within the joints. Also, spontaneous onset and subsidence of joint pain, pulsation, cutting type of pain, is observed.
9. Severe fatigue.
10. Pulsation at joints.
11. Heaviness of joints and loss of sensation at the site of blood vessels.
12. Sensation of itching at the joints.
13. Spontaneous onset and subsidence of pain in joints.
14. Spontaneous change in skin colour or onset of round blackish gray patches on the body.
15. Severe weakness at thighs.
16. If misdiagnosed or untreated these prodromal features lead to formation of serious debilitating disease called as Vatarakta.

Premonitory features of Vatarakta are similar to Premonitory features of Kushtha.

7. Types : Prakara

Two types are described according to Charaka Samhita.



7.1 Uttana Vatarakta

It occurs due to vitiation of *Tiwacha* -skin and *Mamsa*- flesh. It is a superficial and comparatively minor type of presentation of Vatarakta.

Clinical features : Roopa

1. Body itching.
2. Burning.
3. Body Pain.
4. Pricking type of pain.
5. Pulsation at affected body parts.
6. Stretching like sensation.
7. Skin colour becomes red or blackish red.

7.2 Gambhir Vatarakta

It occurs due to vitiation of Meda, Asthi, Mamsa and Majja dhatu. It is a severe type of presentation of Vatarakta.

Clinical features : Roopa

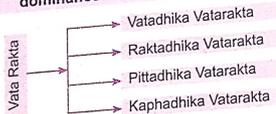
1. Swelling.
2. Numbness.
3. Hardening of the joints.
4. Severe pain.
5. Burning sensation.
6. Pricking type of pain.
7. Pulsation.
8. Pus formation.
9. Severe unbearable pain at joints and bones.
10. Bending of organs especially of legs due to which walking becomes abnormal.
11. Blackish red discoloration of skin.

Ignorance, wrong diagnosis, wrong treatment or very severe dosha vitiation leads Uttana vatarakta to Gambhira type.

Many a times Vatarakta develops with presentation of all the symptoms of both the types from very beginning of the disease, thus to make it difficult to treat. That is why Charaka has explained the third type as 'Ubhayashrita Vatarakta'.

Charaka also has described other three types according to involvement of vitiated dosha and dhatu.

8. Types according to dosha dominance



तत्र वातेऽधिके वा स्याद्रक्ते पित्तेऽकफेऽपि वा ।
संश्लेषु समस्तेषु यच्च तच्छुषु लक्षणम् ॥
विशेषतः सिरायामशूलस्फुनतोदनम् ।
शोथस्य कार्णं रौक्ष्यं च श्यावतावृद्धिदानयः ।
घमन्यद् गुलिसन्धीनां संकोचोऽङ्गग्रहोऽतिरुक् ॥
कुञ्चने स्मन्ने शीतप्रदेषश्चानिलेऽधिके ।
क्ष्वयद्युर्भ्रारुक् तोद्वलाग्रश्चिमिचिमाते ॥
स्निग्धरुक्षैः शर्मं नैति कण्डूत्वेदान्वितोऽयुजि ।
विदाहो वेदना मुर्च्छां स्वेदस्तृष्णा मदो प्रमः ॥
रागः पाकश्च भेदश्च शोषचोक्तानि पैतिके ।
स्तौनित्वं गौरवं स्नेहः सुप्तिमंदच रुक् कफे ॥
हेतुलक्षसंसांदिद्याद्वद्विदोषजम् ॥ C.S.Ch.29/ 24-29.

8.1 Vata-dhika Vatarakta

With dominance of Vata dosha in the samprapti.

1. Stretching and pricking type of pain at the site of blood vessels.
2. Pulsation at affected sites.
3. Joints are swollen with blackish discoloration. Swelling and discoloration of the joints increases or decreases spontaneously.
4. Abnormal curvature to vessels, fingers and joints.
5. Clutching or grabbing type of severe body pain.
6. Dislike for cold.

8.2 Raktadhika Vatarakta

With dominance of Rakta dhatu in the Samprapti

1. Excessive pain with swelling at joints.
2. Pricking type of pain.
3. Reddish discoloration of skin at affected site.
4. Tingling sensation.
5. No relief with either unctuous or dry types of medications.
6. Itching sensation.
7. Feeling of dampness in the body.

8.3 Pittadhika Vatarakta

With dominance of Pitta dosha in the Samprapti.

1. Burning sensation at affected sites.
2. Pain at affected site. Body ache.
3. Stupor.
4. Sweating.
5. Thirst.
6. Delirium.
7. Giddiness.
8. Reddish discoloration of the skin.
9. Pus formation.
10. Laceration of skin at affected site.
11. Atrophy of the affected body part.

8.4 Kaphadhika Vatarakta

With dominance of Kapha dosha in the Samprapti.

1. Dampness of skin.
2. Heaviness of the body.
3. Abnormal soft feel of the skin.
4. Loss of sensation to touch, numbness.
5. Dull type of body pain.

Two Dosha Dominant - Dwidoshja and three dosha dominant - Sannipatika types display mixed symptoms of all the above mentioned types.

9. Complications : Upadrava

अस्वप्नारोचश्वासर्मांसकोयशिरोग्रहाः ।
मूर्च्छायमदरुक्तृष्णाज्वरगोहप्रवेपकाः ॥
हिक्का पाङ्गुल्यवीर्यपाकमोहप्रमलमाः ।
अङ्गुलीवक्रता स्फोटा दाहमर्मग्रहाबुर्दाः ॥

C.S.Ch.29/ 31-32.

1. Loss of sleep- insomnia.
2. Insipid mouth.
3. Dyspnoea.
4. Decaying of body flesh.
5. Heaviness of head.
6. Fainting and giddiness.
7. Severe pain.
8. Thirst.
9. Fever.
10. Delirium.
11. Hiccup.
12. Walking abnormalities.
13. Visarpa.
14. Pus formation.
15. Pricking type of pain.
16. Weakness.
17. Bending of fingers.
18. Formation of Boils.
19. Burning sensation.
20. Skin lesions.
21. Damage to vital points- Marma.
22. Formation of tumors -Arbuda.

10. After effects : Udarka

1. Bending of fingers.
2. Permanent deformities of the joints.
3. Heart disease- Hridroga.

11. Prognosis :Sadhya- asadhyatva

एकदोषानुगं साध्यं नवं, याप्यं द्विदोषजं ।
त्रिदोषजमसाध्यं स्यादस्य च स्वरुद्रवाः ॥

C.S.Ch.29/ 30.

11.1 Sadhya - Curable

Vatarakta developed due to single dosha vitiation and without any upadrava is curable.

11.2 Yapya - Can be managed with continual medication

Vatarakta with minimal complications can only be maintained with continual medication.

11.3 Asadhya - Incurable

Vatarakta with involvement of all three dosha and with maximum complications is incurable.

12. Fatal symptoms : Arishta laxana

वायुः सतत्वचं धुनं कमशोकरुजातुम् ।
वातासं मोह मूर्च्छायमदस्वनज्वरान्वितम् ।
शिरोग्रहासिश्वाससंकोचस्फोटकोयवत् ॥ A.H. Sh. 5/99.

A patient of Vatarakta surely dies if following symptoms occur;

1. Formation of Visarpa.
2. Decaying of body flesh.
3. Fever.
4. Fainting and giddiness.
5. Severe insomnia.
6. Heaviness of head.
7. Insipid mouth.
8. Dyspnoea.
9. Stretching type of pain in the body.

13. Dietary and behavioral regimen

13.1 Pathya

wholesome regimen:

1. Intake of light, easy to digest type of food. For e.g. old rice, old barley, wheat, green gram, meat and vegetable soups, cow milk etc.
2. Diet rich in nutrition values.
3. Residing in warm and comfortable surroundings and treatments.

13.2 Apathya

unwholesome regimen:

1. Intake of hard to digest, hot, pungent, spicy, salty and moisture creating type of food.
2. Physical exertion or exercise, sexual intercourse, hyper hostile nature, anger.
3. Day time sleep.
4. Acceptance of direct heat in any form.

...

Disease at a glance

- Nature Of Disease: Chronic.
- Major Involving Dosha- Vata.
- Major Involving Dushya- Rakta
- Site Of Manifestation: Knee joint.
- Srotas: Raktavaha Srotas, Asthi-Majjavaha srotasa

Types

- Cardinal Feature: Painful swelling at knee joints.
- Cure Chances- Curable When disease is in its initial condition (Nava Vyadhi)

Diseases for differential diagnosis

1. Sanchigata Vata
2. Amavata.
3. Vatarakta
4. Pandu
5. Jwara.

Reference reading

- Sushrut Samhita Nidanasthana Chapter 1.
- Sanskrit-English Dictionary
- Apte Shabda-kosha

1. Introduction

Some diseases are very peculiarly named after their nature of presentation. Kroshtukasheersha is one of them. The name of the disease is derived from Sanskrit name of an animal, 'क्रोष्टुकः' meaning a wolf. It is a type of joint deformity, mainly affecting generally a single knee joint becomes chronic with lapse of time. Appearance similarity to the animal's (wolf) head is cause to name the disease accordingly. Further detailed pathogenesis is described as Nidana Panchaka of Kroshtukasheersha in this chapter.

2. Definition : Paribhasha

वातशोणितजाः शोथो जानुमध्ये महाकुजा ॥
ज्वेयः क्रोष्टुकशीर्षस्तु खूलाः क्रोष्टुकशीर्षवत् ॥ S.S.Ni. 1/76.

The disease which has characteristic nature to affect only the knee joint is called as Kroshtukasheersha. Aggravated Vata dosha affects Rakta dhatu and afflicts one or both of the knee joints to cause this disease.

The name of the disease is derived from the similarity between the shape of the swollen knee and the shape of head of a Wolf [Kroshtuka].

3. Marga : Bahya, Madhyama

The disease presents externally but pathogenesis involves bones and joints. (knee joint/s)

4. Pathogenesis: Samprapti

General samprapti of Vatavyadhi is applicable.

5. Clinical features: Roopa

1. Affected knee joint becomes extremely painful, stiff and swollen.
2. Movements of the affected knee joint are restricted.
3. Sensation of burning at knee joint.
4. Reddish discoloration at the joint.
5. Localized hyperthermia.

6. Dietary and behavioral regimen:
As per Vatarakta

Disease at a glance

- Nature of Disease: -Acute.
- Major Involving Dosha- Vata, Pitta, Kapha.
- Major Involving Dushya- Rasa, Rakta
- Site of Manifestation: Skin
- Srotas: Raktavaha Srotas
- Cardinal Feature: Scratchy skin eruptions.

Prognosis

- Curable.

Diseases for differential diagnosis

1. Maha Kushtha
2. Kshudra Kushtha
3. Visarpa.
4. Dagdha.
5. Neelika.
6. Vyanga
7. Tilkalaka.

Reference reading

- Madhavanidana Shitapitta Chapter-50.
- Sanskrit-English Dictionary
- Apte Shabda-kosha.

1. Introduction

In this Chapter disorders pertaining to skin eruptions causing itching sensation of variable degree are explained. These conditions are not serious or life threatening, but itching and irritation to skin causes disturbance to daily routine. Further detailed pathogenesis is described as Nidana Panchaka of Sheetapitta – Udarda- Kotha in this chapter.

2. Sheetapitta

2.1 Definition : Paribhasha

शीतमारुतसंस्पर्शखटुद्वी कफमालौ ।

पित्तेन सह संभूय बहिस्तत्तिसर्पितः ॥ M.Ni.-Sheetapitta- Chapter-50/1.

The disease condition arising due to contact of skin with cold weather and formation of scratchy eruptions on the skin is called as Sheetapitta. This is an acute fast developing condition.

2.2 Route of development : Marga

Bahya: Affliction of the disease is external.

Although Vata, Pitta and Kapha dosha are equally involved, Vata Dosha plays a major role in the samprapti.

2.3 Predisposing factors: Nidana

1. Prolonged contact with cold wind

2.4 Premonitory features: Purvaroopam

पिपासालयिहल्लासदेहेसादांगगौरवम् ।

स्वतलोचनता तेषां पूर्वरूपस्य लक्षणम् ॥ M.Ni.-Sheetapitta- Chapter-50/2.

1. Thirst
2. Insipid mouth
3. Loss of appetite
4. Nausea
5. Weakness
6. Heaviness of body
7. Redness of eyes

2.5 Clinical features: Roopa

Most of the positional features are expressed as clinical features.

वरीयसंज्ञानः शीघ्रः संज्ञायो बहिः।
सकण्डुसोदबहुसकण्डुःवसिवाहवान्॥
उदरभित्तिं तं विद्याच्छीतविराजमानं।
वाताधिकं शीतविराजमानं कदाचिकः॥

M.Ni. Shitapitta- Chapter-50/3-4.

1. Formation of scratchy skin eruptions all over the body (resembling to bumble bee bite)
2. Sensation of pain as ant bite at skin
3. Sudden development and fast spread.

3. Urdarda

कौस्तुभे कण्डुविराज मण्डलैः।
शैतिलः कण्डुनो व्यापिष्यति इति किलिबः॥

M.Ni. Shitapitta- Chapter-50/5.

3.1 Definition : Paribhasha

The disease in which scratchy, red coloured skin eruptions are formed with sensation of burning resembling to bumble bee bite is called as Urdarda. Kapha Dosha is dominant in the samprapti. This disease predominantly develops during 'Shishira ritu' i.e. During late winter. Urdarda is defined as same as Sheetsapitta in many texts.

3.2 Route of development : Marga

The disease affects externally to the body.

3.3 Clinical features : Roopa

1. Formation of rounded reddish coloured skin eruptions all over the body.

2. Itching of skin as if bitten by bumble bee.
3. Red coloured rounded scratchy eruptions
4. Fever.
5. Severe sensation of itching, sensation of pricking like needle prick.
6. Vomiting
7. Acidity.

4. Kotha**4.1 Definition : Paribhasha**

असम्यग्मनोवीणापित्तश्लेष्मान्निग्रहैः।
मण्डलानि सकण्डूनि समवन्ति बहूनिच॥
उत्कोठसानुबन्धश्च कोठइत्यभिधीयते।

M.Ni. Shitapitta- Chapter-50/6.

The scratchy skin eruptions which develop as a result of erroneous application of medicated emesis (Vamana Atiyoga) or suppression of urge of vomiting is called as Kotha. **Utokotha is the synonym.**

Excessive emesis gives rise to Dosha aggravation as well as abruptly stopped emesis keeps impurities like undigested food or other harmful contents clogged in the stomach and hence Kapha and Pitta Dosha get aggravated.

4.2 Clinical features : Roopa

1. Formation of Rounded, scratchy, red coloured eruptions on the skin.
2. Skin itching
3. Eruptions are numerous and form all over the body.

Disease at a glance

- Nature of Disease : Chronic.
- Major Involving Dosha - Vata, Pitta, Kapha
- Major Involving Dushya - Rasa, Rakta, Lāsika, Mamsa, Meda.
- Site of Manifestation : Skin
- Srotas : Raktavaha Srotas

Types

- Maha Kushtha - Seven, & Kshudra Kushtha - Eleven
- Cardinal Feature : Skin Discolouration- Twak Vaivaranya.

Prognosis

- Difficult To Cure, Incurable

Diseases of differential diagnosis

- Diagnosis
- Visarpa
- Dagdha-Bhallataka dagdha (Seruecrpus ancardium)
- Shita pitta
- Urdarda
- Kotha

Reference Reading

- Madhavanidana - Kushtha Ch. 49
- Astang Sangraha - Nidan Sthan - Ch. 14
- Astang Sangraha - Sharir Sthan - Ch. 9
- Charak Samhita - Nidan Sthan - Ch. 5
- Charak Samhita - Chikitsasthan - Ch. 7
- Sushrut Samhita - Nidansthana - Ch. 5
- Sanskrit-English Dictionary - Apte Shabdakosh

1. Introduction

Kushtha is a serious and chronic disorder manifesting primarily on skin and eventually spreading to deeper organs and systems. Most of the times ignorance by the patient due to complete lack of pain in initial stages leads the disease to fatality. Very chronic nature, lack of pain and sensation and permanent deformity to body organs are the prime features of Kushtha. It is unanimously described as an incurable condition by all the major texts of Ayurveda. It is one of the eight very serious, non treatable and life threatening disease conditions – specially described as Ashta Mahagada. Incurability is also associated with social stigma due to potential of the disease to make the patient rejected, physically disfigured and handicapped. For the purpose of description of its most serious nature and thus to avoid acceptance of relevant causes, Ayurveda provides detailed description of etiopathogenesis of the disease. Further detailed pathogenesis is described as Nidana Panchaka of Kushtha in this chapter.

2. Definition : Paribhasha

त्वचः कुर्वन्ति वैवर्ण्यं दुष्टाः कुष्ठमुशन्ति तत्।

कालेनोपैक्षितं यस्मात्सर्वं कुष्णाति तद्वयुः॥

A.H.Ni. 14/3-4.

The disease in which repeated acceptance of causes resulting in dosha vitiation to cause discoloration and decay of the skin is called as Kushtha. The condition may lead to total decaying of the body, including deeper organs and structures if ignored. Ignorance by patient or wrong diagnosis by doctor is the main factor for chronicity of this disease.

3. Route of Development: Marga : Bahya

Preliminary manifestation of the disease is external. Skin is the first organ to get affected. Onset as well as progress of disease is slow but nature of the disease is very chronic and severe. It actually takes years to complete the

pathogenesis and display of full blown disease on the body.

4. Predisposing factors : Nidana

विशेषोऽन्यन्तानामिदं श्रवणमिदं गुरुणिच।
भजतामगतं च्छदि वेपांश्चाप्यतिश्रताम् ॥
व्यायामनतिश्रतापमतिमुक्तोत्तसेविनाम् ॥
शीतोष्णलवनाहायन् क्रमपुदत्वानिषेविनाम् ॥
धर्मश्रमभयानां दुर्त शीतांबुवेविनाम् ॥
अजीर्णाभ्यशाना चैव पंचकर्मपचारिणाम् ॥
नवान्दधिपस्त्यातिलकण्ठानिषेविनाम् ॥
माषमूलकमिष्टान्तिलकीपुडुशशिनाम् ॥
व्यवयं चायजोऽने नित्रां च भजतां दिवा।
विभ्रान् गुरुन् यथ्यतापारं कर्म च कुर्वताम् ॥

C.S.Ch.7/4-8.

मिथ्याहारविहारोप विशेषणवितोधिना।
साधुनिश्चयान्मस्वहृणा वैच सेवितेः।
पाप्यभिः कर्मभिः सद्यः प्राक्तनैः प्रेक्षिता
मताः ॥

A.H.Ni. 14/1-2.

Causes responsible to produce harmful poisonous waste -Kleda in the body system, are basic predisposing factors for Kushtha. Also causes which produce ill effect to the mental state of a person also are responsible to produce Kushtha.

1. Intake of incompatible food contents- Virudhaahara.
2. Excessive intake of liquid, unctuous, heavy food contents.
3. Suppression of natural urges, especially the urge to vomit.
4. Severe physical exercise or acceptance of scorching sunlight immediate after eating food.
5. Evasion of general rules about intake of hot, cold, solid or liquid etc.
6. Drinking cold water or having cold bath immediately after contacting direct heat or having cold water bath. Drinking cold water in frightened or sad state of mind.
7. Excessive eating in the state of indigestion.

8. Erroneous applications of body purification procedures. [Panchakarma vyapada.]

9. Excessive intake of new grains, curds, fish, salty and sour food.

10. Excessive intake of radish, horse gram, sweet food, sesame seeds (Sesamum indicum) or oil, milk and milk products and food contents made from molasses or treacle (jaggery).

11. Having sexual intercourse in a state of indigestion. Day time sleep.

12. As a punishment for sins done in previous life, cursing or troubling innocent people, insult of respected personalities such as teachers, elderly people

5. Pathogenesis : Samprapti

वातादयोऽत्रयो दुष्टास्त्वक् रक्तमासमशु च।
दूपायन्ति स कुष्ठानां सप्तको द्रव्यसंग्रहः ॥
अतः कुष्ठानि जायन्ते सत्तं च एकादशैव च।
न चैकदोषजं किञ्चित् कुष्ठं समुपलभ्यते ॥

C.S.Ni.

5/3.

नचकिञ्चिदस्ति कुष्ठमेकदोषप्रकारपनिमित्तम्, अस्ति तु
खलु समानप्रकृतिनामपि कुष्ठानां दोषांशोऽश्विकल्पानुबन्ध
स्थानविभागेन वेदनावर्णप्रभावनामचिकित्सविशेषः।

C.S.Ni. 5/4.

त्रयो दोषाः युगपत् प्रकोपमाद्यन्ते; त्वगादयश्चत्वारः
शैथील्यमापद्यन्ते; तेषुशियिलेषु दोषाः, प्रकुपिताः
स्थानमधिगम्य संतिष्ठ-मानास्तानेव त्वगादीन् दूषयन्तः
कुष्ठान्यपि निर्वर्तयन्ति ॥ C.S.Ni. 5/6.

All three Dosha are equally involved in the Samprapti of Kushtha thus making it always a Sannipatika type of disease. Chronic nature and slow progress of the disease makes it very critical for treatment.

Due to continual acceptance of causes, Vata, Pitta and Kapha dosha vitiates with all their qualities. This vitiation is associated with weakness of dushya. Primarily four dhatu namely Twacha [Rasa dhatu], Lasika,

Rakta and Mamsa take part in samprapti of the disease. These four elements and three dosha make the seven essential components of the Kushtha Samprapti i.e. Saptadravyasangraha.

Involvement of skin remains the dominant feature and it persists throughout the course of the disease.

aggravated Vata dosha carries already exacerbated Pitta and Kapha dosha with it and progresses towards superficial layers of the skin. Here liquid factor of body i.e. Lasika with Mamsa Dhatu are already in a weak state. Vitiated dosha find first suitable site to reside and start the onset of the disease at Twacha i.e. skin. With enhancement of severity in pathogenesis and advancing time Kushta penetrates and develops further into deeper body planes and becomes more and more severe and critical to handle.

Components of pathogenesis Samprapti ghataka

- Dosha: Vata, Pitta, Kapha.
- Dushya: Primary involvement-Rasa, Rakta, Mamsa, Lasika..
Later involvement- All the seven body elements. (Sapta Dhatu)
- Srotas: Rasavaha srotasa, Raktavaha srotas, Mamsavaha srotasa, Swedavaha srotas.
- Adhishthana: Twak
- Srotodushhi: Atipravritti, Vimarmagamana.
- Swabhava: Chirakari
- Agni dushti: Jatharagni, Agni of all the seven dhatu- Agnimandya.

6. Premonitory features : Purvaroopo

अतिश्लक्ष्णखर्षश्वेदास्वेदविवर्णता।

दाहः कंडुस्त्वचि स्वापस्तोदःकोठेन्नति श्रमः ॥

व्रणानामधिकं शूलं शोथोत्पत्तिश्चिस्थितिः।

रूढानामपि रुक्षत्वं निमित्तेलेऽपि कोपनम् ॥

A.H.Ni. 14/11-12.

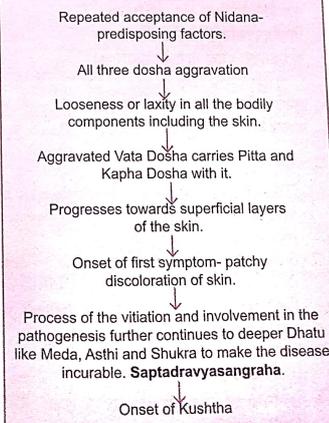
1. Change in the texture of the skin, to become either very soft or very rough.
2. Excessive or no sweating at the affected skin area.
3. Discoloration of the skin.
4. Burning, itching or pricking type of sensation of the skin.
5. Loss of sensation to touch.
6. Formation of skin eruptions.
7. General weakness.
8. Severe pain with slightest injury. Early wounding and delayed healing.
9. Reformation of healed wounds with slightest trauma and formation of rough scars after wound healing.

7. Clinical features : Ropoo

Cardinal feature of the disease :
Discoloration of the skin.

In Kushtha prodromal features are continued as symptoms of the disease. With deeper

Flow chart of Samprapti



penetration of the disease in the body some serious alterations in the symptoms are observed.

General symptoms

1. Discoloration of the skin.
2. No sensation towards touch or heat.
3. Purulent or watery secretions from the wound.
4. Itching.
5. Edema.

8. Types : Prakara

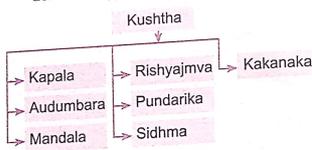
इह वातादिषु त्रिषु शकृष्वेव त्वगादीश्वरः श्रुषयस्य वातेऽधिकतरे कपालकुष्ठमभिनिर्वर्तते, पित्ते त्वौदुस्वरं, श्लेष्मणि मण्डलकुष्ठं, वातपित्तयोर्ऋज्व-जिह्वं, पित्तश्लेष्मणो गुण्डरीकं, श्लेष्मणोः सिध्मकुष्ठं, सर्वदोषभिवृद्धौ काकणकम-भिनिर्वर्तते; एवेष सप्तविधः कुष्ठविशेषो भवति। स चैव भूयस्तत्प्रमतः प्रकृतौ विकल्पमानायां भूयसी विकर-विकल्प-संख्यामापदयते।। C.S.Ch.Ni. 5/5 तत्र वातेनाहणं, पित्तेनौदुस्वर्यजिह्वकपालकाकणकानि, श्लेष्मणा गुण्डरीकं प्रदुक्कुष्ठं चेति। तेषां महत्त्वं क्रियगुरुत्त्वगुलरीतरं धात्वनुपवेशादसाध्यत्वं चेति। S.S.Ni.5/7.

There is no possibility of single dosha dominant Kushtha to occur, but types are made and named according to percentage concentration of the particular dosha. This means in all these types, all the three dosha are involved with equal intensity but each type presents with increased concentration of vitiation of one dosha out of the three.

Similarly these types are named as 'Maha Kushtha' due to their chronic onset, difficult and usually unsuccessful treatment, grave symptoms and inclusion of deeper Dhatu. The less serious types are named as 'Kshudra Kushtha'.

Seven types of MahaKushtha are described and classified by Charaka as :

1. Kapala Kushtha-Vata dominant type.
2. Audumbar Kushtha-Pitta dominant type.
3. Mandala Kushtha-Kapha dominant type.
4. Rishyajimva Kushtha - Pitta - Vata dominant type.
5. Pundarika Kushtha Pitta - Kapha dominant type.
6. Sidhma Kushtha- Kapha- Vata dominant type.
7. Kakanaka Kushtha - Vata - Pitta - Kapha dominant type.



8.1 Kapala Kushtha

It is Vata dosha dominant type of Kushtha.

कृष्णारुणकपालाभं यदुक्षं परुषं तनु। विस्तृतासमपर्यतं दूषितैर्लोमभिश्चितम्। तोदाद्यमल्पकडूकं कपालं शीघ्रसर्पि च।। A.H.Ni. 14/13-14.

कृष्णारुणकपालाभं यदुक्षं परुषं तनु। कपालं तोदबहुलं तद् कुष्ठं विषमं स्मृतम्।। C.S.Ch.7/14.

Symptoms

1. The patches are dark, blackish-gray in colour with rough uneven and elevated margins.
2. Surface of the patch is flat, skin leveled, dry, rough and covers a large skin area. Feel resembles to internal surface of earthen pot shred.
3. No sensation towards touch at the affected site.
4. Surface of the patch is covered with goosebumps.

5. Severe pricking type of pain.
6. Loss of burning or itching sensation and secretions at the affected site.
7. Fast onset and quick further spread and early wounding at the site of patch.

8.2 Audumbar Kushtha

It is Pitta dosha dominant type of Kushtha.

पक्वोदुंबराप्रत्वग्रोरिगचितम् बहलं बहलवलेदत्वं दाहरूजाधिकम्।। आशुस्थानावदरणकृमि विद्यादुदुंबरम्। A.H.Ni. 14/15. दाहकण्डूरूजारागपरीतं लोमपिडम्। उदुस्वरफलाभासं कुष्ठमौदुस्वरं विदुः।। C.S.Ch.7/15.

Symptoms

1. The patches are reddish yellow in colour and resemble to ripened fruit of Audumbara (Fycus racemosa).
2. The surface of the patch is moderately rough and wet.
3. Patches occupy a large skin area.
4. Profuse occurrence of purulent discharge with severe pain and sensation of burning.
5. Development of skin laceration, suppuration, necrosis and maggot formation at site of the patch is very rapid.
6. Fever.

8.3 Mandala Kushtha

It is Kapha dosha dominant type of Kushtha.

स्थिर स्थानं गुरु-सिग्धं श्रेतस्त्रं नाशुगम्। अन्योन्यसक्तमुत्सन्नं बहुकंडूस्त्रुतिकुमि।। श्लक्ष्णपीतामपर्यतं मंडलं परिमंडलम्।। A.H.Ni. 14/16-17. श्वेतं रक्तं स्थिरं स्थानं सिग्धमुत्सन्नमण्डलम्। कृच्छ्रमन्योन्यसक्तं कुष्ठं मण्डलमुच्यते।। C.S.Ch.7/16.

Symptoms

1. Patches are very slow developing and slow growing.

2. Surface of the patch is smooth and fluffy, pale, covered with small whitish hairy growth, whitish red in colour.
3. Margins of the patches are interlocked and surface is raised.
4. Severe sensation of itching, with profuse whitish, thick discharge.
5. Sensation towards the touch is less.
6. The affected site is totally painless.
7. There is profuse sticky, thick discharge.
8. Maggot formation in the wound is early.

8.4 Rishyajimva Kushtha

It is Pitta and Vata dosha dominant type of Kushtha.

परुषं तनुः रक्तांतमतः श्यावं समुन्नतम् सतोदाहरुक्तेदं कर्कशैः पिटिकैश्चितम् ऋषजिह्वाकृति प्रोक्तमृज्जिह्वं बहुकुमि।। A.H.Ni. 14/18-19.

नीलपीतताम्रावभासनि आशुपतिसमुत्थानानि अल्पकण्डू क्लेदकृमीणि भेदपाकबहलानि, शूकपहतोपमवेदनानि उत्सन्नमध्यानि तनुपर्यन्तानि दीर्घपरिमण्डलानि ऋष्यजिह्वा-कृतीनि।। C.S.Ni. 5/12.

कर्कशं रक्तपर्यन्तमन्तः श्यावं सवेदनम्। यदृष्यजिह्वासंस्थानमृज्जिह्वं तदुच्यते।। C.S.Ch.7/17.

Symptoms

1. The patches are bluish red coloured at margins with blackish shade at the centre.
2. The shape of the patch is elongated and tapering which resembles to the shape of the tongue of a wild animal called as 'Rishya' (a species of a white footed antelope.)
3. Pricking type of pain at the affected site.
4. The surface of the patch is rough covered with small hard eruptions.
5. Early suppuration, laceration and maggot formation according to Vagbhata.

6. According to Charaka, sensation of itching, discharge and maggot [krimi] formation is negligible while according to Vagbhata, there is early and abundant formation of maggots.

8.5 Pundarika Kushtha

It is Pitta and Kapha dosha dominant type of Kushtha.

स्वनांतर्मत्तया पांडु कंडूदाहरुजान्वितम् ।
योत्सेयमाचितं रक्तैः पद्मपत्रमिवांशुभिः ॥
धनं गृह्णन्तीकासृक् प्रायमाशुभिर्भेदि च पुंडरिकम् ॥

A.H.Ni. 14/26.

कृमिपाकवन्ति शुक्लरक्तावपासानि आशुगतिस्सुस्थान-
भेदीनि । C.S.Ni. 5/13.

सधेनं स्वतर्पनं पुण्डरीकदलोपमम् ।
सोत्सेयं च सदाहं च पुण्डरीकं तदुच्यते ॥ C.S.Ch.7/18.

1. The patches are reddish at external portion and whitish within. The feel is smooth and fluffy.
2. Shape of the patch resembles to the petal of the lotus flower. Patches are raised above skin level and are filled with watery blood secretion.
3. Sensation of itching, burning and pain is present at affected site.
4. Occurrence, spread and laceration at the site of the patch is very rapid.
5. Maggot formation is very early.
6. There is burning type of pain and purulent discharge at the affected site.

8.6 Sidhma Kushtha

It is Kapha and Vata dosha dominant type of Kushtha.

सिध्मं रुधं बहिः सिग्धमन्तर्वृष्टे रजः किरेत ॥

श्वरुणसर्षं तनु श्वेतताप्रदीपिकपुष्पवत्

प्रायेण चोर्ध्वं काये स्यात् ।

A.H.Ni. 14/21.

परुषारुणानि विशीर्णं बहिल्लनून्यन्तः सिग्धानिशुक्लरक्ता-
वपासानि बहून्यल्पवेदनान्यल्पभेदक्रीमिण्यलांबुपुष्पसङ्काशा
नि सिग्धं कुष्ठनि विद्यात् । C.S.Ni. 5/14.

श्वेतं नाम्नं तनु च यद्रजो मूर्धं विमुञ्चति ।
अलातुपुष्पवर्णं त्वं सिध्मं प्रायेण योग्यम् ॥ C.S.Ch.7/19.

1. The patches are rough at external portion and smooth within. The edges are lacerated.
2. Minute skin particles are produced on rubbing the patch.
3. Appearance of the patch is flat, feel is soft.
4. Colour of the patch is reddish white.
5. No pain, no itching or discharge at the affected site.
6. Maggot formation is rare.
7. Shape of the patch resembles to a flower of sweet gourd.

8.7 Kakanaka Kushtha: Sannipatika Kushtha

It is three dosha dominant type.

---काकणं तीव्रदाहरुक् ॥

पूर्वं रक्तं च कृष्णं च काकणं तीफलोपमम् ।
कुष्ठलिगैर्युतं सर्वैर्नैकवर्णततो भवेत् ॥ A.H.Ni. 14/29-32.

काकणन्तिका वर्णान्नादौ पश्चात् सर्वकुष्ठलिग-
समन्वितानि ॥ C.S.Ni. 5/15.

यत् काकणन्तिकावर्णमपाकं तीव्रवेदनम् ।
त्रिदोषलिङ्गं तत् कुष्ठं नैव सिध्यति ॥ C.S.Ch.7/20.

1. It is bright red in colour. Resembles to seeds of *Gunja phala* (*Abrus precatorius*)

This is three dosha dominant and incurable type of Kushtha.

2. Symptoms are presented in mixed variety of other types according to dosha dominance.

9. Maha Kushtha types according to Sushruta

9.1 Aruna Kushtha

तत्र, वातेनारुणाभानि तनुनि विसर्पाणि तोदभेद स्वाप
युक्तान्यरुणानि । C.S.Ni. 5/8.

1. Vata dosha dominant.
2. Blackish gray in color.

3. Adjacent to skin level.
4. Fast spreading to different body parts.
5. Pricking, cutting type of pain.
6. Loss of sensation to affected part.

10. Dhatugatva of Kushtha

Penetration of the disease into deeper body elements- Dhatu

त्वक्स्थे वैवर्ण्यमङ्गेषु कुष्ठे रौक्ष्यं च जायते ।
त्वक्स्वापलोमहर्यश्च स्वेदस्याति प्रवर्तनम् ।
कण्डूर्विष्यकश्चैव कुष्ठे शोणित संश्रये ॥
बाहुल्यं वक्त्रशोषश्च कार्कश्यं पिडकोद्गमः ।
तोदः स्फोटः स्थिरत्वं च कुष्ठे मांसमाश्रितम् ।
कौष्यं गतिक्षयोऽङ्गानां संभेदः क्षतसर्पणम् ।
भेदः स्थानगते लिङ्गप्रयुक्तानितथैव च ॥
नासाभंगोऽक्षिरागस्य क्षतेषु क्रिमिसंभवः ।
स्वरोपघातश्च पवेदस्थिमज्जसमाश्रिते ॥
दमत्योः कुष्ठबाहुल्याद्दुष्टशोणितशुक्रयोः ।
यदपत्यं ययो जातं ज्ञेयं तदपि कुष्ठितम् ॥ S.S.Ni.5/22-28.

Kushtha shows various stages of spread into deeper dhatu, this penetration occurs due to chronicity of the disease and is called as Dhatugatva.

1. Putrid Discharge.
2. Permanent organ damage : Fingers, nose bridge etc.
3. Cracked skin.
4. Thirst.
5. Fever.
6. Loose motions.
7. Weakness.
8. Insipid mouth.
9. Impaired digestion.

12. After effects : Udarka

10.1 Rasagata Kushtha

Involvement of Rasa dhatu - This term is considered as similar to Twakgata Kushtha because rasa dhatu and skin are closely related to each other. This condition shows discoloration of the skin, change in the pattern and feel of the skin.

10.2 Raktagata Kushtha

Involvement of Rakta dhatu : Itching, burning sensation, purulent discharge.

10.3 Mamsagata Kushtha

Involvement of Mamsa dhatu : dryness in the mouth, wide spread of the disease, hard touch, pricking pain.

10.4 Medagata Kushtha

Involvement of Meda dhatu : All the symptoms in Mamsa gata Kushtha plus organ damage, heavy purulent discharge, foul smell, inability to walk.

10.5 Asthi Maja gata Kushtha

Involvement of Asthi and Mijja dhatu : Deformity in the bones specially in cartilage of nose. Maggot formation in the wounds, horse voice.

10.6 Shukragata Kushtha

Involvement of Shukra dhatu : Infertility, chances of producing a child afflicted with Kushtha by birth.

11. Complication : Upadrava

1. Permanent organ damage : Fingers, nose bridge etc.
2. Cracked skin.
3. Thirst.
4. Fever.
5. Loose motions.
6. Weakness.
7. Insipid mouth.
8. Impaired digestion.

12. After effects : Udarka

1. Permanent deformity of body parts.
2. Morbid appearance of the body due to loss of body parts like fingers, nose bridge etc.

13. Prognosis : Sadhyasadyatva

साध्यं त्वक्प्रलासासस्थ वातश्लेष्माधिकं च यत् ।
भेदसि ह्रंदनं याथं वर्ज्यं मज्जास्थिसंश्रितम् ॥
क्रिमितूद्दाहमंदाग्निसेयुक्तं यत्त्रिदोषजम् ।
ग्रभिन्नं प्रस्तुतांगं च रक्तनेत्रं हतस्वरम् ॥
पञ्चकर्मगुतीतं कुष्ठं हन्तीह मानवम् । M.Ni.49 / 31-32.

13.1 Sadhya

Curable

1. Ek doshaja Kushtha : Single Dosha dominant Kushtha.
2. Kushtha limited up to Twak, Rakta and Mamsa Dhatu.

13.2 Yapya

Managable with continual medication.

The types of Kushtha are difficult to treat and require continuous management.

1. Sansargika Kushtha-Two Dosha dominant Kushtha.
2. Kushtha involving Meda Dhatu.

13.3 Asadhya

The incurable types of Kushtha.

1. Sannipatika Kushtha : Three Dosha dominant Kushtha.
2. Kushtha involving Majja, Asthi and Shukra Dhatu.
3. Pitta dosha dominant types of Kushtha.

14. Dietary and behavioral regimen**14.1 Pathya**

wholesome regimen:

1. Fasting.
2. Intake of light, easy to digest, unctuous

food, mixed with honey and sugar. Red and white variety of old rice.

3. Free acceptance of sunlight, wind and open atmosphere.
4. Gruel made up of barley, green gram, lentils.
5. Intake of medicated ghee preparations.
6. Usage of Khadira- Acacia Catechu- being the prime medicine for Kushtha, in form of decoction.
7. Usage of cow urine or urine of camel or horse or donkey.
8. Meat soup of wild animals.
9. Appropriate administration of medication and body cleansing- panchkarma-therapy.

14.2 Apathhya

unwholesome regimen:

1. Intake of hard to digest, spicy, sour, pungent type of food.
2. Intake of meat of aquatic animals and birds.
3. Intake of food contents like horse gram, garlic, black gram, salt,
4. Over eating.
5. Excessive indulgence in sex.
6. Incompatible food contents.
7. Daytime sleep.

Chapter**32****INTRODUCTION TO KSHUDRA KUSHTHA****Diseases for differential diagnosis**

1. Visarpa
2. Visphota
3. Dagdha — Bhallataka dagdha.
4. Shitapitta.
5. Udarida.
6. Kotha.

Reference reading

- Madhavidana – Kushtha-Chapter 49.
- Ashtanga Sangraha Nidana Sthana Chapter 14.
- Charaka Samhita Nidana Sthana Chapter 5.
- Charaka Samhita Chikitsa Sthana Chapter 7.
- Sushrut Samhita Nidana Sthana Chapter 5.
- Sanskrit English Dictionary – Apte Shabdakosha.

1. Definition

Paribhasha and Types : Prakara of Kshudrakushtha

चर्माख्यमेककुष्ठं च कितिभं सविपादिकम् ।
 कुष्ठं चालसकं ज्ञेयं प्रायो वातकफाधिकम् ॥
 पापाशतारु विस्फोटं दद्रुश्चर्मदलं तथा ॥
 पित्तश्लेष्माधिकं प्रायः कफः प्रायः विचर्चिका ॥ C.S.Ch. 7/29-30
 अखेदनं महावातु यन्मत्स्यशकलोपमम् ।
 तदेककुष्ठं, चर्माख्यं बहलं हस्तिचर्मवत् ॥
 श्यावं किण्वरसर्शं परुषं कितिभं स्मृतम् ।
 वैपादिकं पाणिपादस्तुटनं तीव्रवेदनम् ॥
 कण्डूभक्षिसरगेश्च गण्डैरलसकं चितम् ।
 सकण्डू रागपिडकं दद्रुमण्डलमुद्रतम् ॥
 रक्तं सकण्डू सस्फोटं सरुद्वलति चापि यत् ।
 तच्चर्मदलमाख्यातं संसर्शासहमुच्यते ॥
 पापा श्वेतारुणश्यावाः कण्डूलः पिडका भृशम् ।
 स्फोटाः श्वेतारुणभासो विस्फोटाः सुस्तगुल्बः ॥
 रक्तं श्यावं सदाहातिं शतारुः स्याद्वह्व्रणम् ।
 सकण्डूः पिडका श्यावा बहुस्रावा विचर्चिका ॥ C.S.Ch. 7/21-26.

According to Charaka, Kshudra Kushtha are of eleven types. These are variety of Kushtha in which Dosha as well as dushya are involved with lesser severity.

The procedure of formation of the disease is similar to Maha Kushtha but severity of pathogenesis (Samprapti) is limited up to superficial planes of dhatu and also, vitiation of dosha is less as compared to Maha Kushtha. That is why these types are called as **Kshudra Kushtha**. Generally Kshudra Kushtha are formed with association of two aggravated dosha [Dwidoshaja or Sansargika types].

2. Types

Eleven types of Kshudra Kushtha according to Dosha dominance.

S. No.	Type	Dosha dominance
1.	Ek Kushtha	Vata-Kapha
2.	Charmakhya	Vata-Kapha

S. No.	Type	Dosha dominance
3.	Kitibha	Vata-Kapha
4.	Vipadika	Vata-Kapha
5.	Alasaka	Vata-Kapha
6.	Pama	Pitta-Kapha
7.	Shataru	Pitta-Kapha
8.	Visphot	Pitta-Kapha
9.	Dadru	Pitta-Kapha
10.	Charmadala	Pitta-Kapha
11.	Vicharchika	Kapha

2.1 Ek Kushtha

Vata Kapha dominant type : It spreads very quickly. Affected part of skin appears scaly like a fish, hard and without swating.

2.2 Charmakhya

Vata Kapha dominant type : It occupies a large skin area and resembles to the skin of an elephant.

2.3 Kitibha

Vata Kapha dominant type : It appears as a dark and rough patch. Itching sensation is severe.

2.4 Vipadika

Vata Kapha dominant type : Skin of palms and soles of feet become cracked with severe pain.

2.5 Alasaka

Vata Kapha dominant type : Small, thick, reddish coloured nodules with severe sensation of itching are formed on the skin.

2.6 Dadru

Pitta Kapha dominant type. Round patches of reddish colour with severe itching sensation are formed on the skin. Sometimes margins

of the patch are very scratchy and red but the centre is smooth like skin or slightly blackish in shade.

2.7 Charmadala

Pitta Kapha dominant type : Patches are covered with small skin eruptions which are very sensitive to touch with purulent secretions. The surface of the patch is warm. The area becomes lacerated on rupture.

2.8 Pama

Pitta Kapha dominant type : Skin eruptions are small and whitish gray coloured. The secretion is sticky and profuse. Itching sensation is severe. This type occurs mainly at buttocks, elbows or hands.

2.9 Visphot

Pitta Kapha dominant type : Skin eruption is of reddish white in colour and delicately covered with thin layer of skin.

2.10 Shataru

Pitta Kapha dominant type : The patches are of blackish colour and covered with small openings through which oozing of purulent discharge occur. This type usually occurs at fingers.

2.11 Vicharchika

Kapha dominant type : Heavy non purulent secretions through the skin eruptions and itching are main features of this type.

3. Sushruta has described few more and different types of Kshudra Kushtha as:

अरुः ससिधं रकसा महश्च यच्चैककुष्ठं कफजान्यमूनि ।
वायोः प्रकोषात् परिसर्पिकम् शेषाणि पित्तप्रभवाणि
विद्यात् ॥

S.S.Ni. 5/16

3.1 Arushka

Kapha dominant type : Big patches with rough surfaces occur at the base of the joints.

3.2 Maha Kushtha

Vata dominant type : Itching, pricking and decreased sensation of touch is observed.

3.3 Visarpa

Pitta dominant type : Skin is affected with fast spreading skin lesions.

3.4 Parisarpa

Vata Pitta dominant type : Slowly spreading furuncles with discharge is the main feature.

3.5 Rakasa

Kapha dominant type : No discharge, only itching is the main feature.

Various symptoms of various types of Kushtha, according to Dosha vitiation could be categorized as follows,

4. Symptoms due to Vata vitiation

1. Rough surfaced patches.
2. Pricking pain.
3. Contractures of the organ.
4. Tremor.
5. Dried up appearance and Blackish gray colour of the patch.

5. Symptoms due to Pitta vitiation

1. Burning sensation of the affected part.
2. Red discoloration.
3. Purulent discharge.
4. Foul smell.
5. Morbid appearance.
6. Decaying of the organ.

6. Symptoms due to Kapha vitiation

1. Whitish discoloration of the affected part.
2. Cold feeling of the affected part.
3. Itching and scratching sensation.
4. Morbid soft touch.
5. Heaviness in the affected part.
6. Thick, sticky secretions.
7. Maggot formation.

•••

Disease at a glance

- Nature of Disease: - Acute.
- Major Involving Dosha - Pitta, Vata, Kapha.
- Major Involving Dushya - Rasa (Twacha) Rakta, Lasika, Mamsa
- Site of Manifestation: Skin
- Srotas: Raktavaha Srotas
- Types- Seven
- Cardinal Feature: Formation of Fast Spreading Lesions on The Skin.

Prognosis

- Curable When disease is in its initial condition.

Diseases for differential diagnosis

1. Nasa Arsha.
2. Gudaja Arsha.
3. Urakshata.
4. Raktaja Atisara.
5. Rakataja Pravahika.
6. Pradara.

Reference reading

- Charaka Samhita Sutra Sthana Chapter 21.
- Sushrut Samhita Nidana Sthana Chapter 10.
- Ashtanga Hridaya Nidana Sthana Chapter 13
- Sanskrit-English Dictionary - Apte Shabdakosha

1. Introduction

Visarpa shows exactly opposite nature of onset than that of Kushtha. It is much commoner condition to occur and its progression is very aptly described with Sanskrit term 'सर्पण' meaning fast spread in snake like spiral fashion, which is a speciality of the disease. Visarpa also displays severe pain at affected site unlike Kushtha. The onset and development of the disease is very fast. Further detailed pathogenesis is described as Nidana Panchaka of Visarpa in this chapter.

2. Definition : Paribhasha

विविधं सर्पति यतो विसर्पस्तेन स स्मृतः ।
परिसर्पेऽथवा नाना सर्वतः परिसर्पणात् ॥

C.S.Ch. 21 / 11

The disease in which fast spreading skin lesions are produced with a speedy development of symptoms is called as Visarpa. The spread of the disease can occur in every possible direction i.e. upward, downward or oblique. 'Parisarpa' is the synonym of Visarpa. Nature of the disease is very acute and severe.

3. Route of development : Marga

Bahya- Abhayntara- The disease affects the body externally and internally.

4. Predisposing factors : Nidana

लवणाम्लकटूष्णानां रसानामतिसेवनात् ।
दध्यस्तमस्तु शुक्तानां सुरसौविकस्य च ।
व्यापन्नबहुमद्योष्णरागषाडवसेवनात् ॥
शाकानां हरितानां च सेवनाच्च विदाहिनाम् ।
कुर्चिकानां किलाटानां सेवनामन्दकस्य च ॥
दध्नः शाण्डाकिपूर्वाणामासुतानां च सवनात् ।
तिलमाषकुलत्थानां तैलानां पेषिकस्य च ।
ग्राम्यानुषौदकानां च मासानां लशुमस्य च ।
प्रविलनानामसाल्यानां विरुध्दानां च सेवनात् ।
अत्यायानदिवास्वनादजीर्णाध्यशनात् क्षतात् ।



क्षतबन्धप्रपतनाध्यमकर्मतिसेवनात् ।
विषवाताग्निदोषाच्च विसर्पणां समुद्भवः ।

C.S.Ch. 21 / 16-21.

1. Excessive intake of pungent, spicy, salty or hot food.
2. Excessive intake of milk products like curds, sour buttermilk, Paneer etc.
3. Excessive intake of various types of excessively fermented and sour liquor or wine.
4. Excessive intake of green, leafy vegetables.
5. Excessive intake of sesame seeds (Sesamum indicum) or oil, black gram, lentils, starchy or fermented food items etc.
6. Excessive intake of meat of waterborne animals- Duck, Fish, Pigs etc.
7. Excessive intake of garlic.
8. Intake of incompatible food items [Virudhbahar] as well as food which is disliked by the self.
9. Excessive application of bloodletting procedure [Rakta mokshana].
10. Excessive daytime sleep.
11. As a result of chronic indigestion.
12. Overeating.
13. Wounding due to external trauma, physical injury due to fall.
14. As a result of harmful effect of poison, fire or storm

5. Pathogenesis : Samprapti

एतेर्निदानै व्यामिश्रेः कुपिता मारुतादयः ।
दूष्यान् संदूष्य रक्तादीन् विसर्पन्त्यहिताशनानाम् ॥

C.S.Ch. 21 / 22.

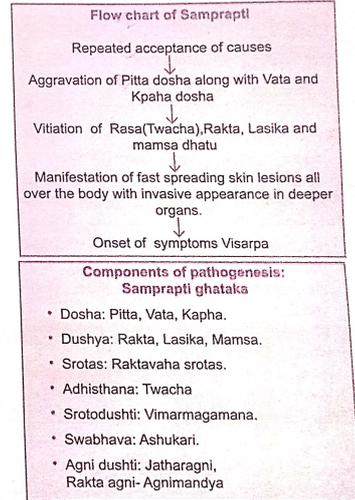
रक्तं लसीका त्वङ्मांसं दूष्यं दोषास्त्रयो मलाः ।
विसर्पणां समुत्पत्तौ विज्ञेयाः सप्त धातवः ॥

C.S.Ch. 21 / 15.

Acceptance of relevant predisposing factors cause aggravation of Vata, Pitta and Kapha dosha. Aggravated dosha further combine

with vitiated Rakta etc. dhātu to form Visarpa in the body. Due to morbid combination of dosha and dushya, wide spreading, bulging type of skin eruptions are formed all over the body surface.

Rakta (blood), Lasika- lymph, Rasa-Twak-skin, Mamsa- flesh and three dosha namely Vata, Pitta and Kapha are responsible to produce Visarpa.

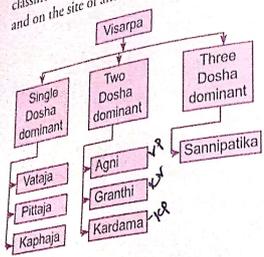


6. Types : Prakara

स च सप्तविधो दोषैर्विज्ञेयः सप्तधातुकः ।
पृथक् त्रयस्त्रिभिश्चैको विसर्पो बृन्दजास्त्रयः ॥
वातिकः पैत्तिकश्चैव कफजः सान्निपातिकः ।
चत्वार एते वीसर्पा वक्ष्यन्ते बृन्दजः स्त्रयः ॥
आग्नेयो वातपित्ताभ्यां त्रयाद्यः कफवातजः ।
यस्तु कर्दमको घोरः स पित्तकफसंभवः ॥

C.S.Ch. 21 / 12-14.

In all seven types of Visarpa are described. The classification is based on dosha dominance and on the site of affliction.



6.1 Vataja Visarpa

रूपोष्णः केवलो वायुः पूर्योर्वा समावृतः ।
 शुष्को दृश्यन् विसर्पति यथाबलम् ॥
 तस्य रूपाग्नि-भ्रमद्वयुभिपातानिस्तोदशूलाङ्गमूर्धोद्धेष्टनकम्प
 ज्वरकारिण्य
 संधिभेदविश्लेषणवपनारोचकापिपाकाश्चक्षुषोरकुल-
 लम्भ्रम-मन् पिपीलिका
 संवा इवचाग्नेषु, यस्मिंश्चावकाशे विसर्पो विसर्पति
 सोऽवकाशः श्यावालरूपाभावाः
 श्रयद्युमान् निस्तोदभेदशूलायामसंकेच हर्षस्फुरणैतिमात्रं
 प्रपीडयते, अनुपक्रान्तश्चापचीयते
 शीघ्रभेदेः स्फोटकैस्तनुभिररूपाभैः श्यावैर्वा तनुविषदारूपा-
 ल्लासावे विवह्रवतमूत्रपुरिषश्च भवति,
 निदानोक्तानिचास्य नोपशेरत इति वातविसर्पः ॥
 C.S.Ch. 21 / 29-30-commentary.

Vata dosha is dominant in Samprapti of Vataja Visarpa. Due to acceptance of relevant causes like excessive intake of dry, harsh type of food etc. Vata dosha aggravates with ruksha - dry and ushna- hot qualities and vitiates Rasa, Rakta, Mamsa and Lasika to produce Vataja Visarpa.

Clinical features : Roopa

1. Giddiness.
2. Severe burning sensation of the skin.

3. Thirst.
4. Severe body ache as if the body is being crushed.
5. Tremor.
6. Fever and cough.
7. Pain in bones and joints. Numbness of the organs.
8. Indigestion, loss of appetite.
9. Stressful eyes with lacrimation.
10. Tingling sensation as if crawling of insects at affected sites.
11. Affected site becomes inflamed, painfully swollen and reddish gray in colour.
12. If ignored or mistreated, small furuncles with watery discharge develop at the affected site with symptoms like constipation and difficulty in urination.

6.2 Pittaja Visarpa

पित्तमुष्णोपचारेण विदाह्यम्लाशनैश्चितम् ।
 दूष्यान् संदूष्य धमनीः पूर्यन् वै विसर्पति ॥
 तस्य रूपाग्नि-ज्वरस्तुष्णा मूर्च्छाभोहशर्दिरो-
 चकोऽरुभेदो स्वेदोऽतिमात्रमन्तर्दाहः प्रलापः शिरोरूक्
 चक्षुषोरारुक् लत्वमस्वनरतिर्ग्रमः शीतवातवारितर्पोऽतिमात्रं
 हरितहारिद्रिनेत्र-मूत्रवर्चस्त्वं हरितहारिद्रिरूपदर्शनं च,
 यस्मिंश्चावकाशे विसर्पोऽनुसर्पति सोऽवकाशस्ताप्रहरितहारि
 द्रनीलकृष्णरक्तानां वर्णानामन्यतमं पुष्यति सोऽस्तेधैश्चाति-
 मात्रदाहसंभेदनपरीतैः स्फोटकैरुपचीयेत तुल्यवर्णास्त्रावश्चिर
 पाकैश्च निदानोक्तानि चास्य नोपशेरते विपरीतानि चोपशेरत
 इति पित्तविसर्पः ॥
 C.S.Ch. 21 / 31-32.

Pitta dosha is the dominant factor in Samprapti of Pittaja Visarpa. Pitta becomes aggravated with ushna- hot, sara- flowing, and tikshna- sharp qualities due to acceptance of causes like excessive intake of acidic, sour type of food etc. and further vitiates the dushya -Rasa and Rakta, Mamsa to produce Pittaja Visarpa.

Clinical features : Roopa

1. Fever
2. Intense thirst.
3. Giddiness and fainting.

4. Inability to identify taste.
5. Excessive sweating and severe burning sensation of the body.
6. Irrelevant speech.
7. Headache.
8. Loss of sleep.
9. Increased desire for cold water, cold wind and atmosphere.
10. Morbid yellowish- green colour to stools, urine and sweat.
11. Patient visualizes red, yellow colored flames.
12. Affected skin becomes swollen, reddish yellow in colour and with painful, fast spreading skin lesions having watery-purulent discharge.

6.3 Kaphaja Visarpa

स्वाब्दलालवर्णानिग्धुर्वन्स्वनसंचितः ।
 कफः संदूषयन् दूष्यान् कृच्छ्रमङ्गो विसर्पति ।
 तस्य रूपाग्नि- शीतकः शीतज्वरो गौरवं निद्रा तंत्राऽरोचको
 मधुरास्यत्वमास्योपलेपो निष्ठिविका चर्दिरालस्य स्तैमित्य-
 मनिनाशो दौर्बल्यं च, यस्मिंश्चावकाशे विसर्पोऽनुसर्पति
 सोऽवकाशश्चयद्युमान् पाण्डुरातिरक्तः स्नेहसुप्तिस्तम्भ-
 गौरवैरन्वितोऽल्पवेदनः कृच्छ्रपाकैश्चिक्कारिभिवहृत्वगुप-
 लेपैः स्फोटैः श्वेतपाण्डुभिरनुबध्यते, प्रभिन्नसुश्वेतं पिच्छिलं
 घनमद्घनमनुबद्धं सिग्धमास्त्रावं स्ववति, ऊर्ध्वं च गुरुभिः
 स्थिरैर्जलावततैः सिग्धैर्बहुलत्वगुलेभ्योऽनुबध्यतेऽनुपङ्गी
 च भवति, श्वेतनयन-नखवदनत्वङ्मूत्रवर्चस्त्वं निदानोक्तानि
 चास्य नोपशेरते विपरीतानि चोपशेरत इति श्लेष्मविसर्पः ।
 C.S.Ch. 21/33-34.

Kapha dosha is the dominant factor in the Samprapti of Kaphaja Visarpa. Kapha aggravates due to acceptance of causes like excessive intake of sweet or heavy food etc. and further vitiates dushya [Rasa and Rakta] to produce Kaphaja Visarpa.

Clinical features : Roopa

1. Fever with chills.
2. Heaviness of the body.

3. Excessive sleep.
4. Insipid mouth, morbid sweet taste of mouth.
5. Vomiting.
6. Lassitude, numbness and weakness in body.
7. Affected skin becomes swollen, whitish in colour, smooth, with lack of sensation. Skin lesions produce white, thick secretion on eruption. Progress of the disease is slow.
8. Colour of urine, stool, eyes, and skin becomes pale and whitish.

6.4 Agni Visarpa: Vata- Pitta dominant type

वातपित्ताज्वरच्छर्दि मूर्च्छातीसारतुद्ग्रभैः । अस्थिभेदानिसद
 नतमकारोचकैर्युतः ।
 करोति सर्वमङ्गं च दीप्ताङ्गारवकीर्णवत् ॥
 यं देशं विसर्पश्च विसर्पति भवेच्च सः ।
 शान्ताद् गारासितो नीलो रक्तो वाऽऽशु च चीयते ॥
 अन्निदग्ध इव स्फोटैः शीघ्रपत्वाद् द्रुतं च सः ।
 मर्मुसारी वीरुसर्पः स्याद्वातोऽतिबलस्ततः ॥
 व्यथेताङ्गं हरेत्सजां निद्रां च थासमीयेत् ॥
 हिष्मां च स गतोऽवस्थामोदृशीं लभते न ना ॥
 क्वचिच्छर्मरतिग्रस्तो भूमिशय्यासनादिषु ।
 चेष्टमानस्ततः क्लिष्टो मनोदेहश्चोद्भवाम् ॥
 दुष्बोधोऽश्नुते निद्रां सोऽनिवीरुसर्प उच्यते ॥
 A.H. No. 137 / 50-55.

This type develops due to aggravation of Vata and Pitta dosha which is caused by acceptance of the particular causes. This type spreads very fast and the symptoms are very severe. Patient suffers from severe, unbearable burning sensation in the body hence is the name of the type.

Clinical features : Roopa

1. Fever.
2. Vomiting.
3. Stupor.
4. Loose motions.

5. Thirst.
6. Giddiness.
7. Pain in bones and joints.
8. Indigestion.
9. Dyspnoea.
10. Inspid mouth.
11. Severe burning sensation at affected part of the body as if poured by burning coal.
12. Blackish red coloured patches like deep burns on the body.
13. Hiccup.
14. Restlessness.
15. No relief is gained in any posture as by sitting, sleeping etc.
16. Patient becomes severely tired physically and mentally.
17. Deep comatose type of sleep from which recovery of the patient becomes difficult.

6.5 Granthi Visarpa : Kapha-Vata dominant type.

कथं न ह्यः रक्तं मित्वा तं बहुधा करुम् ।
रक्तं वा वृद्धतस्तस्य त्वन्विरादावमांसम् ॥
दुर्बलित्वा च दोषानुवृत्तस्युत्खलनात् ॥
प्रयोगान् कुर्वते मत्सं स्वानां वीजं कल्पयन् ॥
धामकाभानिशायास्यगोषाहिजाविनिर्भ्रमैः ।
मेघवैद्यैर्वन्द्यं च्छास्त्रं ह्यग्निमिदं युताम् ॥
इत्यं प्रचिद्विदुः करुणात्तकोरजः ॥

A.H. Ni. 13/ 56-59.

This type develops due to aggravation of Vata and Kapha dosha which is caused by acceptance of particular causes. Pathway of Vata dosha gets obstructed due to aggravated Kapha and produces a fast spreading chain of small, painful nodules on the skin hence is the name of the type.

Clinical features : Roopa

1. Development of chain of red colored and very painful nodules on the skin.
2. Severe pain.

3. Fever.
4. Dyspnoea.
5. Cough.
6. Loose motions.
7. Dry mouth.
8. Hiccup.
9. Vomiting.
10. Giddiness and fainting.
11. Body ache.
12. Indigestion.

6.6 Kardama Visarpa : Kapha - Pitta dominant type.

कफपित्तज्वरः स्तम्भो निद्रातन्द्राशिरोरुजाः ।
अङ्गवसादविक्षेपप्रलापारोचकप्रमाः ।
मूर्च्छानिहनिर्भेदोऽस्त्र्वा पिपासेन्द्रियगौरवम् ।
आमोपवेशनं लेपः स्रोतसां स च सर्वति ॥
प्रायेणामाशये गृह्णाञ्चैकदेशं न चातिरुक् ।
पिट्केरवकीर्णोऽतिपीतलोहितपाण्डुरैः ॥
मेघकाभोऽसितः स्निग्धो मलिनः शोफवान् गुरुः ॥
गम्भीराकः प्राज्योष्ण सृष्टस्नायुसिरापणः ।
श्वगन्धिश्च वीसर्पं कर्दमाख्यमुशन्ति तम् ॥

A.H. Ni. 13/ 60-64.

This type develops due to vitiation of Kapha and Pitta dosha which is caused by acceptance of the particular causes. In this type the progress of the disease is comparatively slow and particularly observed on the abdominal region.

Roopa : Symptoms

1. Fever.
2. Stiffness of the body.
3. Comatose type of deep sleep.
4. Giddiness.
5. Headache and body ache.
6. Irrelevant speech.
7. Inspid mouth.
8. Giddiness, stupor.
9. Thirst.
10. Sticky stools.

11. Feeling of obstruction in the strotasa.
12. Restlessness.
13. The affected area becomes swollen, glittering and reddish gray in colour.
14. The skin lesions produce very sticky, heavily purulent and foul smelling (smell like a dead body) discharge particularly on pressing the wound.

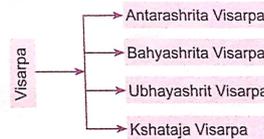
6.7 Sannipatika Visarpa : Three dosha dominant type

सर्वायतनसमुत्थं सर्वलिङ्गव्यापिनं सर्वधात्वनुसारिणामाशुका रिणं महात्यधिकमिति सन्निपातविसर्पमचिकित्सं विद्वात् ।
C.S.Ch. 21 / 41.

This type develops due to vitiation of all the three dosha which is caused by acceptance of specific causes. It is a serious and fatal type of Visarpa. It develops fast and occupies all the deeper dhatu mentioned in Samprapti of Visarpa. All the symptoms of all the types are produced with severity and intensity. This type is incurable.

7. Types of Visarpa according to Sushruta

Sushruta Samhita has explained some more types of Visarpa as per the site of onset of the disease.



33.7.1 Kshataja Visarpa

सद्यः क्षतग्रणुपेत्य नरस्य पित्तं रक्तं च दोषबहुलस्य करोति शोफम् । श्यावं सलोहितमतिज्वरदाहपाकं स्फोटैः कुलस्य सदृशैरसितैश्च कीर्णम् ॥
S.S.Ni. 10/7.
बात्यहेतोः क्षतात् क्रुद्धः सक्त्तं पित्तमीर्यन् । वीसर्पं मारुतः कुर्यात्कुलस्य सदृशैश्चितम् । स्फोटैः शोथज्वररुजादाहाद्यं श्यावशोणितम् ॥
A.H. Ni. 13/ 65-66.

Sushruta has specially explained this type. It develops via external wounding of skin. Pitta dosha gets aggravated and further vitiates Rakta dhatu to produce Kshataja Visarpa. Naturally the spread of the disease surrounds the wound. The colour of the Visarpa is reddish gray. The lesions are very painful. Heavy, purulent discharge is produced. The skin lesions are of a size of *Kularta* [lentil seed].

7.2 Antashrita visarpa

Skin lesions are spread to deeper internal organs.

7.3 Bahyashrita visarpa

Skin lesions are limited up to the superficial skin level. This type is a non invasive type of Visarpa.

7.4 Ubhayashrita visarpa

Skin lesions are occupying the body internally as well as externally. Severe inflammation, burning sensation, pain, thirst and fever are associated with this type.

8. Complications : Upadrava

ज्वरतिसारी वमथुल्वङ्गमांसदरणं क्लमः ।
अरोचकाविकौ च विसर्पाणांमुपद्रवाः । C.S.Ch. 21 / 11

9. Prognosis : Sadhyasadyatva

(पृथदोषैस्तयः साध्या द्रुह्यन्मुपद्रवाः ।)
(असाध्यौ क्षतसर्वोत्थौ सर्वे चाक्रान्तमर्षकाः ।)
(शोर्णस्नायुसिरामांसाः प्रकिलत्राः शवगन्धयः ॥)

A.H. Ni. 13/ 67.

सिध्यन्तिवातकफपित्तकृता विसर्पाः सर्वालकः क्षतकृतश्च न सिद्धिमेति । तैलानिलावपि च दर्शितपूर्वलिङ्गौ सर्वे च मर्मसु भवन्ति हि कृच्छ्रसाध्याः ॥
S.S.Ni. 10/8.

तत्र वातपित्तश्लेष्मनिमित्ता विसर्पस्तयः साध्या पवन्ति अग्नि-कर्दमाख्योपुनरुपसृष्टे मर्माणि अनुपपते वा सिरास्नायुमांसवक्त्रेदे साधारणक्रिया भिरुभावेवाभ्यस्यमानौ

श्रमन्ति नापथेयाताम् अनारदोपक्रान्तः पुनस्तस्ययोरत्यन्तरो-
हृत्पादित्वाश्वेवाश्वीविषवत् तस्मान्निग्रथिविषेजनातोपप्रव-
नारसैव चिकित्सितुम् उपद्रवोपद्रुतं त्वेनं गरहितेत् सान्निपातजम्
नु सर्वं वात्सुसांस्त्वायारुकारि त्वाद्रिदृशोपक्रान्त्वाच्यासाद्यं
विद्यात् । C.S.Ch. 21 / 42.

9.1 Curable : Sadhya

Single dosha dominant types-Vataja, Kaphaja
and Pittaja visarpa .

9.2 Difficult to cure

Kashtasadya: Dwandaja Visarpa

9.3 Incurable - Asadya

Sannipatika Visarpa.

Any type of Visarpa displaying deformities of
heart, brain and bladder- kidney (Trimarma-
hridaya, shira and basti) occur are always
considered as incurable.

10. Dietary and behavioral regimen

10.1 Pathya

wholesome regimen:

1. Fasting.

...

2. Intake of light, easy to digest, unctuous
food, mixed with honey and sugar. Red
and white variety of old rice.
3. Gruel made up of barley, green gram,
lentils.
4. Intake of fruits like pomegranate.
5. Meat soup of wild animals.
6. Diet rich in nutrition values.

10.2 Apathya

unwholesome regimen:

1. Intake of hard to digest, spicy, sour type
of food.
2. Incompatible food contents.
3. Daytime sleep.
4. Acceptance of heat in any form.
5. Acceptance of strong wind.
6. Physical exertion.
7. Suppression of natural urges.
8. Intake of food contents like horse gram,
garlic, black gram, sesame seeds, cake
and oil.

Diseases for differential diagnosis

1. Visarpa.
2. Visphot.
3. Maha Kushtha.
4. Kshudrakushtha.

1. Introduction

Shwitra is described as a special type of Kushtha.
The whitish, pale colored patches devoid of pain and
secretions is the primary feature of the disease. Further
detailed pathogenesis is described as Nidana Panchaka of
Shwitra in this chapter.

2. Definition : Paribhasha

दारुणं चारुणं श्वित्रं किं लारुणं मानमिच्छिभिः ।
विज्ञेयं त्रिविधं तच्च त्रिदोषं प्रायशश्च तत् ॥
दोषो रक्ताश्रिते रक्तं चात्रं मांसमाश्रिते ।
श्वेतं मेदःश्रिते श्वेतं गुरु तच्चोत्तरोत्तमम् ॥
यत् परस्परतोऽभिन्नं बहु यद्रक्तलोमवत् ।
यच्च यद्वर्णगोत्सवं तद् श्वित्रं नैव सिध्यति ॥
अरक्तालोमं तनु यत् पाण्डू नातिचिरोत्थितम् ।
मध्यावकाशे चोच्छूनं श्वित्रं तत्साध्यमुच्यते ॥

C.S.Ch. 7 /173- 176.

Shwitra is a special type of Kushtha described in texts.
Kilasa is the synonym. Pathogenesis of Shwitra is
restricted upto level of skin only. It cannot reach further
deeper level and also it is devoid of secretions. This is
the main differentiating point between Shwitra and
Mahakushtha. Charaka Samhita explains three types of
Shwitra as, **Daruna, Charuna and Shwitra.**

The primary difference between Kushtha and Shwitra
is, It is caused due to acceptance of relevant causes and
therefore aggravation of all the three dosha. Occasionally
it can be caused due to dominance of single dosha or
combination of two dosha in the pathogenesis.

Shwitra displays symptoms according to its involvement
with dhatu. Symptoms can be displayed as,

1. Dosha reaching at level of Rakta dhatu- patches are
of reddish color.
2. Dosha reaching at level of Mamsa dhatu- patches
are of coppery color.
3. Dosha reaching at level of Meda dhatu- patches are
of white color.

Reference reading

- Charaka Samhita Chikitsa Sthana
Chapter 7.
- Sanskrit English Dictionary
-Apte Shabdakosha

3. Prognosis : Sadhyasadyatva**3.1 Incurable : Asadya**

When patches are knotted with each other in multiple formation, surrounded with red colored hair, for a period of one year duration become incurable.

3.2 Curable: Sadhya

When the patches are surrounded by non reddish colored hair (other than red color), having thin white lesions, with newer onset and having elevated margins between the patches are the condition is curable.

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1. Definition

Enlargement of liver by size and weight is called as Hepatomegaly.

2. Pathology

Hepatomegaly presents like an enlarged mass in the right hypochondrium of the abdomen and may be associated with jaundice. Enlarged liver is unable to function normally and hence levels of Bilirubin in the blood may increase. Also the liver becomes incapable to remove excessive drugs, hormones, body wastes etc. from the blood stream. Process of synthesis of plasma proteins necessary for blood clotting also becomes abnormal. Body becomes prone to catch various fatal infections as enlarged liver is unable to produce immune factors required to fight bacteria. Production of normal bile juice for digestion is lessened. Storage of sugars, vitamins and minerals are affected. And poisonous content called as Bilirubin increases in the blood stream.

3. Causes

1. Viral infections- Mononucleosis.- Glandular fever.
2. Bacterial infections- Syphilis

3. Parasitic infections- Malaria.
4. Cirrhosis of liver.
5. Metabolic disorders- Gaucher's disease.
6. Liver abscesses.
7. Hepatitis.
8. Direct toxic effect to liver- Poisoning.
9. Hepatoma, haemangioma, hepatocellular carcinoma
10. Leukaemia.
11. Malaria.
12. Leptospirosis.
13. Amoebic infections of liver.
14. Fatty degeneration of liver.
15. Alcoholism
16. Haemolytic anaemia.
17. Congenital hepatomegaly.
18. Right ventricular failure.

4. Clinical features

1. Heaviness in right hypochondrium-right upper part of the abdomen.
2. Mild or dull pain in right hypochondrium.
3. Abdominal discomfort.
4. Fatigue.
5. Weight loss.
6. Nausea.
7. Jaundice

...

1. Definition

Enlargement of spleen by size and weight is called as Splenomegaly.

2. Causes

1. Viral infections- Mononucleosis- Glandular fever.
2. Bacterial infections- Syphilis
3. Parasitic infections- Malaria.
4. Bacterial Endocarditis.
5. Cirrhosis of liver.
6. Haemolytic anaemia.
7. Blood cancers- Leukaemia, Hodgkin's disease.
8. Metabolic disorders- Gaucher's disease.
9. Thrombosis of vessels supplying the spleen.

3. Pathology

As the spleen enlarges in size due to any of the causes, it becomes unable to perform its normal functions like production of white

blood corpuscles- lymphocytes, destruction of matured red blood corpuscles and storage of RBCs and platelets to help the process of blood clotting. Due to enlarged size excessive amount of blood is filtered from the spleen and thus mature as well as immature RBCs are destroyed making their concentration very low in the blood stream. Also the increased size may develop excessive blood supply to the spleen itself which damages the organ.

4. Clinical features

1. Anaemia.
2. Fatigue.
3. Person becomes susceptible to infections.
4. Tendency to bleed.
5. Pain or heaviness in the left hypochondrium- left upper part of abdomen, which may refer to shoulder.
6. Pain in the abdomen after small amount of eating or without eating also.
7. Some cases are completely asymptomatic.

...

1. Introduction

Leukaemia represents a group of diseases with increase in total number of white blood cells in the circulation. It is a neoplastic disease condition. In this there is a permanent rise in concentration of immature white blood cells in blood circulation.

Rise of white blood cell count in any infection is totally different condition as it can be controlled with the control of the infection. Hence there is no condition possible as infectious leukaemia.

2. Classification**2.1 Acute Leukaemia**

Acute lymphatic Leukaemia is a condition dominant in childhood while Acute myloid and monocytic Leukaemia can occur at any age. The disease is equally common for male and female gender.

Clinical features

- a. Abrupt or sudden onset.
- b. Fever.
- c. Sever fatigue- prostration.
- d. Rapidly developing normocytic-normochromic anaemia.
- e. Prolonged bleeding time.
- f. Epistaxis, gum bleeding with gingivitis.
- g. Stomatitis with sour throat.
- h. Joint pain.
- i. Hepatomegaly and splenomegaly.
- j. Enlargement of Lymphatic nodes.
- k. Presence of immature blast cells in the

circulation- myloblasts, lymphoblasts or monoblasts as per the type of Leukaemia.

1. Lesser enlargement of spleen and lymph nodes as compared to chronic Leukaemia.
- m. Lesser rise in total count of white blood cells as compared to chronic Leukaemia.

2.2 Chronic Leukaemia – Myloid, Lymphatic, Monocytic Leukaemia

Chronic Myloid Leukaemia – It is a disease condition dominant in adult age. Both the genders are equally susceptible. The total leucocyte count becomes very high and may reach upto or above 500000/cmm of blood. Chronic myloid leukaemia is a myloid hyperplasia which includes bone marrow of long bones. Bone marrow becomes grey and sticky. There occurs moderate enlargement of lymph nodes.

Chronic Lymphoid Leukaemia – This disease is generally dominant during 45th to 70 years of life. It is more dominant in male gender. Onset of the disease is sudden. Axillary, inguinal and cervical lymph nodes are enlarged, firm and painless. Patient becomes anaemic. Moderate hepatomegaly and splenomegaly is observed. Lymphoid infiltration is seen in various organs like skin, kidneys and voluntary muscles.

Chronic Monocytic Leukaemia – This type of Leukaemia is associated with increase in mature and immature monocytes in blood. It is an acute disease condition. Lymph nodes are enlarged and moderate spleeno megaly and hepatomegaly is observed. There occurs haemorrhage in oral mucosa. Formation of gangrenous skin lesions is special feature.

2.3 Atypical Leukaemia

Chloroma: It is a variety of acute myeloid leukaemia. Although it is rarely observed. It is found in children as well as adults. Tumour like masses of greenish coloured are formed over the body, where as this greenish colour fades away on exposure to air. These tumorous masses dominantly form at periosteum of flat bones like sternum, ribs or facial bones. They are less observed in viscera.

Agranulocytosis: This type may occur as idiopathic or occurs as an end result

to bacterial or protozoal infections like Pneumonia, osteomyelitis or Kala azar. In these bacterial infections development of necrotic ulcers are seen which are devoid of leucocytes and that is why this type is called as agranulocytosis. It occurs due to depression in granulopoiesis associated with extreme fall in total white cell count in the blood. But the platelet count remains high. It is more dominant in women than in men. It also can form as hypersensitivity to drugs like dinitrophenol, arsphenamine, largactil, sulphonamides etc.

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1. Definition

It is a hereditary blood disorder dominantly people residing in Mediterranean countries and their generations residing at other part of world. It is also known as 'Cooley's disease or Mediterranean Anaemia'.

2. Types

- a. Thalassaemia Major
- b. Thalassaemia Minor

2.1 Thalassaemia Major

When Thalassaemia gene is inherited by both the parents the severe blood disorder is called as Thalassaemia Major. It is a homozygous disorder. Thalassaemia Major occurs due to consanguinity of marriage.

Blood picture : Blood smear reveals microcytic, hypochromic anaemia anisocytosis and poikilocytosis. The RBCs become thin and flat with less content of Haemoglobin. The central core becomes darker with paler surrounding giving the cell appearance of Target cell. Mean corpuscular Haemoglobin-MCH is low and Mean corpuscular haemoglobin concentration - MCHC is normal. Hb F- foetal haemoglobin remains persistent in blood after attaining first year of life in most of the cases.

Pathogenesis: Exact pathogenesis is unknown. The mutant gene prevents the formation of Hb A and impairs formation of normal red blood corpuscles.

Pathology

- 1. Major changes occur in skeletal system, bone marrow, liver and spleen.

- 2. Bone marrow becomes extremely hyperplastic.
- 3. Spleen gets enlarged and weighs above 1000-1500 gm.
- 4. Liver also gets enlarged.
- 5. Due to bone marrow hyperplasia there occurs thinning of the whole skeletal system.
- 6. Long bones become tubular in shape and their concavity is lost. Abnormal changes in the skull also are observed. Peculiar hair on ends appearance is observed in x-ray. Ends of long bones show mosaic appearance.

Symptoms

- 1. Disease dominant in childhood.
- 2. The onset starts from second year of life.
- 3. The child is weak and malnourished.
- 4. The head is large with typical mongoloid face.
- 5. Eyelids are puffy with epicanthic fold.
- 6. Abdomen is protuberant due to steady enlargement of spleen. Liver also gets enlarged.
- 7. Certain death before attaining puberty.

2.2 Thalassaemia Minor

It is a lesser serious type of Thalassaemia disease.

It develops due to inheriting Thalassaemia gene from one parent. It is mainly a carrier type of disorder which is carried from generation to next instead of resulting in full blown disease.

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1. Definition

Sickle-cell disease (SCD), also known as sickle-cell anaemia (SCA) and drepanocytosis, is a hereditary blood disorder, characterized by an abnormality in the oxygen-carrying haemoglobin molecule in red blood cells. This leads to a propensity for the cells to assume an abnormal, rigid, sickle-like shape under certain circumstances. Sickle-cell disease is associated with a number of acute and chronic health problems, such as severe infections, attacks of severe pain «sickle-cell crisis», and stroke, and there is an increased risk of death. Almost 300,000 children are born with a form of sickle-cell disease every year.

Sickle-cell disease occurs when a person inherits two abnormal copies of the haemoglobin gene, one from each parent. Sickle-cell disease may lead to various acute and chronic complications, several of which have a high mortality rate.

2. Sickle-cell crisis

The terms «sickle-cell crisis» or «sickling crisis» may be used to describe several independent acute conditions occurring in patients with SCD. SCD results in anemia and crises that could be of many types including the vaso-occlusive crisis, aplastic crisis, sequestration crisis, haemolytic crisis, and others. Most episodes of sickle-cell crises last between five to seven days. «Although infection, dehydration, and acidosis (all of which favor sickling) can act as triggers, in most instances, no predisposing cause is identified.»

3. Vaso-occlusive crisis

The vaso-occlusive crisis is caused by sickle-shaped red blood cells that obstruct capillaries and restrict blood flow to an organ resulting in ischaemia, pain, necrosis, and often organ damage. The frequency, severity, and duration of these crises vary considerably. Painful crises are treated with hydration, analgesics, and blood transfusion; pain management requires opioid administration at regular intervals until the crisis has settled. For milder crises, a subgroup of patients manage on NSAIDs (such as diclofenac or naproxen). For more severe crises, most patients require inpatient management for intravenous opioids; patient-controlled analgesia devices are commonly used in this setting. Vaso-occlusive crisis involving organs such as the penis or lungs are considered an emergency and treated with red-blood cell transfusions. Incentive spirometry, a technique to encourage deep breathing to minimise the development of atelectasis, is recommended.

4. Splenic sequestration crisis

Because of its narrow vessels and function in clearing defective red blood cells, the spleen is frequently affected. It is usually infarcted before the end of childhood in individuals suffering from sickle-cell anemia. This spleen damage increases the risk of infection from encapsulated organisms; preventive antibiotics and vaccinations are recommended for those lacking proper spleen function.

Splenic sequestration crises are acute, painful enlargements of the spleen, caused by intrasplenic trapping of red cells and resulting in a precipitous fall in hemoglobin levels with the potential for hypovolemic shock. Sequestration crises are considered an emergency. If not treated, patients may die within 1–2 hours due to circulatory failure. Management is supportive, sometimes with blood transfusion. These crises are transient, they continue for 3–4 hours and may last for one day.

5. Acute chest syndrome

Acute chest syndrome (ACS) is defined by at least two of the following signs or symptoms: chest pain, fever, pulmonary infiltrate or focal abnormality, respiratory symptoms, or hypoxemia. It is the second-most common complication and it accounts for about 25% of deaths in patients with SCD, majority of cases present with vaso-occlusive crises then they develop ACS. Nevertheless, about 80% of patients have vaso-occlusive crises during ACS.

6. Aplastic crisis

Aplastic crises are acute worsenings of the patient's baseline anaemia, producing pale appearance, fast heart rate, and fatigue. This crisis is normally triggered by parvovirus B19, which directly affects production of red blood cells by invading the red cell precursors and multiplying in and destroying them. Parvovirus infection almost completely prevents red blood cell production for two to three days. In normal individuals, this is of little consequence, but the shortened red cell life of SCD patients results in an abrupt, life-threatening situation. Reticulocyte counts drop dramatically during the disease

(causing reticulocytopenia), and the rapid turnover of red cells leads to the drop in haemoglobin. This crisis takes 4 days to one week to disappear. Most patients can be managed supportively; some need blood transfusion.

7. Haemolytic crisis

Haemolytic crises are acute accelerated drops in haemoglobin level. The red blood cells break down at a faster rate.

8. Other types

One of the earliest clinical manifestations is dactylitis, presenting as early as six months of age, and may occur in children with sickle-cell trait. The crisis can last up to a month. Another recognised type of sickle crisis, acute chest syndrome, is characterised by fever, chest pain, difficulty breathing, and pulmonary infiltrate on a chest X-ray. Given that pneumonia and sickling in the lung can both produce these symptoms, the patient is treated for both conditions. It can be triggered by painful crisis, respiratory infection, bone-marrow embolisation, or possibly by atelectasis, opiate administration, or surgery.

The loss of red blood cell elasticity is central to the pathophysiology of sickle-cell disease. Normal red blood cells are quite elastic, which allows the cells to deform to pass through capillaries. In sickle-cell disease, low-oxygen tension promotes red blood cell sickling and repeated episodes of sickling damage the cell membrane and decrease the cell's elasticity. These cells fail to return to normal shape when normal oxygen tension is restored. As a consequence, these rigid blood cells are unable to deform as they pass through narrow capillaries, leading to vessel occlusion and ischaemia.

The actual anaemia of the illness is caused by haemolysis, the destruction of the red cells, because of their shape. Although the bone marrow attempts to compensate by creating new red cells, it does not match the rate of destruction. Healthy red blood cells typically function for 90–120 days, but sickled cells only last 10–20 days.

9. Diagnosis

1. Complete blood count (reveals haemoglobin levels in the range of 6–8 g/dl with a high reticulocyte count) In other forms of sickle-cell disease, Hb levels tend to be higher.
2. Microscopic examination of a blood film—showing features of hyposplenism—target cells and Howell-Jolly bodies.
3. Haemoglobin electrophoresis
4. Genetic testing is rarely performed.

10. Complications

Sickle-cell anaemia can lead to various complications, including:

1. Increased risk of severe bacterial infections due to loss of functioning spleen tissue and comparable to the risk of infections after having the spleen removed surgically. These infections are typically caused by encapsulated organisms such as *Streptococcus pneumoniae* and *Haemophilus influenzae*. Daily penicillin prophylaxis is the most commonly used treatment during childhood, with some haematologists continuing treatment indefinitely. Patients benefit today from routine vaccination for *S. pneumoniae*.
2. Stroke, which can result from a progressive narrowing of blood vessels, prevents oxygen from reaching the brain.
3. Cerebral infarction occurs in children and cerebral haemorrhage in adults.
4. Silent stroke causes no immediate symptoms, but is associated with damage to the brain. Silent stroke is probably five times as common as symptomatic stroke. About 10–15% of children with SCD suffer strokes, with silent strokes predominating in the younger patients.
5. Cholelithiasis (gallstones) and cholecystitis may result from excessive bilirubin production and precipitation due to prolonged haemolysis.
6. Avascular necrosis (aseptic bone necrosis) of the hip and other major joints may occur as a result of ischaemia.
7. Decreased immune reactions due to hyposplenism (malfunctioning of the spleen)
8. Priapism and infarction of the penis
9. Osteomyelitis (bacterial bone infection), the most common cause of osteomyelitis in SCD is *Salmonella* (especially the atypical serotypes *Salmonella typhimurium*, *Salmonella enteritidis*, *Salmonella choleraesuis* and *Salmonella paratyphi B*), followed by *Staphylococcus aureus* and Gram-negative enteric bacilli perhaps because intravascular sickling of the bowel leads to patchy ischaemic infarction.
10. Opioid tolerance can occur as a normal, physiologic response to the therapeutic use of opiates. Addiction to opiates occurs no more commonly among individuals with sickle-cell disease than among other individuals treated with opiates for other reasons.
11. Acute papillary necrosis in the kidneys
12. Leg ulcers
13. In eyes, background retinopathy,

14. proliferative retinopathy, vitreous haemorrhages, and retinal detachments can result in blindness. Regular annual eye checks are recommended.
15. During pregnancy, intrauterine growth retardation, spontaneous abortion, and pre-eclampsia
16. Chronic pain: Even in the absence of acute vaso-occlusive pain, many patients have unreported chronic pain.
17. Pulmonary hypertension can lead to strain on the right ventricle and a risk of heart failure; typical symptoms are shortness of breath, decreased exercise tolerance, and episodes of syncope. 21% of children and 30% of adults have evidence of pulmonary hypertension when tested; this is associated with reduced walking distance and increased mortality.
18. Chronic kidney failure due to sickle-cell nephropathy manifests itself with hypertension, protein loss in the urine, loss of red blood cells in urine and worsened anaemia. If it progresses to end-stage renal failure, it carries a poor prognosis.

1. Definition

Urticaria is commonly known as hives. It is a kind of skin rash notable for pale red, raised, itchy bumps. Hives may cause a burning or stinging sensation. They are frequently caused by allergic reactions however, there are many nonallergic causes. Most cases of hives lasting less than six weeks (acute urticaria) are the result of an allergic trigger. Chronic urticaria (hives lasting longer than six weeks) forms rarely due to an allergy. The majority of chronic hives cases have an unknown (idiopathic) cause. In perhaps as many as 30–40% of patients with chronic idiopathic urticaria, it is caused by an autoimmune reaction.

Wheals (raised areas surrounded by a red base) from urticaria can appear anywhere on the surface of the skin. Whether the trigger is allergic or not, a complex release of inflammatory mediators, including histamine from cutaneous mast cells, results in fluid leakage from superficial blood vessels. Wheals may be pin point in size, or several inches in diameter.

2. Causes

1. Urticaria can also be classified by the purported causative agent. Many different substances in the environment may cause urticaria, including medications, food and physical agents.
2. **Drug-induced urticaria:** Urticaria due to drugs like aspirin, penicillin, anti diabetic drugs etc.
3. **Parasitic infections:** infections of *Fasciola hepatica*, *Ascaris lumbricoides* etc.

3. Types

1. Acute urticaria: It is defined as the presence of wheals which completely resolve within six weeks. Acute urticaria becomes evident a few minutes after the person has been exposed to an allergen. The outbreak may last several weeks, but usually the hives are gone in six weeks. Typically, the hives are a reaction to food, but in about half the cases, the trigger is unknown. Common foods may be the cause, as well as bee or wasp stings, or skin contact with certain fragrances. Acute viral infection is another common cause of acute urticaria. Less common causes of hives include friction, pressure, temperature extremes, exercise, and sunlight.

2. Chronic urticaria: It is defined as the presence of evanescent wheals which persist for longer than six weeks. Some of the more severe chronic cases have lasted more than 20 years. A survey indicated chronic urticaria lasted a year or more in more than 50% of sufferers and 20 years or more in 20% of them.

Acute and chronic urticaria are visually indistinguishable.

3. Dermatographic urticaria: it develops due to scratching or firm stroking of the skin. It is one of the most common types of urticaria. The skin becomes raised and inflamed when stroked, scratched, rubbed, and sometimes even slapped. The skin reaction usually becomes evident soon after the scratching, and disappears within 30 minutes.

4. Pressure or delayed pressure urticaria:

This type of urticaria can occur right away, precisely after a pressure stimulus or as a deferred response to sustained pressure being enforced to the skin. In the deferred form, the hives only appear after about six hours from the initial application of pressure to the skin. Under normal circumstances, these hives are not the same as those witnessed with most urticariae. Instead, the protrusion in the affected areas is typically more spread out. The hives may last from eight hours to three days. The source of the pressure on the skin can happen from tight fitted clothing, belts, clothing with tough straps, walking, leaning against an object, standing, sitting on a hard surface, etc. The areas of the body most commonly affected are the hands, feet, trunk, abdomen, buttocks, legs and face. Although this appears to be very similar to dermatographism, the cardinal difference is that the swelled skin areas do not become visible quickly and tend to last much longer. This form of the skin disease is rare.

5. Cholinergic or stress urticaria:

Cholinergic urticaria (CU) is one of the physical urticaria which is provoked during sweating events such as exercise, bathing, staying in a heated environment, or emotional stress. The hives produced are typically smaller than classic hives and are generally shorter-lasting.

6. Cold-induced urticaria: The cold type of urticaria is caused by exposure of the skin to extreme cold, damp and windy conditions; it occurs in two forms. The rare form is hereditary and becomes evident as hives all over the body 9 to 18

hours after cold exposure. The common form of cold urticaria demonstrates itself with the rapid onset of hives on the face, neck, or hands after exposure to cold. Cold urticaria is common and lasts for an average of five to six years. The population most affected is young adults, between 18 and 25 years old. Many people with the condition also suffer from dermatographism and cholinergic urticaria. Severe reactions can be seen with exposure to cold water: swimming in cold water is the most common cause of a severe reaction. A distinct hive should develop if a patient suffers cold urticaria. This is different from the normal redness that can be seen in people without cold urticaria.

7. Solar urticaria: This form of the disease occurs on areas of the skin exposed to the sun; the condition becomes evident within minutes of exposure. After the individual is no longer exposed to the sun, though, the condition starts to weaken within a few minutes to a few hours, and hardly ever lasts longer than 24 hours. Solar urticaria is classified into six different types, depending upon the wavelength of light involved. Since glass absorbs light with a wavelength of 320 nm and below, people suffering from solar urticaria in response to wavelengths of less than 320 nm are protected by glass.

8. Water-induced urticaria: This type of urticaria is also termed rare, and occurs upon contact with water. The response is not temperature-dependent and the skin appears similar to cholinergic form of the disease. The appearance of hives is within one to 15 minutes of contact with

the water, and can last from 10 minutes to two hours.

9. Exercise urticaria: The condition was first distinguished in 1980. People with exercise urticaria (EU) experience hives, itchiness, shortness of breath and low blood pressure within five to 30 minutes after beginning exercise. These symptoms can progress to shock and even sudden death. Jogging is the most common exercise to cause Exercise urticaria. It can sometimes occur only when someone exercises within 30 minutes of eating

particular foods, such as wheat or shellfish. For these individuals, exercising alone or eating the injuring food without exercising produces no symptoms.]

10. Food induced urticaria: The most common food allergies in adults are shellfish and nuts. The most common food allergies in children are shellfish, nuts, eggs, wheat, and soy.

4. Diagnosis

Extensive allergy testing over a long period of time.

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1. Introduction

The word Psoriasis is derived from Greek word meaning itching condition or being itchy. It is a commonly found skin disease, of relapsing of immune mediated disease, characterized by skin lesions including red, scaly patches, papules, and plaques, with severe itching. The skin lesions seen in psoriasis may vary in severity from minor localized patches to complete body coverage. It is not purely a skin disorder and can have a negative impact on many organ systems. Psoriasis has been associated with an increased risk of certain cancers, cardiovascular disease, and other immune-mediated disorders such as Crohn's disease and ulcerative colitis. It is generally considered a genetic disease. Psoriasis develops when the immune system mistakes a normal skin cell for a pathogen, and sends out faulty signals that cause overproduction of new skin cells. It is not contagious disease condition.

2. Predisposing factors

The causes of psoriasis are not fully understood.

Some factors may be counted as;

1. Environmental factors
2. Mental stress,
3. Side effect of some medicines- e.g. withdrawal of a systemic corticosteroid
4. Injury to the skin
5. Excessive Alcohol Consumption
6. Cigarette Smoking
7. Obesity.
8. Infections like HIV/AIDS

3. Classification

- 1. Plaque psoriasis:** The most common form, typically manifests as red and white scaly patches on the top layer of the skin. Skin cells rapidly accumulate at these plaque sites and create a silvery-white appearance. Plaques frequently occur on the skin of the elbows and knees, but can affect any area, including the scalp, palms of hands, and soles of feet, and genitals. In contrast to eczema, psoriasis is more likely to be found on the outer side of the joint. Fingernails and toenails are frequently affected (psoriatic nail dystrophy) and can be seen as an isolated sign. Inflammation of the joints, known as psoriatic arthritis, affects up to 30% of individuals with psoriasis
- 2. Guttate psoriasis:** Guttate psoriasis is characterized by numerous small, scaly, red or pink, droplet-like lesions (papules). These numerous spots of psoriasis appear over large areas of the body, primarily the trunk, but also the limbs and scalp. Guttate psoriasis is often triggered by a streptococcal infection, typically streptococcal pharyngitis.
- 3. Inverse psoriasis:** Inverse psoriasis (also known as flexural psoriasis) appears as smooth, inflamed patches of skin. The patches frequently affect skin folds, particularly around the genitals (between the thigh and groin), the armpits, in the skin folds of an overweight abdomen (known as panniculus), between the buttocks in the intergluteal cleft, and

under the breasts in the inframammary fold. Heat, trauma, and infection are thought to play a role in the development of this atypical form of psoriasis.

4. Pustular psoriasis: Pustular psoriasis appears as raised bumps filled with noninfectious pus (pustules). The skin under and surrounding the pustules is red and tender. Pustular psoriasis can be localized, commonly to the hands and feet (palmoplantar pustulosis), or generalized with widespread patches occurring randomly on any part of the body. Acrodermatitis continua is a form of localized psoriasis limited to the fingers and toes that may spread to the hands and feet. Pustulosis palmaris et plantaris is another form of localized pustular psoriasis similar to acrodermatitis continua with pustules erupting from red, tender, scaly skin found on the palms of the hands and the soles of the feet.

4. Management

No cure is available for psoriasis but various treatments can help to control the symptoms.

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The effectiveness and safety of targeted immune therapies is being studied, and several have been approved (or rejected for safety concerns) by regulatory authorities. The disease affects 2–4% of the general population.

5. Diagnosis

A diagnosis of psoriasis is usually based on the appearance of the skin. Skin characteristics typical for psoriasis are scaly, erythematous plaques, papules, or patches of skin that may be painful and itch. No special blood tests or diagnostic procedures are needed to make the diagnosis. Skin biopsy may be advised.

6. Complications

1. Cardiovascular disease.
2. Psoriatic arthritis.

7. Differential diagnosis

1. Discoid eczema,
2. Seborrhoeic eczema,
3. Pityriasis rosea.
4. Nail fungus
5. Cutaneous T cell lymphoma.

1. Definition

A group of disorder consisting skin rash, irritation, scaling and itching is called as eczema. It is also known as Atopic dermatitis. The word eczema is derived from Greek word meaning a bubble or a boil.

2. Symptoms

1. Appearance of rash in the form of patches on the skin. The type of rash may differ in each person.
2. Generally develops on face, neck, hands,

feet, knee and wrist. Other parts also may be affected. Commonly develop on the bending areas of the body for e.g. elbows, underarms, neck folds etc.

3. Severe itching at affected site. Itching may produce bleeding and further inflammation.
4. The patches are very dry and scaly. Secretions may develop rarely in the patches.
5. The affected part of the skin can be lighter or darker than rest of the skin colour.

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1. Definition

Pemphigus is defined as a rare group of blistering autoimmune diseases that affect the skin and mucous membranes.

2. Types**2.1 Pemphigus vulgaris**

Sores often originate in the mouth, making eating difficult and uncomfortable. Although pemphigus vulgaris may occur at any age, it is most common among people between the ages of 40 and 60.

2.2 Pemphigus foliaceus

It is least severe of the three varieties. It forms in only the top dry layer of the skin. It is characterized by crusty sores that often begin on the scalp, and may move to the chest, back, and face. Mouth sores do not occur.

2.3 Intraepidermal Neutrophilic iga dermatosis

Intraepidermal neutrophilic iga dermatosis is characterized histologically by intraepidermal bullae with neutrophils, some eosinophils, and acantholysis.

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2.4 Drug induced pemphigus

Develops as an effect of some drugs.

2.5 Paraneoplastic pemphigus

The least common and most severe type of pemphigus is 43.2.6. Paraneoplastic pemphigus. This disorder is a complication of cancer, usually lymphoma and Castleman's disease. It may precede the diagnosis of the tumor. Painful sores appear on the mouth, lips, and the esophagus. In this variety of pemphigus, the disease process often involves the lungs, causing bronchiolitis obliterans (constrictive bronchiolitis).

3. Diagnosis

1. Direct immunofluorescence essay.
2. Skin biopsy.

4. Other types

1. Pemphigus vulgaris, Pemphigus vegetans
2. Pemphigus vegetans of Hallopeau
3. Pemphigus vegetans of Neumann
4. Pemphigus foliaceus, of which there several forms:

Reference reading

- Sushrut Samhita Nidana Shana Chapter- 13.
- Ashtanga Hriday Uttarsthana Chapter 31.
- Sanskrit-English Dictionary - Apte Shabda-kosha.

Introduction

Diseases of non significant nature are called as Kshudra roga and explained in Sushrut Samhita under category of Kshudraroga. They are compiled under Kshudraroga chapter in Sushrut Samhita Nidan stahna thirteenth chapter. They are called as Kshudraroga because;

1. Most of them are of insignificant or non serious nature.
2. Pathogenesis of these diseases is not significant. Also, involvement of dosha and dushya etc. is minimum.
3. Treatment of Kshudraroga is mostly non invasive and does not require serious medicines or therapies. Most of the time person does not seek medical advice at all due to non troublesome nature of the disease.
4. Sushruta Samhita explains total 44 types of Kshudraroga, Ashtanga Hridaya explains total 36 types of Kshudraroga while Madhavnidana explains total 43 types of Kshudraroga.
5. Some types of Kshudraroga are explained elsewhere as diseases of different srotasa in this book.
6. Further detailed pathogenesis is described as Nidana Panchaka of Kshudraroga in this chapter.

1. Ajagallika

सिग्धाः सर्वा प्रथिता नीरुजो मुद्रसन्निभाः ।

कफवातोत्थिता ज्ञेया बालानामजगल्लिकाः ॥ S.S.Ni. 13/4.

1. Smooth to touch.
2. Color is similar to skin color.
3. Associated with nodules.
4. Painless.
5. Resemble to size of green gram.

2. Yavaprakhya

यवाकारा सुकटिना प्रथिता मांससंश्रिता ।

पिडका कफवाताभ्यां यवप्रख्येति सोच्यते ॥ S.S.Ni. 13/5.

1. Resembles to size of a grain of Barley.
2. Hard to touch.

3. Associated with nodules.
4. Situated at musculature -Mamsa dhatu.
5. Forms due to aggravation of Kapha and Vata.

3. Antralajee

घनामवत्रां पिडकामुत्रतां परिण्डलाम् ।
अन्त्रालजीमल्पभूयां तां विद्यात्कफवातजाम् ॥ S.S.Ni. 13/6.

1. Forms due to aggravation of Kapha and Vata.
2. Big in size. Thick in nature.
3. With no openings.
4. Circular and elevated above the skin surface.
5. With mild pus formation.

4. Vivurta

विवृतास्यां महादाहां पक्वोदुस्वसंनिभाम् ।
विवृतामिति तां विद्यालितोस्यां परिण्डलाम् ॥ S.S.Ni. 13/7.

1. Forms due to aggravation of Pitta.
2. Has a broad opening.
3. With severe sensation of burning.
4. Resembles to ripped fruit of Udumbara (Ficus rasemosa)
5. With deep situated base.

5. Kachhapika

ग्रथिताः पञ्च वा षड्वा दारुणाः कच्छपोषमाः ।
कफानिलाभ्यां पिडका ज्ञेयाः कच्छपिका बुधैः ॥
S.S.Ni. 13/8.

1. Hard to touch, severe in nature.
2. Presents in a group of four or five furuncles.
3. Furuncle has central elevation resembling to back of a tortoise.
4. Forms due to aggravation of Kapha and Vata.

6. Valmika

श्रीवांसकक्षाकरपाददेशे संधौ गले वा त्रिभिरेव दोषैः ।
ग्रथिः स वल्मीकवदक्रियाणां जातः क्रमेणैव गतः
प्रवृद्धिम् ॥

मुद्यैतैकैः स्तितोदवद्विद्विसर्पवत् सर्पति चोद्यतायैः ।
वल्लिकमाहुर्भिषजो विकारं निषल्लनिक विरजं विशेषात् ॥
S.S.Ni. 13/9-10.

1. Forms at neck, arm pits, joints of hands and legs or throat.
2. Forms due to aggravation of all the three dosha- Sannipatika.
3. Nature of the nodule resembles to anthill.
4. Growth of nodule is fast.
5. Secretes through many apertures and openings.
6. Pricking type of pain.
7. Nature of growth is spreading- as in Visarpa disease.
8. Its chronic type of incurable disease.

7. Indraviddha

पद्मकार्णिकवन्मध्ये पिडकाभिः समाचितम् ।
इन्द्रविद्धां तु तां विद्यात्पित्तोत्थितां भिषक् ॥ S.S.Ni. 13/11.

1. Aggravated Vata and Pitta dosha cause small furuncles resembling the shape of a lotus petal encircling nodular center part is called as Indraviddha. Shape resembles to.

8. Panasika

कर्णस्याग्रन्तरे जातां पिडकामुग्रवेदनाम् ।
स्थिरं पनसिकां तां विद्याद् वातकफोत्थिताम् ॥
A.H.U.31/3.

1. Formation of very painful furuncle inside the ear due to aggravation of Vata dosha.
2. It is hard to touch.

9. Pashangardhabha

वातश्लेष्मसमुद्भूतः शय्युर्हनुसच्चिजः ।
स्थिरो मन्दरुजः स्निग्धो ज्ञेयः पाषाणपर्दभः ॥
S.S.Ni. 13/13.

1. Formation of hard nodule below the ear near mandibular joint.
2. Soft to touch with dull type of pain.

10. Jalagardhabha

विसर्पवत् सर्पति यो दाहज्वरकरस्तनुः ।
अपाकः शय्युः पित्तात् स ज्ञेयो जालगर्दभः ॥
S.S.Ni. 13/14.

Aggravated Pitta causes swelling resembling to disease Visarpa, with sensation of burning, fever and inflammation is called as Jalagardhabha.

11. Kaksha (by Sushruta), Gandhmala (by Vagbhata)

बाहुपार्श्वसकक्षेषु कृष्णस्फोटं सवेदनाम् ।
पित्तप्रकोपसंभूतां कक्षमित्यभिनिर्दिशेत् ॥ S.S.Ni. 13/15.

1. Forms due to aggravated Pitta dosha.
2. Forms at hands, ribs (chest), shoulders and armpits.
3. Furuncles are blackish in colour and painful.

12. Visphotaka

अग्निदग्धनिभाः स्फोटाः सज्वरा रक्तपित्ततः ।
व्यचिन् सर्वत्र वा देहे स्मृतः विस्फोटकः इति ॥
S.S.Ni. 13/16.

Formation of skin eruptions regional or all over the body, with severe sensation of burning and fever due to aggravation of Rakta dhatu and Pitta dosha is called as Visphotaka.

13. Agnirohini

कक्षभागेषु ये स्फोटा जायन्ते मांसदाणाः ।
अन्तर्दाहप्रकरा दीप्तपावकसन्निभाः ॥
सत्वाहादा दशाहादा पक्षादा हन्ति मानवम् ।
तामानिरोहिणी विद्यादसाध्यायां सर्वदोषजम् ॥
S.S.Ni. 13/17-18.

1. Forms at armpit by lacerating the flesh.
2. Sensation of severe burning.
3. Fever.
4. Incurable condition.
5. Patient dies generally at fifteenth day of onset.

14. Chippa - Kunakha

नखमांसमधिष्ठाय वायुः पित्तं च देहिनाम् ।
कुचति दाह पाको च तं व्याधिं चिषमादिशेत् ॥
तदेवाल्सतैर्दोषैः परुषं कुनखं वदेत् ॥ S.S.Ni. 13/19-20.

Forms at nail base due to aggravation of Vata and Pitta dosha.

1. Sensation of pain and burning at the site.
2. Suppuration at nail bed.
3. The condition arising due to involvement of moderately aggravated Vata and Pitta dosha, in which nails become coarse, is explained as Kunakha.

15. Vidari

विदारिकन्दवदृता कक्षा- वङ्क्षणसन्धिषु ।
विदारिका भवद्वक्त्रा सर्वजा सर्वलक्षणा ॥ S.S.Ni. 13/23.

1. Formation of red coloured rounded nodule resembling to a melon (Vidari kanda) at armpits, buttocks or at joints.
2. Involvement of all the three dosha with combined presentation of symptoms.

16. Padadari

पक्रिमणशीलस्य वायुरत्यर्थरुक्षयोः ।
पादयोः कुरुते दारि पाददारी तमादिशेत् ॥ S.S.Ni. 13/31.

1. Forms in a person who tends to walk bare footed on dirty or dusty roads.
2. Forms in a person whose feet are extremely dry and harsh skinned.
3. Forms due to aggravation of Vata dosha.

17. Kadara

शर्करोन्मथिते पादे क्षते वा कण्टकादिभिः ।
ग्रन्थिः कोलवदुस्तन्नो जायते कदरं हि तत् ॥
S.S.Ni. 13/29-30.

1. Formation of hard nodule at heel/s due to thorn prick or injury due to sand (stone) etc.
2. Size and shape of the nodule resembles to a berry.

3. Forms due to aggravation of Vata and Kapha dosha.
4. Rarely forms at soles of hands.

18. Alasa

क्लित्रांगुल्यन्तरे पादौ कण्डूदाहरुजान्तिौ।
दुष्टकर्मसंस्पर्शदिलसं तं विभावयेत्॥ S.S.Ni. 13/28.

1. Decay formed between toe fingers due to repeated contact of feet with dirty water.
2. Sensation of itching which gives rise to sensation of burning and pain.

19. Daruna - Darunaka

दारुणा कण्डूय रुद्रा केशभूमिः श्पाटवते।
कफमारुतकोषेन विद्यादारुणकं तु तम्॥ S.S.Ni. 13/34.

1. Formation of scales dryness and itching (dandruff) at the scalp at hair roots.
2. Skin of the scalp becomes dry and itchy.

20. Arunshika

अरुणि बहुव्यत्राणि बहुस्तोदिनि गुर्णि तु।
कफायुक्तक्रिमिकोषेन नृणां विद्यादरुषिका॥ S.S.Ni. 13/35.

1. Forms due to aggravation of Kapha dosha, vitiation of Rakta dhatu and manifestation of worms at scalp.
2. Furuncles have many openings from which sticky putrefied secretions are formed.

21. Yuvanpidaka

शाल्मलीकंटकप्रख्याः कफमारुतवतजाः।
युवानपिडका यूनां विज्ञेया मुखदूषिकाः॥ S.S.Ni. 13/38.
शाल्मलीकंटकाकाराः पिटिकाः सरुजो घनाः।
मेदोगर्भां मुखे यूनां ताभ्यां च मुकदूषिकाः॥ A.H.U.31/5.

1. Formation of facial furuncles resembling to thorns of Shalmali- (Bombax ceiba).
2. Furuncle with wide base and upwardly pointed.
3. Dominantly forms at face of young people and generally.

22. Padmini kantaka

कण्टकैतचित्तं मण्डलं पाण्डुकण्डुम्।
पद्मिनीकण्टकप्रख्यैलादाख्यं कफवातजम्॥ S.S.Ni. 13/39.

1. Forms due to aggravation of Kapha and Vata dosha.
2. Rounded patch covered with furuncles resembling to lotus thorns, whitish in color.
3. Sensation of itching.

23. Jatumani

समुत्सन्नरुजं मण्डलं कफरक्तजम्।
सहजं लक्ष्यं वैकेषां लक्ष्यो जतुमणितु सः॥ S.S.Ni. 13/40.

1. Forms due to aggravation of Kapha dosha and Rakta dhatu.
2. Generally forms as congenital anamoli, in some cases may form in later stages of life.
3. Adhered to skin surface, rarely shows elevation above skin level.
4. Rounded in shape.
5. Synonym is Lakshma.

24. Mashaka

अवेदनं स्थिरं चैव यस्मिन् गात्रे प्रदृश्यते।
माषवतकृष्णमुत्सन्नमनिलान्मषकं तु तत्॥ S.S.Ni. 13/41.

1. Completely painless.
2. Growth is firm.
3. Size resembles to a grain of black gram.
4. Blackish in color.
5. Slightly elevated above skin level.
6. May form in any part of the body.
7. Forms due to aggravation of Vata dosha.

25. Tilakalaka

कृष्णानि तिलमात्राणि नीरुजानि समानि च।
वातपित्तकफोच्छोषातान्घितिलकालकान्॥ S.S.Ni. 13/42.

1. formation of black coloured spots on the body, resembling to shape, size and colour of (black) sesame seed.

2. Totally painless.
3. Adjacent to skin level.
4. Forms due to aggravation and combination of Vata- Pitta and Kapha

26. Nyachha

महद्वा यदि वा चालं श्यावं वा यदि वाऽधितम्।
नीरुजं मण्डलं गात्रे त्यच्छमित्त्वपिधीवते॥ S.S.Ni. 13/43.

1. Formation of big or small sized, blackish blue coloured, painless patches are called as Nyachha.

27. Charmakeela

समुत्थान निदानाभ्यां चर्मकीलं प्रकिलितम्॥ S.S.Ni. 13/44.

Elongated skin tags formed on the body surface are termed as Charmakeela, description explained in Arsha chapter.

28. Vyanga

क्रोधायासप्रकुपितो वायुः पित्तेन संयुतः।
युखभागत्य सहसा मण्डलं विसृजत्यतः॥ S.S.Ni. 13/46.

1. Aggravation of Vata dosha along with Pitta dosha due to acceptance of causes like physical exertion and due to hyper hostile nature.
2. Aggravated dosha take seat at face to form painless, thin, blackish patches on the facial skin is called as Vyanga.

29. Neelika

कृष्णमेवगुणं गात्रे मुखे वा नीलिकां विदुः॥ S.S.Ni. 13/45.

Identical spots appearing on the body parts are called as Neelika.

30. Parivartika

मर्दनात् पीडनाद्वा ऽति तथैवाप्यभिघातात्तः।

मेद्वर्चम यदा वायुर्भजते सर्वतश्चरन्॥
तदा वातोपसृष्टत्वात् तत्त्वम परिवर्तते।
मणोरधस्तात् कोशश्च ग्रन्थिरुषेण लम्बते।
सरुजां वातसम्भूतां विद्यात् परिवर्तिकाम्॥

सकण्डूः कटिना चापि सैव श्लेष्मसमुत्थिता॥

S.S.Ni. 13/48-51.

1. Due to excessive oleation, massage or external injury to penis, Vata dosha aggravates and takes seat at glans penis to cause hard and reverted skin which remains suspended under head of the penis in a form of a knot.
2. Painful condition.
3. Can form due to aggravation of Kapha dosha causing sensation of itching at the site.

31. Avapatika

अलीयः खां यदा हर्षाद्द्विलाह्रच्छेत् स्रियं नरः।
हस्ताभिघातादपि वा चर्मण्युद्धतिते॥
यस्यावपाटव्यते चर्मं तां विद्यादवपाटिकाम्॥

S.S.Ni. 13/52-53.

1. When excessively aroused person tries to perform forcible sexual intercourse with a woman having abnormally constricted vagina (vaginal opening is very small) or applies forcible massage to the penis, foreskin over the glans penis rolls upwards with inability to return to normal posture, such condition is called as Avapatika.

32. Nirudhhaprakasha

वातोपसृष्टे मेद्वे वै चर्म संश्रयते णिणम्।
मणौचर्मोपमखस्तु मूत्रोतो रुण्डि च॥
निरुद्धप्रकशो तस्मिन् मन्दधामवेदनम्।
मूत्रं प्रवर्तते जन्तोर्मणिर्विच्रियते न च॥
निरुद्धप्रकशं विद्यात् सरुजं वातसम्भवम्॥

S.S.Ni. 13/54-55.

1. When aggravated dosha cause rolling down of foreskin of glans penis causing closure urinary meatus and further obstruction to expulsion of urine, is called as Nirudhhaprakash. Urine

expulsion becomes interrupted, slow and dribbling generally without experience of pain. Due to association with aggravated Vata dosha, mild pain can be felt by the patient.

33. Sannirudhha guda

वेगसंवासाद्वाद्युर्विहतो गुदमाश्रितः।
निरुग्दि महत्त्वानः सूक्ष्मदृष्टवार्ं करोति च।
मार्मस्य सौक्ष्म्यात् कुच्छुण्ण पुरीषं तस्य गच्छति।।
सन्निरुद्धगुदं व्याधिमेनं विद्यात् सुदुस्तम्।।

S.S.Ni. 13/57-58.

Due to suppression of Apana vata and urge to defecate as well as urinate, aggravated Vata dosha takes seat at anus to obstruct Mahasrotasa -gastrointestinal canal- to cause constriction of the anal canal. Due to which the patient suffers from difficult passing of stool. This condition is difficult to cure and is called as Sannirudhha Guda.

34. Ahiputana

शक्रमुत्रसमायुक्तेऽधोतेऽपाने शिशोर्भवित्।
स्त्रिन्ने वाऽस्नायमाने वा कण्डू स्वतकफोद्भवः।।
कण्डूयनायततः शिषं स्फोटः सावश्व जायते।
एकोभूतं त्रयोर्धरितं विद्यादहिपूतनम्।। S.S.Ni. 13/59-60.

Formation of furuncles at buttocks and around the genital organs especially in infants due to unhygienic practices like improper cleaning of genitals and anus or urinary meatus of an infant after passing stool or urine, improper or lack of bathing and cleaning of the infant etc. Vata and Kapha dosha aggravate to create itching at these body parts which gives rise to formation of wounds and secretion of pus. It is a very serious type of disorder. Generally known as Nappy rash. This disease condition is dominant in infants.

...

35. Guda Bhramsha

प्रवाहणातीसागंध्यां निर्गच्छति गुदं बहिः।
रुद्धदुर्बलदेहस्य गुदभ्रंशं नमादिशेत्।। S.S.Ni. 13/63.

Due to habitual practice of suppression of natural urge (to defecate or urinate), Vata dosha aggravates to take abnormal seat at anus- Guda, to constrict rectum as well as opening of anus. Extreme difficulty to defecate is the main symptoms. It is a critical type of disorder.

36. Shukara danshtraka

सदाहो स्वतर्पन्तत्त्वक्काकी तीव्रवेदनः।
कण्डूमान् ज्वल्कारी च स्याच्छूकदंष्ट्रकः।। M.Ni. 55/55.

The disease in which anal prolapse with symptoms like severe sensation of burning, non suppurative, reddish color and severe sensation of itching with fever are observed, such serious condition of prolapsed of anus is called as Shukaradanshtraka.

37. Eriavellica

पिडकामुत्तमाङ्गस्थां वृत्तामुग्रजा- ज्वल्।
सर्वात्मिकां सर्वाल्लिङ्गां जानीयादितिष्ठिलिकाम्।। S.S.Ni. 13/15.

1. Forms of papule at head region, scalp.
2. Extremely painful.
3. Circular in shape.
4. Associated with fever.
5. Symptoms of all the three dosha dominance.

38. Gardhabhika

मण्डलं वृत्तमु त्संरक्तं पिडकाचितम्।
रुजाकर्षी गर्दभिकां तां विद्याद्वातपित्तजाम्।। S.S.Ni. 13/12.

1. Formation of red coloured furuncles due to aggravation of Pitta dosha.
2. It is circular and elevated above skin surface.

Diseases for differential diagnosis

1. Visarpa.
2. Visphot.
3. Maha Kushtha.
4. Kshudrakushtha.

1. Introduction

Kilasa is a variety of Kushtha, described by Sushruta Samhita. It is a lesser severe type as it involves only superficial planes of the body and presents with insignificant symptoms. Further detailed pathogenesis is described as Nidana Panchaka of Kilasa Kushtha in this chapter.

2. Definition : Paribhasha

किलासमपि कुष्ठविकल्प एव तत् त्रिविधं वातेन, पित्तेन श्लेष्मणा चेति।
कुष्ठकिलासयोस्तर्-त्वगतमेव किलासमपरिस्त्रावि च।
तद्व्यतिनमण्डलमरुणं परुषं परिध्वंसि च।
पित्तेन पचपत्रप्रतिकाशं सपरिदाहं च, श्लेष्मणा श्वेत सिग्धं बहलं कण्डूश्च।। S.S.Ni. 5/17.

Kilasa Kushtha is a type of Kushtha which has a different presentation on the body. onset is possible due to single dosha dominance .

3. Types : Prakara

Three sub types are made of Kilasa.

1. Vata dosha dominant Kilasa : Colour of patches is copper coloured, rough and affected patches of the skin are bald.
2. Pitta dosha dominant Kilasa : Patches resemble colour of lotus petal (pink- light red) with sensation of burning.
3. Kapha dosha dominant Kilasa : Patches are pale in colour, smooth and raised over the skin surface with sensation of itching.

4. Prognosis : Sadhyasadyatva

4.1 Incurable : Asadhya

Kilasa becomes incurable;

1. When patches are blended together or formed at the parts such as lips, hand, feet and genital organs.
2. When colour of hair of affected part becomes red.
3. When it is formed as an after effect of skin burn.

Reference reading

- Sushrut Samhita Nidana Sthana Chapter 5.
- Sanskrit-English Dictionary
- Apte Shabda-kosha

1. Definition

It is a syndrome which displays 'Yellowish discoloration' of the skin and mucous membrane of various body parts for e.g. sclera of eyes, nails and also gives yellow colour to body wastes like urine and faecal material and sweat. It is caused due to - Hyperbilirubinemia- increased levels of serum Bilirubin [Normal levels- 0.1 mg - 1mg/dl.] In severe condition of jaundice all the body tissues except central nervous system acquire yellow discoloration.

2. Normal process of formation and discharge of Bilirubin

1. Bilirubin is produced in the body after breakdown of matured red blood corpuscles in reticuloendothelial system of the body. Haemoglobin stored in the central core of RBC is broken down to form serum Bilirubin. One gram of Haemoglobin yields approximately 35 mg. of serum Bilirubin.
2. Bilirubin thus formed is carried to the Liver via extrahepatic reticulo endothelial depots through Plasma. Here Bilirubin is in unconjugated [non combined] form. Which is a non soluble to water form and which can act as a cytoplasmic poison to the human body if saturated in excess. Elevated levels of unconjugated Bilirubin is the basic cause for Jaundice.
3. In the Liver this unconjugated Bilirubin is further carried through polygonal cells of Liver and is excreted into Liver capillaries.

4. During this process unconjugated Bilirubin combines with glucuronic acid to form a conjugated product called as Bilirubin diacylucronide, which is water soluble.
5. Conjugated Bilirubin- Bilirubin diacylucronide- is further carried to biliary canaliculi and liver lobules and finally is excreted into intestines-duodenum- via common bile duct
6. In duodenum intestinal bacteria convert Bilirubin diacylucronide to Stercobilinogen and urobilinogen. Most of the Stercobilinogen is excreted via faeces and a small quantity via urine in the form of urobilinogen. That why normal faeces has brownish yellow colour and urine has a tinge of yellowness.

3. Classification of Jaundice**3.1 Haemolytic Jaundice - Pre hepatic Jaundice**

This type of Jaundice forms due to excessive breakdown of RBCs in cases of Haemolytic Anaemia. The type of Bilirubin formed is unconjugated and hepatic system also is damaged due to manifestation of Haemolytic Anaemia.

Main symptoms :

- a. The Jaundice or yellow icterus is mostly not very severe.
- b. Increase in Serum Indirect Bilirubin levels- Unconjugated Bilirubin.
- c. Increased amount of Stercobilinogen and Urobilinogen is found in faeces and urine respectively.

- d. Absence of Bilirubin in urine.
- e. Colour of the stool is dark yellow to brown.

3.2 Obstructive Jaundice - Post hepatic Jaundice

This type of Jaundice is caused by obstruction (Cholestasis) in the passage of common bile duct - pathway of conjugated bilirubin from liver to intestines. The cholestasis may be intra hepatic or extra hepatic.

The extra hepatic cholestasis is also known as surgical Jaundice.

Common causes

- a. Blockage of common bile duct due to gall stones.
- b. Blockage of common bile duct due to formation of carcinoma of the duct itself.
- c. Pressure occlusion of common bile duct due to carcinoma of head of pancreas.
- d. Pressure occlusion of common bile duct due to enlarged lymph nodes at Porta hepatis.
- e. Obstruction of common bile duct due to hepatic parasitic infections.
- f. Rare obstructions of common bile duct due to other external artefacts.

Main symptoms

- a. Direct Bilirubin- conjugated Bilirubin- is present in the serum.
- b. Complete absence or very little amount of Stercobilinogen in is found in faeces which makes it clay coloured.
- c. Stool is bulky and frothy due malabsorption of fats.
- d. Impaired absorption of vitamin K and subsequent deficiency of Prothombin which gives rise to chances of bleeding.
- e. Increased levels of Alkaline phosphatage

- f. Hyperlipidemia - Hypercholesterolemia.
- g. Complete absence of Urobilinogen in the urine.
- h. Presence of bile salt and pigment in the urine.
- i. Intense sensation of body itching due to raised bile salts in blood circulation- Pruritus.
- j. Prolonged obstruction to common bile duct leads to hepatocellular damage.

3.3 Hepatocellular Jaundice - Hepatic Jaundice

It is caused due to viral infections of Liver or as an allergic effect to administration of drugs like chlorpromazine, steroids, arsphenamine or para - amino - salicylic acid. There is equal presence of conjugated and Unconjugated Bilirubin in blood serum. Intrahepatic cholestasis is formed due to obstruction to escape of conjugated Bilirubin from hepatic canaliculi or to the canaliculi. Acute fatty degeneration of Liver or alcoholic Liver cirrhosis can also cause Hepatocellular Jaundice.

Main symptoms

- a. Equal proportion of Conjugated and Unconjugated Bilirubin in blood serum.
- b. Presence of Bilirubin in urine.
- c. Increased levels of Urobilinogen in urine.
- d. Colour of stool is pale.
- e. Decreased level of Alkaline phosphatage and serum Cholesterol.
- f. Liver failure.

4. Other types of Jaundice**4.1 Gilbert's disease**

It is non haemolytic type of Jaundice. There are intermittent episodes of Jaundice to the patient since his childhood the process

of uptake of plasma Bilirubin to site of conjugation at Liver. Although there is no defect in the system of conjugation.

4.2 Crigler - Najjar type of Jaundice

It is mostly seen in neonatal stage of life. It occurs due to deficiency of enzymes required to assimilate increased load (three times greater than of an adult) of Bilirubin in the blood of the new born. In this type levels of Unconjugated Bilirubin are increased.

4.3 Dubin-Johnson' hyperbilirubin-emia type of Jaundice

It is observed as a familial condition in young adults in the form of intermittent jaundice. Liver becomes greenish black in colour due to

saturation of lipofuscin - a brown coloured pigment in Liver cells. Levels of conjugated Bilirubin is increased. Icterus is visible.

4.4 Drug Jaundice

It is formed as an allergic reaction to various drugs.

Wilson's disease is the example. In this intake of excessive copper causes multilobular cirrhosis of liver associated with degenerative changes of basal ganglia. There is degenerative damage to liver and Brain. There occurs copper deposition at cornea of eyes forming 'Kayser- Fleicher Ring' a typical feature for diagnosis of the disease. Magnesium also produces same symptoms.

1. Definition

The channelled system which deals with muscles and tendons, and thereto deals with proper and uniform maintenance of body musculature is called as Mamsavaha srotasa. Organs related to circulation are included under Mamsavaha srotasa.

2. Origin of Mamsavaha srotasa : Moolasthanam

मांसवहानां च क्षोतसां स्नायुमूलं त्वक् च । C.S.VI. 5/15.

मांसवहे द्वे तयोमूलं स्नायुत्वचं रक्तवहान्श्च धमन्त्रः ॥

C.S.VI. 5/15.

1. Mamsavaha srotasa originates from Mamsa and Twak-muscles and skin.
2. Mamsavaha srotasa are two in number. It originates from Mamsa and Twak and Raktavahini dhamani meaning muscles, skin and blood vessels.

3. Causes for vitiation of Mamsavaha srotasa:

अभिष्यन्दिनि भोज्यानि स्थूलानि च गुरुणि च ।

मांसवाहीनि दुष्यन्ति पुक्ता स्वपतां दिवा ॥

C.S.VI.

5/15.

1. Intake of food which is heavy, unctuous and hard to digest: It causes indigestion to form abnormal Rasa dhatu hence further chain of dhatu formation production hampers and abnormal Mamsa dhatu is produced. It causes vitiation of Mamsavaha srotasa.

2. Sleeping-especially day time sleep- over full meal: Immediate sleeping over a full meal especially during day causes indigestion and abnormality in formation of Rasa dhatu which leads to impairment in formation of further dhatu including Mamsa dhatu. Thus Mamsavaha srotasa is affected.

4. Clinical features

---श्रुयु मांसप्रदोषजान् ।

अधिमांसकुकोलं गलशालुकं शुण्डिके ।

पूतिमांसोत्सिगण्डं गण्डमालोपजिद्विके ॥

विद्यानांससंश्रयान्----- ॥

C.S.Sa. 28/ 13-14.

1. Adhimamsa - An ophthalmic disorder.
2. Arbuda - Formation of tumors.
3. Charkmakeela - Formation of skin warts.
4. Galashaluka - Shundika- Tonsillitis.
5. Putimamsa - Putrifaction of flesh.
6. Alajee - A skin disease.
7. Gandamala - Cervical lymphadenitis.
8. Upajimvika - Uvulitis.

5. Symptoms of injured Mamsavaha srotasa

तत्र विद्वत्स्य श्वययुमांस शोषः सिरा ग्रन्थयो मरणं च ॥

S.S.Sh. 9/ 12.

Mamsavaha srotasa on getting injured displays following symptoms:

1. Shotha- body edema.
2. Mamsa shosha- Muscular atrophy.
3. Sira granthi - Varicosity to veins.
4. Death.

Disease at a glance

- Nature of Disease: - Chronic.
- Major Involving Dosha: Vata, Pitta, Kapha
- Major Involving Dushya: Meda.
- Site of Manifestation: Chin, Neck, Throat.
- Srotas: Mamsavaha Srotas
- Types: Three.
- Cardinal Feature: Formation of cervical lumps.
- Prognosis: Disease is curable in early stages and difficult to cure on becoming chronic.

1. Introduction

Galaganda is a chronic enlargement in a form of rounded lumps around the neck region. It is a kind of generalised oedema around the neck. It is a very slow developing condition mostly benign in nature. Similarly Gandamala, Apachi and Granthi also offer similar description about lump formation only with difference in site of onset, nature and size of lump etc. Further detailed pathogenesis is described as Nidana Panchaka of Galaganda- Gandamala- Apachi- Granthi in this chapter.

2. Definition : Paribhasha

निबद्धः धम्यशुर्गस्य मुक्कवल्लम्बते गले ।
महान्वा यदि वा ह्रस्वो गलगंडं तमादिशेत् ॥
महान्तं शोथमलं वा हनुम्यागलाश्रयम् ।
लंबन्तं मुक्कवद् दृष्ट्वा गलगंडं विनिर्दिशेत् ॥

आ.सि. S.S.Ni.11/29.
Yogaratanakara.

A disease condition in which big or small sized swollen masses resembling scrotum are formed in hanging position around the neck is called as Galaganda.

3. Pathogenesis : Samprapti

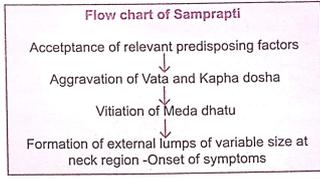
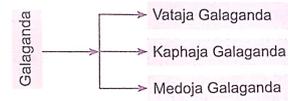
वातः कफश्चैव गले प्रवृद्धौ गन्धे तु संसृत्य तथैव मेदः ।
कुर्वन्ति गंडं क्रमशः स्वलिङ्गैः समन्वितं तं गलगंडमाहुः ॥
यस्य श्लेष्मा प्रकुपितो गलबास्येऽवतिष्ठते ।
शनैः संजनयेच्छोफं गलगंडोऽस्य जायते ॥

आ.सि. S.S.Ni.11/12.
C.S.Su.18/21.

Due to acceptance of relevant causative factors, Vata and Kapha dosha get aggravated in association with vitiated Meda dhatu and take abnormal seat at neck externally to cause slow developing swelling of big or small size, called as Galaganda.

4. Types : Prakara

Total three types of Galaganda are explained.



- Components of pathogenesis: Samprapti ghataka**
- Dosha: Vata, Kapha
 - Dushya: Meda.
 - Srotas: Mamsavaha, Medovaha srotasa.
 - Adhishthana: Manyu, Hanu and Gala
 - Srotodushhti: Sanga, Sira granthi.
 - Swabhava: Chirakari.
 - Agni dushti: Jatharagni, Mamsa, Meda dhatu agni -Agnimandya.

4.1 Vataja Galaganda

वैरस्यमास्यस्य च तस्य जन्तोर्भवेत्तथा तालुगलप्रशोषः ।
तोयान्वितः कृष्णसिरावनद्धः श्यावोऽरुणा वा पवनालकस्तु ।
पारुष्ययुक्तश्चिरवृद्धसपाको यदृच्छया पाकमियात् कदाचित् । वैरस्यमास्यस्य च तस्य जन्तोर्भवेत्तथा तालुगलप्रशोषः ॥

S.S.Ni.11/23-24.

Development of Vata dosha dominant Galaganda has following clinical features:

1. Bad taste of mouth.
2. Dryness of mouth and throat.
3. Pricking type of pain in the throat.
4. Presence of mesh of blackish colored vessels at affected area.
5. Colour of Galaganda is blackish red.
6. Surface of affected area is rough.

7. Slow growth.
8. Suppuration generally does not occur.

4.2 Kaphaja Galaganda

स्थिरः सर्वाणो गुरुप्रकण्डूः शीतो महांश्चापि कफालकस्तु ।
चिराभिवृद्धिं भजते चिराद्वा प्रपच्यते मन्दरुजः कदाचित् ॥
माधुर्यमास्यस्य च तस्य जन्तोर्भवेत्तथा तालुगलप्रकोपः ॥

S.S.Ni.11/25-26.

Development of Kapha dosha dominant Galaganda has following clinical features:

1. Solid, immovable growth which resembles the skin colour.
2. The swelling is grave, cold to touch. With severe itching sensation.
3. Growth of the swelling is slow.
4. Generally, suppuration does not form or forms after many days of onset of the swelling.
5. Mild pain.
6. Morbid sweet taste to mouth with feeling of coating of phlegm at throat and mouth.

4.3 Medoja Galaganda

स्निग्धो गुरुः पाण्डुनिटगन्धो मेदोभवः कण्डुयुतोऽल्परुक् च ।
प्रलम्बतेऽलाबुदल्पमूलो देध्यतुरुष क्षयवृद्धियुक्तः ॥
स्निग्धास्यता तस्य भवेच्च जन्तोर्भवेत्तुशब्दं कुरुते च नित्यम् ॥

M.Ni.Galaganda- Chapter-38/6.

Development of Meda dominant Galaganda has following clinical features:

1. Smooth to touch.
2. The swelling is grave, pale coloured and foul smelling.
3. Sensation of itching with mild pain.
4. It hangs down at neck resembling a Pitcher gourd and is loosely attached to the skin.
5. Size of Medoja Galaganda increases or decreases as per increase or decrease in body composition.

6. The patient produces excessive saliva (hyper salivation) and also a typical clucking sound.

5. Prognosis : Sadhya asadhyatva

कृच्छ्राकृच्छ्रसन्तं मृदुसर्वगानं संवत्सपतीतमरोचगात्रम्।
क्षीणं च वैद्यो गलांडं युक्तं भिन्नस्वरं चापि विवर्जयेच्च ॥
S.S.Ni.11/28.

Symptoms of Incurable Galaganda:

1. Severe dyspnoea.
2. The development is in very soft structures (deep situated) in the body.
3. Development of Galaganda is chronic (more than one year.)
4. Total loss of appetite.
5. Severe emaciation of body with wrecked voice.

1. Definition : Paribhasha

कर्कन्धु- कोलामलकप्रमाणैः कक्षांस-मन्या-गल-
वृक्षणेषु ॥
मेदः- कफाभ्यां चिरमन्दाकैः स्याद्गण्डमाला बहुभिन्न
गण्डैः ॥ M.Ni.Galaganda- Chapter-38/8.

The disease condition in which multiple swellings or lumps of size of a small or big goose berry (small-Karkandhu or big- Kola) or fruit of Amalakai (Phyllanthus emblica) , occur externally (resembling a string) at axilla, shoulders, sides of neck, throat or groin, is called as Gandamala.

2. Pathogenesis : Samprapti

कर्कन्धुकोलामलकप्रमाणैः कक्षांस-मन्या-गल-वृक्षणेषु।
मेदः -कफाभ्यां चिर-मन्दाकैः स्याद् गण्डमाला
बहुभिन्न गण्डैः ॥ M.Ni.Galaganda- Chapter-38/6.
मेदस्थाः कण्ठमन्याक्षकक्षादंशुणमा मलाः।
सवर्णान् बहून् गंडांश्चिरपाकांश्च कुर्वते ॥ A.H.U. 29/23-24.

Due to morbid combination of aggravated Kapha dosha and vitiated Meda dhatu, a chain like formation of lumps of small or big size appears at axilla, shoulders, sides of neck, throat or at groin. These lumps are similar to body colour. Suppuration may occur late in these lumps.

CHAPTER 50

APACHI

1. Definition : Paribhasha

ते ग्रन्थयः केचिदवापपाकाः स्ववन्ति नश्यति भवन्ति चान्ये।
कालानुबन्धं चिरमादधाति सैवापचिति प्रवदन्ति तज्ज्ञाः ॥
साध्याः स्मृताः पीनस- पार्श्वशूल- कास- ज्वर-
च्छर्दस्युतात्ससाध्याः ॥ C.S.Su.18/49. / S.S. Ni.11/11-12.

When lumps formed in Gandmala start suppurating and discharging pus, also get cured on their own or reform again and to

become chronic, this disease condition is called as Apachi. This is a very chronic disease condition.

2. Prognosis : Sadhyasadhyatva

Generally it is a curable disease condition. It becomes incurable when it is associated with common cold,pain in flanks, cough, fever and vomiting.

Diseases for differential diagnosis

1. Sthaulya- Medoroga.
2. Galaganda.
3. Gandamala.
4. Apachi.
5. Granthi — all these conditions can be considered for differential diagnosis to rule out with each other.

Reference reading

- Madhavanidana – Galaganda Chapter 38.
- Sushrut Samhita Nidanasthana- Chapter 11.
- Charaka Samhita Chikitsasthana Chapter 12.
- Charaka Samhita Sutrasthana Chapter 18.
- Asthanga Hridaya Uttarsthana Chapter 29.
- Sanskrit-English Dictionary -Apte Shabda-kosha.

1. Definition : Paribhasha

स ग्रन्थिर्ग्रथनात्सुतः ।
अनैकदेशेऽजिलादिभिः स्यात् ।

A.H.U.29/1.

C.S. Ch.12/78.

A disease condition in which a hard nodule is formed anywhere in the body due to aggravation of Vata etc. dosha is called as Granthi.

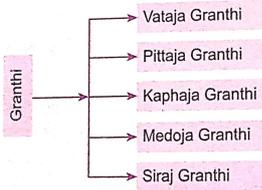
2. Pathogenesis : Samprapti

वातादयो मांसमृक्, श्लेष्मदाः संदूष्य भेदश्च तथा सिराश्च ।
वृत्तोन्नतं विग्रथितं च शोथं कुर्वन्त्यन्तो ग्रन्थिरिति प्रविष्टः ॥ S.S.Ni. 11/ 3.

Aggravated Vata (with other equally aggravated dosha) morbidly combines with vitiated Mamsa and Meda dhatu and vessels (Rakta dhatu) to form round shaped elevated big nodule like swelling anywhere in the body is called as Granthi.

3. Types Prakara

Total five types of Granthi are explained.



3.1 Vataja Granthi

Vata dosha dominant type of Granthi.

आयम्यते वृश्चति तुयते च प्रत्यस्यते मय्यति भिद्यते च ।
कृष्णो मूढुर्बलित्तिविततश्च सवेच्यनिलजोऽस्रमच्छम् ॥ S.S.Ni.11/4.

Symptoms

1. Onset of various types of pain like inflating, tearing, pricking, pulling, churning and cutting type of pain.
2. Colour of Granthi is blackish and feel is soft.

3. Shape of Granthi resembles furnace blowing bladder.
4. Thin blood exudate is discharged on pricking.

3.2 Pittaja Granthi

Pitta dominant type of Granthi.

दन्दस्यते धूयति वृश्चते च पापच्यते प्रज्वलतीव चापि ।
रक्तः सपीतोऽप्यथवाऽपि पित्ताद् सवेदुष्णप्रतीव चास्रम् ॥ S.S.Ni.11/5.

Symptoms

1. Severe sensation of burning.
2. Affected site feels as if touched by fire or by strong alkali.
3. Colour of Granthi is yellowish red.
4. Granthi produces copious blood discharge.

3.3 Kaphaja Granthi

Kapha dominant type of Granthi.

शितोऽ विवर्णोऽलरुजोऽतिकण्डुः पाषाणवत्
संहननोपपन्नः ।
चिराभिवृद्धश्च कफप्रकोपात् भिन्नः सवेच्छुक्लघनं च
पूयम् ॥ S.S.Ni.11/6.

Symptoms

1. Granthi is cold to touch. Pale coloured (without any particular shade of color.)
2. Dull pain with severe sensation of itching.
3. Feel of Granthi is stony hard, with very slow growth.
4. Produces thick, white pus discharge.

3.4 Medoja Granthi

Meda dominant type of Granthi.

शरीरवृद्धि- क्षयवृद्धि- हानिः स्निग्धो महान् कण्डुयुतोऽजश्च ।
भेदः कृतो गच्छति चात्र भिन्ने पिण्याक - सर्पिः प्रतिमं
तु भेदः ॥ S.S.Ni.11/7.

Symptoms

1. Increase or decrease in size of Granthi according to rise or fall in body composition.
2. Feel of Granthi is smooth, big sized with very less or no pain.
3. Granthi resembles paste of sesame seeds and produces thick, greasy discharge when pricked.

3.5 Siraja Granthi

Granthi formed due to abnormal vessels.

व्यायामजातैरबलस्य तैस्तेराक्षिप्य वायुस्तु सिराप्रतानम् ।
सङ्कुच्य समीडय विशोष्य चापि ग्रन्थिं करोत्युन्नतपाशु
वृत्तम् ॥
ग्रन्थिः सिराजः स तु कृच्छ्रसाध्यो भवेद्यदि स्यात्
सरुजश्चलश्च ।
अरुक् स एवाप्यचलो महांश्च मर्मोत्थतश्चापि विवर्जनीयः ॥
S.S.Ni.11/8-9.

When a frail person practices strenuous physical activities, above his physical strength, Vata dosha vitiates to cause abnormal entangle of blood vessels making them dried and constricted and spin them into rounded big mass called as Siraja Granthi. Siraja Granthi is incurable especially when it becomes painful and moving, appears on vital points (marma), it is also incurable when it becomes totally painless or immovable.

1. Definition

A thyroid disease is a medical condition impairing the function of the thyroid. Different thyroid diseases include Hashimoto's thyroiditis, hyperthyroidism and hypothyroidism. These diseases have a large range of symptoms and affect all ages. Imbalance in production of thyroid hormones arises from dysfunction of the thyroid gland itself, the pituitary gland, which produces thyroid-stimulating hormone (TSH), or the hypothalamus, which regulates the pituitary gland via thyrotropin-releasing hormone (TRH). Concentrations of TSH increase with age, requiring age-corrected tests. Hypothyroidism affects between three and ten percent of adults, with incidence higher in women and the elderly.

2. Hypofunction

Hypothyroidism: observed in following conditions;

1. Hashimoto's thyroiditis.
2. Postoperative hypothyroidism
3. Postpartum thyroiditis
4. Silent thyroiditis
5. Acute thyroiditis
6. Iatrogenic hypothyroidism
7. Thyroid hormone resistance
8. Euthyroid sick syndrome

3. Hyperfunction - Hyperthyroidism

1. Thyroid storm
2. Graves' disease
3. Toxic thyroid nodule
4. Toxic nodular struma (Plummer's disease)
5. Hashitoxicosis
6. Nodular abnormalities - Goitre

7. Endemic goitre
8. Diffuse goitre
9. Multinodular goitre
10. Lingual thyroid
11. Thyroglossal duct cyst
12. Tumors
13. Thyroid adenoma
14. Thyroid cancer
 - i. Papillary
 - ii. Follicular
 - iii. Medullary
 - iv. Anaplastic

Deficiencies may cause **Cretinism**.

4. Diagnosis**4.1 TSH level monitoring**

The measurement of thyroid-stimulating hormone (TSH) levels is often used by doctors as a screening test. Elevated TSH levels can signify an inadequate thyroid hormone production, while suppressed levels can point at excessive unregulated production of hormone.

1. If TSH is abnormal, decreased levels of thyroid hormones T4 and T3 may be present; T4 and T3 levels may be determined with blood tests to confirm that their levels are decreased.
2. Auto antibodies may be detected in various disease states (anti-TG, anti-TPO, TSH receptor stimulating antibodies).
3. There are two cancer markers for thyroid derived cancers. Thyroglobulin (TG) for well differentiated papillary or follicular adenocarcinoma, and the rare medullary thyroid cancer has calcitonin as the marker.

4. Very infrequently, TBG and trans thyretin levels may be abnormal; these are not routinely tested.
5. To differentiate between different types of hypothyroidism, a specific test may be used. Thyrotropin-releasing hormone (TRH) is injected into the body through a vein. This hormone is naturally secreted by the hypothalamus and stimulates the pituitary gland. The pituitary responds by releasing thyroid -stimulating hormone (TSH). Large amounts of externally administered TRH can suppress the subsequent release of TSH. This amount of release-suppression is exaggerated in primary hypothyroidism, major depression, cocaine dependence, amphetamine dependence and chronic phencyclidine abuse. There is a failure to suppress in the manic phase of bipolar disorder.[5]

4.2 Ultra sound examination

Ultrasonography is not always able to separate benign from malignant nodules with complete certainty. In suspicious cases, a tissue sample is often obtained by biopsy for microscopic examination.

4.3 Radioiodine scanning and uptake

Thyroid scintigraphy, imaging of the thyroid with the aid of radioactive iodine, usually iodine-123. It is performed in the nuclear medicine department of a hospital or clinic. Radioiodine collects in the thyroid gland before being excreted in the urine. While in the thyroid the radioactive emissions can be detected by a camera, producing a rough image of the shape and tissue activity of the thyroid gland. A normal radioiodine scan shows even uptake and activity throughout the gland. Irregularity can reflect an abnormally shaped or abnormally located gland, or it can indicate that a portion of the

gland is overactive or underactive, different from the rest. For example, a nodule that is overactive ("hot") to the point of suppressing the activity of the rest of the gland is usually a thyrotoxic adenoma, a surgically curable form of hyperthyroidism that is hardly ever malignant. In contrast, finding that a substantial section of the thyroid is inactive ("cold") may indicate an area of non-functioning tissue such as thyroid cancer.

The amount of radioactivity can be counted as an indicator of the metabolic activity of the gland. A normal quantity of radioiodine uptake demonstrates that about 8 to 35% of the administered dose can be detected in the thyroid 24 hours later. Over activity or under activity of the gland as may occur with hypothyroidism or hyperthyroidism is usually reflected in decreased or increased radioiodine uptake. Different patterns may occur with different causes of hypo- or hyperthyroidism.

4.4 Biopsy

A medical biopsy refers to the obtaining of a tissue sample for examination under the microscope or other testing, usually to distinguish cancer from noncancerous conditions. Thyroid tissue may be obtained for biopsy by fine needle aspiration or by surgery.

Needle aspiration has the advantage of being a brief, safe, outpatient procedure that is safer and less expensive than surgery and does not leave a visible scar. Needle biopsies became widely used in the 1980s, but it was recognized that accuracy of identification of cancer was good but not perfect. The accuracy of the diagnosis depends on obtaining tissue from all of the suspicious areas of an abnormal thyroid gland. The reliability of needle aspiration is increased when sampling can be guided by ultrasound, and over the last 15 years, this has become the preferred method for thyroid biopsy in North America.

1. Definition

The channelled system which deals with formation of Meda - fat and adipose tissue and thereto deals with maintenance and distribution of fat over the body systems is called as Medovaha srotasa. Organs related to circulation are included under Medovaha srotasa.

**2. Origin of Medovaha srotasa
Moola-sthana**

मेदोवहानां कोरुलां वृक्को मूलं वशावहनं च। C.S.VI. 5/8.
मेदोवहे द्वे तयोर्मूलं कटि वृक्को च। S.S.Sh. 9/12.
मेदोवहानि वृक्को मांस च। A.H.Sh. 6/43.

1. Medovaha srotas originates from kidney-Vrikka and omentum-Vapavahana.
2. Medovaha srotas are two in number and they originate from kidney-Vrikka and omentum-Vapavahana.
3. Medovaha srotas have their root in kidney and muscles.

3. Causes responsible for vitiation of Medovaha srotasa:

अव्यायामादिवारवनाग्नेधानां चाति भक्षणान्।
मेदोवहानि दूष्यन्ति वारुष्याक्षातिसेवनात्।। C.S.VI. 5/16.

1. Complete aversion of exercise: It causes increase in body fat and results in obesity thus causes vitiation of Medovaha srotasa.
2. Sleeping during day time: Regular sleep during day time causes indigestion and hence production of further dhatu gets hampered. As a result of which

excessive deposition dhatu is formed and Mamsavaha srotas is affected.

3. Intake of fatty food: Excessive fatty food intake lower down the power of Agni and forms unhealthy excessive fat deposition on the body leading to obesity to cause vitiation of Medovaha srotas.
4. Excessive liquor intake: Excessive intake of alcoholic drinks cause lack in digestive power which results in formation of unhealthy fat in excess. This leads to obesity especially fat deposition at abdomen. It also produces disturbance in formation process of other dhatu and affects Medovaha srotas.

4. Symptoms of Medovaha srotasa vitiation

----मेदः संश्रयास्तु प्रचक्षते।

निन्दितानि प्रमेहाणां पूर्वरुपाणि यानि च।।

च.सू.२८/१३-१४.

Prodromal features of Prameha such as equally considered as symptoms of Medovaha srotasa.

1. Dirty coating on the tongue and teeth.
2. Sensation of burning at palm and soles of the feet.
3. Stickiness of the body.
4. Extensive thirst.
5. Morbid sweet taste of the mouth.

**5. Eight types of despicable bodies:
Ashtounindita sharira:**

इह खलु शरीरमाधिकृत्याष्टौ पुरुषा निन्दिता भवन्ति;
तद्यथा-- अति दीर्घश्च अतिह्रस्वश्च, अतिलोमा च, अलोमा च,
अतिकृष्णश्च, अतिगौरश्च, अतिस्थूलश्च, अतिकृश्वेति।

S. Su. 21/1-5.

1. Extremely tall.
2. Extremely dwarf.
3. Excessively hirsute.
4. With very less or no bodily hair.
5. Very dark complexion.
6. Very fair complexion.
7. Excessively obese.
8. Excessively thin.

6. Symptoms of injured Medovaha srotasa

तत्र विद्वस्य स्वेदागमनं मित्वाङ्गता तास्तु शोथं स्थूलं शोथना
नियमा च। C.S.Sh. 9/12.

Medovaha srotasa on getting injured displays following symptoms: Excessive sweating.

1. Morbid stickiness of the body.
2. Dryness of soft palate.
3. Noticeable oedema.
4. Intense thirst.

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Disease at a glance

- Nature of Disease: Chronic.
- Major Involving Dosha- Kapha
- Major Involving Dushya- Mamsa, Meda, Kleda
- Site of Manifestation: Kidney
- Srotas: Medovaha Srotas
- Cardinal Feature: Obesity.

Prognosis

- Difficult to cure.

Diseases for differential diagnosis

1. Santarpanotha Vikara.
2. Prameha.

Reference reading

- Madhavanidana Medoroga Chapter 34.
- Charak Samhita Sutrasthana Chapter 21.
- Sanskrit English Dictionary - Apte Shabdakosha.

1. Introduction

Medoroga explains about obese state of body. It also describes about various ill effects of weight gain. Further detailed pathogenesis is described as Nidana Panchaka of Medoroga- Sthulya in this chapter.

2. Definition : Paribhasha

The disease in which abnormal deposition of fat- Meda- occurs on persons' body to cause obesity is called as Medoroga.

3. Predisposing factors: Nidana

अव्यायाम-दिवास्वन- श्लेभलाहारसेविनः ।
मधुरोन्नसः प्रायः स्नेहान्नेदः प्रवर्धयेत् ॥
मेदसाऽऽवृत्तमार्गत्वात् पुष्यन्त्ये न धातवः ।

M..Ni. Medoroga-Chapter- 34/1.

तदतिस्थौल्यमतिरूपणाद्गुरुमधुराशीतस्निग्धोपयोगाद-
व्यायामादव्यवायादिवास्वनाद्धर्षनित्यत्वादचिन्तनाद्धीजस्य
स्वभावाच्चोपजायते ।

C.S.Su.21/4.

1. Lack of physical exercise.
2. Enjoying daytime sleep.
3. Excessive habitual intake of sweet contents of food.
4. Excessive intake of unctuous food contents.

4. Pathogenesis : Samprapti

तस्य स्थितिमात्रमेदस्त्रिनो मेद एवोपचीतये न तथेत्तरे धातवः ।

C.S.Su. 21/ 4.

मधुरोन्नसः प्रायः स्नेहान्नेदः प्रधावयेत् । मेदसाऽऽवृत्तमार्गत्वात्
पुष्यन्त्ये न धातवः ।

M.Ni. Medoroga-Chapter-34/ 1.

Due to acceptance of relevant predisposing factors such as intake of sweet food contents, formation of Meda dhatu takes place excessively. This abnormal and overgrown Meda occludes the channels and causes hindrance to nourishment of other basic body elements, which ultimately remain undernourished and weak. This vicious cycle continues and as a result only abnormal

formation and deposition of Meda dhatu occurs in the body. Such condition is called as Medoroga.

Natural location of Meda dhatu is at Udara- (abdomen) as well as around the bones. Therefore in Medoroga abnormal depositin of Meda is specifically observed over the abdomen.

Vata dosha gets aggravated and abnormally enveloped by Meda and circulates speedily in gastrointestinal tract. Action of aggravated Vata provokes digestive fire to become more powerful to result in immediate digestion of the ingested food and feeling of sharp hunger. For this reason, person afflicted by Medoroga tends to eat repeatedly and still his hunger remains unsatisfied. Charaka has compared early digestion with example that as the fire in the woods quickly burns out the flora' ingested food by a person afflicted by Medoroga also gets burnt (digested) within no time and sharp hunger develops again.

5. Clinical features : Roopa

मेदस्तु चियते तस्मादशवतः सर्वकर्मसु ।
क्षुद्रश्यासतृषामोहरस्वनक्रयनसादनैः ॥
युक्तः क्षुत्स्वेददौर्गन्ध्यैस्त्वग्रणोऽल्लमैद्युनः ।
मेदस्तु सर्वभूतानापुदरेष्वेव तिष्ठति ।
अत एवोदरे वृद्धिः प्रायो मेदस्त्रिनो भवेत् ॥

M.Ni. Medoroga-Chapter-34 /2 - 4.

1. Dyspnoea on slight exertion.
2. Thirst.
3. Delirium.
4. Drowsiness.
5. Obstructed exhalation with wheezing at throat
6. Lethargy.

7. Sharp hunger.
8. Foul smelling sweating.
9. Loss of physical strength.
10. Loss of libido.

6. Prognosis : Sadhyaasadyatva

मेदस्यातीव संवृद्धे सहसैवानिलादयः ।
विकारान् दारुणान् कृत्वा नाशयन्त्याशु जीवितम् ॥
मेदोमांसतिवृद्धत्वाच्चलस्फुरदस्तनः ।

अथोपचयोत्साहो नरोऽतिस्थूल उच्यते ॥ C.S. Su.21/ 8-9.

Medoroga is difficult to cure. It can also become life threatening in chronic cases.

Excessive abnormal deposition of fat especially over buttocks, abdomen and breasts. These organs become loosely suspended from their normal position.

7. Dietary and behavioral regimen

7.1 Pathya

wholesome regimen:

1. Fasting.
2. Intake of light, easy to digest type of food
3. Roasted meat, parched barley, parched corn flour, green gram, horse gram etc.
4. Old rice of red or white variety.
5. Vegetables of bitter or astringent taste.
6. Evasion of intake of fatty food
7. Physical exercise.

7.2 Apathya

unwholesome regimen:

1. Intake of hard to digest, sweet, unctuous type of food.
2. Intake of sugar cane juice, meat of aquatic animals.
3. Incompatible food contents.
4. Daytime sleep.
5. Sedentary life style.

1. Definition

Obesity is defined as a medical condition in which excess of body fat accumulates on the body and creates further complications to health. It can lead to cause type 2 DM, sleep apnoea, cancers, endocrine disorders, joint disorders and many such health problems.

2. Causes

1. Excessive intake of food.
2. Lack of physical activities, sedentary lifestyle.
3. Genetic structure.
4. Medical illness or Psychiatric illness.
5. Insomnia.
6. Wrong usage of medicines.

3. Clinical features

1. Abnormal gain in body weight.
2. Various serious disease conditions such as cardio vascular diseases, liver diseases, asthma, hyper lipidemia, osteoarthritis, Skin diseases etc.
3. Reduced life span.
4. Excessive perspiration with foul odor.
5. Easy fatigability and tendency to sit, sleep and avoid physical or mental exertion.
6. Hunger.

4. Classification

1. Overweight.
2. Class 1 obesity
3. Class 2 obesity
4. Class 3 obesity

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Disease at a glance

- Nature of Disease : *Chronic.*
- Major Involving Doshya - *Kapha*
- Major Involving Dushya - *Mamsa, Meda, Kleda*
- Site of Manifestation : *Kidney*
- Srotas : *Medovaha Srotas*
- Types - *Twenty*
- Cardinal Feature : *Excessive production of turbid urine.*
- Cure Chances - *Incurable (can be managed with difficulty with continual medication and proper diet and exercise)*

Diseases for differential diagnosis

1. Medoroga.
2. Santarpanotha Vikara.
3. Agnimandya.
4. Trishna.
5. Daha.
6. Diseases of Mutravaha srotasa.

Reference reading

- Madhavnidana Prameha Chapter 33
- Charak Samhita Nidana Sthana Chapter 4
- Charak Samhita Chikitsa Sthana Chapter 6
- Charak Samhita Sutrasstana Chapter 24
- Sushruta Samhita Nidana Sthana Chapter 6
- Ashtanga Hridaya Sharira Sthana. Chapter 5
- Ashtanga Hridaya Nidana Sthana Chapter-10
- Harita Samhita-Chapter 28.
- Sankrit-English Dictionary - Apte Shabdakosha.

1. Introduction

The name of the disease is derived from two sanskrit words, प्रकर्षण meaning profusely and मेहति meaning the one who urinates. This means Prameha is a disease in which a person urinates frequently and profusely.

It is the most fearsome disease condition known as 'silent killer' in today's society. Prameha can be compared with Diabetes mellitus due to similarity in features, although Ayurveda explains more deeply about pathogenesis of Prameha. This disease condition affects more to people with sedentary life style and obesity, also hereditary factor plays major role in transformation of this disease. Further detailed pathogenesis is described as Nidana Panchaka of Prameha in this chapter.

2. Definition : Paribhasha

प्रकर्षण मेहति इति प्रमेहः ।

The disease in which frequent and voluminous urination is main symptom is called as Prameha. This is a critical type of disease which can not be totally cured but can only be managed with constant medication.

3. Route of development : Marga

Abhyantara: Affliction of the disease is internal. At later stages it involves vital points and most important organs of the body.

4. Predisposing factors : Nidana

आस्यासुखं स्वनसुखं दधीनि ।
ग्राम्यौदकानुरसाः पयांसि ।
नवात्रपानं गुड वैकृतं च ।
प्रमेह हेतुः कफकृच्च सर्वम् ॥ C.S.Ch.6/4.

1. Complete aversion of physical exertion.
2. Excessive sleeping during day and night.
3. Intake of meat of animals residing near watery or marshy areas.

9. Excessive sweating with foul body odour.
10. Excessive sleepishness.
11. Lassitude.
12. Dyspnoea.
13. Excessive growth of hair and nails.
14. Desire for cold climate.
15. Feeling of heavyness with tingling sensation in the body.
16. Morbid sweet feel of mouth.
17. Fatigue with loss of body strength and vigour.
18. Desire to sit, sleep and avoid physical activities.
19. Abnormal sticky sensation to heart, tongue, ears.
20. Insects get easily attracted towards urine of the person.

Other premonitory features

21. Various abnormal color shades are observed in urine.
22. Increase in nasal discharge and ear wax.

7. Clinical features : Roopa

प्रमेहपूर्वस्थाणां कृतिर्वत्र दृश्यते।
 किंचिच्चव्याधिकं मूत्रं ते प्रमेहाणामादिशेत् ॥ S. S. Ni. 6/22.
 सामान्यं लक्षणं तेषां प्रमुताविलभ्यता।
 दोषदृष्ट्या विशेषेऽपि तस्योपविशेषतः।
 मूत्रवर्णादिभेदेन भेदो भेदेषु कल्पते ॥ A. H. Ni. 10/8.
 यथा हि वर्णानां पत्रानामुत्कर्षात्कृतेन संयोगविशेषेण-
 शबलभ्रुकपिलकरोतभेदकानां वर्णानामनेकेषामुत्पत्तिः
 एकमेव दोषघातुमलाहारविशेषेणोत्कर्षात्कृतेन
 संयोगविशेषेण प्रमेहाणां नानाकरणं भवति ॥ S. S. Ni. 6/29.

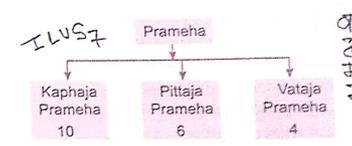
The prominent features of Prameha are;

1. Frequent urination, expulsion of large volume of urine [especially increase in frequency of nocturnal urination].
2. Turbid, non clear appearance of urine.

Other features are same as in prodromal stage of the disease.

8. Types: Prakara = 20 types

विंशतिर्व मेहाः । C.S. Ch. 6/8.
 त्रिदोषकोपनिभिताः विंशतिः प्रमेहाः भवन्ति ।
 सर्व एव मेहाः सर्वदोषजाः इति । C.S. Ni. 4/3.



8.1 Kapha dominant types of Prameha

तत्रेमे त्रयो निदानादि विशेषाः श्लेष्मनिमित्तानां प्रमेहाणामा-
 श्वभिनिवृत्तिकरा भवन्ति; तद्यथा--शयनकथयकचो-
 कोद्दालक नैपद्योक्त मुकुन्द सहाजोहि प्रमोदक सुगन्धकानां
 नवानाम-तिवेलमतिप्रमाणेन चोपयोग; तथा सर्पिजनां
 नवहरेनुमायसूयानां, ग्राम्यातुषोदकानां च भासांनानाम्,
 शकानि-लपलपिटाग्रप्रायसकृशराविलेपीलु विकाराणाम्;
 क्षीरनवमद्यमन्दकदधिद्रवमधूरतरुणप्रायाणां चोपयोगः
 मृजाव्यायामवजस्कनं, स्वप्नशयनासन प्रसङ्गः यश्च
 काश्चिद्द्वधन्वोऽपि श्लेष्मेदोमूत्र संजननः, स सर्वो
 निदानविशेषः ॥ C.S. Ni. 4/5.

तत्र वातपित्तमेदोभिः श्लेष्मा श्लेष्मप्रमेहान् जनयति ॥
 S.S. Ni. 6/11.

शरीर क्लेदलु श्लेष्ममेदोमिश्रः श्विशान् मूत्राशयं
 मूत्रत्वमापद्यमानः श्लेष्मिकेभिर्दशगुणैरुमुच्यते वैषम्य
 युक्तैः; तद्यथा-- श्वेतशीयमर्तपिच्छिलात्सिन्धुमुरुमुत्सुसा
 उग्रसादनदैः, तत्र येन गुणैर्नैकेनानेकेन वा भुस्तसुमुच्यते
 तत्समाख्यं गौणं नामविशेषं प्राप्नोति ॥ ते तु खलु दश प्रमेहा
 नामविशेषेण भवन्ति; तद्यथा उदकनेहश्च, मिकनामेहश्च,
 शनैर्मेहश्च ५ आलालमेहश्चेति ॥ C.S. Ni. 4/9.

तत्र श्लोकाः श्लेष्मप्रमेह विशेष विज्ञानार्था भवन्ति ॥
 अष्टं बहु शीतं निर्गन्धमुदकोपमम् ।
 श्लेष्मकोपात्रोपूत्रमुदमेहि प्रमेहति ॥

- Classification of Pramehas**
- Dhatu Kapha Vata Pitta
 - Dhatu Kapha Kapha Kapha Kapha Kapha Kapha
 - Dhatu Kapha Kapha Kapha Kapha Kapha Kapha

6. Premonitory features: Pureroopa

प्रयत्नं खलु दोषा प्रकृतिना प्रयत्नपूर्वकं प्रकृतौ
 पूर्वसंज्ञां दर्शयन्ति, तथा श्लेष्मप्रमेहस्य प्रमेहाः
 सुददाहौ, मुक्तनासुकायसूयानां, शयनं च
 कायं, कर्षात्कृतेन संयोगविशेषेण-
 शबलभ्रुकपिलकरोतभेदकानां वर्णानामनेकेषामुत्पत्तिः
 एकमेव दोषघातुमलाहारविशेषेणोत्कर्षात्कृतेन
 संयोगविशेषेण प्रमेहाणां नानाकरणं भवति ॥ S. S. Ni. 6/29.

तेषां पूर्वसंज्ञा- श्लेष्मप्रमेहस्य प्रमेहाः
 नात्रायां सादः, शयः, कर्षात्कृतेन संयोगविशेषेण-
 शबलभ्रुकपिलकरोतभेदकानां वर्णानामनेकेषामुत्पत्तिः
 एकमेव दोषघातुमलाहारविशेषेणोत्कर्षात्कृतेन
 संयोगविशेषेण प्रमेहाणां नानाकरणं भवति ॥ S. S. Ni. 6/29.

स्वेदोद्दान्तः शिथिलवर्णः। श्लेष्मप्रमेहस्य प्रमेहाः
 हरेत्रांनिहाश्ववर्णोऽपि। यथाश्लेष्मप्रमेहस्य प्रमेहाः
 शिथिलवर्णः श्लेष्मप्रमेहस्य प्रमेहाः
 भविष्यतो मेहगन्धः तर्। मुक्तनासुकायसूयानां, शयनं च
 कायं, कर्षात्कृतेन संयोगविशेषेण-
 शबलभ्रुकपिलकरोतभेदकानां वर्णानामनेकेषामुत्पत्तिः
 एकमेव दोषघातुमलाहारविशेषेणोत्कर्षात्कृतेन
 संयोगविशेषेण प्रमेहाणां नानाकरणं भवति ॥ S. S. Ni. 6/29.

1. Increased tangles in hair.
2. Numbness and tingling sensation in limbs.
3. Sensation of burning especially in palms and soles
4. Dryness of mouth, soft palate and throat
5. Thirst.
6. Lethargy.
7. Increase in heaviness or soreness of body despite of performing regular body cleansing procedures.
8. Humidness of body.

[Faded handwritten notes and diagrams on the left page, including a box with text: "Prameha is caused by all..." and "Prameha is caused by all..."]

अत्यर्यमचुं शीतपिपित्तिकलमाविसम् ।
 काण्डसुखसंज्ञायं श्लेष्मकोपात् प्रवेहति ॥
 यत्वं पृथुषितं मूत्रं साद्रीभवति भाजने ।
 दुर्घ्नं कफकोपेन तमाहुः सान्द्रमेहिनम् ॥
 यत्वं संवते मूत्रं किञ्चित् किञ्चित् प्रसीदति ।
 सान्द्रसाद मेहिति तमाहुः शुक्लमेहिनम् ॥
 शुक्रमं शुक्रमिश्रं वा शुद्धं हति यो नरः ।
 शुक्रमेहिनमाहुस्तं पुण्यं श्लेष्मकोपतः ॥
 मूत्रमूत्रतात्तु दोषान्मग्न्येहति यो नरः ।
 सिकतामेहिनं विद्यात्तं नरं श्लेष्मकोपतः ॥
 मन्दं मन्दवेगं तु कृच्छ्रं यो मूत्रयेत्तनेः ।
 श्लेष्ममेहिनमाहुस्तं पुण्यं श्लेष्मकोपतः ॥
 तनुवद्भगिवालात् सिच्छिलं यः प्रवेहति ।
 आलात् मेहिनं विद्यात्तं नरं श्लेष्मकोपतः ॥
 इत्येते दश प्रमेहाः श्लेष्म प्रकोप निमित्ता व्याख्याता भवन्ति ॥

C.S.Ni./4/12-23.

Special predisposing factors for Kaphaja Prameha;

1. Excessive intake of all the types of new, unriper rice.
2. Intake of preparations made from green gram, black gram fried in ghee.
3. Intake of meat of sheep [Gramya-residing at rural areas], pig [Anupa-residing at marshy area] or fish [Audaka-residing in water].
4. Excessive intake of green, leafy vegetables.
5. Intake of food items made up of sooji or atta.
6. Intake of various sweet contents like payasam, khichadee, food items made up of suger cane juice, milk and milk products made up of buffalo's milk, unformed sour curds. In fact all the food contents which are imature or not properly made.
7. Avoiding the usage of regular body cleansing methods (bathing, hand and

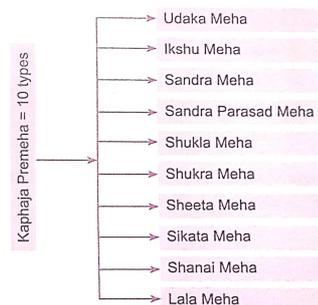
body wash etc.) and tendency to keep the body dirty.

8. Tendency to avoid physical exercise.
9. Always tend to lie down or sleep and avoidance of any sort of exertion.

These predisposing factors aggravate Kapha dosha especially by its liquid property to cause Kapha dominant type of Prameha. Mamsa, Meda, Kleda are the primary associated factors in the samprapti of Kaphaja Prameha. Rasa, Rakta, Vasa, Majja, Shukra and Oja are secondary associated factors which become vitiated and laxed to combine with aggravated Kapha dosha. Kleda is the unwanted waste product formed during normal procedure of digestion and separation between wanted and unwanted food. Normal function of Kleda is to associate with sweda [sweat] and to keep skin soft and smooth. In samprapti of Kaphaja Prameha this Kleda becomes seriously vitiated due to hampered process of digestion and mixes with urine to produce turbid and frequent urination, which is cardinal feature of Prameha. Due to the similarity between nature and qualities of Kapha dosha and Meda dhatu, their morbid combination further mixes with already vitiated and weakened Mamsa and Kleda. Ultimately Vrikka- kidney as well as whole Mutravaha Srotas gets affected and Kapha dominant Prameha is formed. All the other types of Prameha also follow same stages of pathogenesis only predominance of dosha differ with each type. The prognosis of Kapha dominant Prameha depends upon aggravation concentration of participating dosha and the chronicity of the disease.

Kapha aggravates with all the ten qualities and morbidly combines with Mamsa, Meda and Kleda to pass through Mutravaha srotasa as a result various color shades appear to urine

and thus ten types of Kaphaja Prameha are observed.



1. UDAKA MEHA

Dominantly aggravated qualities of kapha dosha—shweta, sheeta, achha. Nature of the urine is crystal clear, colorless and odourless which resembles to water. Volume of voided urine is large.

2. IKSHU MEHA

Dominantly aggravated qualities of kapha dosha—pichhila, sheeta. Nature of the urine is turbid, cold and sweet as sugar cane juice. volume of voided urine is comparatively less.

3. SANDRA MEHA

Dominantly aggravated qualities of kapha dosha—sandra, pichhila. Total volume of urine becomes turbid when preserved for long time.

4. SANDRAPRASADA MEHA

dominantly aggravated qualities of kapha dosha—sandra, pichhil.

Lower part of the urine becomes turbid, precipitated on keeping still, while upper part of the urine remains clear.

5. SHUKLA MEHA

Dominantly aggravated qualities of kapha dosha—shweta, guru. color of the urine is white and turbid as if mixed with floor.

6. SHUKRAMEHA

Dominantly aggravated qualities of kapha dosha—shweta, snigdha. urine appears like semen or some times a slight amount of seminal fluid may be actually mixed with the voided urine.

7. SHEETA MEHA

Dominantly aggravated qualities of kapha dosha—guru, madhura, sheeta. Feel of the urine is extremely cold and coldness is actually experienced by the patient while passing urine. Urine is sweet in taste.

8. SIKATA MEHA

Dominantly aggravated quality of kapha dosha—manda, sandra, murta. Several, small sand like particles are expelled along with the urine.

9. SHANAI MEHA

Dominantly aggravated qualities of kapha dosha—manda, murta. Process of passing the urine becomes very much slow irrespective of full bladder condition.

10. ALALA MEHA-LALA MEHA

Dominantly aggravated qualities of kapha dosha—pichhila. Nature of voided urine is sticky, fibrous and resembles to saliva.

8.2 Pitta dominant types of Prameha

उष्णाम्लत्वणसारकटुकाजीर्णभोजनोसेवितलयाऽतितीक्ष्णा-
त्पाम्नितापश्रमक्रोधविषपाहारेभेतेविनश्च तथाविधशरीर-
स्येव श्वितं पित्तं प्रकोपमापद्यते, ततु प्रकुपितं तथैवानुपूर्व्यां
प्रेमहानिमान् षट् क्षिप्रतमभिनिर्वर्तयति ॥
तेषामपि तु खलु पित्तप्रणविशेषेणैव नामविशेषा भवन्ति ;
तद्यथा- श्रापेहश्च, कालप्रेहश्च, नीलप्रेहश्च लिहितप्रेहश्च,
मञ्जिष्ठाप्रेहश्च, हरिद्राप्रेहश्च ॥

ते षट् पित्तैः क्षाण्णतत्त्वणवकटुकाविस्रोणैः पित्तगुणैः
पूर्वव्युक्ता भवन्ति ॥ C.S.Ni. 4 / 24-26.

वातकफशोणितमेदोन्निघमनं पित्तं प्रमेहान् ॥ S.S.Ni.6/11.

तत्र श्लोकाः पित्तं प्रमेहविशेषविज्ञानार्था भवन्ति ॥

मन्थवर्षतस्वर्गर्चया सारस्त्वयाविचम् ॥

पित्तकोपात्रे पूत्रं क्षारमेहो प्रमेहति ॥

मयीवर्णमजसं यो मृत्रमुष्णं प्रमेहति ॥

पोतिस्य परिकोपेण तं विद्यात् कालभेदिनम् ॥

चाप्यक्षानि मं मूलमन्तं मेहति यो नरः ॥

पित्तस्य परिकोपेण तं विद्यात्त्रोलभेदिनम् ॥

विषं त्वणमुष्णं च रक्तं मेहति यो नरः ॥

पित्तस्य परिकोपेण तं विद्यात्त्रक्तभेदिनम् ॥

मर्जज्व्योदकसंद्वायं भृशं विषं प्रमेहति ॥

पित्तस्य परिकोपात् विद्याद् हरिद्रिभेदिनम् ॥

इत्येते षट् प्रमेहाः पित्तप्रकोपनिमित्ता व्याख्याता भवन्ति ॥

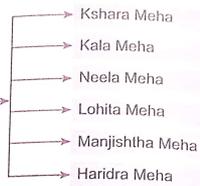
C.S.Ni. 4/ 28-35.

Predisposing factors

1. Intake of hot, spicy, pungent, salty, alkaline and sour food.
2. Overeating.
3. Intake of incompatible food contents.
4. Accepting scorching sunlight.
5. Excessive acceptance of steam bath or heat in any form.
6. Excessive physical exertion.
7. Hyper hostile nature, excessive anger.

Pitta dosha aggravates and mixes with Kapha dosha and all vitiated dushya to produce Pitta dominant type of Prameha.

Pitta Prameha = 6 Types



1. KSHARA MEHA

nature, odour, feel, taste and color of the urine appears as if mixed with an alkali.

2. KALA MEHA

color of urine changes to black as if mixed with black tar.

3. NEELA MEHA

color of urine changes to blue and resembles to feathers of the bird called as 'chasha' [the kingfisher]. Process of urination becomes slow.

4. LOHITA MEHA

[SHONITA MEHA, RAKTA MEHA]

Nature of urine becomes salty, hot in feel, foul smelling and reddish in color [as if mixed with blood].

5. MANJEEESHTHA MEHA

color of urine becomes foul smelling, dark brownish red and resembles to the decoction of manjishtha (Rubia cardifolia). volume of urine is large.

6. HARIDRA MEHA

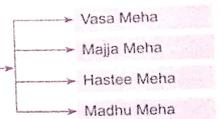
color of urine appears like water mixed with turmeric powder. Taste of urine is astringent with sensation of burning.

8.3 Vata dosha dominant types of Prameha

कषायकटुतिक्तरुखलशुशितव्यायव्यायामवमनविरेचनाश्चाप-
नं शिरोविरेचनातियोगसंधारणानशानभिघातातपोवेगशोक
शोणिततपिकेकजागरणविषमशरीरन्यासानुपसेव्यमानस्य
तथाविधशरीरस्यैव श्वितं वातः प्रकोपमापद्यते ॥ C.S.Ni.4/36.

dry nature of aggravated Vata dosha in the pathogenesis of Vata dominant Prameha.

Vata Prameha = 4 Types



1. VASA MEHA

Aggravated Vata dosha vitiate fat content of the body thus to mix and get expelled through urine to produce vasa meha.

2. MAJJA MEHA

Aggravated Vata dosha vitiate bone marrow content of the body thus to mix and get expelled through the urine to produce Majja meha.

3. HASTEE MEHA [LASIKA MEHA]

When the lymph vitiate along with aggravated Vata dosha as it mixes and expelled out via urine to produce lasika meha. volume of the urine is large and flow is forceful to resemble with urination of an elephant. Urge to urinate is uncontrolled and emptying of bladder is unsatisfactory.

4. MADHU MEHA

[OJO MEHA, KSHAUDRA MEHA]

Oja vitiate due to dry and harsh qualities of aggravated Vata dosha to produce ojomeha. The natural soft, smooth nature of oja is vitiated due to opposite qualities of vata dosha. Oja mixes and expelled out via urine and thus urine appears like honey. Taste of urine is extremely sweet. (as per observation of afaction to in seeks) Urine appears turbid although quantity of each expulsion is large.

Due to ignorance, over a period of time or due to continuous acceptance of predisposing

तत्र श्लोका वातप्रेह विशेषविज्ञानार्था भवन्ति ॥

वसामिथं वयामं वा मुद्गुर्मेहति यो नरः ॥

वयामेहिनमाहुस्त्वपसाध्यं वातकोपतः ॥

मज्जानं सह मूत्रेण मुद्गुर्मेहति यो नरः ॥

मज्जमेहिनमाहुस्त्वपसाध्यं वातकोपतः ॥

हस्तिपतं इवाजसं पूत्रं क्षरति यो भृशम् ॥

हस्तिमेहिनमाहुस्त्वपसाध्यं वातकोपतः ॥

कषायमधुरं पाण्डु रत्नं मेहति यो नरः ॥

वातकोपादसाध्यं तं प्रतीयामधुमेहिनम् ॥ C.S.Ni.4 / 40- 46.

श्यावारुणो वातकृतः सशूलो मज्जादिसादुष्यमुपेत्य-
साध्यः ॥ C.S.Ch.6/12.

सर्व एव प्रमेहास्तु कालेनाव्रतिकारिणः ॥

मधुमेहस्त्वमायान्ति तदाऽसाध्या भवन्ति हि ॥

मधुमेहे मधुसमं जायते स किल द्विधा ॥

क्रुद्धे चातुश्रयाद्वायो दोषान्मूत्रपथेऽथवा ॥ S.S.Ni. 6/ 30.

आनुरोदोषलिङ्गानि सोऽतिमात्रप्रदर्शयन् ॥

क्षणात्क्षीपः श्रणात्पूर्णां भजते कृच्छ्रसाध्यताम् ॥

A. H. Ni.10/ 19.

मधुरं यच्च मेहेषु प्रायोः मध्विव मेहति ॥

सर्वेऽपि मधुमेहाख्या माधुर्यच्च तनोरतः ॥

A. H. Ni.10/ 21.

Special Predisposing factors:

1. Intake of harsh, spicy, astringent, bitter, light, cold food items.
2. Excessive sexual indulgence.
3. Over exertion.
4. Excessive, faulty applications of Pancha-karma procedures.
5. Suppression of natural urges.
6. Physical injury.
7. Starvation, prolonged fasting.
8. Overpowering emotions like despair, sorrow.
9. Lack of night sleep.
10. Abnormal movements of the body.

Acceptance of all such predisposing factors aggravate Vata dosha to combine further with Kapha and Pitta and dushya to produce Vata dominant types of Prameha. Diminution of basic body elements (Dhatu Kshaya) is observed predominantly due to harsh and

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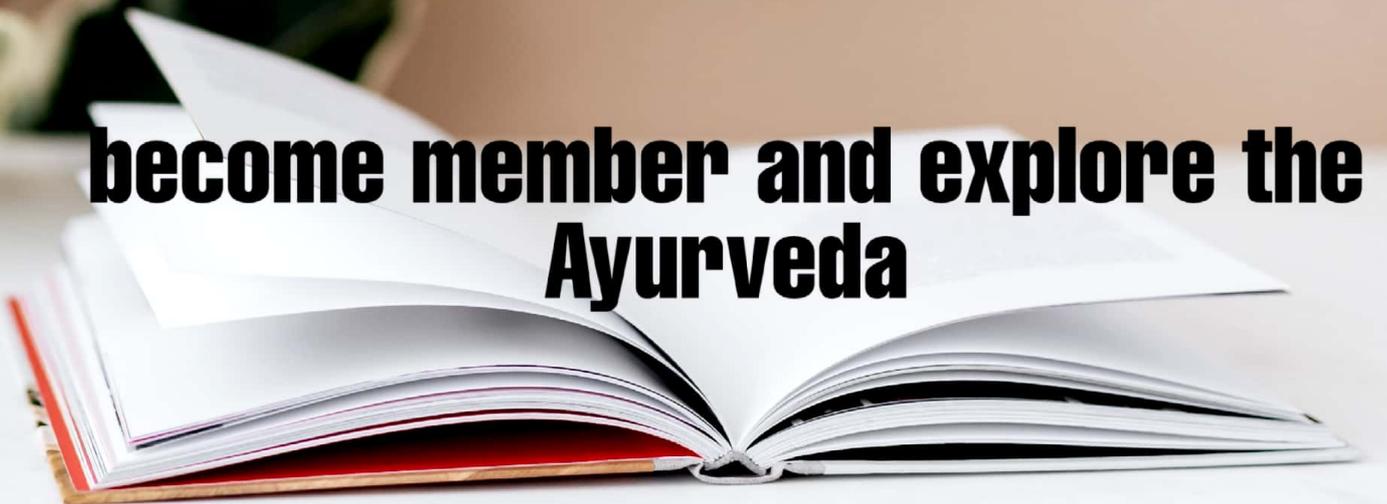
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factors all types of prameha certainly and ultimately turn to Madhu meha and become totally incurable.

9. Types of Prameha as per Harita Samhita

जलमेहा, रुधिरमेहा, सूक्ष्ममेहो लक्ष्णमेहः।
मृदुमेहो खट्विमेहः सूक्ष्ममेहो कथितः पुण्याह॥
Harita Samhita- Chapter-28.

Harita Samhita explains few more types depending upon nature of urine as:

1. Jala Prameha.
2. Rudhira prameha.
3. Puya prameha.
4. Lavana prameha.
5. Takra prameha.
6. Khatika prameha.
7. Shukra prameha.

10. Complications: Upadrava: General

अविचाको। पिपिच्छर्दिमिद्रा कामः सुरीनमः।
उपद्रवाः प्रजायन्ते नेहानां कफजलनाम्॥
बन्धिनैरुनयोमोदो मुक्तावदरणं नरः।
दाहन्मुष्माऽम्निका मूर्च्छां विद्भेदः पित्तजननाम्॥
वातजानामुदावर्तः कमहद्रप्रकलोलताः।
शूलमुद्रिता शोषः कामः श्यामः श्यामश्च जायते॥
A. H. Ni.10/22-24.

उपद्रवान्तु खलु प्रमेहिणां तुष्णानामात्रदाहदौर्बल्यारोचकवि
पाकाः भूनिर्मासपिडकालजाविद्रव्यादयश्च तत्रसङ्गापद्रवन्ति॥
C. S. Ni. 4/ 48.

मक्षिकापसर्पणं आलस्यं मांसोपचयः प्रतिश्यायः शैथिल्यं
श्याम कफजे।

हृदिगुलं अरोचकं वमसु परिशुषणं पिपासा निद्रानाशः

पांडुरोगाः शीतविष्णुनेत्रत्वं पित्तजे।

लंपः बद्धपुरित्वं वातजे। S.S. Ni. 6/115.

1. Thirst.
2. Loose motions.
3. fever.
4. Fatigue.
5. Insipid mouth.
6. Indigestion.

7. Formation of boils and abscesses.
8. Decaying of body flesh.

11. Complications: Upadrava: Special

11.1 Kapha dominant type of Prameha

1. Increased attraction of flies and insects to patients body.
2. Lethargy.
3. Formation of fatty nodules on body.
4. Common cold and sinusitis.
5. Looseness of body parts.
6. Inability to identify taste.
7. Indigestion with hypersalivation.
8. Vomiting.
9. Drowsiness,excessive sleep.
10. Cough.
11. Dyspnoea.

11.2 Pitta dosha dominant type of Prameha

1. Lacerrations at scrotum.
2. Pain at urinary bladder and genitals.
3. pain in chest.
4. Sour belching.
5. Fever.
6. Loose motions.
7. Inability to identify taste.
8. Vomiting.
9. Thirst.
10. Loss of sleep.
11. Paleness, loss of skin luster.
12. Yelloish tinge to urine and stool.

11.3 Vata dosha dominant type of Prameha

1. Abnormal desire to eat.
2. Loss of sleep.
3. Stiffness of body.
4. Tremor.
5. Pain at various body parts.
6. Cough.
7. Strenuous breathing.
8. Constipation.
9. Diminution of basic body elements.

12. Prognosis: Sadhyasadyatva

ते दशा प्रमेहाः साध्याः समानगुणैः स्यानकत्वात् कफस्य
प्राधान्यात्, समक्रियत्वाच्च॥ C.S. Ni. 4/11.

सर्वं एव ते याथाः संमृदोपपेदः स्यानत्वादिकृद्दकोप-
क्रमत्वाच्चेति॥ C.S. Ni. 4/ 27.

इमाश्चतुरः प्रमेहान् वातजानसाध्यानाचक्षते मियजः
महात्ययिक-त्वादिकृष्टोपक्रमत्वाच्चेति॥ C.S. Ni. 4/38.

सर्वस्वल्पः कफपित्तमेहाः।

क्रमेण ये वाकृताश्च मेहाः।

साध्या न ते पित्तकृतास्तु याथाः।

साध्यास्तु मेवो यदि न श्रुदृत्॥ C.S.Ch. 6/ 56.

जातः प्रमेहि मयुमेहिनो वा।

न साध्य उक्तः स हि बीजदोषात्॥

वे चापि केचित् कुलजा विकारा।

भवन्ति तांश्च प्रचदन्यसाध्यान्॥ C.S.Ch. 6/57.

12.1 Curable: Sadhya types of Prameha

1. Ten types of Kapha dominant Prameha are said to be curable with proper treatments like, langhana [fasting] or rukshana [drying, reducing].

12.2 Difficult to cure: Kashta sadhya types of Prameha

Six types of Pitta dominant Prameha are said to be difficult to treat because of their opposite mode and methods of treatments.

12.3 Incurable: Asadhya types of Prameha

Four types of Vata dominant Prameha are said to be totally incurable because of severe aggravation and participation of Vata dosh in their pathogenesis.

With clear expression of only few prodromal features Kapha and Pitta dominant types Prameha become incurable. While all the types of Vata dominant Prameha are always incurable.

All types of Prameha with vitiation of Meda dhatu become incurable.

The person who has been afflicted with Prameha since his childhood, his disease is suppose to be incurable.

The person who has acquired disease due to genetic transfer from his mother or father, the disease is suppose to be incurable. Hereditary transfer is speciality of the disease.

Severe loss of body strength and diminution in strength of basic body elements are suggestive of the incurable condition of Prameha.

13. Fatal symptoms: Arishta Laxana

मेहं स्तुब्धदाहपिटिकानांसकोधातिसारिणम्॥

A. H.Sh. 5 / 85.

1. Thirst.
2. Sensation of burning.
3. Formation of abscesses [Prameha Pidaka]
4. Decaying of body flesh.

14. Dietary and behavioral regimen

14.1 Pathya

wholesome regimen:

1. Fasting.
2. Intake of light, easy to digest type of food
3. Roasted meat, parched barley, parched corn flour, green gram, horse gram etc.
4. Old rice of red or white variety.
5. Vegetables of bitter or astringent taste.
6. Avoiding intake of fatty food
7. Physical exercise.

14.2 Apathhya

unwholesome regimen:

1. Intake of hard to digest, sweet, unctuous type of food.
2. Intake of sugar cane juice, meat of aquatic animals.
3. Incompatible food contents.
4. Daytime sleep.
5. Sedentary life style.

1. Definition

The word diabetes comes from Latin term 'diabetes' this term comes with the intended meaning "excessive discharge of urine", as the name for the disease

Diabetes mellitus is commonly referred to as diabetes. It is a group of metabolic diseases in which there are high blood sugar levels over a prolonged period. Diabetes is due to either the pancreas not producing enough insulin or the cells of the body not responding properly to the insulin produced.

2. Clinical features

1. Frequent Urination.
2. Increased Thirst.
3. Increased Hunger.
4. General fatigue- debility.

3. Types : There are three main types of diabetes mellitus:

3.1 Type 1 DM

It is caused due to pancreatic failure to produce enough insulin. It is also known as -insulin-dependent diabetes mellitus (IDDM) or juvenile diabetes. The cause is unknown.

3.2 Type 2 DM

It is caused due to condition in which cells fail to respond to insulin properly. As the disease progresses a lack of insulin may also develop. This type is also called as non insulin-dependent diabetes mellitus (NIDDM) or adult-onset diabetes. The primary cause is excessive body weight and inadequate exercise.

3.3 Gestational diabetes

It is the third main form and occurs when pregnant women without a previous history of diabetes develop a high blood sugar level.

4. Symptoms

Development of symptoms is slow in Type -1 diabetes and rapid in Type -2 diabetes.

1. Polyuria- excessive passing of urine.
2. Polydipsia- increased thirst
3. Polyphagia -increased hunger.
4. Blurry vision.
5. Headache
6. General fatigue.
7. Delayed healing of wound.
8. Skin itching.
9. Change in shape of eyes with vision disturbance: Prolonged high blood glucose can cause glucose absorption in the lens of the eye, which leads to changes in its shape, resulting in vision changes.

5. Diabetic emergencies

1. Low blood sugar is common in persons with type 1 and type 2 diabetes.

Mild Symptoms

1. Sweating
2. Trembling
3. Increased appetite.
4. Diabetic ketoacidosis

6. Severe symptoms

1. Confusion.
2. Brain damage.
3. Behavioral change.

4. Kussmaul breathing
5. Unconsciousness.
6. Death.

7. Complications

Complications form as delayed effects of every type of diabetes. Generally complications develop within ten to twenty years of onset of the disease.

- Vascular damage- generally damage to small blood vessels.
- Ophthalmic damage- diabetic retinopathy.
- Stroke.
- Renal diseases.

- Nerve damage – diabetic neuropathy causing pain, tingling or numbness.
- Diabetic foot, delayed or non healing of wounds.
- Muscular wasting.

8. Prevention

Type 1 diabetes : No known preventive measures for type -1 diabetes.

Type 2 diabetes : Regular exercise, maintained body weight and diet such as limited intake of sugary items. Also red meat and increased intake of dry fruits, fish and vegetable oils. Maintained blood pressure. no usage of tobacco and alcohol.

...

Disease at a glance

- Nature of Disease : Chronic.
- Major Involving Dosha : Vata
- Major Involving Dushya : Mamsa, Meda
- Site of Manifestation : Whole body.
- Srotas : Mamsa ; Medovaha Srotas.
- Cardinal Feature : weight loss.

Prognosis

- Difficult to cure

Diseases for differential diagnosis

1. Grahani.
2. Shosha
3. Agnimandya.
4. Rajayakshma.

Reference reading

- Charak Samhita Sutrasthan. Chapter 21.
- Sanskrit English Dictionary - Apte Shabda-kosha.

1. Introduction

The term Karshya is derived from sanskrit word 'कर्षण' meaning- to reduce or to loose. Loss of weight and severe emaciation of the body are primary features of disease Karshya. Severe reduction in Mamsa and Meda dhatu is the cause of Karshya to occur. This disease proposes exactly opposite symptomatology to Sthaulya. Although Ayurveda science prefers Karshya over Sthaulya. Further detailed pathogenesis is described as Nidana Panchaka of Karshya in this chapter.

2. Definition : Paribhasha

The disease in which a person loses his body weight and becomes immaciated (thin) is called as Karshya. Karshya is resultant of overall depletion of Meda and Mamsa dhatu in the body.

3. Route of development : Marga

Abhyantara.- Affliction of disease is presented externally.

4. Predisposing factors : Nidana

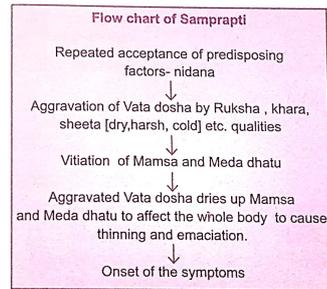
वक्ष्यते वाच्यमतिकार्येऽप्यतः परम्।
सेवा रुक्षाग्रयानानां लङ्घनं प्रगिताशनम् ॥
क्रियातियोगः शोकश्च वेगानिद्राविनिग्रहः।
रुशोस्योद्वृत्तनं स्नानासाध्यासः प्रकृतिर्जा।
विकारानुशयः क्रोधः कुर्वन्त्यतिकृशं नरम् ॥ C.S. Su. 21/10-12.

1. Intake of excessively dry food.
2. Less intake of the food than the body requirement, prolonged fasting.
3. Excessive faulty applications of Panchakarma procedures.
4. As an effect of over powering deep sorrow.
5. Contineous late night awakening, suppression of natural urge for sleep.
6. Repeated applications of dry powders on the body and repeated bathing.

7. As a hereditary factor.
8. As an ageing effect.
9. Suffering through chronic long term diseases.
10. Hyper hostile or jealous type of mind set.

5. Pathogenesis : Samprapti

Vata dosha aggravates due to continual acceptance of the causes. This aggravated Vata dosha dries up Mamsa and Meda dhatu to cause weight loss and body thinning which is called as Karshya.



- Components of pathogenesis: Samprapti ghataka**
- Dosha: Vata.
 - Dushya: Mamsa, Meda.
 - Srotas: mamsa- Medovaha srotasa.
 - Adhithana: Whole body.
 - Srotodushiti: Kshaya, Upashoshana.- Depletion in body elements.
 - Swabhava: Chirakari.
 - Agni dushiti: Jatharagni, Mamsa dhatu agni and Meda dhatu agnidushiti- Agnimandya.

6. Clinical features : Roopa

व्यायामतिसीहित्वं क्षुत्पिपासाऽऽमयोषधम् ॥
कृशो न सहते तद्वदतिशीतोष्णमैद्युनम्।
प्लोहा कासः क्षयः थासो गुल्मोऽशंखुदराणि च।
कृशं प्रायोऽभिधावन्ति रोमाश्च ग्रहणिगताः ॥ C.S. Su. 21/13.

शुष्कस्फिकगुदस्त्रीवो धमनीजालसन्ततः।
त्वग्स्थिशोषोऽकृशः शूलपर्वा नरो मतः ॥ Ch.S.21/15.

1. The person becomes incapable to withstand climatic changes, changes in the diet or treatments with powerful potent medicines.
2. The person becomes incapable to withstand harsh physical exercise, hunger and over eating.
3. The person is incapable for performing sexual act.
4. The person is always prone to suffer from medical conditions like diseases of spleen, cough, asthma, tumours of benign type, piles, and ascitis. He is also prone to develop serious disease condition like Grahani.- सततं व्याधितावेतौ अतिस्थूल कृशौ नरो। Ch.S.21/26 -Commentary.
5. The body parts especially hands, buttocks, neck and belly of the abdomen become totally thin and devoid of fat layer.
6. The veins are clearly visible on the skin with visible bony structure for e.g. visible bones and joints.

7. Prognosis : Sadhyasadhyatva

Karshya is a difficult to cure type of disease- Kashyasadhya-.

8. Complications : Upadrava

1. Weakness and fatigue.
2. Loss of body strenght and vigour.
3. Mental irritation.

9. Dietary and behavioral regimen

- 9.1 Pathya wholesome regimen:
1. Intake of light, easy to digest type of food.
 2. Diet rich in nutrition values.
 3. Rest.
 4. Happy healthy atmosphere.
 5. Aversion of physical exertion.

9.2 Apathya

unwholesome regimen:

1. Intake of hard to digest, spicy, pungent, dry type of food.
2. Physical exertion.
3. Mental worries, anxiety.
4. Lack of sleep.

• • •

1. Asthivaha srotas

1.1 Definition

The channelled system which deals with functioning of formation and maintenance of bones and cartilages and thereto maintenance of bony structure of the body is called as Asthivaha srotasa. All the bones and cartilages are included under Asthivaha srotas.

1.2 Origin of Asthivaha srotas : Moolasthan

अस्थिवहानां स्रोतसां भेदो मूलं जघनं च। C.S.VI. 5/8.

1. Asthivaha srotas originates from Meda- Adipose tissue and Jaghana- Buttocks .

1. CAUSES OF VITIATION OF ASTHIVAHA SROTAS

व्यायामादतिसंक्षोभादस्थानतिविघट्टनात्।

अस्थिवाहिनि दूष्यन्ति वातलानां च सेवनात्।। C.S.VI. 5/17.

1. **Excessive physical exercise, physical irritation:** physical exertion leads to loss of body strength as well as diminution of fatty layer on the body. Skeletal structure of the body is covered by muscles and fat. Exertion leads to weakening of this fatty layer. Bones also become weaker and susceptible to damage. Thus exertion causes vitiation of Asthivaha srotas.
2. **Injury to the skeletal structure:** Repeated injury to the bones causes skeletal weakening of them and thus produces vitiation of Asthivaha srotasa.
3. **Intake of dry, harsh, cold or stale food:** All such food items create aggravation of Vata dosha to cause weakening of bones

leading to abnormality of Asthivaha srotas.

2. SYMPTOMS OF ASTHIVAHA SROTASA VITIATION

अध्यस्थिदन्तौ दन्तादिभेद शूलं दिवर्गता।

केशलोमनखश्मश्रुदोषाश्चास्थि प्रदोषजाः।। C.S.Ch. 28/16.

1. Adhyasthi – Formation of extra bony structure.
2. Adhidanta- Formation of extra tooth.
3. Dental caries, discolouration of teeth.
4. Diseases of hair (scalp), beard or moustache.

2. Majjavaha Srotas

2.1 Definition

The channelled system which deals with functioning of bone marrow and maintenance of health by balancing the essential concentration of blood components maintenance to keep general health of vital organs is called as Majjavaha srotasa.

2.2 Origin of Majjavaha srotasa: Moolasthan

मज्जावहानां स्रोतसांस्थिति मूलं सन्ध्यश्च। C.S.VI. 5/8.

Majjavaha srotas originates from Asthi- bones and Sandhi – joints.

2.3 Causes of vitiation of Majjavaha srotasa

उत्पेसादत्वभिष्यन्दादभिघातात् प्रपीडनात्।

मज्जावाहिनि दूष्यन्ति विरुद्धानां च सेवनात्।। C.S.VI. 5/8.

1. Accidental crushing of bones, physical injury: It causes direct damage to bones and bone marrow and creates abnormality to Majjavaha srotas.
2. Heaviness to the body: It occurs due to

accumulation of aggravated Kapha dosha and diminishes the power of Agni. It causes vitiation of Majjavaha srotasa.

3. Application of severe pressure on the body: It causes crushing of bones as well as bone marrow to cause vitiation of Majjavaha srotasa.

2.4 Symptoms of Majjavaha srotasa vitiation

रुक् पर्वणी प्रभो मूर्च्छदर्शनं तपसस्तथा ।
अरुहां स्थूलमूलानां पर्वजानां च दर्शनम् ॥
मज्जप्रदोषात् जायन्ते----- ॥ C.S.Su. 28/17.

1. Joint pain.
2. Giddiness and Fainting .
3. Formation of nodules at small joints.

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Disease at a glance

- Nature of Disease: Ashukari and Chirakari — Acute and Chronic.
- Major Involving Dosha- Vata
- Major Involving Dushya- All dushya according to sarere of disease
- Site of Manifestation: All over the body.
- Srotas: Asthi -Majjavaha Srotas

Prognosis

- Differs as per nature of the disease and severity of the pathogenesis.

Diseases for differential diagnosis

1. All the diseases explained under diseases of Asthimajjavaha Srotas can be considered with each other for purpose of differential diagnosis.
2. Firanga.
3. Vatarakta.
4. Kroshtukashersha
5. Amavata

Reference reading

- Madhavnidana VataVyadhi Chapter 22.
- Charak Samhita Chikitsa Sthana. Chapter 28.
- Charak Samhita Chikitsa Sthana. Chapter 8.
- Charak Samhita Nidana Sthana. Chapter 6.
- Sushruta Samhita Nidana Sthana. Chapter 1.
- Ashtanga Hridaya Nidana Sthana. Chapter 15
- Yogaratnakara- Chapter Vata Vyadhi.
- Charak Samhita Sidhi Sthana. Chapter 9.
- Sanskrit English Dictionary — Apte Shabdakosha.

1. Introduction

स्वयम्भूष भगवान् वायुरित्तिभिश्चिदितः ।
स्वातन्त्र्याश्रित्यभावाच्च सर्वगतत्वात्तथैव च ॥
सर्वेषामेव सर्वान्ता सर्वलोकनमस्कृतः ।
स्थित्युत्तित्तिविनाशेषु भूतानामेष कारणम् ॥
अव्यक्तो व्यक्तकर्मा च रुक्षः शीतो लघुः खरः ।
तिर्यगो द्विगुणश्चैव रजोबहुल एव च ॥
अचिन्त्यदीर्घो दोषाणां नेता रोगसमूहस्य ।
आशुकारी मुहुश्चारी पक्वदानयुदालयः ॥

S.S.N. 1/5-9.

Vata dosha is considered as natural (self originated) component in itself. It has a self-governing, eternal and all-encompassing nature. Vata dosha has collective characters and is worshiped due to its being the cause of origin, life span and destruction or death of every living being in the universe. Vata dosha being actually invisible becomes visible through its actions. It has got qualities such as non unctuous, cold, light, rough or harsh, moving obliquely, having two types of properties- for sound and touch- and is having predominance of Raja (a mental dosha quality). It has got inexplicable capacities, it is the major carrier of dosha and dushya. It is the most leading and eminent factor of a large group of diseases. Vata dosha is quick acting, continuously moving component of the body which normally resides at Pakvashaya- large intestines and Guda- anus. Equilibrium of all the bodily components depends upon the normal functioning of Vata dosha and hence healthy status of the body pertains to healthy status of Vata dosha.

A large group of diseases is discussed under the title of Vata vyadhi, meaning disease conditions majorly occurring due to abnormality of Vata dosha. These diseases have different shades of presentations at different parts and systems of the body involving mainly the nervous system. Pain of varied variety remains the common feature of the disease. Further detailed pathogenesis is described as Nidana Panchaka of VataVyadhi in this chapter.

2. Definition : Paribhasha

वातेन जनितो व्याधिर्वातव्याधिः।

M.Ni., Vatavyadhi Chapter-22-1.

वातजनितोऽवाधारण व्याधिवन्त्याधिरिति।

M.Ni., Vatavyadhi Chapter-22-1.

Concept of Vata vyadhi is defined as - Vata dosha itself is a disease or diseases (caused due to) Vata dosha. It can be understood as diseases which are caused due to definite aggravation of Vata dosha. Other two dosha also may involve in the pathogenesis of Vata vyadhi but involvement of Vata dosha is with greater concentration.

वायोर्वातव्याधौ कोषे मारस्यावस्थेन वा।
वातपित्तकफा देहे सर्वतोऽनुसारिणः।।
वायुश्च हि सूक्ष्मत्वाद्द्वयोस्तत्रा लुदीरणः।।
कुपितस्तौ स मुद्ध्यत तत्र तत्र क्षिपन् गवान्।।
करोत्वान्वृत्तमार्गान्त्वान्नसादीश्वोपशोषयेत्।। C.S.Ch. 28/59-67.

In normal state of human body all the three dosha i.e. Vata, Pitta and Kapha are working in association with each other. Normal natured Vata dosha encourages the other two dosha to fulfill their normal functions. In aggravated - *Kupita* - state, Vata dosha forces the other two dosha into abnormal pathways and channels and thus process of disease formation starts.

On finding suitable place in the body, aggravated Vata dosha fill up empty channels - srotasa and moves speedily throughout them. It also gets abnormally wrapped by other dosha which have entered and filled up the channels and to produce many severe diseases termed as Vata vyadhi, afflicting the whole body or a particular part of it.

Vata dosha has powerful and speedy nature hence, diseases caused by Vata dosha also are of severe nature, acute onset and may be threatening to life. Line of treatment for Vatavyadhi is also mentioned separately and specially.

Nature of Vata vyadhi is severe.

3. Route of development : Marga

Madhyama: Affliction of the disease is internal which also involves vital points of the body.

4. Predisposing factors : Nidana

रुक्षशीताल्पन्नम्रव्यवायाति प्रजारैः।
निषमादुपचाराच्च दोषासृक् स्रवणादपि।।
लड्डुघ्नं प्लवनात्यध्वद्भ्रुव्यायामादि विचेष्टितैः।
घातूनां संक्षयाच्चिन्ताशोकरोगातिकर्षणात्।।
दुःखशय्यासनात् क्रोधाद्विवास्वनाद्भ्रयादपि।
वेगसंधारणादामादभिघातादभोजनात्।
मर्मावाधाभ्रजोष्ट्राशशीग्रयानापतंसनात्।।

C.S.Ch.28/15-18.

1. Intake of dry, cold, inadequate, light type of food.
2. Excessive indulgence in sex.
3. Late night awakening.
4. Administration of erroneous treatment methods.
5. Excessive cleansing of dosha- such as excessive bloodletting.
6. Physical activities like excessive bouncing, swimming, walking, exertion etc.
7. Sleeping on uneven bed.
8. Sitting in uneven posture.
9. Hyper hostile nature, anger.
10. Enjoying daytime sleep.
11. Feeling of extreme fear.
12. Depletion of basic body elements- dhatu (dushta).
13. Emaciation of body due to mental worries, or stress, grief or affliction of diseases.
14. Suppression of natural urges.
15. Formation of Ama.
16. Physical injury.
17. Abstinence from eating food.
18. Injury to vital points - marma - of the body.
19. Falling down (accidentally) from

(moving) elephant, camel, horse or fast moving vehicle.

5. Pathogenesis : Samprapti

देहे स्रोतांसि क्त्वानि पूरयित्वाऽनिलो बली।
करोति विविधान् रोगान् सर्वाङ्गैकाङ्ग संश्रयान्।।

C.S.Ch.28/18.

वातपित्तकफा देहे सर्वस्रोतोऽनुसारिणः।
वायुश्च हि सूक्ष्मत्वाद्द्वयोस्तत्रोऽनुसारिणः।
वायुश्च हि सूक्ष्मत्वाद्द्वयोस्तत्रोऽनुसारिणः।
कुपितस्तौ समुद्ध्यत तत्र तत्र क्षिपन् गवान्।।
करोत्वान्वृत्तमार्गान्त्वान्नसादीश्वोपशेत्।। C.S.Ch.28/59-61.
घातुक्षयकरैर्वयुः कुच्यततिनिधिवितैः।
चरन् स्रोतसु रिक्तेषु भृशं तान्येव पूरयन्।।
तेभ्योऽन्यदोषपूर्णैः प्राय वाऽऽवर्गं बली।।

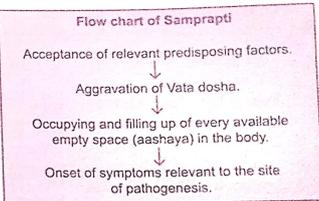
A.H.Ni. 15/5-6.

Aggravated Vata dosha occupies every empty space in the body and creates various types of diseases afflicting the whole body or a specific part of it.

Aggravation of Vata dosha can occur by two ways;

1. Due to obstruction in the normal pathway - Margavrodha - Obstruction may occur due to onset of any other pathology in the pathway of Vata dosha. Due to such obstruction Vata dosha aggravates and tends to circulate through abnormal pathways ultimately giving rise to onset of various diseases.
2. Due to depletion in strength of basic body elements-Dhatu kshaya- Due to such reduction in dhatu with relevant causes, empty space - *rikta aashaya* - is created in the body which quickly gets filled up by Vata dosha which ultimately become abnormally powerful and speedy to create various diseases afflicting the whole body or a specific part of it. *the body*. Reduced strength of *dhatu* basic body elements provides empty space and

opportunity to Vata dosha to circulate freely within it and to create various diseases.



- Components of pathogenesis: Samprapti ghataka**
- Dosha: Vata
 - Dushya: Rasa, Rakta, Mamsa, Meda, Asthi, Majja, Shukra.
 - Srotas: Asthimajjavaha srotasa. Any other relevant srotasa according to type of the presentation.
 - Adhithane: All over the body.
 - Srotodushiti: Sanga, Vimargagamana.
 - Swabhava: Ashukari and Chirakari.
 - Agni dushiti: Jatharagni, All Dhatu agni - Agnimandya.

6. Prodromal features

अव्यक्तं लक्षणं तेषां पूर्वरूपमिति स्मृतम्।
आत्सरुपं तु तद्व्यक्तमपायो लघुता पुनः।। C.S.Ch.28/19-20.

Symptoms of Vata vyadhi when in unclear form shall be called as Prodromal features of that disease and when displayed clearly, are called as clinical features- *Roopa-* of that disease. Remission in symptoms indicates cure of the disease.

7. General Clinical features : Samanya Roopa

संकोच पर्वणां स्तम्भो षड्भ्योऽस्त्रयं पर्वणामपि।
रोमहर्षः प्रलापश्च पाणिपृष्ठशिरोग्रहः।।

खण्डनं च शुष्ककुण्डलं शोथोऽहं गामाननिद्रिता ।
 संपुच्छन्तीनामः सर्वे न गामकुण्डला ॥
 शिथिलताश्चिबकुना प्रोवाणश्चारे हुच्छन्म् ।
 भेदस्तातोऽतिरिक्तो मुहुद्यायास एव च ॥

C.S.Ch.28/ 20-23.

1. Contraction.
2. Stiffness of joints.
3. Pain in bones and joints.
4. Horripilation.
5. Delirium.
6. Stiffness of hands, back, and head.
7. Lameness of hands and feet.
8. Hunched back.
9. Atrophy of limbs.
10. Insomnia.
11. Destruction of foetus, semen and menstruation cycle.
12. Throbbing sensation.
13. Numbness of body (parts).
14. Crooked head, nose, eye, clavicles and back.
15. Splitting, pricking type of pain.
16. Restlessness.
17. Convulsions.
18. Unconsciousness.
19. Exhaustion.
20. Other symptoms as per specificity of the disease.

एवं विमानि स्थानि कथं च कुनितोऽनिलः ।

हेतुयान् विरोधाच्च भेदोऽपि विवेकम् ॥ C.S.Ch.28/23.

All the above mentioned symptoms are mentioned as clinical features of Vata vyadhi. Although, according to different grouping of symptoms different diseases are presented under various titles of Vata vyadhi. This variation is caused due to dissimilarities in predisposing factors responsible to create each type of Vata vyadhi and also due to variation in the sites of presentation of that type of Vata vyadhi.

8. Dietary and behavioral regimen: these dietary regimens shall be considered as applicable to all the types of Vata vyadhi further explained under diseases of Asthimajjavaha Srotas.

8.1 Pathya
 wholesome regimen:

1. Intake of unctuous, warm type of food.
2. Intake of medicines and food preparations made up of ghee. Milk boiled with herbs, juices of fruits, meat and corn soups added with extra fat.
3. Intake of fatty and salty food preparations.
4. Administration of procedures like oleation, fomentation. Massage, medicated enema, unctuous purgation drugs, head oiling therapy, warm gargles, steam inhalation etc.
5. Habit to wear heavy clothing made up of wool or cotton.
6. Acceptance of moderate sun bath.
7. Residing at shadowy underground cellars with soft comfortable beds to sleep.
8. Rest, mental serenity.
9. Abstinence from sex.
10. Avoiding physical or mental exertion.

8.2 Apathya

unwholesome regimen:

1. Intake of cereals and grams, dry, cold type of food. Intake of stale, preserved or incompatible food.
2. Acceptance of Vata dosha provoking food contents such as peas, grams, grass grains (Trina dhanya), barley, betel nuts, beans, leafy vegetables etc.
3. Acceptance of cold climate.
4. Intake of cold water obtained from rivers and ponds.

5. Physical exertion with undue physical activities like walking, running or ridding.
6. Late night awakening and irregular schedule of sleep and work.
7. Suppression of natural urges.
8. Prolonged bathing (for Pakshaghata patients)
9. Mental irritation due to worries or anxiety etc.

CHAPTER 61 AAKSHEPAKA

Reference reading

- Madhavnidana – Vata vyadhi Chapter-22.
- Charak Samhita Chikitsasthan. Chapter 28.
- Sushruta Samhita Nidanasthana. Chapter 1.
- Sanskrit-English Dictionary – Apte Shabdakosha.

1. Definition : Paribhasha

यदा तु धननीः सर्वाः कुपितोऽप्येति मालतः ।

तदाऽक्षिपत्याशु मुहुर्मुहुर्के मुहुश्चरः ॥

मुहुर्मुहुश्चाक्षेपगादाक्षेपक इति स्तुतः ॥

S. S. Ni. 1/ 50-51.

मुहुर्मुहुश्चिपति कृद्धो गात्राप्याक्षेपकोऽनिलः ।

पाणिपादं च संशोष्य सिराः सन्नायुकण्डराः ॥

C.S.Ch. 28/50.

The disease in which aggravated Vata dosha takes abnormal seat at vessels, muscles and tendons of hands and feet to cause convulsions in them is called as Aakshepaka. Hands and feet dry up and reduce in size. Depletion in size of organs starts prior to starting of convulsions in them.

2. Types : Prakara

Total four types of Aakshepaka are explained.

कफपित्तान्वितो वायुर्वायुरेव च केवलः ।

कुर्यादाक्षेपकं त्वन्मं चतुर्यमभिधातजम् ॥

M.Ni.Vatavyadhi-Chapter- 22/37.

1. Vataja Aakshepaka
2. Vata- Kaphaja Aakshepaka
3. Vata- Pittaja Aakshepaka
4. Abhigataja Aakshepaka

3. Symptoms

1. Episodes of convulsions in hands and feet.
2. In between the episodes there is period of no convulsions.

1. Definition : Paribhasha

क्लृप्तः सै कोपनेर्वायुः स्वादूर्ध्वं प्रपद्यते।
पीडयन् हृदयं गत्वा शिरः शब्दं च पीडयन्॥
धनुर्नयनेऽपानायाश्चिन्नेमोहयेत्तदा।
स कृच्छ्रदुश्च्युतेऽपि स्रव्यासोऽथ निमित्तकः॥
कपोत इव कूलेच्य निःसंज्ञः सोऽपतन्त्रकः।
वृष्टिं युक्ते नरः स्वास्थ्यं याति मोहं वृते पुनः॥
वायुना दारुणं प्राहुके तदपतानकम्॥ C.S. Si. 9/ 12-15.

Due to acceptance of relevant predisposing factors, Vata dosha- Apana vata aggravates and abnormally progresses to heart and mind (to Prana vata) to cause pain at Heart, Head and temples. It also causes convulsions, abnormal bending of body (like a bow), severe dyspnoea, abnormally stretched eyes or inability to open eyes. This disease is called as Apatantraka.

2. Clinical features : Roopa

1. Patient whines like a pigeon.
2. Unconsciousness.
3. Disturbed short time sleep.
4. Fright.
5. Tremor.

Symptoms with Vata dosha dominance in samprapti

1. Pulsation or throbbing at body organs.
2. Pain at head, neck and lumbar region.
3. Loss of mental strength.
4. Patient becomes miserable.
5. Inappropriate knowledge of subjects.

Symptoms with Pitta dosha dominance in samprapti

1. Irrelevant speech.
2. Bitter taste of mouth.
3. Giddiness.
4. Stupor.
5. Insipid mouth.
6. Thirst.
7. Sweating.
8. Yellowish discoloration.
9. Desire for cold.

Symptoms with Kapha dosha dominance in samprapti

1. Heaviness of head and body.
2. Lethargy.
3. Weakness in the body organs.
4. Shivering – chills.
5. Feeling of obstruction in the chest.
6. Loathing of cold- desire for hot.

Definition : Paribhasha

वृष्टिं युक्ते नरः स्वास्थ्यं याति मोहं वृते पुनः॥
वायुना दारुणं प्राहुके तदपतानकम्॥ C.S. Si. 9/15.

The disease in which aggravation of Vata dosha is further severe and symptoms like loss of vision, unconsciousness and gurgling sounds in throat are more expressed. On departure of aggravated vata from Heart etc. vital points relief in symptoms is observed. This condition is explained as Apatanaka. Only difference in Apatantraka and Apatanaka is, in Apatantraka no episodes of attacks are observed whereas in

Apatanaka symptoms are observed in attack or episode fashion.

गर्भपातनिमित्ताश्च शोणितानिहवाच्च या।
अभिघातनिमित्तश्च न सिद्धयत्यपतानकः॥ S.S.Ni.1/ 59.

Special predisposing factors responsible to cause Apatanaka:

1. Abortion-Miscarriage.
2. Haemorrhage.
3. External physical trauma.

Apatanaka caused due to these factors is incurable.

CHAPTER 64

DANDAPTANAKA

Reference reading

- Charak Samhita Siddhisthan. Chapter 9.
- Sushruta Samhita Nidanasthana. Chapter 1.
- Sanskrit English Dictionary – Apte Shabdakosha.

Definition : Paribhasha

कफन्वितो भृशं वायुस्तास्वेव यदि तिष्ठति।
दण्डवत्तन्मयेद्देहं स तु दंडापतानकः॥ S.S.Ni. 1/ 52.

The condition in which aggravated Vata dosha combines with aggravated Kapaha dosha and makes the body as straight and rigid as a wooden stick is called as Dandapatanaka.

VISHWACHI

Definition : Paribhasha

कलं वर्यङ्गलां वा : कण्डरा बाहुदृष्टतः।
बाहवो : कर्मव्यक्तो विश्वचि चेति सोच्यते ॥ S.S.Ni.1/75.

The disease in which aggravated Vata dosha creates vitiation of nerves- vata vahini sira- and causes pain at posterior side of the hand. Pain starts from shoulder of the affected side and posteriorly progresses to palm and fingers is called as Vishwachi. Nature of pain is very severe.

KHALLI

Definition : Paribhasha

खल्ली तु पादजङ्घोरकमूलावयोटेनी ॥ C.S.Ch. 28/57.

विश्वचि गृध्रसी चोक्ता खल्ली तिव्ररुजान्तिते।

A.H.Ni.15/55.

When symptoms of diseases Gridhrasi and Vishwachi arise at the same time in the body, this combined presentation is called as Khalli. Khalli presents itself with severe type of pain at feet, calf muscles, thighs and shoulders. According to few commentators Khalli shall be considered as the main disease while Gridhrasi and Vishwachi shall be counted as two types of it. Other texts opine that Khalli is altogether a different kind of Vata vyadhi. Symptoms generally occur at one hand and one leg but as per irregular nature of Vata dosha, this disease is also seen with various shades of presentation.

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CHAPTER 66

AVABAHUKA

Definition : Paribhasha

अंसदेश स्थितो वायुः शोषयित्वाऽसबन्धनम्।
सिरा श्वाकुञ्ज तत्रस्यो जनयेदवबाहुकम् ॥ S.S.Ni.1/82.

अंसमूलस्थितो वायुः सिराः संकोच्य तत्राः
बाहु प्रसन्धितहं जनयत्यवबाहुकम् ॥ A.H.Ni.1/43.

The condition in which the muscles of the shoulder joint shrink and undergo atrophy to cause stiffness and difficult movements of the affected hand is called as Avabahuka.

Especially movements of affected hand in upward or back word direction becomes very painful. Shleshaka Kapha nourishing the particular muscles and joints undergoes stage of reduction to cause such pain. Sushruta Samhita Nidanasthana chapter 1/82 explains Avabahuka and Ansashosha as same diseases while commentators explain both of these as different disease conditions.

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1. Definition : Paribhasha

हृत्केकं माननः पक्षं दक्षिणं वाममेव वा।
कुयां चोष्टानि वृत्ति हि रुजं वाक्लान्ममेव च ॥
गृहीत्वाऽर्धं शरीरस्य सिराः स्नायुर्विशोष्य च।
पादं संकोचयेत्केकं हस्तं वा नोदशूलकुन् ॥
एकाङ्ग रोगं तं विद्यान् सर्वान् सर्वदेहजन् ॥

C.S.Ch. 28/53-55.

गृहीत्वाऽर्धं तनोर्वायुः सिराः स्नायुर्विशोष्य च।
पक्षमन्यतरं हन्ति सन्धिवन्ध्यान्धिमोक्षयेन् ॥
कृत्वाऽर्धकायस्तस्य स्यादकर्मण्यो विचेतनः।
एकाङ्गमेतं तं केचिदन्वे पक्षवर्धं विदुः ॥
सर्वाङ्गीरगस्तद्व्यस्य सर्वकार्याश्चितेऽनिले ॥

A.H.Ni.15/38-39.

अधोगमः सतिर्यगा धमनीहृद्वदिहमाः।
यदा प्रकुपितोऽत्यर्थं मातरिद्या प्रपद्यते ॥
तदाऽन्यतपक्षस्य सन्धिवन्ध्यान्धिमोक्षयेन्।
हन्ति पक्षं तमाहुहि पक्षाघातं भिषग्वराः ॥
यस्य कृत्स्नं शरीरार्धमर्कण्यमचेतनम्।
ततः पतत्यसन् वाऽपि जहात्यनिर्भीडितः ॥
शुद्धवातहतं पक्षं कृच्छ्रसाध्यतमं विदुः।
साध्यमन्येन संसृष्टमसाध्यं क्षयहेतुकम् ॥ S.S.Ni.1/60-63.

The disease in which half of the body – either right or left becomes lifeless or paralysed, is called as Pakshavadha or Pakshaghata. It is a very serious type of disease condition (Daruna Vikara).

Aggravated Vata dosha circulates inside the vessels and moves down words and obliquely, meaning all over the body to cause paralysis of either half right or left of the body. Aggravated Vata dosha also slackens the binding of joints. This condition is called as Pakshaghata. Disease is characterised by loss of functions of either half of the body.

2. Synonyms : Paryaynama

1. Ekgangavata
2. Ekgangaroga

पक्षाघात, उकाशियात

Synonyms are because of half paralysing of the body.

3. Route of development : Marga

Madhyama- Affliction of the disease is internal involving vital points of the body.

4. Predisposing factors : Nidana

All the factors explained, responsible to cause Varyadhi are also responsible to cause Pakshavadha.

Also,

असूक्ष्मोऽतिस्वित्रेऽतिचिद्वेऽशैर्विभ्रावितमतिप्रवर्त्यते।
तदनिवृत्तं शिरोभितापमान्यमन्धिमन्धिमिरादुर्भवं
धातुक्षयमाशेषकं पक्षाघातमेकाङ्गविकारं...।

सू.सं. 98/30.

1. Contact with extremely hot climate.
2. Application of excessive fomentation.
3. Excessive blood letting or haemorrhage due to any cause.
4. Excessive haemorrhage can cause diseases like diseases of head, blindness, glaucoma and other ophthalmic disorders. It is also responsible to cause emaciation of body elements, convulsions, paralysis, haemiplegia, thirst, sensation of burning, hiccup, cough, dyspnoea, anemia and death.

5. Pathogenesis : Samprapti

Vata dosha aggravates due to acceptance of relevant predisposing factors and dries up vessels, nerves and muscles to cause paralysis or lameness of half of the body portion. Due to aggravation of Vata dosha (Prana vata) functions of all the vital powers of body are hampered. Also half of the affected body parts

becomes functionless. When aggravated Vata dosha causes contracture in one of the legs or hands with severe piercing type of pain, it is termed as Ekangaroga. When these symptoms are generalised all over the body condition is termed as Sarvangaroga. Onset of the disease is generally sudden with observance of episode of fainting or giddiness.

6. Clinical features : Roopa : General

1. Inability in movements of hands and legs.
2. Pain in the body.
3. Inability to speak.
4. Slackening of joints.
5. Observance of symptoms in either half of the body.
6. Patient becomes irritated and miserable.

7. Types : Prakara

1. Pittanubandhi Pakshavadha- Pakshavadha with dominance of Pitta in the samprapti.
2. Kaphanubandhi Pakshavadha- Pakshavadha with dominance of Kapha in the samprapti.
3. Vataja Pakshavadha: Pakshavadha with dominance of only Vata in the samprapti (Shudhha Vataja Pakshavadha).

दाहसनापमूर्च्छाः सुर्वायै पित्तसमन्विते।
शैत्यशोथगुरुत्वानि तस्मिन्नेव कफात्त्विते ॥

M. Ni. Vatavyadhi-chapter 22/42.

Symptoms with dominance of Pitta dosha in the samprapti

1. Sensation of burning.

2. Body warmth.
3. Fainting.

Symptoms with dominance of Pitta dosha in the samprapti

1. Feeling of cold.
2. Body edema.
3. Heaviness of body.

शुद्धवातहतं पथं कृच्छ्राघ्नतमं विदुः।
साध्यमन्येन संयुक्तमसाध्यं क्षयहेतुकम् ॥ S.S.Ni. 1/63.

Pakshavadha with involvement of only Vata -Shudhha vataja Pakshavadha- makes it very difficult to cure, while, involvement of other two dosha makes it comparatively easy to cure. Pakshaghata can occur in episodes and later episodes are further more severe than previous. In between the episodes patient may move around a little bit but remains extremely weak. These attacks remain for fifteen days (or more than that). Pakshavadha due to pure involvement of Vata dosha causes severe depletion of body elements- dhatu kshaya and it becomes incurable. Patient develops symptoms like fever, body oedema and dyspnoea and ultimately dies.

8. Prognosis : Sadhyasadyatva

गर्भाणीसृत्तिकाबालवृद्धक्षीणे च्चसुक्नयात्।
पक्षाघातं परिहरेद्देवनारहितं यदि ॥ Yogaratnakara.

Pakshavadha occurred to pregnant women, who recently delivered a baby and old aged people. Pakshavadha occurred due to excessive bleeding which is incurable. Also, Pakshavadha which is totally painless is also incurable.

...

Definition : Paribhasha

वायुः कट्यां स्थितः सक्नः कण्डरागक्षिपेद्यदा।
खञ्जस्तदा भवेज्जलुः पंगुः सक्नोर्द्धयोर्वयात् ॥

S.S.Ni.1/77.

1. Pangu

The disease condition in which aggravated Vata dosha takes seat at both the thighs, lumbar region and creates complete inability to walk by affecting nerves- Vatavahini sira- of lumbar region is called as Pangu/ Panguva.

2. Khanja

The disease condition in which aggravated Vata dosha takes seat at lumbar region

(waste) and creates partial inability to walk by affecting nerves -Vatavahini sira- of lumbar region is called as Khanja. Patient limps while walking.

3. Kalaya Khanja

प्रक्रामन् वेपते यस्तु खञ्जत्रिव च गच्छति।
कलायखञ्जं तं विद्यान्मुक्तसन्धिप्रवन्धनम् ॥ S.S.Ni.1/78.

The disease condition in which aggravated Vata dosha causes body tremor, especially at head, neck and hands. Patient severely limps. Joints become slackened. Although limping while walking is same symptom in Khanja and Kalay Khanja but, onset of body tremor before trying to walk is special symptom of Kalay Khanja.

...

Reference reading

- Madhavnidana Vatavyadhi Chapter 22.
- Charak Samhita Chikitsasthan. Chapter 28.
- Sushruta Samhita Nidanasthan. Chapter 1.
- Ashtanga Hridaya Nidanasthan. Chapter 15.
- Yogaratnakara.
- Sanskrit English Dictionary –Apte Shabdakosha.

1. Definition : Paribhasha

उच्चैर्व्याहृतोऽत्यर्थं खादतः कठिनानि वा ।
हसतो जृम्भतो वाऽपि भारद्विषमशायिनः ॥
अदियेत्वनिलोवक्त्रं अर्दितं जनयत्यतः ।
वक्रो भवति वक्रार्थं ग्रीवा चाप्यपवर्तते ॥
शिरश्चलतिवाक्सङ्गो नेत्रादीनां च वैकृतम् ।
ग्रीवा चिबुकं दन्तानां तस्मिन् पार्श्वे तु वेदनाम् ॥
यस्याग्रजो रोमहर्षो वेपथुर्नैत्रमविलम् ।
वायुरुर्ध्वं त्वचि स्वापत्तोदो मन्दाहनुग्रहः ॥
तमादितमिति प्राहुर्व्याधिं व्याधिविशारदः ॥

S.S.Ni.1/68-72.

The disease condition in which aggravated Vata dosha causes pain to face (mouth) is called as Ardita. In this condition half of the face along with neck becomes twisted and causes pain and discomfort. Nature of the disease is serious.

2. Route of development : Marga

Madhayama- Affliction of the disease involves vital points.

3. Predisposing factors : Nidana

गर्भिणी सूतिका बाल वृद्ध क्षीणेष्वसृक्क्षये ।
उच्चैर्व्याहृतोऽत्यर्थं खादतः कठिनानि वा ॥
हसतो जृम्भतो भारद्विषमाच्छयनादपि ।
शिरोनासौष्ठचिबुकललाटेक्षणसन्धिगः ।
अर्दयित्वाऽनिलो वक्त्रं मर्दितं जनयत्यतः ॥
वक्रो करोति वक्रार्थयुक्तं हासितमीक्षितम् ।
ततोऽस्य कम्पते मूर्धा वाक्सङ्गः स्तब्धनेत्रता ।
दन्तचालः स्वरप्रशः श्रुतिहानि क्षयग्रहः ।
गन्धाज्ञानं सुतेर्मौहः स्वापः सुप्तस्य जायते ।
निष्ठिवः पार्श्वतो यायादेस्याश्पोनिमीलनम् ।
जत्रोरुर्ध्वं रुजा तीव्रा शरीरार्थेऽधरेऽपि वा ।
तमाहुरर्दितं केचिदेकायामयपारे ॥

S.S. Ni.1/68-72.

A.H.Ni.15/34-36.

Prime victims of Ardita are women who have

recently delivered a baby and old aged people.

Other causes are :

1. Diminution in Raktadhatu.
2. Loud vocalization.
3. Biting very hard food content.
4. Loud laughing.
5. Repeated yawning.
6. Lifting heavy loads.
7. Uneven bedding.
8. Stretching hard bow- according to Vagbhata.

4. Pathogenesis : Samprapti

Repeated acceptance of relevant predisposing factors causes aggravation of Vata dosha which takes seat at head (neck), nose, lips, chin, forehead and eyes to cause pain and to make half the face and neck twisted.

5. Premonitory features: Purvaroopo

1. Horipilation.
2. Tremor.
3. Turbidity of eyes.
4. Loss of sensation facial skin.
5. Pricking type of pain at face.
6. Neck stiffness.
7. Stiffness at chin.
8. Obstruction of Sneezing.
9. Inability to engulf and chew.

6. Clinical features : Roopa

ततो वक्रं ब्रजत्यास्ये भोजनं वक्रनासिकम् ।
सब्धं नेत्रं कथयतः क्षवयुश्च निगृह्यते ॥
दीना जिह्वा समुत्क्षिप्ता कला सज्जति चास्य वाक् ।
दन्ताश्चलति बाध्येते श्रवणौ भिद्यते स्वरः ॥
C.S. Ch. 28/40-41.

लालापिसवः कम्पः स्फुरणं हनुसंग्रहः ।
ओष्ठयोः श्वयधुः शूलमर्दिते वातजे भवेत् ॥ Yogratnakara.
पीतमास्यं ज्वरस्तृष्णा पित्ते मूर्च्छा च धूपनम् ।
गण्डे शिरसि मन्याया शोकः स्तम्भः कफोद्भवे ॥
Yogratnakara.

1. Affected part of face becomes abnormal. The affected side of the eye is difficult to shut and open.
2. Affected site of face becomes twisted. Movements become difficult.
3. Neck becomes twisted.
4. Pain at affected side of lips, chin, teeth, temples and frontal bone.
5. Speech becomes hurried, incoherent and feeble (due to twisted or lame tongue).
6. Inability to laugh.
7. Loss of sensation to smell.
8. Delirium.
9. Sudden awakening from sleep.
10. Inability to spit. Dribbling of saliva from one side of the mouth.

7. Types : Prakara

7.1 Vataja Ardita

1. Hyper salivation.
2. Body tremors.
3. Stiffness at body parts.
4. Stiffness of chin.
5. Swelling of lips.

7.2 Pittaja Ardita

1. Yellowish tinge at face.
2. Fever.
3. Thirst.
4. Stupor.
5. Suffocation.

7.3 Kaphaja Ardita

1. Swelling at temporals, head and neck.

Complications

2. Looseness of teeth.
3. Deafness.
4. Hoarseness of voice.

8. Prognosis : Sadhyasadyatva : Fatal symptoms: Arishta lakshana

क्षीणस्थानिवाहस्य प्रवृत्तं सक्तभाषिणः ।
न विद्वदपचितं भाढं त्रिवर्षं वेनस्य च ॥ S.S.Ni.1/73.

Incurable

Affliction of Ardita for more than three years.

Severe body tremor.

Severe emaciation of the body.

Feeble and disturbed speech.

9. Dietary and behavioral regimen

9.1 Pathya

wholesome regimen

1. Langhana - fasting, Intake of light, easy to digest type of food.
2. Intake of shadangodaka.

9.2 Apathya

unwholesome regimen

1. Intake of hard to digest, unctuous food.
2. Overeating.

...

1. Definition

Stroke, also known as cerebrovascular accident (CVA), cerebro vascular insult (CVI), or brain attack, is defined as poor blood flow to the brain results in cell death.

2. Types : There are two main types of stroke

1. Ischemic due to lack of blood flow
2. Hemorrhagic due to bleeding.

They result in part of the brain not functioning properly.

3. Signs and symptoms

1. Inability to move or feel on one side of the body.
2. Problem in understanding or speaking
3. Feel like the world is spinning or and loss of one vision to one side among others.
4. Hemiplegic and muscle weakness of the face
5. Numbness.
6. Reduction in sensory or vibratory sensation
7. Initial flaccidity (reduced muscle tone), replaced by spasticity (increased muscle tone), excessive reflexes, and obligatory synergies.

Signs and symptoms often appear soon after the stroke has occurred. If symptoms last less than one or two hours it is known as transient ischemic attack (TIA). Hemorrhagic strokes may also be associated with a severe headache. The symptoms of a stroke can be permanent. Long term complications may include pneumonia or loss of bladder control.

4. Risk factors

1. The main risk factor for stroke is high blood pressure.
2. Tobacco smoking
3. Obesity
4. High blood cholesterol
5. Diabetes mellitus
6. Previous TIA
7. And atrial fibrillation.
8. An ischemic stroke is typically caused by blockage of a blood vessel.
9. A hemorrhagic stroke is caused by bleeding either directly into the brain or into the space surrounding the brain. Bleeding may occur due to a brain aneurysm.

5. Diagnosis

1. Medical imaging such as a CT scan
2. MRI scan
3. Electrocardiogram (ECG)
4. Blood tests are done to determine risk factors and rule out other possible causes. Low blood sugar may cause similar symptoms.

6. Prevention

Prevention includes decreasing risk factors as well as possibly aspirin, statins, surgery to open up the arteries to the brain in those with problematic narrowing, and warfarin in those with atrial fibrillation. A stroke often requires emergency care.

7. A stroke affecting the brainstem and brain therefore can produce symptoms relating to deficits in these cranial nerves

1. Altered smell, taste, hearing, or vision (total or partial)

2. Drooping of eyelid (ptosis) and weakness of ocular muscles
 3. Decreased reflexes: gag, swallow, pupil reactivity to light
 4. Decreased sensation and muscle weakness of the face
 5. Balance problems and nystagmus
 6. Altered breathing and heart rate
 7. Weakness in sternocleidomastoid muscle with inability to turn head to one side
 8. Weakness in tongue (inability to stick out the tongue and/or move it from side to side)
8. If the cerebral cortex is involved, the CNS pathways can again be affected, but also can produce the following symptoms
1. Aphasia (difficulty with verbal expression, auditory comprehension, reading and/or writing
- ...
2. Dysarthria (motor speech disorder resulting from neurological injury)
 3. Apraxia (altered voluntary movements)
 4. Visual field defect
 5. Memory deficits (involvement of temporal lobe)
 6. Hemineglect (involvement of parietal lobe)
 7. disorganized thinking, confusion, hypersexual gestures (with involvement of frontal lobe)
 8. Lack of insight of his or her, usually stroke-related, disability
9. If the cerebellum is involved, the patient may have the following symptoms
1. Altered walking gait
 2. Altered movement coordination
 3. Vertigo and or disequilibrium.

Diseases for differential diagnosis

1. Aamvata.
2. Firanga.
3. Vatarakta.
4. Kroshlukasheersha.

1. Definition : Paribhasha

वातपूर्णदृतिस्पर्शः शोथः सन्धिगतेऽनिले।
प्रसारणाकुञ्चनयोः प्रवृत्तिश्च सवेदना।।

C.S.Ch. 28/37.

हन्ति सन्धिगतः सन्धिन् शुलाटोषी करोति च।

S.S.N.I./ 28.

The disease in which the joints become painful and inflamed is called as Sandhigata vata.

2. Route of development : Marga

Abhyantara.- Affliction of the disease is internal.

3. Predisposing factors : Nidana

1. Acceptance of causes responsible to produce aggravation of Vata.
2. External injury.
3. Emaciation of body.
4. Old age.

4. Pathogenesis : Samprapti

Aggravated Vata dosha takes abnormal seat at joints and creates pain and difficult movements of the affected part.

5. Clinical features : Roopa

1. Swelling over joints.
 2. Restricted and painful movements of joints.
 3. Feel of joint is turgid like a balloon or wind bag.
 4. A creaking sound is produced on movements of joints.
- ...

Reference reading

- Madhavnidana – Vatavyadhi Chapter-22.
- Charak Samhita Chikitsasthan. Chapter 28.
- Sushruta Samhita Nidanasthana. Chapter 1.
- Sanskrit English Dictionary - Apte Shabdakosha.

Reference reading

- Madhaviidana - Vatavyadhi Chapter 22.
- Charak Samhita Chikitsasthan. Chapter 28.
- Sushruta Samhita Nidanasthana. Chapter 1.

1. Definition : Paribhasha

स्फिकूर्वा कटिपृष्ठोरुजानुजङ्घापरं क्रमात् ।
 गृध्रसी स्तम्भरुवतोदिगृह्णाति स्रवते मुहुः ॥
 वाताद्वातकफात्तन्नामीत्वारोचकान्विता ।
 खल्लो तु पादजङ्घोरुकरमूलावभोटनी ॥
 पाणिभ्रित्यङ्गुलीनां तु कण्डरा याऽनिलादिता ।
 सवस्त्रं : क्षेपे निगृह्णीयाद्गृध्रसीति सास्त्रता ॥

C.S.Ch.28/ 56.

S. S. Ni. 1/74.

The disease in which the patient puts extra load on one leg while walking and thus his walk resembles to the walking style of a vulture is called as Gridhrasi.

2. Pathogenesis : Samprapti : Clinical features: Roopa

Vata dosha aggravates to cause pain at buttocks which refers later towards back side of lumber region, thighs, knee joint and foot respectively. The nature of pain is sharp and constant. Stiffness of affected leg with pricking type of pain is the added feature. As the disease progresses pain starts at hip joint to cause difficulty in the movements along with deformity of the affected hip joint. As a result of which patient has to apply added pressure to non affected leg while walking and so the walking style resembling the walk of a vulture is seen.

3. Types : Prakara - 2

वातजायां भवेत्तोदो देहस्यापि प्रवक्रता ।
 जानुकयुरुसंधिनां स्फुरणं स्रब्धता भृशम् ॥
 वातश्लेष्मोद्धवायां तु निमित्तं वह्निमार्दवम् ।
 तन्ना मुख प्रसेकश्च भक्तद्वेषस्तथैव च ॥

M.Ni. Vatavyadhi- Chapter 22/ 55-56.

3.1 Vata dosha dominant Gridhrasi

1. Severe pricking type of pain in affected leg.
2. Bending of affected leg with deformity of the knee.
3. Stiffness and pulsation at lumber region, thighs and knee joint.

3.2 Vata and Kapha dosha dominant Gridhrasi

1. Symptoms of Vata dosha dominant Gridhrasi are observed in this type other symptoms.

2. Loss of digestive power.
3. Hyper salivation.
4. Lassitude.
5. Insipid mouth.
6. Loss of appetite.

...

1. Definition : Paribhasha

दिवा स्वनासास्थान विवृताच्चनिरिक्षणे ।
मन्यस्तम्भं प्रकुर्वते स एव श्लेषणः ।। S.S.Ni. 1/67.

The disease condition in which stiffness of neck is the main symptom is called as Manyastambha.

2. Predisposing factors : Nidana

1. Daytime sleep.
2. Sleeping with high head rest.
3. Strenuous movements of neck in upward, downward or oblique direction.

3. Pathogenesis : Samprapti

Vata dosha aggravates due to acceptance of relevant predisposing factors. Manyastambha also can occur as prodromal feature in diseases Apatanaka and Antarayama.

4. Clinical features : Roopa

1. Stiffness of neck.
2. Inability to move the neck.
3. Pain in neck.

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CHAPTER 74

ASTHI-MAJJAGATA VATA

1. Definition : Paribhasha

The disease in which the symptoms like; Pricking, cutting type of Pain in bones and joints.

1. Diminution of body strength, Loss of sleep are observed is called as Asthigata Vata.

...

1. Definition

Sciatica - sciatic neuritis-sciatic neuralgia or lumbar radiculopathy is a set of symptoms including pain caused by general compression or irritation of one of five spinal nerve roots of each sciatic nerve or by compression or irritation of the left or right or both sciatic nerves. Sciatica is a relatively common form of lower back and leg pain, but the true meaning of the term is often misunderstood. Sciatica is a set of symptoms rather than a diagnosis for what is irritating the root of the nerve to cause the pain. The first known use of the word sciatica dates from 1451.

The term sciatica describes a symptom rather than a specific disease. Some use it to mean any pain starting in the lower back and going down the leg. Others use the term more specifically to mean a nerve dysfunction caused by compression of one or more lumbar or sacral nerve roots from a spinal disc herniation. Pain typically occurs in the distribution of a dermatome and goes below the knee to the foot. It may be Associated with neurological dysfunction, such As weakness. The pain is characteristically of shooting type, quickly traveling along the course of the nerve.

2. Causes

Spinal disc herniation -Spinal disc herniation pressing on one of the lumbar or sacral nerve roots is the primary cause of sciatica, being present in about 90% of cases. Sciatica caused by pressure from a disc herniation and swelling of surrounding tissue can spontaneously subside if the tear in the

disc heals and the pulposus extrusion and inflammation cease.

1. Spinal stenosis : A condition in which the spinal canal narrows and compresses the spinal cord, cauda equina, or sciatic nerve roots. This narrowing can be caused by bone spurs, spondylolisthesis, inflammation, or herniated disc, which decreases available space for the spinal cord, thus pinching and irritating nerves from the spinal cord that travel to the sciatic nerves.

2. Piriformis syndrome : Piriformis syndrome is a controversial condition that, depending on the analysis, varies from a "very rare" cause to contributing to up to 8% of low back or buttock pain. It has colloquially been referred to as "waller sciatica" since a wallet carried in a rear hip pocket compresses the buttock muscles and sciatic nerve when the bearer sits down. Piriformis syndrome cause sciatica when the nerve root is normal.

3. Pregnancy: Sciatica may also occur during pregnancy as a result of the weight of the fetus pressing on the sciatic nerve during sitting or during leg spasms. While most cases do not directly harm the fetus or the mother, indirect harm may come from the numbing effect on the legs, which can cause loss of balance and falling. There is no standard treatment for pregnancy induced sciatica.

4. Other causes: Tumours on the spinal chord, trauma to the spine, such as from a car accident, cauda equina syndrome.

3. Pathophysiology

Sciatica is generally caused by the compression of lumbar nerves L4, or L5 or sacral nerves S1, S2, or S3, or by compression of the sciatic nerve itself. When sciatica is caused by compression of a dorsal nerve root (radix), it is considered a lumbar radiculopathy or radiculitis when accompanied with an inflammatory response. This can occur as a result of a spinal disc bulge or spinal disc herniation or from roughening, enlarging, or misalignment (spondylolisthesis) of the vertebrae, or as a result of degenerated discs that can reduce the diameter of the lateral foramen through which nerve roots exit the spine. The intervertebral discs consist of an annulus fibrosus, which forms a ring surrounding the inner nucleus pulposus. When there is a tear in the annulus fibrosus, the nucleus pulp may extrude through the tear and press against spinal nerves within the spinal cord, cauda equina, or exiting nerve roots, causing inflammation, numbness, or excruciating pain. Inflammation in the spinal canal can also spread to adjacent facet joints and cause lower back pain and/or referred pain in the posterior thigh(s). Pseudosciatic pain can also be caused by compression of peripheral sections of the nerve, usually from soft tissue tension in the piriformis or related muscles.

The spinal discs are composed of a tough spongy ring of cartilage ("annulus fibrosus") with a more malleable center ("nucleus pulposus"). The discs separate the vertebrae, thereby allowing room for the nerve roots to properly exit through the spaces between the vertebrae. The discs cushion the spine from compressive forces, but are weak to pressure

applied during rotational movements. That is why a person who bends to one side, at a bad angle to pick something up, may more likely herniate a spinal disc than a person jumping from a ladder and landing on their feet.

Herniation of a disc occurs when the liquid center of the disc bulges outwards, tearing the external ring of fibers, extrudes into the spinal canal, and compresses a nerve root against the lamina or pedicle of a vertebra, thus causing sciatica. This extruded liquid from the «nucleus pulposus» may cause inflammation and swelling of surrounding tissue, which may cause further compression of the nerve root in the confined space in the spinal canal.

4. Diagnosis

Sciatica is typically diagnosed by physical examination, and the history of the symptoms.] Generally if a person reports the typical radiating pain in one leg as well as one or more neurological indications of nerve root tension or neurological deficit, sciatica can be diagnosed.

The most applied diagnostic test is the straight leg raise test to produce Lasègue's sign, which is considered positive if pain in the distribution of the sciatic nerve is reproduced with between 30 and 70 degrees passive flexion of the straight leg. While this test is positive in about 90% of people with sciatica, approximately 75% of people with a positive test do not have sciatica.

Imaging tests such as computerised tomography or magnetic resonance imaging can help with the diagnosis of lumbar disc herniation. The utility of MR neurography in the diagnoses of piriformis syndrome is controversial.

1. Definition

The term Spondylosis is derived from greek word meaning "a vertebra", in plural "vertebrae or the backbone". Spondylosis is degenerative type of osteoarthritis of the joints between the center of the vertebrae or neural foramina. If this condition occurs in the facet joints, it can be considered facet syndrome. If severe, it may cause pressure on nerve roots with subsequent sensory or motor disturbances, such as pain, paresthesia, and muscle weakness in the limbs.

When the space between two adjacent vertebrae narrows, compression of a nerve root emerging from the spinal cord may result in radiculopathy - sensory and motor disturbances, such as severe pain in the neck, shoulder, arm, back, or leg, accompanied by muscle weakness. Less commonly, direct pressure on the spinal cord (typically in the cervical spine) may result in myelopathy, characterized by global weakness, gait dysfunction, loss of balance, and loss of bowel or bladder control. The patient may experience shocks (paresthesia) in hands and legs because of nerve compression and lack of blood flow. If vertebrae of the neck are involved it is labelled cervical spondylosis. Lower back spondylosis is labeled lumbar spondylosis.

2. Causes

1. Pressure: years of constant abnormal pressure, from joint subluxation or poor posture, being placed on the vertebrae, and the discs between them. Poor postures and loss of the normal spinal curves can lead to spondylosis as well. Spondylosis can affect a person at any age; however, older people are more susceptible.

2. Spondylosis is caused from the abnormal stress causes the body to form new bone in order to compensate for the new weight distribution. This abnormal weight bearing from bone displacement will cause spondylosis to occur

3. Diagnosis

1. Cervical compression test: It is performed by laterally flexing patient's head and placing downward pressure on it. A positive sign is neck or shoulder pain on the ipsilateral side, that is, the side to which the head is laterally flexed. This is somewhat predictive of cervical spondylosis.
2. Lhermitte sign: feeling of electrical shock with neck flexion.
3. Reduced range of motion of the neck, the most frequent objective finding on physical examination.
4. MRI and CT scans are helpful for pain diagnosis but generally are not definitive and must be considered together with physical examinations and history.

4. Complications

1. Vertebrobasilar insufficiency.

Treatment is usually conservative in nature. Patient education on lifestyle modifications and nonsteroidal anti-inflammatory drugs (NSAIDs) and physical therapy have been shown to manage such conditions. Other alternative therapies such as massage, chiropractic, trigger-point therapy, yoga and acupuncture may be of limited benefit. Physical therapy may be effective for restoring range of motion, flexibility, and core strengthening.

INTRODUCTION TO OSTEOARTHRITIS

1. Definition

Osteoarthritis is derived from the Greek word part osteo-meaning "of the bone" and arthr-, meaning "joint", and -it is, the meaning of which has come to be associated with inflammation. Osteoarthritis could be considered misleading as inflammation is not a conspicuous feature. Some clinicians refer to this condition as osteoarthrosis to signify the lack of inflammatory response. Osteoarthritis (Osteoarthritis) also known as degenerative arthritis, degenerative joint disease, is a group of mechanical abnormalities involving degradation. Osteoarthritis is the most common form of arthritis, and the leading cause of chronic disability. It is not an inflammatory condition like rheumatoid arthritis.

2. Causes

1. Limb misalignment : Damage from mechanical stress with insufficient self repair by joints
2. Hereditary : Due to hereditary factor.
3. Developmental : Impairment of peripheral nerves leading to sudden or uncoordinated movements. Loss of strength in the muscles supporting a joint
4. Metabolic factors : Excess body weight.

3. Classification

1. Primary Osteoarthritis
2. Secondary Osteoarthritis : This type of Osteoarthritis is caused by other factors but the resulting pathology is the same as for primary Osteoarthritis. Factors are
 3. Alkaptonuria
 4. Congenital disorders of joints
 5. Diabetes
 6. Perths' disease.
 7. Gout.
 8. Rheumatoid arthritis.
 9. External injury.
 10. Obesity

4. Symptoms

1. Osteoarthritis forms in major weight bearing joints like hip joint, knee joint. As Osteoarthritis progresses, the affected joints appear larger, stiff and painful.
2. Pain- Sharp pain with sensation of burning. Crepitus is formed. Pain increases with cold weather.
3. Inability to move the joint.
4. Muscular spasm.

5. Diagnosis

1. X ray of affected joint.

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INTRODUCTION TO ANKYLOSING SPONDYLITIS

1 Definition

The word Ankylosing spondylitis is derived from Greek word 'ankylos' meaning crooked and 'spondylos' meaning vertebra and its inflammation. It is a chronic inflammatory disease of the axial skeleton, with variable involvement of peripheral joints and non articular structures. Ankylosing spondylitis is one of a cluster of conditions known as 'seronegative spondylo-arthropathies'. Rheumatoid factor tests are negative and the characteristic pathological lesion is an inflammation of the entheses. The site where tensile connective tissue insert into bone. Ankylosing spondylitis can occur in any part of the spine or the entire spine, often with pain referred to one or the other buttock or the back of the thigh from the sacroiliac joint. Ankylosing spondylitis typically begins in the second or third decade of the persons life and tends to occur more often in males.

2. Symptoms

The signs and symptoms are nonspecific. Therefore, there is a time gap between onset of disease and diagnosis, which averages between 8 to 11 years. The signs and symptoms as often appear gradually, most commonly between 15 to 45 years of age.

1. Inflammation of the sacroiliac joint - one of the earliest manifestations of as.
2. Chronic dull pain in the lower back or gluteal region- Pain is often severe at rest,
3. Stiffness of the lower back in the morning that improves with activity.
4. Loss of spinal mobility, with limitation of anterior flexion, lateral flexion, and

extension of the lumbar spine. In severe cases complete fusion and rigidity of the spine

5. Spinal fracture- The most serious complication of the spinal disease.
6. Generalized fatigue.
7. Inflammation of the anterior chamber of the eye causing eye redness, pain, floaters and sensitivity to light.
8. Inflammation of the prostate
9. Inflammation of the aorta,
10. Aortic valve insufficiency
11. Progressive fibrosis of the upper portion of the lung.
12. Gastrointestinal bleeding.

3. Pathogenesis

Ankylosing spondylitis is a systemic rheumatic disease, meaning it affects the entire body.

4. Diagnosis

There is no direct test to diagnose. Some reliable methods are;

1. Magnetic resonance imaging (MRI),
2. X-ray studies of the spine which show characteristic spinal changes and inflammation of the sacroiliac joint,
3. Genetic marker blood test.

5. Prognosis

Prognosis is related to disease severity. It can range from mild to progressively debilitating and from medically controlled to refractory. Some cases may have times of active inflammation followed by times of remission resulting in minimal disability, while others never have times of remission and have acute

inflammation and pain, leading to significant disability. As the disease progresses, it can cause the vertebrae and the lumbosacral joint to ossify, resulting in the fusion of the spine. This places the spine in a vulnerable state because it becomes one bone, which causes it to lose its range of motion as well and putting it at risk for spinal fractures. This not only limits mobility but reduces the affected person's quality of life. Complete fusion of the spine can lead to a reduced range of motion and increased pain. As well as total joint destruction which could lead to a joint replacement.

Over a long-term period, osteopenia or

osteoporosis spine may occur, causing eventual compression fractures and a back "hump".

6. Complications

1. Aortic regurgitation.
2. Achilles tendinitis.
3. AV node block
4. Amyloidosis
5. Owing to lung fibrosis.
6. Neurologic conditions such as the cauda equina syndrome.

7. Mortality

Mortality is increased in people with AS and circulatory disease is the most frequent cause of death.

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1. Definition

Bell's palsy is a form of facial paralysis resulting from a dysfunction of the cranial nerve VII (the facial nerve) causing an inability to control facial muscles on the affected side. Often the eye in the affected side cannot be closed. The eye must be protected from drying up, or the cornea may be permanently damaged resulting in impaired vision. In some cases denture wearers experience some discomfort. The common presentation of this condition is a rapid onset of partial or complete paralysis that often occurs overnight. In rare cases (<1%), it can occur on both sides resulting in total facial paralysis.

Bell's palsy is defined as a one-sided facial nerve paralysis of unknown cause. Several other conditions can also cause facial paralysis, e.g., brain tumor, stroke, myasthenia gravis, and Lyme disease; however, if no specific cause can be identified, the condition is known as Bell's palsy. It is thought that an inflammatory condition leads to swelling of the facial nerve. The nerve travels through the skull in a narrow bone canal beneath the ear. Nerve swelling and compression in the narrow bone canal are thought to lead to nerve inhibition or damage.

Bell's palsy is the most common acute disease involving a single nerve and is the most common cause of acute facial nerve paralysis (>80%). It is named after Scottish anatomist and Edinburgh graduate Charles Bell (1774–1842), who first described it. It is more common in adults than children.

Causes : Some viruses are thought to

establish a persistent (or latent) infection without symptoms, e.g., the varicella-zoster virus and Epstein-Barr viruses, both of the herpes family. Reactivation of an existing (dormant) viral infection has been suggested as a cause of acute Bell's palsy. Studies suggest that this new activation could be preceded by trauma, environmental factors, and metabolic or emotional disorders, thus suggesting that a host of different conditions may trigger reactivation. Possible causes include tumor, meningitis, stroke, diabetes mellitus, head trauma and inflammatory diseases of the cranial nerves (sarcoidosis, brucellosis, etc.).

2. Symptoms

Bell's palsy is characterized by a one-sided facial droop that comes on within 72 hours. The facial nerve controls a number of functions, such as blinking and closing the eyes, smiling, frowning, lacrimation, salivation, flaring nostrils and raising eyebrows. It also carries taste sensations from the anterior two-thirds of the tongue, via the chorda tympani nerve (a branch of the facial nerve). Because of this, people with Bell's palsy may present with loss of taste sensation in the anterior 2/3rd of the tongue on the affected side.

Although the facial nerve innervates the stapedial muscles of the middle ear (via the tympanic branch), sound sensitivity and dysacusis are hardly ever clinically evident.

3. Main symptoms

1. Facial tingling
2. Moderate or severe headache/neck pain

3. Memory problems
4. Balance problems
5. Ipsilateral limb paresthesias
6. Ipsilateral limb weakness
7. Sense of clumsiness

4. Differential diagnosis

1. Herpes zoster virus
2. Lyme disease
3. erythema migrans.

5. Pathophysiology

Bell's palsy occurs due to a malfunction of the facial nerve (VIIth cranial nerve), which controls the muscles of the face. Facial palsy is epitomized by inability to control movement in the facial muscles. The paralysis is of the infranuclear/lower motor neuron type.

It is thought that as a result of inflammation of the facial nerve, pressure is produced on the nerve where it exits the skull within its bony canal, blocking the transmission of neural signals or damaging the nerve. Patients with facial palsy for which an underlying cause can be found are not considered to have Bell's palsy *per se*. In these conditions, the neurologic findings are rarely restricted to the facial nerve. Babies can be born with facial palsy. In a few cases, bilateral facial palsy has been associated with acute HIV infection.

In some research the herpes simplex virus type 1 (HSV-1) has been identified in a majority of cases diagnosed as Bell's palsy. This has given hope for anti-inflammatory and anti-viral drug therapy (prednisone and acyclovir). Other research, however, identifies HSV-1 in only 31 cases (18 percent), herpes zoster (*zoster sine herpette*) in 45 cases (26 percent) in a total of 176 cases clinically diagnosed as Bell's Palsy. That infection with

herpes simplex virus should play a major role in cases diagnosed as Bell's palsy therefore remains a hypothesis that requires further research.

In addition, the herpes simplex virus type 1 (HSV-1) infection is associated with demyelination of nerves. This nerve damage mechanism is different from the above-mentioned - that edema, swelling and compression of the nerve in the narrow bone canal is responsible for nerve damage. Demyelination may not even be directly caused by the virus, but by an unknown immune system response.

Diagnosis: Bell's palsy is a diagnosis of exclusion, meaning it is diagnosed by elimination of other reasonable possibilities. By definition, no specific cause can be determined. There are no routine lab or imaging tests required to make the diagnosis. The degree of nerve damage can be assessed using the House-Brackmann score.

6. Prognosis

Most people with Bell's palsy start to regain normal facial function within 3 weeks—even those who do not receive treatment. In a 1982 study, when no treatment was available, of 1,011 patients, 85% showed first signs of recovery within 3 weeks after onset. For the other 15%, recovery occurred 3–6 months later. After a follow-up of at least 1 year or until restoration, complete recovery had occurred in more than two-thirds (71%) of all patients. Recovery was judged moderate in 12% and poor in only 4% of patients. Another study found that incomplete palsies disappear entirely, nearly always in the course of one month. The patients who regain movement within the first two weeks nearly always remit entirely. When remission does not occur until

the third week or later, a significantly greater part of the patients develop sequela. A third study found a better prognosis for young patients, aged below 10 years old, while the patients over 61 years old presented a worse prognosis.

7. Complications

1. Chronic loss of taste (ageusia),
2. Chronic facial spasm,

3. Facial pain
4. And corneal infections.
5. Incomplete or erroneous regeneration of the damaged facial nerve.
6. Tinnitus and/or hearing loss during facial movement
7. Crocodile tear syndrome.
8. Gustatorial sweating- sweating on face, forehead, scalp and neck occurring soon after ingestion of food.

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1. Definition

The word Osteoporosis is derived from the Greek word meaning porous bones, it is a progressive bone disease that is characterized by a decrease in bone mass and density which can lead to an increased risk of fracture. In osteoporosis, the bone mineral density (BMD) is reduced, bone microarchitecture deteriorates, and the amount and variety of proteins in bone are altered.

2. Causes

Predisposing factors can be divided in two categories. Potentially nonmodifiable factors beyond controlled and Potentially modifiable - factors under control

Potentially nonmodifiable factors:

Advanced age (in both men and women): The increased risk of falling associated with aging leads to fractures of the wrist, spine, and hip.

1. Female gender: Estrogen deficiency following menopause or oophorectomy is correlated with a rapid reduction in bone mineral density, while in men, a decrease in testosterone levels has a comparable (but less pronounced) effect. Early menopause/hysterectomy is another predisposing factor.

2. Heredity: Those with a family history of fracture or osteoporosis are at an increased risk;

3. Build: A small stature is also a nonmodifiable risk factor associated with the development of osteoporosis

4. Race: While osteoporosis occurs in people

from all ethnic groups, European or Asian ancestry predisposes for osteoporosis

5. History of fracture: Those who have already had a fracture are at least twice as likely to have another fracture compared to someone of the same age and sex

Potentially modifiable factors

1. Excess consumption of alcohol: Although small amounts of alcohol are probably beneficial, chronic heavy drinking probably increases fracture risk despite any beneficial effects on bone density

2. Vitamin D deficiency: Low circulating vitamin D is associated with less bone mineral density and more chances of fractures.

3. Tobacco smoking: Many studies have associated smoking with decreased bone health, but the mechanisms are unclear.

4. Malnutrition: Nutrition has an important and complex role in maintenance of good bone. Identified risk factors include low dietary calcium and/or phosphorus, magnesium, zinc, boron, iron, fluoride, copper, vitamins A, K, E and C and D. Excess sodium is a risk factor. High blood acidity may be diet-related, and is a known antagonist of bone. Low protein intake also is a contributory factor.

5. Underweight/inactive: Bone remodeling occurs in response to physical stress, so physical inactivity can lead to significant bone loss.

6. Weight bearing: exercise can increase peak bone mass achieved in adolescence, and a highly significant correlation

between bone strength and muscle strength has been determined. The incidence of osteoporosis is lower in overweight people.

7. Endurance training: In female endurance athletes, large volumes of training can lead to decreased bone density and an increased risk of osteoporosis.

8. Heavy metals: A strong association between cadmium and lead with bone disease has been established. Low-level exposure to cadmium is associated with an increased loss of bone mineral density readily in both genders, leading to pain and increased risk of fractures, especially in the elderly and in females. Higher cadmium exposure results in osteomalacia - softening of the bone.

9. Soft drinks: Some studies indicate soft drinks-many of which contain phosphoric acid, may increase risk of osteoporosis, at least in women. Or replacement of other healthy drinks by soft drinks may increase the risk of osteoporosis.

3. Classification:

The disease may be classified as

1. Primary type 1
2. Primary type 2
3. Secondary osteoporosis.

The form of osteoporosis most common in women after menopause is referred to as primary type 1 or postmenopausal osteoporosis, which is attributable to the decrease in estrogen production after menopause. Primary type 2 osteoporosis

or senile osteoporosis occurs after age 75 and is seen in both females and males at a ratio of 2:1. Secondary osteoporosis may arise at any age and affect men and women equally; this form results from chronic predisposing medical problems or disease, or prolonged use of medications such as glucocorticoids, when the disease is called steroid- or glucocorticoid-induced osteoporosis.

4. Symptoms

Osteoporosis itself has no symptoms; its main consequence is the increased risk of bone fractures. Osteoporotic fractures occur in situations where healthy people would not normally break a bone; they are therefore regarded as fragility fractures. Typical fragility fractures occur in the vertebral column, rib, hip and wrist.

5. Diagnosis

The diagnosis of osteoporosis can be made using conventional radiography and by measuring the bone mineral density (BMD). The most popular method of measuring BMD is dual-energy x-ray absorptiometry. In addition to the detection of abnormal BMD, the diagnosis of osteoporosis requires investigations into potentially modifiable underlying causes; this may be done with blood tests. Depending on the likelihood of an underlying problem, investigations for cancer with metastasis to the bone, multiple myeloma, Cushing's disease and other above-mentioned causes may be performed.

1. Tuni

Definition : Paribhasha

उचो वा वेदना याति मूत्राशयोत्थिता।
भिन्नेतव दुर्गन्धस्य सा तुनित्वभिधीयते।
गुदोपस्थान्तिताः सैव प्रतिलोमविधापिपी।
कैः पक्वशयं याति प्रतितुनि सा स्मृतः॥

S.S.Ni. 1/86-87.

The disease in which severe pain commences at urinary system -Mutravaha srotasa or rectum -Pakvashaya and descends down

downwards to anus and penis (genitals) is called as Tuni.

2. Pratituni

गुदोपस्थोत्थिता या तु प्रतिलोमं प्रधाविता।
कैः पक्वशयं याति प्रतितूनीति सोच्यते॥ S.S.Ni. 1/87

Definition : Paribhasha

When similar type of pain is caused in reverse direction that means commencing at anus or penis and ascending up to urinary system or rectum, is called as Pratituni.

CHAPTER 82
VATAKANTAKA

1. Definition : Paribhasha

The disease in which Vata dosha aggravates and takes seat at ankle region to cause severe pain is called as Vatakantaka.

2. Predisposing factors : Nidana

1. Sitting in unusual position with legs placed in uneven or irregular position.

CHAPTER 83
SIRAGRAHA

Definition : Paribhasha

रक्तपाथित्य पवनः कुर्यान्मूर्धयाः सिरः।
रक्षाः सवेदनाः कृष्णाः सोऽसाध्यः स्यत्सिराग्रहः॥

A.H.Ni.1/37.

The disease in which aggravated vata dosha

combines with vitiated Rakta dhatu and takes seat at blood vessels of head to make them shrunken, very painful and black in colour is called as Siragraha. It is an incurable disease condition.

1. Definition : Paribhasha

धनुस्तुल्यं नेघस्तु स धनुस्तम्भ संज्ञकः। S.S.Ni.1/ 54.
अन्तरायाम बहिरायामोः साधारणं रूपमाह-
धनुस्तुल्यमित्यदि॥
विदग्धबद्धवदनः सस्तांगो नष्टचेष्टनः।
प्रस्विब्धधनुस्तम्भी दशतात्रं न जीवति॥ S.S.Ni.1/

The disease in which aggravated Vata dosha causes abnormal bending of the body resembling to a bow along with hardening of organs is called as Dhanustambha.

2. Clinical features : Roopa

1. Discoloration of skin.
2. Locked teeth.
3. Loss of control on body organs.
4. Fainting.
5. Hyper sweating.
6. Life span of a patient of Dhanustambha is not more than ten days.

3. Classification

Dhanustambha is further classified as;

3.1 Antarayama

मन्ये संश्लिष्य वातोऽन्तर्यया नाडीः प्रपद्यते।
मन्यास्तम्भ तदा कुर्यादन्तरायाम् संज्ञितम्॥
अन्तरायामयते ग्रीवा मन्या च स्तम्भते भृशम्।
दन्तानां दंशनं लाला पृष्ठायाः शिरोग्रहः॥

C.S.Ch. 28/ 45.

अङ्गुलिगुल्फजठरहृद्वक्षोगल संश्लिष्य।
स्नायु प्रतानमनिलो यदाऽऽक्षिपति वेगवान्॥
विष्टव्याधः स्तब्धहनुर्भनपार्थः कर्फ वमन्।
अभ्यन्तरं धनुरेव यदा नमति मानवम्।
तदाऽस्याभ्यन्तरायामं कुरुते मारुतो बली॥

S.S.Ni.1/ 54-56.

a. Aggravated vata dosha takes seat at vessels of neck and causes abnormal

hardness at neck region. Neck becomes excessively stiff and bend inwards. This condition is called as Antarayama.
b. Aggravated vata takes seat at vessels supplying to toes of feet, thighs, abdomen, chest, flanks, back, clavicles, neck and head and makes them abnormally hard. Body is bent concavely (from abdominal side) like a bow. This condition is called as Antarayama.

Clinical features : Roopa

- a. Abnormal clenching of teeth.
- b. Dribbling of saliva from mouth.
- c. Abnormally stretched eyes.
- d. Inability to shut the mouth. Mouth stiffness.
- e. Pain at flanks.
- f. Stiffness at back and head (neck).

3.2 Bahirayama

पृष्ठमन्याश्रिता बाह्याः शोषयित्वा सिरा बली।
वासुः कुर्याच्छनुस्तम्भं बहिरायाम संज्ञकम्॥
चापत्रायमानस्यपृष्ठतो नीयते शिरः।
उर उक्लिष्यते मन्या स्तब्धा ग्रीवाऽवपृद्यते॥
दन्तानां दंशनं जुम्भा लालसावश्च वाग्रहः॥
जातवेगो निहन्त्येष वैकल्यं वा प्रयच्छति॥

C.S.Ch. 28/46-48.

The disease in which aggravated Vata dosha takes seat at vessels and muscles of back and dries them up to bend the body convexly (from back side), this condition is called as Bahirayama. Head bends backwards and chest becomes protruded. Neck becomes stiff and painful. The whole body bends like a bow.

Clinical features: Roopa
1. Abnormal clenching of teeth.
2. Inability to close the mouth.
3. Hyper salivation.

4. Inability to speak.
5. Sweating.
6. Weakness in body organs.

CHAPTER 85

HANUSTAMBHA-HANUGRAHA

1. Definition : Paribhasha

जिह्वानिरोद्धनस्तुक्कमलादपिधाततः।
कुपितो ह्यनुसृतः समपित्वा ऽनिलो हनुन् ॥
करोति विस्तृतान्वचसा संवृताम्बुजम् ॥
हनुग्रहः स तेन स्वाकृच्छ्राच्चवेणभाषणम् ॥

A.H.N.15/29-30.

The disease in which aggravated Vata dosha causes spasticity and dislocation of jaw (mandible joint) is called as Hanustambha.

Due to predisposing factors like :

1. Excessive protrusion of tongue.

2. Intake of excessively dry eatables type of food.
 3. Due to external trauma.
- Vata dosha aggravates and takes seat at base of the chin to create dislocation at mandibles and to create abnormality at the site.

2. Clinical features: Roopa

1. Mouth remains tightly closed with inability to open (or remains opened with inability to close)
2. Inability to chew the food.
3. Inability to speak.

CHAPTER 86

JIMVA STAMBHA

1. Definition : Paribhasha

जायवतिनी तिरा मन्दो सम्पद्यतेऽनितः।
जिह्वा मन्थः स देवप्रानसाक्षयेयनीयता ॥

A.H.N.15/31.

The disease in which aggravated Vata dosha causes stiffness of tongue is called as Jimvastambha. Due to acceptance of

predisposing factors Vata dosha aggravates and creates severe stiffness of tongue.

2. Clinical features : Roopa

1. Inability to move the tongue.
2. Inability to control actions like eating, drinking, swallowing food, speaking.

MUKA-MINMIN-GADGAD

Definition : Paribhasha

आकृत्व सकफो वातुः घमनीः शब्दवाहिनीः।
नरान्करोत्यक्रियकामुकं मिनिन गदगदान् ॥ S.S.Ni.1/85.

Aggravated Vata dosha combines with aggravated Kapha dosha and occludes Shabdavaha Srotas to cause abnormality of Shabdavaha dhamani.

Three types of conditions can occur due to abnormality of shabdavahini dhamani.

1. **Gadgad** : Mild abnormality in shabdavahini dhamani: In this condition, voice quality of the person becomes hoarse. Aggravated Vata dosha along with equally aggravated Kapha dosha causes partial obstruction in Shabdavaha srotasa- (system responsible to form and pronounce the word) due to which pronunciation becomes obstructed and difficult is called as Gadgada. Here the patient becomes unable to speak continuous unobstructed sentences.
2. **Minmin** : Moderate abnormality in shabdavahini dhamani: In this condition pronunciation of words becomes incoherent and voice quality becomes unclear and nasal. In this condition Aggravated Vata dosha along with

equally aggravated Kapha dosha causes partial obstruction in Shabdavaha srotasa(system responsible to form and pronounce the word) due to which the pronunciation becomes nasal is called as Minmin.

3. **Mukatva** : Severe abnormality in shabdavahini dhamani: In this condition the person becomes totally unable to speak. Aggravated Vata dosha along with equally aggravated Kapha dosha causes obstruction in Shabdavaha srotasa (system responsible to form and pronounce the word) due to which the patient becomes completely unable to speak i.e. dumb is called Muka or Mukatva.

तम वार्गेन्द्रियं त्वेकं द्वियाभिरं यथाक्वरो ।
अर्थेन शब्दं चदति गृह्णात्यर्थेन सं पुनः ॥
तस्मात् च मूका भूयिष्टं भवन्ति वधिराः नतः ।
बाहू मूलं हि सुतं श्रोत्रं ।

Kashyapa samhita 139.

According to Kashyapa Samhita, Vagindriya-vital power to speak – carries out two functions simultaneously first is to speak (Vag indriya) and to hear (Kshotra indriya), it is like Hastendriya which is constituted by two hands. Due to this reason congenitally deaf person automatically remains dumb (as he is able to hear and learn words).

Definition : Paribhasha

अंधेरेस्थितो वायुः गोपयेदेतदन्धनम् ॥ S.S.Ni. 1/82.
The disease in which aggravated Vata dosha takes seat at shoulder and dries up the muscles

of shoulder joint is called as Ansashosha. In this condition shoulders become thin and emaciated (as if dried up) and movements becomes painful and weak.

CHAPTER 89

VEPATHU-KAMPAVATA**Definition : Paribhasha**

सर्वाङ्ग कम्पः शिरसो वायुर्वेपथुसंज्ञकः ॥

M.Ni.- Vatavyadhi Chapter-22/ 73.

The disease in which aggravated Vata dosha occludes entire body to cause severe tremors at head, hands and legs is called as Vepathu or Kampa.

Clinical features : Roopa

1. Due to tremors at hands person becomes unable to hold or lift things.
2. Due to tremors at legs person becomes unable to walk or stand.
3. Body tremors are irregular and there is phase of no tremors inbetween.
4. Occasionally mere thinking about body movements can initiate tremors in the body.

CHAPTER 90

KUBJA**Definition : Paribhasha**

हृदयं यदि वा शृष्टमुन्नतं क्रमशः सरुक् ।
कुब्जो वायुर्यदा कुर्यात्तदा तं कुब्जमपिदिशेत् ॥ Vangasena.
The disease in which aggravated Vata dosha takes seat at vertebrae of the spine and

sternum to cause abnormalities at these sites and ultimately creates abnormal forward bending (Kayphosis) or abnormal backward bending (Lordosis) of the body is called as Kubja.

Definition : Paribhasha

हृद्येते चरणौ यस्य भवेतां चापि सुप्तकौ ।

पादहर्षः स विज्ञेयः कफवात प्रकोपतः ॥ S.S.Ni. 1/81.
पादहर्षमाह- हृद्येते इत्यादि ।

हृद्येते हर्षयुक्तौ भवतः हर्षश्च रोमश्च प्रायोऽन्तः शीतो श्लिणि
श्लिणि तु न चिरानुवन्धिनी केवलवातजेति भेदः ॥

M.Ni.- Vatavyadhi Chapter-22/63.

The disease in which aggravated Vata dosha takes seat of foot and creates tingling sensation and numbness to the feet is called as Padaharsha. Symptoms include heaviness of affected foot (leg) and loss of sensation. Same condition can be caused to hands also. Although this sensation is temporary and resolves on its own after some time.

CHAPTER 92

PADADAHA**Definition : Paribhasha**

पादयोः कुरुते दाहं पित्तासुक्साहितौ ऽनिलः ।

विशेषतश्चक्रमतः पाददाहं तनादिशेत् ॥ S.S.Ni. 1/80.

The disease in which aggravated Vata dosha

takes seat alongwith aggravated Pitta dosha and Rakta dhatu to cause sensation of burning of feet (especially soles of feet) is called as Padadaha. This condition generally arises due to excessive walking.

1. Introduction to Concept of Avarana

The word Avarana is derived from Sanskrit word आवृ - meaning to hide, to conceal or to cover. (आवृत्त पन्थानमन्त्र तस्यै १).

Ayurveda explains this term in accordance to the pathological aspect as obstruction or resistance in pace of normal surge of Vata dosha (Gati nirodha).

In normalcy, Vata dosha performs all bodily functions with a certain maintained pace or speed called as Ayyahata Gati. Maintenance of this pace is health, through which a hundred year life could be attained.

By constitution, Vata dosha is dominated by Raja quality- meaning the gloom or the darkness. It has the quality to initiate the movements by providing force to Pitta and Kapha dosha. Therefore covering or obstruction to this quality of Vata creates many pathologies in the body and are collectively explained as concept of Avarana.

When normal pace of Vata dosha is obstructed it becomes 'Avritta' that is obstructed or covered to produce serious effects to health.

According to texts like Vaidyaka shabda Sidhu, Avaraka means one which covers and Avritta means the one which gets covered.

Vata dosha aggravates either due to diminution in basic body elements (dhatukshaya) or obstruction in its normal pathway (margavarana) which ultimately causes vata aggravating symptoms or diseases of Vata dosha.

Abnormal Vata due to any reason may cause disturbance to normal functions like circulation (samvahana/ parivahana), pushing (vikshepa), secretion (sravana) etc.

Pathological events like mixing of Ama

with basic body elements (Sama dhatu) or debility to basic body channels or systems (Khavigunya) are primary causes to create disturbance in pace of Vata dosha leading to Avarana and related formation of diseases in the body.

Further symptoms of various types of Avarana are explained.

2. Definition : Paribhasha

लिङ्गं पितावृते दाहस्तृष्णा शूलं भ्रमस्तमः ।
कट्वन्लवणौषैश्च विदाहः शीतकमिता ॥
शैत्यगौरवशूलानिकट्वाद्युपशयोऽधिकम् ॥
लक्ष्मनायासरक्षोष्णकामिता च कफावृते ॥

C.S.Ch. 28/61-62.

मरुतानां हि पञ्चानामन्योन्यावरणे शुष्णु ।
लिङ्गं व्यासमासाभ्यामुच्चमानं मयाऽनघ ॥
प्राणो वृणोत्युदानादीन् प्राणं वृण्वन्ति तेऽपि च ।
उदानाद्यतया ऽन्योन्यं सर्व एव यथा क्रमम् ॥
विंशतिर्वर्णान्येतान्युत्त्वणानां परस्परम् ॥
मरुतानां हि पञ्चानां तानि सम्यक् प्रतकर्तयित् ॥
सर्वेन्द्रियाणां शून्यत्वं ज्ञात्वा स्मृतिबलक्षयम् ।
व्याने प्राणावृते लिङ्गं कर्म तत्रोर्ध्वजनुकम् ॥
स्वेदोऽत्यर्थं लोमहर्षस्त्वयोषः सुप्तगात्रता ।
प्राणे व्यानावृते तत्र स्नेहयुक्तं विरेचनम् ॥
प्राणावृते समाने सर्जङ्गद्वयमूकताः ।
चतुष्पयोगः शस्यन्ते स्नेहास्तत्र स्यापनः ॥
समानेनावृतेऽपाने ग्रहणी पार्थहृद्गदाः ।
शूलं चामाशये तत्र दीपनं सपिरिच्यते ॥

C.S.Ch. 28/199-206.

शिरोग्रहः प्रतिश्यायो निश्वासोच्छवास संग्रहः ।
हृद्रोगो मुखशोषश्चयुदाने प्राणसंवृते ।
तत्रोर्ध्वभागिकं कर्म कार्यमाधासनं तथा ॥
कर्णौजो बलवर्णानां नाशो मृत्पुरथापि वा ।
उदानेनावृते प्राणे तं शनैः शीतवारिणा ॥
सिंश्रेदाश्वासयेतच्चैनं सुखं चैवोपपादयेत् ।
उर्ध्वेनावृतेऽपाने छदिश्वासादयो गवाः ॥
स्यर्वाते तत्र बस्यादि भोज्यं चैवानुलोमनम् ।
मोहोऽन्तिसार उर्ध्वेऽपाने संवृते ॥



वाते स्याद्दहनं तत्र दीपनं ग्राहि लाघवम् ।
व्याध्याधानमुदावर्तं गुल्मातिपरिकर्तिका ॥
लिङ्गं व्यानावृतेऽपाने तं स्नधेरुलोमयेत् ।
अपानेनावृते व्याने भवेद्विभूत्रेतसाम् ॥
अतिप्रवृत्तिस्तत्रापि सर्वं संग्रहणं मतम् ।
भूर्च्छां तत्रापीऽङ्गसादीन्योऽजोबलक्षयः ॥
समनेनावृते व्याने व्यायामो लघु भोजनम् ।
साध्याऽल्पान्निताऽस्वेदश्चेदाहानिर्निमीलनम् ॥
उदानेनावृते व्याने तत्र पथ्यं मितं लघु ।
पञ्चान्योन्यावृत्तानेवं वातान् बुध्येत लक्षणैः ॥
एषां स्वकर्मणां हानिवृद्धिर्वाऽऽवरणे मता ।
यथास्थूलं समुद्दिष्टमेतदावरणेऽष्टकम् ॥
सलिङ्गभेजं सम्यक्खुधानां बुद्धिवृद्धये ॥

C.S.Ch. 28/207-217.

भूर्च्छां दाहो भ्रमः शूलं विदाहः शीत कापिता ।
छर्दनं च विदग्धस्य प्राणे पित्तसमावृते ॥
ऽदीवनं क्षवथुत्वारनिःश्वासोच्छवास संग्रहः ।
प्राणे कफावृते रुपाण्यरुचि श्छदिरेव च ॥
भूर्च्छादीनि च रुपाणि दाहो नाभ्युसः क्लमः ।
ओज प्रशश्च सादश्चाध्यादाने पित्त संतुले ॥
आवृते श्लेष्मणोदाने वैवर्ण्यं वाक्स्वराहः ॥
दौर्बल्यं गुरुगात्रत्वमरुचिश्चोपजायते ।
अतिस्वेदस्तथा दाहो भूर्च्छां चारुचिरेव च ॥
पित्तावृते समाने स्यादुपघातस्तथोष्णः ।
अस्वेदो वह्निमान् च लोमहर्षस्तथैव च ॥
कफावृते समाने स्याद्वात्राणां चातिशीतता ।
व्याने पित्तावृते तु स्याद्दाहः सर्वांगः क्लमः ॥
गात्रविक्षेपसङ्घश्च ससंतापः सवेदनः ।
गुरुता सर्व गात्राणां सर्वसन्ध्यस्थिरुजा रुजः ॥
व्याने कफावृते लिङ्गं गतिसङ्घस्तथाऽधिकः ।
हारिद्रमूत्रवर्चस्वं तापश्च गुदमेद्भयोः ॥
लिङ्गं पितावृतेऽपाने रजसश्चातिप्रवर्तनम् ।
भिन्नामश्लेष्मसंसृष्टं गुरुवर्चः प्रवर्तनम् ॥
श्लेष्मणा संवृतेऽपाने रजसश्चातिप्रवर्तनम् ।
भिन्नामश्लेष्मसंसृष्टं गुरुवर्चः प्रवर्तनम् ॥
श्लेष्मणा संवृतेऽपाने कफमेहस्य चागमः ॥

C.S.Ch. 28/221-231.

लक्षणानां तु मिश्रत्वं पित्तस्य च कफस्य च ।
उपलक्ष्य भिषग्बिद्वान् मिश्रमावरणं वदेत् ॥
यद्यस्य वायोनिर्दिष्टं स्थानं तत्रेतरे स्थितौ ।
दोषो बहुविधान् व्याधिन् दशयित्वा यथानिजान् ॥
आवृतं श्लेष्मपित्ताभ्यां प्राणं चोदानमेव च ।
गरीयस्त्वेन पश्यन्ति भिषजः शासचक्षुषः ॥

विरोषज्जीवितं प्राणे उदाने संश्रितं बलम् ।
स्वात्सयोः पीडनाच्छानिरामुषश्च बलस्य च ॥
सर्वेऽप्येतेऽपरिज्ञाताः परिसंवलसरास्तथा ।
उपेक्षणादसाध्याः स्युश्चवा दुल्पक्रमाः ॥

C.S.Ch. 28/231-236.

TYPES

2.1 Pittavritta Vata

- Sensation of burning which increases with intake of spicy, pungent and sour food.
- Thirst.
- Pain in the abdomen.
- Giddiness.
- Fainting.
- Desire for cold.

2.2 Kaphavritta Vata

- Feeling of cold.
- Heaviness of the body.
- Pain in abdomen.
- Relief with intake of pungent etc. type of food.
- Desire to perform physical exercise, fasting or for intake of dried food.

2.3 Raktavritta Vata

- Sensation of burning.
- Restlessness.
- Formation of red colored circles on the skin.
- Edema.

2.4 Mamsavritta Vata

- Formation of hard boils.
- Edema.
- Tingling sensation in the limbs.

2.5 Medavritta Vata:[Aadhy Vata]

- Thin, smooth edema on the body.
- Inspid mouth.

2.6 Asthyavritta Vata

- Warm skin.
- Pricking type of pain which increases with intake of food.
- Relief with massage.

2.7 Majjavritta Vata

- Stiffness of the body.
- Relief with massage.
- Yawning.

2.8 Shukravritta Vata

- Excessive formation or total absence of semen.
- Impotence.

2.9 Annavritta Vata

- Abdominal pain immediate after food intake. Pain subsides over digestion.

2.10 Mutravritta Vata

- Constipation with hard, dried stool.
- Pain at sacrum, hips and back.

2.12 Pittavritta Prana

- Giddiness and fainting.
- Sensation of burning.
- Pain in the abdomen.
- Desire for cold.
- Sour vomiting.

2.13 Kaphavritta Prana

- Frothy sputum.
- Sneezing.
- Belching.
- Strenuous breathing.
- Insipid mouth.
- Vomiting.

2.14 Pittavritta Udana

- Fainting.
- Sensation of burning.
- Giddiness.
- Pain in the abdomen.
- Desire for cold.
- Vomiting.
- Restlessness.
- Fatigue.

- Depletion of Oja.
- General tiredness.

2.15 Kaphavritta Udana

- Discoloration of the skin.
- Obstructed speech.
- General fatigue.
- Heaviness of the body.
- Insipid mouth.

2.16 Pittavritta Samana

- Heat stroke.
- Loss of digestive capacity.
- Thirst.
- Sweating.
- Sensation of burning.
- Fainting.
- Insipid mouth.

2.17 Kaphavritta Samana

- Loss of sweating.
- Loss of digestive capacity.
- Horripilation.
- Hypothermia.

2.18 Pittavritta Vyana

- Sensation of burning.
- General fatigue, lassitude.
- Stiffness and bending of the body parts.
- Fever.
- Body pain.

2.19 Kaphavritta Vyana

- Heaviness of the body.
- Painful bones and joints.
- Slow heart beats.
- Staggered walking.

2.20 Pittavritta Apana

- Yellow discoloration of urine and stool.
- Sensation of burning in anus and urinary tract.
- Menorrhagia.

Kaphavritta Apana:
Unformed stool.

3. Types of Avritta vata according to Charaka**3.1 Pranavritta Vyana**

- Loss of body strength and memory.
- Loss of bodily functions.

3.2 Pranavritta Samana

- Diminished intellect.
- Unclear, obstructed speech.

3.3 Vyanaavritta Prana

- Over sweating.
- Horripilation.
- Skin disease.
- Numbness.

3.4 Samanavritta Apana

- Pain at flanks.
- Symptoms of Grahani and Hridroga

3.5 Pranavritta Udana

- Heaviness in the head.
- Common cold.
- Strenuous breathing.
- Dryness of mouth.

3.6 Udanavritta Prana

- Loss of Vitality- Oja.
- Stasis of faecal material.
- Loss of general body functions.
- Death.

3.7 Udanavritta Apana

- Vomiting.
- Strenuous breathing.
- Strenuous breathing.
- Hiccups.
- Cough.

3.8 Apanavritta Udana

- Delirium.
- Loss of digestive capacity.
- Loose motions.

3.9 Apanavritta Vyana

- Excessive formation of fecal material, urine and semen.

3.10 Samanavritta Vyana

- Fainting.
- Lassitude.
- Incoherent speech.
- Loss of digestive capacity.
- Body pain.
- Loss of Oja.
- Loss of body strength.

3.11 Udanavritta Vyana

- Stiffness of the body with restricted body movements.
- Loss of digestive capacity.
- Loss of sweating.

4. Types According to Sushrut Samhita

प्राणोदानो समानश्च व्यानश्चापान एव च ।
स्थानस्या मारुताः पञ्च यापयन्ति शरीरिणाम् ॥

S. S. Ni. 1/12.

Prana, Udana, Samana, Vyana, Apana are the five types of Vata which in their normal state sustain the body and maintain perfect health.

प्राणे पित्तावृते छर्दिदाहश्चेवोपजायते ।
दौर्बल्यं सदनं तन्द्रा वैरस्यं च कफावृते ॥
उदाने पित्तयुक्ते तु दाहो मूर्च्छा घ्नमः क्लमः ।
अस्वेद- हर्षो मन्थोनिः शीतता च कफावृते ॥
स्वेदादाहोष्ण्य मूर्च्छाः स्युः समाने पित्तसंयुते ।
कफेन सक्ते विष्णुने मात्रहर्षश्च जायते ॥
अपाने पित्तयुक्ते तु दाहोष्ण्यं रक्तमूत्रता ।
अथःकाये गुरुत्वं च शीतता च कफावृते ॥
व्याने पित्तावृते दाहो मात्रविक्षेपार्थं क्लमः ।
स्तम्भनो दण्डकश्चापि शूल- शोथो कफावृते ॥

S. S. Ni. 1/34-38.

4.1 Pittavritta Prana

Prana gets abnormally encompassed by Pitta.

Symptoms:

- Vomitting.
- Sensation of burning.

4.2 Kaphavritta Prana

Prana gets abnormally encompassed by Kapha.

Symptoms

- Fatigue.
- Loss of body strength.
- Stupor.
- Inspid mouth.

4.3 Pittavritta Udana

Udana gets abnormally encompassed by Pitta.

Symptoms

- Sensation of burning.
- Fainting.
- Giddiness.
- Exhaustion.

4.4 Kaphavritta Udana

Udana gets abnormally encompassed by Kapha.

Symptoms

- Loss of sweating.
- Loss of enthusiasm.
- Indigestion.
- Feeling of cold.

4.5 Pittavritta Samana

Samana gets abnormally encompassed by Pitta.

Symptoms

- Sweating.
- Sensation of burning.

- Body warmth.
- Fainting.

4.6 Kaphavritta Samana

Samana gets abnormally encompassed by Kapha.

Symptoms

- Difficulty in passing urine and stool- mixed with blood.
- Feeling of heaviness in lower part of the body.
- Feeling of cold.

4.7 Pittavritta Vyana

Vyana gets abnormally encompassed by Pitta.

Symptoms

- Sensation of burning.
- Abnormal movements of the body parts.
- Exhaustion.

4.8 Kaphavritta Vyana

Vyana gets abnormally encompassed by Pitta.

Symptoms

- Stiffness of the body like a wooden log.
- Pain and Swelling

5. Complications : Upadrava

Dilapidation in diagnosis and treatment of Aavritta Vata can lead to very serious symptoms and hence shall not be neglected.

हृद्रोगो विद्रव्यिः स्तोहा गुल्मऽतीसार एव च।

भवन्त्युपद्रवास्तेषामावृतानामुपेक्षणात्॥

तस्मादावरणं वैद्यः पवनस्योपलक्षयेत्। C.S.Ch. 28/236.

- Heart disease.
- Abcess formation.
- Spleen enlargement.
- Abdominal tumors.
- Loose motions.

1. Definition : Paribhasha

वेदो ऽस्थिपर्वणां सन्धि शूलं मांस बलक्षयः ।
अस्वप्नः संतता रुक् मज्जास्थिकुपितेऽनिले ॥

C.S.Ch. 28/33.

The disease in which aagaravate Vata dosha causes pricking than various types of pain at

bones, small joints and big joints is called as Asthigatavata.

2. Clinical features: Roopa

- Pricking etc. Various types of pain.
- Emaciation and loss of body strength.
- Insomnia.
- Contineous unbareable pain.

CHAPTER 95

ASTHYAVRITTA VATA

Definition : Paribhasha

सर्शमस्नाऽऽवृत्ते तूर्णं पीडनं चाभिनन्दति ।
संमज्ज्यते सीदति च सूचीभिरिव तुषते ।

C.S.Ch. 28/66.

The disease in which aggravated Vata dosha causes abnormal warmth in the body, cutting or pricking type of pain and weakness and relief of pain is felt after hard massage, is called as Asthyavritta vata.

CHAPTER 96

PURISHAVRITTA VATA

1. Definition : Paribhasha

वर्चसोऽतिविबन्धोऽधः स्वे स्थाने परिक्रान्ति ।
वज्रत्याशु जतं स्नेहो भुक्ते चानस्यते नरः ॥
चिरात् पिंडीतमन्नेन दुःखं शुष्कं शकृत् सुजेत् ।
श्रीणीवंक्षमपृष्टेषु रुद्विलोमश्च मारुतः ॥
अस्वस्थं हृदयं चैव वर्चसा त्वावृत्ते ऽनिले ।

C.S.Ch. 28/70-71.

The disease in which faecal material – Purisha gets abnormally wrapped by aggravated Vata dosha to create various symptoms is called as Purishavritta vata

2. Clinical features : Roopa

- Constipation.
- Abdominal distension after meals.
- No relief after intake of unctuous contents (sneha).
- Passing of small amount of dried faecal material after prolonged time of eating, due to heaviness created by ingestion.
- Pain at pelvis, buttock and lumbar region.
- Restlessness (in heart).

1. Definition : Paribhasha

The disease in which aggravated Vata dosha creates a small, hard, slightly movable or immobile, oval and elongated growth below the umbilicus is called as Vataashthila. This condition occurs due to aggravation of Vata and Kapha dosha. Occurrence of Sannipatika stage by involvement of Pitta dosha makes this disease incurable. It is a chronic natured disease.

1. Retention of flatus, urine and stools.
2. Pain in abdomen

When this type of growth occurs above the umbilicus and slightly oblique towards stomach is called as Pratyashthila.

2. Clinical features : Roopa

1. Severe retention of flatus, urine and stools.
2. Severe pain in abdomen.

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CHAPTER 98

PAKVASHAYAGATA VATA**1. Definition : Paribhasha**

पक्वशयस्थोऽन्त्रकुञ्जं शूलादोषो करोति च।

कृच्छ्रमूर्त्तपूरीषत्वमानाहं त्रिकवेदनाम्॥ C.S.Ch. 28/28.

The disease in which aggravated Vata dosha causes various symptoms at rectum-Pakvashaya is called as Pakvashayagatavata.

2. Clinical features : Roopa

1. Intestinal rumbling.
2. Pain in abdomen.
3. Abdominal distension.
4. Strenuous passing of urine and faeces.
5. Abdominal distension.
6. Pain at sacrum.

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1. Definition : Paribhasha

The disease in which aggravated Vata dosha takes seat at Koshtha (Abdomen) to cause various symptoms is called as Koshthashrita vata.

2. Bradhna- enlargement of scrotum.
3. Heart disease.
4. Abdominal tumors.
5. Haemorrhoides.
6. Pain at flanks.

2. Clinical features: Roopa

1. Obstruction in passing of urine and stool.

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CHAPTER 100

SARVANGASHRITA VATA**1. Definition : Paribhasha**

The disease in which aggravated Vata dosha occupies the whole body is called as Sarvangashrita Vata.

2. Clinical features : Roopa

1. Throbbing or pulsating type of sensation.
2. Cutting type of pain.
3. Severe pain at joints (as if joints are bursting out).

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Chapter 101 GUDAGATA VATA

1. Definition : Paribhasha

अतो विष्णुवतारानां शूलान्मानश्मशर्कसः ।
जङ्घोर्निकशक्वुष्ठोत्तरोत्तरो (सौ) गुदस्थिते ॥ C.S.Ch. 28/26.
The disease in which aggravated Vata dosha takes seat at anus and creates various symptoms is called as Gudagata vata.

2. Clinical features : Roopa

1. Obstruction in passing of urine and stool

2. Pain in abdomen
3. Abdominal distension.
4. Formation of Urinary calculus or crystal
5. Pain at groin, thighs, sacrum, legs and back.
6. Dystrophy/Swelling of body parts mentioned in point no.5.

CHAPTER 102

AMASHAYAGATA VATA

1. Definition : Paribhasha

The disease in which aggravated Vata dosha takes seat at stomach-Amashaya- and creates various symptoms is called as Amashayagata vata.

2. Clinical features : Roopa

1. Pain at flanks.
2. Pain in abdomen, heart and umbilicus.

3. Thirst.
4. Excessive belching.
5. Pricking type of sensation of abdomen.
6. Cough.
7. Dryness of mouth and throat.
8. Dyspnoea.

CHAPTER 103

PAKVASHAYASTHA VATA

1. Definition : Paribhasha

The disease in which aggravated Vata dosha takes seat at large intestines- rectum-

Pakvashaya and creates various symptoms is called as Pakvashayastha vata.

2. Clinical features : Roopa

Similar to Gudagata Vata.

Chapter 104 TWAKGATA VATA

1. Definition : Paribhasha

The disease in which aggravated Vata dosha takes seat at skin- Twak- and creates various symptoms is called as Twakgata vata.

2. Clinical features : Roopa

1. Dryness of skin.

2. Cracked skin.
3. Loss of sensation- numbness.
4. Emaciation of body.
5. Blackish discoloration of the skin.
6. Pricking type of pain.
7. Stretching type of sensation.
8. Redness and Pain in the (small) joints.

CHAPTER 105

RAKTAGATA VATA

1. Definition : Paribhasha

रजस्तीव्रा : ससन्तापा वैर्वर्ण्य कृशताऽरुचिः ।

गात्रे चारुषि भुक्तस्य स्तम्भचासृगतेऽनिले ॥

C.S.Ch. 28/31.

The disease in which aggravated Vata dosha takes seat at blood- Rakta- and creates various symptoms is called as Raktagata vata.

2. Clinical features: Roopa

1. Severe pain.
2. Sensation of severe warmth.
3. Discoloration of skin.
4. Emaciation of body.
5. Loss of taste.
6. Formation of boils and ulcers on the skin.
7. Stiffness of body after intake of meals.

1. Definition : Paribhasha

सुर्वङ्गुवदेऽस्यै दण्डमुदिहत्तं यथा।
सहृक् क्षणितमत्वयं मांस-मेदोगतेऽनिते ॥ C.S.Ch. 28/32.

The disease in which aggravated Vata dosha takes seat at muscles and fat (Mamsa- Meda) and creates various symptoms is called as Mamasa- Medogata vata. Excessive tiredness (due to physical exertion) is explained as special predisposing factor of the disease. Due

to close proximity of Mamsa and Meda dhatu symptoms are explained in combined manner similarly as in Asthi- Majjagata vata.

2. Clinical features : Roopa

1. Severe tearing type of pain at bones and (small and big) joints.
2. Wasting of muscles and body strength.
3. Insomnia.
4. Severe continuous pain.

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CHAPTER 107

MAJJA-ASTHIGATA VATA

1. Definition : Paribhasha

भेदो ऽस्थि पर्वणां सन्धिशूलं मांस बलक्षयः।
अस्वप्नः सन्तता रुक् च मज्जास्थिकुपितेऽनिते ॥

C.S.Ch. 28/33.

The disease in which aggravated Vata dosha takes seat at bones and bone marrow- Asthi and Majja- - and creates various symptoms is called as Asthi Majjagata vata.

2. Clinical features : Roopa

1. Splitting type of pain in bones and small joints of hands and feet.
2. Severe pain at big joints.
3. Muscle wasting.
4. Depletion in body strength.
5. Insomnia.
6. Persistent body pain.

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1. Definition : Paribhasha

क्षिप्रं मुञ्चति वघ्नाति शुक्रं गर्भमयापि वा।
विकृतिं जनयेच्चापि शुक्रस्यः कुपितोऽनिलः ॥

C.S.Ch. 28/34.

The disease in which aggravated Vata dosha

takes seat at semen - Shukra - and creates various symptoms is called as Shukragata vata.

2. Clinical features : Roopa

1. Premature or delayed expulsion of semen.
2. Foetal abnormalities.

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CHAPTER 109

SIRAGATA VATA

1. Definition : Paribhasha

कुर्यात् सिरागतः शूलं सिराकुञ्चन पूरणम्। S. S. Ni. 1/26

The disease in which aggravated Vata dosha takes seat at vessels - Sira - and creates various symptoms is called as Siragata vata.

2. Clinical features : Roopa

1. Pain in the body.
2. Constriction of vessels.
3. Abnormal filling up and bulging of veins.

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CHAPTER 110

SNAYUGATA VATA

1. Definition : Paribhasha

बाह्याभ्यन्तरमायामं खल्लि कुब्जत्वमेव च।
सर्वाङ्गैकाङ्गोपाश्व कुर्यात् स्नायुगतोऽनिलः ॥

C.S.Ch. 28/35.

The disease in which aggravated Vata dosha takes seat at muscles and ligaments- Snayu- and creates various symptoms is called as Snayugata vata.

2. Clinical features : Roopa

1. Concave or convex posture—opisthoronos posture .
2. Stiffness at hand and feet- Khalli.
3. Kyphosis- Kubja.
4. Diseases afflicting the whole body or to a specific part.

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Chapter 111 TRIKSHOOLA

1. Definition : Paribhasha

क्लिगण्डोः शूटवंशाम्बोर्यः मन्थितन् त्रिकं शूलम् ॥
तत्र यतेन वा पीडा त्रिकशूलं तदुच्यते ॥

M.Ni.- Vatayadhi -chapter-22/21.

Trik sandhi- sacrum- is the joint where bones of buttock and spine combine with each

other. The disease in which aggravated Vata dosha takes seat at Trik sandhi – sacrum- to create pain is called as Triks shoola.

2. Clinical features : Roopa

1. Pain at sacrum.

CHAPTER 112

URDHVAVATA

Definition : Paribhasha

अथः प्रतिहतो वायुः श्लेष्मणा मारुतेन वा।
करोत्युदावाहृत्यूर्ध्ववातः स उच्यते ॥

M.Ni.- Vatayadhi- Chapter-22/75.

The disease in which abnormal downward progression of Vata along with Kapha produces symptoms which are called as Urdhvavata. Excessive belching is the main symptom.

Chapter 113 UDAVARTA

1. Definition : Paribhasha

Due to suppression of natural urges, natural down word route of Vata dosha becomes abnormally up words. Many symptoms are produced as per site & onset of affection. This reversal of direction of Vata dosha and related appearance of symptoms is called as Udavarta.

2. Predisposing factors : Nidana

Suppression of all natural urges is the fundamental cause for Udavarta.

1. Suppression of Passing flatus.
2. Suppression of Passing faeces.
3. Suppression of Passing urine.
4. Suppression of urge to yawn.
5. Suppression of urge to cry (tears).
6. Suppression of urge to sneeze.
7. Suppression of urge to belch .
8. Suppression of urge to vomit.
9. Suppression of urge to discharge semen.
10. Suppression of urge to eat (hunger).
11. Suppression of urge to drink water (thirst).
12. Suppression of urge to breath (respiration).
13. Suppression of urge to sleep.

3. Types : Prakara

VATANIGRAHAJA UDAVARTA

अथो वातस्यरोधेन गुल्मोदावर्तकृत्कलमाः ।
वातमूत्रशकृत्संगदृष्टयन्निवधहृद्दादः ॥ A.H.Su. 4/2.
सङ्गोविष्णुत्रवातानाम्घ्रानं वेदना क्लमः ।
जठरे वातजाश्र्वान्यो रोगाः स्युर्वीतनिग्रहात् ॥ C.S. Su. 7/12

Definition : Paribhasha

The disease in which Vata dosha aggravates

due to forcible stoppage of passing the flatus causing various symptoms is called as Vatnigrahaaja Udavarta.

Clinical features : Roopa

1. Formation of abdominal tumors.
2. Abnormal upward progression of Vata.
3. Body pain.
4. Lethargy.
5. Retention of flatus, urine and stool.
6. Destruction of digestive fire.
7. Heart disease .
8. Abdominal distention and pain.
9. Manifestation of other Vata dosha dominant diseases.

PURISHA NIGRAHAJA UDAVARTA

आटोमशूलौ परिकर्तिका च सङ्गः पुरिषस्य तथौर्ध्ववातः ।
पुरिषमास्यादथवा निमित्ति पुरिषवेगेऽभिहते नरस्य ॥

S.S. Utr 33/ 8.

पक्वाशयशिरःशूलं वातवर्चोऽप्रवर्तनम् ।
शिण्डिकोद्वेष्टनाम्भानं पुरिषे स्याद्विघारिणि ॥ C.S. Su.7/8.
शकृतः पिंडिकोद्वेष्टप्रतिश्रयायशिरोरुजः ।
उर्ध्ववासुः परीकतो हृदयस्योपरोधनम् ॥
मुखेन विटप्रवृत्तिश्च पूर्वोक्ताश्र्वामयाः स्तः । A.H.Su.4/4.

Clinical features : Roopa

1. Abdominal distension.
2. Pain in abdomen.
3. Anal fissures.
4. Constipation.
5. Abnormal upward progression of Vata.
6. Pain in lower abdomen, Head ache.
7. Pain in calf muscles.
8. Abdominal distension.
9. Common cold.
10. Stiffness at heart.
11. Expulsion of faecal material from mouth.

MUTRANIGRAHAJA UDAVARTA

वसि मेहनयोः शुलं मूत्रकृच्छ्रं शिरोरुजा।
विनामो वंशपानाहः स्याल्लिंगं मूत्रनिग्रहे ॥ C.S. Su.7/6.

Definition : Paribhasha

The disease in which Vata dosha aggravates due to suppression of urge to urinate and thus causes various symptoms is called as Mutranigrahaja Udavarta.

Clinical features : Roopa

1. Pain at urinary bladder and urethra.
2. Difficulty in passing urine.
3. Headache.
4. Abnormal bending of the body.
5. Obstruction at groin.

JRUMBHA NIGRAHAJA UDAVARTA

मन्यागलस्तम्भ- शिरोविकार जृम्भोपघातात् पवनालकाः
सुः।

तथाऽग्नि- नासा-वदनामयाश्च भवन्ति तीव्राः सह कर्णगैः।
S.S. Utr 33/11.

जृम्भायाः श्ववद्रोगाः सर्वश्चानिलजिद्विधिः ॥

A.H.Su.5/16.

Definition : Paribhasha

The disease in which Vata dosha aggravates due to suppression of urge to yawn and thus causes various symptoms is called as Jrumbhanigrahaja Udavarta.

Clinical features : Roopa

1. Stiffness at neck and throat.
2. Headache.
3. Manifestation of Vata dosha dominant diseases of eyes, nose, mouth and ears.

ASHRU NIGRAHAJA UDAVARTA

आनन्दर्जं वाऽप्यथ शोकर्जं वा नेत्रोदकं प्रासममुञ्चतो हि।
शिरोगुरुत्वं नयनामयाश्च भवन्ति तीव्राः सह पीनसैन ॥

S.S. Utr 33/12.

Definition : Paribhasha

The disease in which Vata dosha aggravates due to suppression of urge to cry and thus forcible obstruction of tears formed due to excessive elation or sorrow, causing various symptoms is called as Ashru nigrahaja Udavarta.

Clinical features : Roopa

1. Heaviness of head.
2. Ophthalmic diseases- eye disorders.
3. Sinusitis.

KSHAVATHU NIGRAHAJA UDAVARTA

मन्यास्तम्भः शिखूलमर्दितार्धावपेदकौ।

इन्द्रियाणां च दौर्बल्यं श्वयोः स्याद्विधारणात् ॥

C.S. Su.7/16.

Definition : Paribhasha

The disease in which Vata dosha aggravates due to suppression of urge to sneeze and thus causes various symptoms is called as Kshavathunigrahaja Udavarta.

Clinical features : Roopa

1. Stiffness of neck.
2. Migraine – half sided headache.
3. Debility of vital powers.

UDGARA NIGRAHAJA UDAVARTA

उद्रास्थारुचिः कम्पो विवन्धो हृदयोरसोः।

आध्यानाकसहिआश्च ॥

A.H.Su.4/7-8.

उद्रास्वेऽपिहते भवन्ति घोरा विकाराः पवनप्रमृताः।

S.S. Utr 33/14.

Definition : Paribhasha

The disease in which Vata dosha aggravates due to suppression of urge to belch and thus causes various symptoms is called as Udgarnigrahaja Udavarta.

Clinical features : Roopa

1. Feeling of fullness and pain at throat and mouth.

2. Pricking type of pain at throat.
3. Upward progression of Vata with complete blockage of throat and formation of whining type of sound.

CHHARDI NIGRAHAJA UDAVARTA

कण्डूकोठारुचिश्चोयपाण्डवामयञ्जराः।

कुष्ठवीसर्पहृल्लासशछदिनिग्रहजा गदाः ॥ C.S. Su.7/14.

विसर्पकोठकुष्ठारुचिश्चोयपाण्डवामयञ्जराः।

सकासश्चासहल्लासव्यङ्ग्यययवो वनेः। A.H.Su.5/18.

Definition : Paribhasha

The disease in which Vata dosha aggravates due to suppression of urge to vomit and thus causes various symptoms is called as Chhardi nigrahaja Udavarta.

Clinical features : Roopa

1. Skin itching.
2. Skin rashes.
3. Insipid mouth.
4. Formation of warts.
5. Edema.
6. Paleness of skin.
7. Fever.
8. Kushtha-skin lesions.
9. Visarpa- erysipelas.

SHUKRA NIGRAHAJA UDAVARTA

मूत्राशये वै गृध्र्युक्तयोश्च शोफोरुजा मूत्रविनिग्रहञ्च।

शुक्राशरी तत्स्त्रवर्ण भवेच्च ते ते विकारा विहतेन शुक्रे ॥

S.S. Utr 33/15.

मेद्रे वृषणयोः शूलमङ्गभर्षो हृदि व्यथा।

भवेत्प्रतिहते शुक्रे विरुद्धं मूत्रमेव च ॥ C.S. Su.7/10.

Definition : Paribhasha

The disease in which Vata dosha aggravates due to suppression of urge to ejaculate semen and thus causes various symptoms is called as Shukra nigrahaja Udavarta.

Clinical features : Roopa

1. Inflammation and pain at urinary bladder- cystitis and at rectum.
2. Inflammation and pain at scrotum.
3. Retention of urine.
4. Formation of seminal calculaie .
5. Abnormality in seminal ejaculation.

KSHUDHA NIGRAHAJA UDAVARTA

तन्द्राङ्गनर्दारुचिभिन्नाः सुः क्षुभोऽपिवातात् कृशता च
दृष्टः ॥ S.S. Utr 53/15.

Definition : Paribhasha

The disease in which Vata dosha aggravates due to suppression of urge to eat (suppression of hunger) and thus causes various symptoms is called as Kshudha nigrahaja Udavarta.

Clinical features : Roopa

1. Lethargy.
2. Body ache.
3. Anorexia.
4. Exhaustion.
5. Weakness.
6. Blindness.
7. Dryness of throat and mouth.
8. Difficulty in hearing.
9. Pain in chest (heart)

TRISHNA NIGRAHAJA UDAVARTA**Definition : Paribhasha**

The disease in which Vata dosha aggravates due to suppression of urge to drink water and produces various symptoms is called as Trishna nirodhaja udavarta.

कण्ठास्यशोषः श्रङ्गणारोघस्तृष्णाविघाताद्दृढये व्यथा च ॥
S.S. Utr 33/12.

Clinical features : Roopa

1. Dryness of throat and mouth.
2. Incapability to hear.
3. Discomfort in the heart.

NIDRA NIGRAHAJA UDAVARTA

नान्दस्य निःशासविनिग्रहेण हृद्रोग मोदावयवाऽपि युज्यते ।
जुम्भाङ्गभ्रौऽपि शिरोतिवाङ्ग्यं निद्रानिघातादयवाऽपि
तन्ना ॥ S.S. Uta 33/16.

Definition : Paribhasha

The disease in which Vata dosha aggravates due to suppression of urge to sleep and thus causes various symptoms is called as Nidranigrahaja Udavarta.

Clinical features : Roopa

1. Heart diseases.
2. Delirium.
3. Abdominal tumors- these symptoms are caused due to suppression of urge to respire especially after exertion.
4. Yawning.
5. Body ache.
6. Diseases of eyes.
7. Heaviness of head.
8. Lethargy. Lassitude.

**VATA NIGRAHAJA UDAVARTA-
ANNAJA UDAVARTA**

वासुः कोष्ठानुषो रुधौः कषाय कटुतिक्तकैः ।
भोजनैः कुर्मितः सद्य उदावर्तं करोति हि ।
वात पूत्र पुष्टिसायकफ मेघोवहानि वै ।
सोतासुनामर्गंति पुष्टिं चातिवर्तयेत् ।
ततो हृद्भस्ति शूलानां हृत्स्वाभारतिपिटीतः ।
वात पूत्र पुष्टिसांघे कुरुश्रेण लगते मरः ॥
यास्य कास्य प्रतिश्याय वाह भोह तृषा ज्वरान् ।
नपि त्रिक्का शिरोरेग मनः श्वणनिश्रयान् ।
बह्वर्थांश लगते विकारान् जातकोपजान् ॥

S.S. Uta 33/37-40.

Definition : Paribhasha

The disease in which Vata dosha gets suddenly aggravated at koshtha- Gastrointestinal tract-

due to acceptance of certain predisposing factors such as intake of astringent, dry, pungent, bitter type of food causing various symptoms is called as Vatanigrahaja Udavarta. Normal route or direction of Vata progression of dosha gets abnormally reverted.

Clinical features : Roopa

1. Reverted or obstructed normal movement (direction) of passage of flatus, urine, blood, body fluids (Kapha), and fat (meda).
2. Dry faeces.
3. Pain at heart and urinary bladder.
4. Nausea.
5. Loose motions.
6. Difficulty in passing flatus, urine and stool.
7. Dyspnoea (Asthama).
8. Cough.
9. Common cold.
10. Sensation of burning.
11. Delirium.
12. Thirst.
13. Fever.
14. Vomiting
15. Hiccups.
16. Diseases of head.
17. State of confusion.
18. Hearing difficulty.

**Directions Regarding Acquiring Knowledge
about Unknown Disorders of Vata Dosha**

स्थानसामान्यरूपैश्च लिङ्गैः शेषान् विनिर्दिशेत् ।
रग्नेभ्योऽपु संसर्गं निश्चायेत्सलक्षणेत् ॥

The diseases which are not yet discussed as type of Vatavyadhi are to be diagnosed considering their site of onset, name and their association with Pitta and Kapha dosha.

**INTRODUCTION TO
PARKINSON'S DISEASE (PD)****1. Definition**

Parkinson's disease (PD) is a long term disorder of the central nervous system that mainly affects the motor system. The symptoms generally come on slowly over time. Early in the disease, the most obvious are shaking, rigidity, slowness of movement, and difficulty with walking. Thinking and behavioural problems may also occur. Dementia becomes common in the advanced stages of the disease. Depression and anxiety are also common occurring in more than a third of people with PD. Other symptoms include sensory, sleep, and emotional problems. The main motor symptoms are collectively called "parkinsonism", or a "parkinsonian syndrome".

2. Cause

The cause of Parkinson's disease is generally unknown. Some theories are proposed as;

1. Effect of genetic and environmental factors.
2. Hereditary factor: family member with history of Parkinsonism are more likely to get the disease.
3. Side effect: an increased risk in people exposed to certain pesticides.
4. History of trauma: history of prior head injuries
5. Risk due to tobacco usage and drinking tea or coffee is insignificant.

3. Pathogenesis

The motor symptoms of the disease result from the death of cells in the substantia nigra, a region of the midbrain. This results in

decreased levels of dopamine in these areas. The reason for this cell death is poorly understood but involves the build up of proteins into Lewy bodies in the neurons. Diagnosis of typical cases is mainly based on symptoms, with tests such as neuro imaging being used to rule out other diseases.

4. Classification

The term parkinsonism is used for a motor syndrome whose main symptoms are tremor at rest, stiffness, slowing of movement and postural instability. Parkinsonian syndromes can be divided into four subtypes, according to their origin:

1. Primary Or Idiopathic: Parkinson's disease is the most common form of parkinsonism and is usually defined as "primary" parkinsonism, meaning parkinsonism with no external identifiable cause.
2. Secondary Or Acquired
3. Hereditary parkinsonism, and
4. Parkinson plus syndromes or multiple system degeneration: Parkinson plus diseases are primary parkinsonisms which present additional features. They include multiple system atrophy, progressive supranuclear palsy, corticobasal degeneration, and dementia with Lewy bodies.

5. Signs and symptoms

Parkinson's disease affects movement, producing motor symptoms. Four motor symptoms are considered as cardinal features of Parkinson's disease.

1. Tremor.

2. Rigidity.
3. Slowness of movement.
4. Postural instability.

Non-motor symptoms, which include autonomic dysfunction, neuropsychiatric problems such as:

1. Mood swings : The frequent changes in the mood like depression, apathy and anxiety.
2. Cognition problems.
3. Behavioural change: Thought alterations.
4. Sensory and sleep difficulties. Sleep difficulty symptoms can manifest as daytime drowsiness, disturbances in REM sleep, or insomnia
5. Body tremor : Most common symptom. It is usually a rest tremor and maximal when the limb is at rest and disappearing with voluntary movement and sleep.
6. Hypokinesia : Slowness of movement.
7. Bradykinesia is commonly a very disabling symptom in the early stages of the disease.
8. Muscular rigidity: Rigidity is stiffness and resistance to limb movement caused by increased muscle tone, an excessive and continuous contraction of muscles.
9. Postural instability : It is a typical in the late stages of the disease.
10. Neuropsychiatric disturbances: Which

includes disorders of speech, cognition, mood, behaviour, and thought.

6. Diagnosis

1. Diagnosis of Parkinson's disease is done from the medical history and a neurological examination.
2. Computed tomography (CT) and conventional magnetic resonance imaging (MRI)
3. There is no laboratory test that will clearly identify the disease

7. Prognosis

There is no cure for Parkinson's disease. Initial treatments is typically with the anti parkinson medications.

8. Preventive majors

Exercise in middle age reduces the risk of Parkinson's disease later in life. Caffeine also appears protective with a greater decrease in risk occurring with a larger intake of caffeinated beverages such as coffee. Antioxidants, such as vitamins C and D, have been proposed to protect against the disease but results of studies have been contradictory and no positive effect has been proven. Also, there have been preliminary indications of a possible protective role of estrogens and anti-inflammatory drugs.

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1. Definition

The channelled system which carries nourishment to Shukra is called as Shukravaha srotasa. Organs related to reproduction are included under Shukravaha srotasa. Shukra is seventh and the last body element- dahtu

एवं मासेन रसः शुक्रो भवति।

S.S.Su. 14/14

Shukra dhatu forms in one months' time after intake and processing of diet- Aahara Rasa.

2. Nature of Shukra Dhatu

1. Unctuous.
2. Heavy.
3. Viscous.
4. Sweet
5. Resembles to colour of ghee, oil or honey.
6. Cold by nature.
7. Sharp smelling.

3. Quantity

Shukra dhatu is said to be Ardha anjalee- Half measure of hands full.

Shukravaha srotasa is assumed to occlude the whole body because Shukra dhatu is assumed to be present at each molecule of the body. Sushruta has compared appearance of Shukra everywhere in body by stating two examples:

1. As presence of ghee present in milk automatically envelops the whole quantity of milk, meaning one cannot assume separate presence of ghee from milk, it is there adhered to every molecule of milk.
2. As juice of sugar cane (Sugar) occupies the whole stick of sugar cane, meaning one cannot separate sweetness or sugar from sugar cane juice.

Likewise Shukra dhatu binds each and every cell of the body and is present everywhere.

4. Synonyms for Shukravaha srotasa

Viryavahi srotasa, Retovahi srotasa

5. Origin of Shukravaha srotasa: Moolasthana

शुक्रवदानां श्रोतसां वृषणौमूलं शेफश्च। C.S.Vi. 5/8.

शुक्रवहे द्वे तयोर्मूलं स्तनौ वृषणौ च। S.S.Sb. 9/12.

शुक्रवाहिनानां स्तनौ मुक्तौ मज्जा च।

1. Shukravaha srotasa originates from Testicles -Vrushana(u) and Penis- Shefa.
2. Shukravaha srotasa are two in number and it originates from breasts- Stana(u) and testicles Vrushana(u).
3. Shukravaha srotasa originates from breasts- Stana(u), testicles- Vrushana(u) and bone marrow- Maja.

6. Causes of vitiation of Shukravaha srotasa

अकालवोनिगमनाग्निग्रहादतिमैथुनात्।

शुक्रवाहिनी दुष्यन्ति शत्रुक्षारान्निमित्तवा।। C.S.Vi. 5/19

1. Having sexual intercourse when not properly aroused.
2. Performing sex with other than humans- with animals.
3. Excessive indulgence in sex.
4. Physical injury due to surgery, application of alkalis or due to cauterization.

7. Symptoms of vitiation of Shukravaha srotasa

फेनिलं तनु रुद्धं च विवर्णं पूति पिच्छिलम्।

अन्यघातूपसंसृष्टमवसादि तथाऽष्टम्। C.S.Su. 24/00.

Symptoms of Shukravaha srotasa vitiation can be explained in terms of eighth types of abnormalities of semen - Ashta Shukra dosha.

Eighth types of abnormalities of semen

1. Excessively frothy semen.
2. Excessively thin semen.
3. Non unctuous semen.
4. Semen with other colour shades-discoloured semen.
5. Semen foul smell.

6. Excessively greasy semen.
7. Semen mixed with other body elements.
8. Semen sinking in the water.

8. Symptoms of injured srotasa

तत्र विद्धस्य क्लीबता चिरत् प्रसैको स्वत शुक्रता च।

S.S.Sh.9/12

1. Injury to Shukravaha srotasa causes;
2. Impotence.
3. Delayed ejaculation of Shukra.
4. Ejaculation of Shukra mixed with blood.

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Chapter 116 KLAIBYA

Disease at a glance

- Nature of Disease: -Chronic.
- Major Involving Dosha- Vata, Pitta, Kapha
- Major Involving Dushya- Shukra
- Site of Manifestation: Genitals
- Srotas: Shukravaha Srotas
- Types - Five
- Cardinal Feature: Impotence - Inability to perform sexual intercourse.

Prognosis

- Curable When disease is in its initial condition.

Diseases for differential diagnosis

1. Upadamsha.
2. Shooka dosha.
3. Firanga.
4. Vyavaya shosha.

Reference reading

- Sushruta Samhita Sharira Sthana. Chapter 2.
- Bhavprakash- Vajeeekarana-Chapter 2.
- Charak Samhita Chikitsasthan. Chapter 30.
- Kashyapa Samhita.
- Sanskrit- English Dictionary -Apte Shabdakosha

1. Introduction

Impotence and related problems in a person's life are very critical to handle. It is because the patient tries to keep it hidden due to social constraints and also due to shyness to discuss. Ayurveda explains condition of impotence as Klabiya, with various factors related to it. Further detailed pathogenesis is described as Nidana Panchaka of Klibiya in this chapter.

2. Definition : Paribhasha

रेतदोषोद्धवं क्लैब्यं यस्माच्छुद्धयेव सिध्यति।

C.S.Ch. 30/153.

ततो वक्ष्यामि ते सम्निवेश। ययातयम्।

बीजध्वजोपघाताभ्यां जस्या शुक्र-संक्षयात्। क्लैब्यं संपद्यते।

C.S.Ch. 30/ 154.

क्लीबः स्यात्सुताशक्तस्तद्भावः क्लैब्यमुच्यते। Kashyapa Samhita. The disease in which person becomes impotent and unable to enjoy normal sex is called as Klabiya.

3. Definition : Paribhasha

The disease in which capacity to perform sexual intercourse decreases with decreased libido is called as Klabiya. Disease can occur in varied severity starting from premature ejaculation to total loss of libido and complete incapability to perform sex.

4. Synonyms : Paryaya nama

Napunsakatva, Shandhya, Kleebara.

General predisposing factors:

1. Due to mental stress.
2. Due to aggravation of dosha.
3. Due to depletion in Shukra dhatu.

5. Clinical features : Roopa

सङ्कल्पप्रवणो नित्यं प्रियां वश्यामपि लियम्।

न याति लिङ्गोथित्यात् कदाचिद्यति वा यदि।।

श्र्वासातः स्निग्नात्रश्च मोघसङ्कल्पचेष्टितः।

मानसिलक्ष्णं नीजीवः स्यादेतन् क्लैबलक्षणम् ॥
सामान्यलक्षणं स्थलेदिलेण प्रवक्षते ॥

C.S.Ch. 30/155-157

1. Inability to perform sexual act due to flaccidity of penis, in spite of favourable conditions for performing sex such as availability of right partner, desire for sex etc.
2. On attempt to perform sex- onset of symptoms like fatigue, dyspnoea, sweating, unsuccessful efforts to insertion of penis, mental anguish and depression.
3. Penis remains flaccid with loss of seminal ejaculation.

6. Types : Prakara

बीजव्युत्पत्त्याभावात् जया शुक्रसंज्ञयात् ॥
क्लैबं संवक्षते तस्य शूद्रु सामान्यलक्षणम् ॥
सङ्कल्पवयो निम्बं विपां वरचामपि स्त्रियम् ॥
न याति लिङ्गसंयुक्त्या कदाचिदाति वा यदि ॥
श्वानानिः स्त्रियश्चात्र मोचसङ्कल्पयैतितः ॥
मानसिलक्ष्णं नीजीवः स्यादेतन् क्लैबलक्षणम् ॥
सामान्यलक्षणं स्थलेदिलेण प्रवक्षते ॥

C.S. Ch. 30/154-157.

6.1 Beejopaghata

बीजव्युत्पत्त्याभावात् जया शुक्रसंज्ञयात् ॥
क्लैबं संवक्षते तस्य शूद्रु सामान्यलक्षणम् ॥
सङ्कल्पवयो निम्बं विपां वरचामपि स्त्रियम् ॥
न याति लिङ्गसंयुक्त्या कदाचिदाति वा यदि ॥
श्वानानिः स्त्रियश्चात्र मोचसङ्कल्पयैतितः ॥
मानसिलक्ष्णं नीजीवः स्यादेतन् क्लैबलक्षणम् ॥
सामान्यलक्षणं स्थलेदिलेण प्रवक्षते ॥

C.S. Ch. 30/154-161.

This type of Klabhya is caused due to diminution of Shukra- semen.

Predisposing factors: Nidana:

1. Intake of cold, dry type of food.
2. Intake of inadequate quantity food.

3. Intake of unwholesome food.
4. Intake of incompatible food.
5. Over eating : During the state of indigestion.
6. Affliction of sorrow, mental worries or fright.
7. Excessive indulgence in sex.
8. As an effect of black magic.
9. Avisrambha: Due to suspicious type of nature.
10. Diminution of Rasa, Rakta etc. body elements.
11. Aggravation of Vata etc. dosha.
12. Starvation (fasting).
13. Fatigue.
14. Abhorrence towards women (opposite sex).
15. Due to ill effects of five body cleansing procedures (panchakarma)

Clinical features : Roopa

1. Paleness of skin.
2. Debility with diminished vitality.
3. Loss of excitement on meeting female partners.
4. Affliction of heart disease, anaemia, asthma, jaundice, exhaustion, vomiting, loose motions, colic pain, cough and fever.

6.2 Dhwajabhanga

Second type of Klabhya.

Predisposing factors : Nidana

अत्यन्तदृग्ग्राह्यविद्वेषात् सामान्यभोजनात् ॥
अत्यन्तदृग्ग्राह्यविद्वेषात् पितृशत्रुद्वेषात् ॥
वधिशत्रुद्वेषात् पितृशत्रुद्वेषात् ॥
कन्यायां चैव मननादयोनिगमनादपि ॥
शैथिल्यं चिगेन्मृदां तथैव च परितुताम् ॥
दुर्गन्धं वृष्ट्यानि च तथैव च परितुताम् ॥
इदृशीं प्रसदां मोहाद्यो गच्छेत् कामहर्षितः ॥
चतुर्भावादिभिर्गमनाच्छेत् कसश्चापिघाततः ॥
अथावनाद्यां भेदस्य शस्त्रव्रतनखकृतात् ॥

काष्ठप्रहारनिगपाद्युक्तानां चातिसेवनात् ॥
रेतसश्च प्रतीघाताद्यज्जन्मभङ्गः प्रवर्तते ॥

C.S. Ch. 30/162-167.

1. Intake of sour, salty, alkaline, incompatible type of food.
2. Excessive intake of water.
3. Intake of incompatible food.
4. Excessive intake of starchy, hard to digest type of food.
5. Excessive intake of curds, milk, meat of animals residing at marshy lands.
6. Emaciation of body due to affliction of diseases.
7. Cohabitation with very young virgin girls.
8. Performing sexual intercourse at parts other than vagina.
9. Having sexual intercourse with a woman suffering with chronic diseases.
10. Having sexual intercourse with a woman who has averred sex for prolonged time.
11. Having sexual intercourse with a menstruating woman.
12. Having sexual intercourse with a woman with foul smelling vagina.
13. Having sexual intercourse with a woman afflicted with disease and has profuse vaginal discharge.
14. Having sexual intercourse with quadruped animals.
15. Injury to penis.
16. Keeping penis unclean or dirty. Not maintaining the hygiene.
17. External injury to penis by weapons, teeth, nails, teeth bite, compression of penis, excessive usage of 'Shuka' (specially used insects for elongation of penis)
18. Suppression of urge to ejaculate semen during sexual intercourse.

Clinical Features : Roopa

शययुर्वेदना भेद्रे रगद्येवोपलक्षते ॥
सोटाश्च तीव्र जायन्ते लिङ्गपाको भवत्यपि ॥
मांसवृद्धिर्भवेच्छास्य व्रणाः शिमं भवत्यपि ॥
पुलाकोदकसङ्घातः स्रावः श्यावाश्लेषप्रभः ॥
बलयोगुक्ते चापि कटिनश्च परिहः ॥
ज्वरलुणा शूनो मूर्च्छां चर्द्धिश्चास्योपजायते ॥
रक्तं कृष्णं सवेच्छापि नीलमाविललोहितम् ॥
अग्निनेत्र च दग्धस्य तीव्रो दाहः सवेदनः ॥
वस्त्रो युष्णयोर्वाऽपि सौचन्यां यद्दृक्शेषु च ॥
कदाचित्स्थितो वाऽपि पाण्डुः स्रावश्च जायते ॥
शययुर्वेदने मन्दः स्तिमितोऽल्पपरिखवः ॥
चिराच्च पाकं व्रजति शीघ्रं वाऽयं प्रमुच्यते ॥
जायन्ते क्रिमियाश्चपि क्लिधते पूतिमन्धि च ॥
द्वजपद्माकृतं क्लैबमित्येतत् सुमुदाहृतम् ॥
एवं पञ्चविधं केचिद्व्यज्जन्मभङ्गं प्रवक्षते ॥

C.S. Ch. 30/168-176.

1. Edema, pain and redness of penis.
2. Formation of boils and inflammation of penis.
3. Fleshy growth at penis with speedy ulceration with rice water type or black or pink coloured exudation.
4. Ridge formation and hard indurations below glans penis.
5. Fever.
6. Intense thirst.
7. Giddiness and fainting.
8. Vomiting.
9. Discharge of red, black, blue, turbid secretions from urethra.
10. Severe burning sensation as if burnt by fire.
11. Pain at urinary bladder, testicles, perineal sutures and groin.
12. Sometimes Viscous, yellow coloured secretions.
13. Moderate swelling, numbness and scanty discharge.
14. It takes long time to suppurate and gets cured quickly.

15. Appearance of maggots at genitals.
16. Sloughing and foul smelling at genitals.
17. Falling off of glance penis, penis or of the testicles.

Dhwajabhanga is further sub classified as per dominance of dosha as:

1. Vataja Dhwajabhanga.
2. Pittaja Dhwajabhanga.
3. Kaphaja Dhwajabhanga.
4. Raktaja Dhwajabhanga.
5. Sannipatika Dhwajabhanga.

6.3 Jarasambhavaja Klaibya

Third type of Klaibya.

क्लैब्यं जरासंभवं हि प्रवक्ष्याम्य तच्छुभ्रं ।
जन्ममध्यं प्रवक्ष्यामि विचमुच्यते ॥
अतिवयसां शुक्रं प्रायशः क्षीयते नृणाम् ॥
सादीनां संक्षयाश्च तथैवानुष्यसेवनात् ॥
बलनीयैर्न्रियाणां च क्रमेणैव परिक्षयात् ॥
परिक्षयादायुषश्चाप्यनाहाराच्छुभ्रं क्लमात् ॥
जरासंभवं क्लैब्यामित्येतैर्हेतुभिर्नृणाम् ॥
जायते तेन सोऽत्यर्थं क्षीणयातुः सुदुर्बलः ॥
विवर्णां दुर्बलो बदीर्न क्षिप्रं व्याधिमायाश्रुते ॥
एतज्जरासंभवं हि ॥

C.S. Ch. 30/176-180.

Predisposing factors:

1. Diminution of Shukra-Semen in old age : It is a natural phenomena, changes with course of age from infant, youth and geriatric phase.
2. During old age Shukra-semen diminishes as a natural effects.
3. Depletion in basic body elements starting from Rasa dhatu.
4. Improper and inadequate acceptance of aphrodisiac - Vajikarana-therapies.
5. Klaibya symptoms : Impotence increases with symptoms of aging such as; degradation of body strength, vitality and life, loss of appetite, easy fatigability etc.
6. Person becomes old, weak, with reduced glory and susceptible to various ailments.

6.4 Shukrakshayaja Klaibya

Fourth type of Klaibya.

चतुर्थं क्षयजं शुभ्रं ।
अतीवचिन्तनाच्चैव शोकाक्रोधाद्भ्रयात्तया ।
ईषत्कृष्टामदोद्रेगान् सदा विशति यो नरः ॥
कृशो वा सेवते रुक्षमन्नपानं तथौषधम् ॥
दुर्बलप्रकृतिश्चैव निराहारो भवेद्यदि ॥
असात्म्यभोजनाच्चापि हृदये यो व्यवस्थितः ।
रसप्रधानधातुर्हि क्षीयतेषु ततो नृणाम् ॥
रक्तादयश्च क्षीयन्ते दातवस्तस्य देहिनः ।
शुक्रावसानास्तेभ्योऽपि शुक्रं धाम परं मतम् ॥
चेतसो वाऽतिहर्षेण व्यवार्यं सेवतेति यः ।
तस्यासु क्षीयते शुक्रं ततः प्राप्नोति संक्षयम् ॥
घोरं व्याधिमावनाति मरणं वा स गच्छति ।
शुक्रं तस्मादविशेषेण रक्ष्यमारोगमिच्छता ॥
एवं निदानलिङ्गाभ्यामुक्तं क्लैब्यं चतुर्विधम् ॥

C.S. Ch. 30/181-187.

Predisposing factors : Nidana

1. Affliction of worries, sorrow, anger, fear.
2. Continual feeling of jealousy, excitement, ego and anguish.
3. Intake of dry type of food on being already in state of emaciation.
4. Prolonged fasting or intake of unwholesome food on being already in state of emaciation.

Clinical Features : Roopa

1. When a person as described above, in a state of debility, practices sex just due to mental arousal, his Shukra-semen-diminishes further to cause Shukrakshayaja Klaibya. Such type of person if unable to control his desire, gives way to various diseases and ultimately dies.

7. Classification of Klaibya according to Bhavprakasha

तच्च सप्तविधं प्रोक्तं निदानं तस्य कथ्यते
तैस्तैर्भावीरहैतुस्तु रिसोर्मनसि क्षते ।
ध्वजः पतत्यतो नृणां क्लैब्यं समुपजायते ॥

द्वेषस्त्रस्रयोगाच्च क्लैब्यं तन्मानसं सुवृत्तम् ।
कटुकाम्लोष्णत्वर्णरतिमात्रोपसंवितैः ।
पित्ताच्छूकक्षयो दृष्टः क्लैब्यं तस्मात्प्रजायते ॥
अतिव्यवायशीलो यो न च बाजीक्रियारतः ।
ध्वजभग्नपुष्पानोति स शुक्रक्षय हेतुकः ॥
महता मेदुरोगेण चतुर्थो क्लोवता भवेत् ॥
वीर्यवाहि सिराच्छेदान्नेहानुव्रतिर्भवेत् ॥
बलीनः शुभ्यमनसो निरोधाद् ब्रह्मचर्यतः ।
षष्ठं क्लैब्यं स्मृतं तत्तु शुक्रस्तम्भनिमित्तम् ॥
जन्मप्रभृति यत्क्लैब्यं सहजं तद्विदं सत्तमम् ॥

Bhavprakasha- Uttarkhanda-Vajeeekarana chapter-2/8.

7.1 Manasika Klaibya

Flaccidity of penis, stressed mind and inability to perform sex due to affliction of mind by sorrow, fright, worries, anguish, abhorrence etc. or due to performing sex with a woman who is not liked by the self.

7.2 Doshaja Klaibya

Aggravation of dosha (especially of Pitta) due to intake of pungent, sour, hot, salty, harsh, dry type of food causing depletion of Shukra-semen.

7.3 Shukrakshayaja Klaibya

Person involved in excessive sexual indulgence without acceptance of proper rejuvenation and aphrodisiac therapies ultimately suffers from depletion of Shukra-semen and flaccidity of penis.

7.4 Vyadhija Klaibya

Inability to perform sex due to affliction of diseases (at site of penis) like Uapadamsha, Firanga-Veneral diseases, Shukadosha-disease due application of insects for elongation of penis, Vidradhi-abscess formation, Kushtha-Leprosy.

7.5 Aagantuja Klaibya

Flaccidity of penis and inability to perform

sex due to cutting or wounding of various vessels and nerves supplying to penis.

7.6 Shukranirodhaja Klaibya

Impotence caused due to forcible abstinence of sex.

8. Types of Klaibya according to Sushrut Samhita

8.1 Sahaja Klaibya

Sushruta Samhita explains a type formed due to congenital deformities and calls it Sahaja Klaibya. It is further classified as;

8.2 Aasekya

पित्रोत्पल्यबीजत्वादासेक्यः पुरुषो भवेत् ।
स शुक्रं प्राश्य लभते ध्वजोच्छ्रायमसंशयम् ॥ S.S.Sh. 2/41.

This type of Klaibya forms due to congenital defect. Person afflicted with this type performs oral sex with other males and then can perform sex with a female partner. The synonym is Mukhayoni.

8.3 Saugandhika

यः पूतियोनौ जायते स सौगन्धिसंज्ञितः ।
स शुक्रं प्राश्य लभते ध्वजोच्छ्रायमसंशयम् ॥ S.S.Sh. 2/42.

This type of Klaibya forms due to taking birth to a mother having disease like Putiyoni. Person afflicted with this type can perform sex only after smelling penis or vagina.

8.4 Kumbhika

स्वे गुदे ऽब्रह्मचर्याद्यः स्त्रीषु पुंवत् प्रवर्तते ।
कुम्भिकः स तु विज्ञेयः... ॥ S.S.Sh. 2/43.

In this type of Klaibya, a person gets erection at penis and can perform normal sex only after sodomising another male. Sodomy with a female before performing normal with her is also possible in a Kumbhika.

8.5 Eershaka

..इर्षकं शुभ्रं चापसम् ।

दृष्ट्वा क्वचपयस्योर्ध्ववये यः प्रवर्तते।
इत्येकः स तु विद्वेषः ॥ S.S.Sh. 244.

In this type of Klaihya, a person gets penile erection at only after becoming jealous on viewing other people performing sex.

8.6 Shandaka

पण्डके युगु पश्यन्।
मायायामुने मोक्षदहनेन प्रवर्तते।
मनः श्रीचोदितमत्कारो जायते पण्डकोऽजितः ॥ S.S.Sh. 245.

When a person abnormally aroused, deliberately performs sex especially in a woman on top position during her ovulation period (Pitukala) and if she gives birth to a male child, that male behaves like females and is called as Shandaka.

अनौ पुरुषवद्राऽपि प्रवर्ततेनाङ्गना यदि।
नय कन्या यदि भवेत् सा कवेरपर्ययिना ॥ S.S.Sh. 246.

Further with woman on top position, if a female child is born she will behave like a male throughout her life and will be termed as Nari Shanda.

आसेक्यथ सुपुन्या च कुम्भिकदीर्घं कस्यथा। सौमसुख्ययी
ज्ञेया प्रसूतः पण्डकोऽजितः ॥ S.S.Sh. 247.

Aasekya, Sugandhi, Kumbhika and Eerbhaka are classified as impotent with normal seminal count and qualities. Those who lack normal seminal count are classified as Shanda.

9. Prognosis : Sadhyasadhyatva

9.1 Sadhya/Kashatasadhyas- Curable/ Difficult to cure types of Klaihya

1. Manasika Klaihya

2. Doshaja Klaihya
3. Shukra kshayaja Klaihya
4. Shukra nirodhaja Klaihya

9.2 Asadhyas- Incurable types of Klaihya

1. Vyadhija Klaihya
2. Aaghataja Klaihya
3. Sahaja Klaihya
4. Jarasambhavaja Klaihya

10. Complications: Upadrava

1. Pain at genital organs- penis and scrotum.

11. After effects : Udarka

1. Restlessness.
2. Miserable mood.
3. Fright.
4. Fatigue.
5. Loss of vigour.
6. Depression.
7. Tendency to remain recluse.
8. Feeling of jealousy.
9. Emaciation of body.

12. Dietary and behavioral regimen

12.1 Pathya wholesome regimen:

1. Intake of unctuous, sweet, light type of food.
2. Controlled sexual activities.
3. Following daily health regimen and spiritual environment.
4. Attending call of natural urges regularly.

Chapter 117 INTRODUCTION TO MALE AND FEMALE INFERTILITY

FEMALE INFERTILITY

1. Definition

Infertility in woman is defined as being childlessness between women of reproductive age. It is also defined as the inability of a person, animal or plant to reproduce by natural means. Infertility may describe a woman who is unable to conceive as well as being unable to carry a pregnancy to full term. About 40% of the issues involved with infertility are due to the man, another 40% due to the woman, and 20% result from complications with both partners.

Definition of infertility as per World Health Organization : Infertility is a disease of the reproductive system defined by the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse

1.1 Primary infertility

Primary infertility is defined as the absence of a live birth for women who desire a child and have been in a union for at least five years, during which they have not used any contraceptives

1.2 Secondary infertility

Secondary infertility is defined as the absence of a live birth for women who desire a child and have been in a union for at least five years since their last live birth, during which they did not use any contraceptives.

1.3 Cause of infertility

Infertility may be caused by infection such

as due to Sexually transmitted disease in the man or woman, but often there is no obvious underlying cause. DNA damage is said to be another cause.

For a woman, intercourse must take place around the time when an egg is released from a woman's ovary, the system that produces eggs has to be working at optimum levels and her hormones must be balanced.

1.4 Other causes related to woman infertility

1. Endometriosis.
2. Being overweight or underweight.
3. Inability to ovulate.
4. Tubal blockage
5. Pelvic inflammatory disease caused by infections like tuberculosis
6. Advanced maternal age

1.5 Other general causes

1. Diabetes mellitus, thyroid disorders, adrenal disease
2. Hyperprolactinemia
3. Hypopituitarism
4. Environmental factors- Toxins such as glues, volatile organic solvents or silicones, physical agents, chemical dusts, and pesticides.
5. Tobacco smokers are 60% more likely to be infertile than non-smokers.

MALE INFERTILITY

Male infertility is defined as inability of a male to conceive a woman. The main cause of male infertility is low semen quality. In men who have the necessary reproductive organs to procreate, infertility can be caused by low

sperm count due to endocrine problems, drugs, radiation, or infection. There may be testicular malformations, hormone imbalance, or blockage in male reproductive system. Although many of these can be treated through surgery or hormonal substitutions, some may be indefinite. Infertility associated

with viable, but immotile sperm may be caused by primary ciliary dyskinesia.

2. Diagnosis

1. Detailed medical history.
2. Physical examination.
3. Ultrasonography- ovulation study.
4. Semen analysis.

•••

1. Definition

The channelled system which deals with functioning of Vata and thereto functioning related to respiration is called as Pranavaha srotasa. Organs related to respiration are included under Pranavaha srotasa.

2. Origin of Pranavaha srotasa : Moolasthan

तत्र प्राणवहानां स्रोतारां हृदयं मूलं महास्रोतश्च ॥

C.S.Vi.5/8.

तत्र प्राणवहे द्वे, तयोर्मूलं हृदयं रसवाहिन्यश्च घमन्यः ।

S.S.Sh.9/12.

1. Pranavaha srotasa originates from heart-Hridaya and gastrointestinal tract-Mahasrotasa.
2. Pranavaha srotasa are two in number and they originate from heart- Hridaya and lymphatic ducts- Rasavahini dhamani.

3. Causes for vitiation of Pranavaha srotasa

क्षयात् संधारणात् रौक्ष्याद् व्यायामात् क्षुधितस्य च ।

प्राणवाहिनिरुप्यन्ति स्रोतस्यन्यैश्च दारुणैः ॥ C.S.Vi.5/10.

1. **Kshaya - Depletion:** Diminution in concentration of seven body components due to irregular and abnormal dietetic and exercise pattern causes exhaustion and loss of normal smooth texture of Pranavaha srotasa. Depletion of dhatu can occur from Rasa dhatu to Shukra dhatu or from Shukra to Rasa dhatu.
2. **Sandharana - Suppression:** Of natural urges. Holding back urge for coughing, sneezing, yawning, eat, drink, urinate, defecate etc. causes nonrequired stress

leading to reduction in quality and strength of the dhatu rendering direct ill effect on Pranavaha srotas.

3. **Raukshya : Dryness :** Production of excessive dryness to the srotas due to acceptance of relevant causes. Continual intake of dry, harsh, stale or preserved food items cause dryness and reduction in the quality and quantity of Rasa as well as Rakta dhatu causing direct ill effect on Pranavaha srotas.

4. **Vyayama : Physical exercise :** Excessive physical exertion, beyond one's physical capacity. This causes excessive undue rapidity to respiration producing stress and exhaustion to respiratory organs and sometimes may cause direct damage.

Kshudha: Long standing starvation: Prolonged fasting causes reduction in Rasa dhatu concentration rendering imbalance of bodily fluid. It weakens the Pranavaha srotasa.

5. **Any srotasa dushti :** Abnormality of other systems: due to serious ailments pertaining to other systems of the body. This is most special and important cause told by veterans of Ayurveda. When any other system becomes abnormal direct reflection is always observed on Pranavaha srotas. for e.g. disease of kidney, heart and liver directly creates distress to respiratory system.

4. Symptoms of Pranavaha srotasa dushti

तत्र प्राणवहानां स्रोतारां हृदयं मूलं महास्रोतश्चङ्, प्रदुष्टानां तु खल्वेषामिदं विशेषविज्ञानं भवति ।

तद्यथा- अतिदूष्यन्निबद्धं कुन्तितमत्स्यार्त्तमभीर्ष्यं वा सशब्दं
उच्छ्वसन्नं दृष्ट्वा

भागवतस्यास्य सौतासिः प्रदुष्टानिति विद्यात्। C.S.VI. 5/7.

1. Protracted breathing.
2. Obstructed breathing.
3. Troubled breathing.
4. Shallow breathing.
5. Repeated frequent breathing.
6. Noisy breathing, breathing with pain.

5. Symptoms of injured srotas: Srotas viddha laxana

तत्र विद्धस्य क्रोधविनमन मोहन वैपमानि मरणं वा भवति।
S.S.Sh. 9/12.

Pranavaha srotasa on getting injured displays following symptoms:

1. Hyper hostility.
2. Abnormal bending of the body.
3. Delirium.
4. Giddiness.
5. Body tremors.
6. Death.

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Chapter 119 KASA

Disease at a glance

- Nature of Disease: Acute.
- Major Involving Doshya- Vata
- Major Involving Dushya- Rasa
- Site of Manifestation: Chest
- Srotas: Pranavaha Srotas
- Types- Five
- Cardinal Feature: Coughing.

Prognosis

- Curable When disease is in its initial condition.

Diseases for differential diagnosis

1. Gilayu.
2. Galashundi.
3. Swarabheda.
4. Urakshata.
5. Rajyakshma.
6. Parshwashool.
7. Hridroga.

Reference reading

- Madhavnidana Kasa Chapter 11.
- Ashtanga Hridaya Nidanasthana Chapter 3.
- Ashtanga Hridaya Nidanasthana Chapter 5.
- Ashtanga Hridaya Sharirasthana Chapter 5.
- Charak Samhita Chikitsasthan. Chapter 18.
- Sushruta Samhita Uttaratantra. Chapter 52
- Harit Samhita Chapter 12
- Sanskrit-English Dictionary - Apte Shabd-kosha

1. Introduction

Kasa is the term used to describe pathogenesis of cough or tussis to express a common reflex action which is produced by the body to clear the throat from mucus or other irritants. Although coughing is just a reflex produced infrequently as an answer to irritation, it also can occur as a symptom to many minor and major ailments, especially of respiratory system. Ayurveda very appropriately explains this reflex as Kasa, defining it as, a disease condition in which a particular sound resembling to sound of broken bronze utensil produced via mouth of the patient. Further detailed pathogenesis is described as Nidana Panchaka of Kasa in this chapter.

2. Definition : Paribhasha

कसनात् कास उच्यते।

C.S.Ch.18/7.

कसति शिरःकण्ठात् उर्ध्वं गच्छति वायुः इति कासः।

M.Ni.-Kasa- Chapter- 11

भिन्नकांस्यपात्रवत् हतस्वनः कास इति प्रदिष्टः। M.Ni.-Kasa - Chapter- 11

पञ्चकासा स्मृता वातपित्तश्लेष्मक्षतस्यैः।

क्षयायोपेक्षिताः सर्वे बलिनश्चोत्तरोत्तरम्।। A.H.Ni. 3/17.

The disease in which vitiated Vata dosha forces itself out of the mouth making a particular noise resembling a sound of broken bronze utensil is called as Kasa. This disease is of mild nature but sometimes may take severe turn.

3. Route of development: Marga

Abhyantara: Affliction of the disease is internal.

4. Predisposing factors: Nidana

धूमोभयाताद्रजस्तयैव व्यायामरुक्षात्रनिषेवणाच्च।

विमार्गगत्वादिपि भोजनस्य वेगारोधात् क्षवयोस्तयैवच।। S.S.Utt.52/4.

उक्ता ये हेतवो नृणां रोगयोः श्वासहिवकयोः।

कासस्यापि च विज्ञेयास्त एवोत्पत्तिहेतवः।। S.S.Utt.52/3.

दिराहिरुविटभिरुवाभिध्यादिभोजनैः।
 शीतपानान्नस्नानजोधूमनिलानैः॥
 व्यायामकर्मभाराध्वन्यायातापनैः।
 आमदोषाभिघातस्त्रोसपरोषप्रतीडनैः॥
 विषमशाणाध्यनशनेत्या समशनेरपि।
 हिक्का धासश्च कासश्च मृगां समुपजायते॥ S.S.Utt.52/3-5.

कषायाविज्जनासाल्पकद्वन्द्वलवणोषणैः।
 रुध्रशीतुसुखस्त्रिभोक्तेविभुषिताशनैः॥
 धारणोवीर्यायासात्रहः स्वप्नचारैः।
 अन्यैश्च तद्विद्येद्युसुखावणकाराणि॥ A.H.Ni.-3.

रुध्रशीतकषायात्प्रतितानशनं वियः।
 वेनवात्पानायामो वानकासप्रवर्तकाः॥
 कटुकोष्णविद्यास्तक्षणाणामतिसेवनान्।
 तिसकासकरं क्रोधः संतापश्चामिसूर्यनः।

1. Inhalation of dust, mist or smoke.
2. Excessive physical exercise like walking, lifting of heavy loads.
3. Intake of dried food items.
4. Accidental entry of food particles or foreign body inside the respiratory tract.
5. Suppression of natural urges especially of sneezing.
6. Intake of sharp, acidic or alkaline food items like mustard, pepper etc.
7. Anger, hyper hostile nature.
8. Acceptance of direct sunlight or heat for prolonged time (especially to cause Pittaja Kasa)
9. Intake of acidic, heavy, constipating, dried and sticky or oozing food items.
10. Intake of chilled beverages, sitting or contacting cold surfaces for prolonged time.

11. Prolonged starvation.
12. Indigestion giving rise to formation of Ama.
13. Intake of incompatible food items, over eating or sometimes even with balanced but inadequate or improper eating.
14. Physical injury; exertion, excessive walking, wrestling with wild animals like wild horses or elephants.
15. Day time sleep and late night awakening.
16. Excessive sexual indulgence.
17. Weakening of basic body elements.
18. Intake of incompatible food items.
19. Over eating in a state of indigestion.
20. As a complication of Pratishtyaya.

5. Pathogenesis : Samprapti

अधःप्रतिहतो वायुरुर्ध्वस्रोतःसमाश्रितः।
 उदाननावमापन्नः कण्ठे सक्तस्तयोरसि॥
 आविश्य शिरसः खानि सर्वाणि प्रतिपूरयन्।
 आमन्नम्राक्षिण्णं देहं हनुमन्ये तथाऽक्षिणो॥
 नेत्रे पूटमुःपार्थे निर्भज्य स्तम्भवंततः।
 शुष्को वा सकफो वाऽपि कसानात्कासउच्यते॥

कुष्ठः प्रतिहतोऽपाने यदापानः प्रपद्यते।
 उर्ध्वं रसस्य सः स्थाने तिष्ठन्निद्रुसि पीडयते॥
 उदानेन सजंस्तत्र कण्ठे चानुप्रपूर्य च।
 बाहिनीमालमूर्धन्यास्ततोऽङ्गान्युत्क्षिपन्निव।
 क्षिप्रिवाक्षिणो पूटसुरः पार्थे च पीडयन्।
 विवृतत्वामुखेनेति भिन्नकांस्योपमध्वनिः॥

यसात्समात्स वर्णोजोवल्गमांसक्षयाद्वहः। A.S.Ni.-3.
 प्राणो ह्युदानानुगतः श्रुट्टः सभिन्नकांस्यस्वनतुल्ययोषः।
 निरोति वक्रान्तं सहसा सदीपः कासः स विद्वद्भिरुदाहृतस्तु॥ S.S.Utt.52/5.
 उर्ध्वं गतोदानविपर्ययेण कफेन प्राणानुगतेन दीर्घः।
 हर्षं निरोति कफकासकण्ठे करोति तेनापि च काससंज्ञाम्॥
 कासो न श्लेष्मणा विना। Harita Samhita-12/4.

Due to continuous acceptance of predisposing factors, Vata dosha, especially Apana vayu

and Prana vayu aggravate. Prana vayu leaves its normal downward flow route (Pratiloma) and takes abnormal opposite pathway.

Further, Apana vayu initiates aggravation of Udana vayu to make it more faster in its normal upward progression causing obstruction and friction in pathway of Prana vayu.

Speedy flow of both Prana and Udana vayu moving in the same upward direction causes friction between both of them. Aggravated Vata dosha (as if doubled in speed and power), ultimately forces out of the mouth causing peculiar sound of *kasana* – coughing. Speedy nature of Prana vayu taking abnormal upward route produces irritation all over the chest especially in throat and trachea. Sound produced during forceful out throwing of Prana vayu via mouth resembles to the sound of broken bronze utensil and hence the disease is called as Kasa.

Speech, respiration, vigor, force are the basic functions of Udana vayu with chest and throat as the working area. Udana vayu is the main component which gets aggravated to form the Samprapti and produces various symptoms of Kasa.

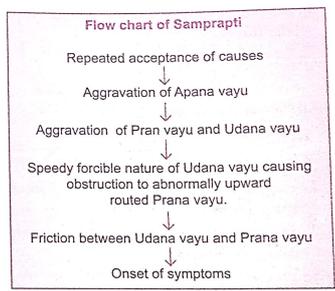
Relation of causes with main events in the Samprapti of Kasa is as follows:

Causes like inhalation of dust and smoke, intake of sour, acidic food, loud vocalizations, Weakening of basic body elements produce impediment to the throat.

Causes like intake of dried; constipating food items, excessive physical exercise, and excessive practice of sexual intercourse produce Vata dosha aggravation.

Causes like suppression of natural urges, intake of oozing liquid food items, Ama

formation provoke Vata dosha in a wrong direction- vimargagamana and also obstructs the srotas.



- Components of pathogenesis: Samprapti ghataka**
- Dosha: Vata, Kapha, Pitta
 - Dushya: Rasa dhatu
 - Srotas: Pranavaha srotasa.
 - Adhithana: Uro sthana.
 - Srotodushti: Vimarmagamana.
 - Swabhava: Ashukari.
 - Agni dushti: Jatharagni-Agnimandya.

6. Premonitory features : Purvaroopo

पूर्वरूपं भवेत्तेषां शूकपूर्णगलास्यता।
 कण्ठे कण्डूश्च भोज्यानामवरोधश्चजायते॥ C.S.Chi.18/5.
 तेषां भविष्यतां रुषं कण्ठे कण्डूरोचकः।
 शूकपूर्णपिण्डकण्ठत्वमस्वास्थ्यं हृदयस्य च॥ A.H.Ni.-3/18.
 भविष्यत्तस्य तु कण्ठकण्डूर्भोज्योपरोवो गलतालुलेषः।
 स्वशब्दवैषम्यपरोचकोऽग्नि सादश्च लिङ्गानि भवन्त्यमूनि॥ S.S.Utt.52/7.

1. Feeling of irritation in the throat as if filled with thorny spikes of grain.
2. Irritation of the throat.
3. Inspid mouth.

4. Feeling of obstruction while swallowing the food.
5. Hoarseness of the voice.
6. Feeling of morbid mucoid coating inside the throat.
7. Loss of appetite.
8. Restlessness.

7. Clinical features : Roopa

प्रतिघातविशेषेण तस्य वायोः सरहस।
वेदनाशब्दवैशिष्ट्यं कासानामुपजायते।। C.S.Ch.18/9.

1. Frequent bouts of coughing with pain in the chest.
2. Feeling of vibrations in the head during coughing attacks.
3. Pain in the throat and chest.
4. Reddening of eyes with increased lachrymal secretions. Eyes look like bulging out of the orbits during coughing attacks.
5. Pain in nose, ears and head.
6. Troubled and obstructed speech.
7. Loss of vigor.

Poorvaroopta and Roopa of Kasa can be related with the stages of Samprapti of Kasa as follows:

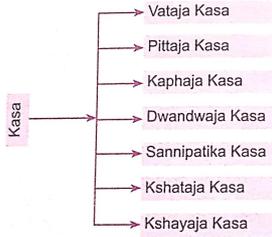
1. Pain and Feeling of morbid mucoid coating inside the throat and irritation suggests for feeble condition of the disease site [Sthana vaigunya]
2. Pain and Feeling of morbid mucoid coating inside the throat again suggests for saturation of aggravated dosha at that particular site. [Dosha chaya]
3. Feeling of obstruction while swallowing the food suggests for morbid upward course taken by Vata dosha.
4. Inispid mouth and restlessness suggests for aggravation of dosha.

8. Types : Prakara : Total eight types of Kasa are explained.

कासाश्चाष्टौ समुद्दिष्टाः क्षतनीऽन्यः प्रकीर्तितः।
वातिकः पैतिकश्चैव श्लेष्मिकः सात्रिपातिके।।
वातपित्तसमुद्भूतः श्लेष्मपित्तसमुद्भवः।
सप्तमो लोहितेनात्र चारुमो जायते क्षयात्।।

Harita Samhita-12.

1. Vataja Kasa
2. Pittaja Kasa.
3. Kaphaja Kasa.
4. Dwandwaja Kasa-Vata-Pitta Dominant,
5. Dwandwaja Kasa-Kapha-Pitta Dominant Types.
6. Sannipatika Kasa.
7. Kshataja Kasa.
8. Kshayaja Kasa.



8.1 Vataja Kasa

हृत्पाथोःशिरःशूलस्वभेदकरो भृशम्।
शुष्कोरः कण्ठवक्त्रस्य हृष्टलोमः प्रताम्यतः।।
निघोषदेन्यस्तननदीर्बल्यक्षोममोहकृत्।
शुष्ककासः कर्णशुष्कं कृच्छ्रानुक्त्वाऽल्पतां ब्रजेत्।।
स्निग्धास्तलवणोष्णश्च मुक्तपीतैः प्रशाम्यति।
उर्ध्ववातस्य जीर्णोऽन्ने वेगावान्मारुतो भवेत्।।

C.S.Ch.18/11-13.

हृच्छङ्खूर्धोदरपार्श्वशूली क्षामाननः क्षीणबलस्वरौजाः।
प्रसक्तमनः कफमीरणेन कासेत्तु शुष्कं स्वरभेदयुक्तः।।

S.S.Utt.52/8.C

Special causes responsible for Vataja Kasa

1. Intake of dried, harsh food items. Prolonged starvation.
2. Excessive practice of sexual intercourse.
3. Suppression of natural urges.
4. Late night awakening.

Clinical features

1. Pain in chest, flanks, abdomen and head
2. Hoarseness of the voice.
3. Dryness of mouth and throat and chest.
4. Horripilation.
5. General weakness.
6. Stressful dry coughing.
7. Bulging of eyes with pain.
8. Dry coughing bouts with production of small dried sputum after prolonged time.
9. Symptoms are temporarily relieved over consumption of hot and unctuous beverages. Coughing bouts increase at the end phase of digestion.

8.2 Pittaja Kasa

पीतनिष्ठीवनाशिल्वं तिक्तास्यत्वं स्वराभयः।
उरोभूमायनं तृष्णा दाहो तोदोऽरुचिर्भ्रमः।।
प्रततं कासमानश्च ज्योतीषीव च पश्यति।
श्लेष्माणं पित्तसंसृष्टं निष्ठीवति च पैतिके।

C.S.Ch.18/15-16.

पित्तजेऽयस्मिन् श्लेष्मनिष्ठीवनं व्याधेरुःप्रभृति
कफस्थानभूतत्वेन श्लेष्मपित्तसंसर्गजतयेति ज्ञेयम्।।

C.S.Ch.18/14.

उरोविदाहज्वक्रुशोपैरभ्यर्दितसिक्तमुखस्तृषार्तः।
पित्तने पीतानि वभेत् कटूनि कासेत् स पाण्डुः परिदयमानः।।

S.S.Utt.52/9.

Special causes

1. Intake of sharply acidic, sour, salty food items like mustard, pepper etc.
2. Hyper hostile nature, uncontrolled anger.

3. Contact with heat or sun.

Clinical features

1. Yellowish colored sputum production with yellow tinge to eyes, nails etc.
2. Bitter feel of mouth.
3. Obstruction in the chest with sensation of burning and pricking type of pain.
4. Objects like stars and flames are seen during the coughing attacks.
5. Sour yellowish vomiting.
6. Burning sensation in eyes, throat and chest.
7. Thirst.
8. Delirium.
9. Fever.
10. Dizziness.
11. Facial edema.
12. Headache.

8.3 Kaphaja Kasa

मन्दाग्नित्वारुचिच्छर्दिपीनसोत्प्लेशगौरवेः।
लोमहर्षास्यमाधुर्यक्लेदसंसर्गजतयेति ज्ञेयम्।।
बहुलं मधुरं स्निग्धं निष्ठीवति घनं कफम्।
कासमानो व्यरुच्यक्षः संपूर्णभिव मन्थते।। C.S.Ch.18/18-19.
कफादुरोऽल्परुद्धहृदयं स्तिमितं गुरु।
कण्ठोपलेपः सदनं पीनसच्छर्दरोचकाः।।
रोमहर्षो घनस्निग्धश्चेत्श्लेष्मप्रवर्तनम्।। A.S.Ni.-3/26.

Special causes

1. Intake of heavy, constipating, dried and oozing food items.
2. Intake of chilled water or beverages, sitting or contacting of cold surfaces.
3. Clinical features::
4. Indigestion.
5. Inispid, sticky mouth.
6. Heaviness of body.
7. Nausea and Vomiting.
8. Chronic common cold and blocking of nose.

9. Horripilation.
10. Morbid sweetness of mouth with mucoid coating of the throat with excessive salivation.
11. The coughing attacks are painless.
12. Headache and heaviness of the head.
13. Effortless production of heavy, whitish, soft and thick sputum during a coughing bout.

8.4 Dwandwaja Kasa and Sanni-patika Kasa

कण्डू दाहधासच्छर्दिशोपारोचकपीडिताः ।
शिरोऽतिशोफह हल्लासः कसे त्रिदोषसम्भवे ॥
कासः कण्डूः पिपासा च कुक्षिशूलो विनिद्रता ।
शुष्ककासः पिपासा च वातपित्तोद्भवः कफः ॥
धूम्रगन्धः पीतवर्णोऽक्षिप्रपाकी सरस्तकः ।
रक्तनेत्रः पिपासाद्यः पित्तश्लेष्मान्वितः कफः ॥

Harita Sambhita-12.

Although the total number of types of Kasa is told as five, **Harita sambhita** explains Dwandwaja and Sannipatika Kasa also as types of Kasa. The presentation of combined form of the symptoms of any two dosha is called as Dwandwaja Kasa. While the presentation of combined form of the symptoms of all the three dosha is called as Sannipatika Kasa.

Clinical features

- Itching of the body.
- Sensation of burning in the body.
- Strenuous breathing.
- Vomiting.
- Emaciation of the body.
- Inability to identify the taste of ingested food.
- Headache.
- Body edema.
- Nausea.

Clinical features : of Vata – Pitta dominant Kasa

Constant bouts of coughing.

Itching of the body.
Thirst.
Pain in the flanks.
Loss of sleep.
Dry, non productive cough.

Clinical features : of Pitta – Kapha dominant Kasa

Foul smelling breath.
Expulsion of yellowish coloured, purulent, blood mixed sputum.
Reddening of eyes.
Intense thirst.

8.5 Kshataja Kasa

अतियवायमारुध्व युद्धाश्वगजविग्रहैः ।
रुक्षस्योरः क्षतं वायुगृहित्वा कासमावहेत् ॥
स पूर्वं कासते शुष्कं ततः ष्ठीवेत् सशोणितम् ॥
कण्ठेन रुजताऽत्यर्थं विरुणेनेव चोरसा ।
सूचीभिरिव तीक्ष्णाभिसुद्यमानेन शूलिना ॥
दुःखस्पर्शनं शूलेन भेदपीडाभितापिना ।
पर्वभेदज्वत्थासतृणावैस्वर्यपीडितः ॥
पारावत इवाकूजन्कासवेगात्सतोद्भववात् ॥

C.S.Ch.18/21-23.

उरस्यन्तः क्षते वायुः पित्तेनानुगतो बली ।
कुपितः कुरुते कासं कफं तेन सशोणितम् ॥
पीतं श्यावं च शुष्कं च प्रथितं कुथितं बहु ।
ष्ठीवेत् कण्ठेन रुजता विभिन्नेव चोरसा ॥
सूचीभिरिव तीक्ष्णाभिसुद्यमानेन शूलिना ।
पर्वभेदज्वत्थासतृणावैस्वर्यकम्बवान् ॥
पारावत् इवाकूजन् पार्श्वशूली ततोऽस्य च ।
क्रमाद्दीर्यं रुचिं पन्तिसर्बलं वर्णश्च हीयते ॥
क्षीणस्य सासुञ्जन्तं स्याच्च पृच्छकटीग्रहः ॥

A.S.Ni.3/37.

स गात्रशूलज्वरदाहमोहान् प्राणक्षयं चोपलभेत कासी ।

S.S. Utt. 52 /12.

Special causes

1. Physical exertion due to performing excessive sexual intercourse, excessive walking, lifting of heavy loads, wrestling

- with wild animals like wild hoarses or elephants.
2. Prolonged starvation.
3. Indigestion giving rise to formation of Ama.
4. Physical injury.
5. Loud vocalization.
6. Fighting with horses or elephants.

Due to repeated practice of above said causes, Pranavaha srotasa develops into a certain dryness with aggravation of Vata dosha. This Vata dosha further combines with aggravated Pitta dosha to create the wounding of Pranavaha srotasa especially of lungs and trachea resulting in Kshataja Kasa.

Clinical features

1. Dry cough which is unproductive at first stage and becomes productive in later stages with the production of greenish yellow, foul smelling, blood mixed sputum.
2. Severe pain in throat and chest.
3. Fever.
4. Difficult, painful breathing.
5. Severe thirst.
6. Insipid mouth.
7. Body tremors.
8. Joint pain.
9. Severe restlessness.
10. Coughing sound resembles a cry of a Pigeon.
11. Loss of vigor.
12. Loss of body glow. Weight loss.
13. Low back ache and lumber pain.
14. Reddish colored urination.
15. Body stiffening and aches.

All the symptoms boost with the raise of seriousness of the disease.

Onset of fever, burning sensation and delirium are suggestive of certain death

[Arishta laxana] of the patient.

8.6 Kshayaja Kasa

व्यापन्नेऽन्नी त्रयो मलाः ।

कुपिताः क्षयजं कासं कुर्बुदहक्षयप्रदम् ।

दुर्गन्धं हरितं रक्तं ष्ठीवेत् पूयोपमं कफम् ॥

स्थानादुत्कासमानश्च हृदयं मन्थते च्युतम् ।

अकस्मादुष्णशीतार्तो बह्वशी दुर्बलः कृशः ॥

स्निग्धाच्छमुखवर्णत्वक् श्रीमद्दर्शनलोचनः ।

पाणिपादतलैः श्लक्ष्णैः सततासूयको घृणी ॥

ज्वरो मिश्राकृतिस्तस्य पार्श्वरुक् पीनसोऽरुचिः ।

भिन्नसंहतवर्चस्त्वं स्वरभेदोऽनिमित्ततः ॥

C.S.Ch.18/24-28.

Special causes

1. Intake of incompatible food items.
2. Intake of food which is not liked by the self.
3. Excessive sexual indulgence.
4. Suppression of natural urges.
5. Depressed mood, constant brooding over any event .
6. Due to acceptance of above said causes all the three dosha aggravate equally to produce Kshayaja Kasa. In this type of Kasa, weakening of basic body elements-Dhatu - is the main event of Samprapti.

Clinical features

1. Production of foul smelling, putrid, reddish green sputum.
2. Forceful coughing bouts which give the feeling as if heart is falling down from its place.
3. Abnormal desire for hot or cold food items, not matching to surrounding atmosphere.
4. Desire of excessive eating.
5. Weight loss and general debility.
6. Facial expressions of the patient are abnormally pleasant.

7. Abnormal onset of glory on the face nails and eyes.
8. Toes and palms become excessively tender.
9. Patient becomes bad-tempered, hyper hostile and constantly feels unclean.
10. Fever with varied symptoms.
11. Pain in flanks.
12. Chronic sinusitis.
13. Insipid mouth.
14. Abnormally irregular loose or hard stools.
15. Hoarseness of voice.
16. Dysuria.
17. Edema on genital organs.

Prolonged untreated Kshayaja Kasa finally results in Rajayakshma.

9. Complications : Upadrava

1. Hoarseness of voice.
2. Dyspnoea.
3. Vomiting.
4. Chronic sinusitis.
5. Pain in the flanks.
6. Tuberculosis.
7. Hiccups.
8. Heart disease.
9. Haemorrhoids.
10. Anal prolapse.
11. Vaginal prolapse.

10. Fatal symptoms : Arishta lakshana

कासश्चासौ ज्वरच्छदितृष्णातौसाशोफिनम् ॥ A.H.Sb.5/76.

The death of the patient is certain if following signs are observed:

1. Constant high fever.

...

2. Severe non clenching thirst.
3. Vomiting of blood – hemoptisis.
4. Loose motions.
5. General body edema.

11. Prognosis : Sadhyasadyatva

साध्या दोषैः पृथक् त्रयः ।

निश्चा याया इत्यात्सर्वे जस्ता स्वविरस्य च ॥ A.H.Ni.3/37.

इत्येष क्षयजः कासः क्षीणानां देहनाशनः ।

यायो वा बलिनां तद्वत् क्षतजोऽभिनवौ तु तौ ॥ A.H.Ni.3/36.

Vataja-Pittaja – Kaphaja Kasa are curable – Sadhya - types of Kasa.

Dwandwaja and Sannipatika Kasa are difficult to cure – Kashtasadhya or Yapyas. Symptoms of Kshataja Kasa and Kshayaja Kasa are difficult to cure if the onset is recent and the affected body is healthy and become incurable - Asadhya - as the condition grows older in an ill healthy body.

12. Dietary and behavioral regimen

12.1 Pathya

wholesome regimen:

1. Acceptance of heat- hot food, warm clothing and surrounding.
2. Drinking warm water.

12.2 Apathya

unwholesome regimen:

1. Intake of acidic, Kapha dosha provoking, oozing type of food.
2. Excessive talking, singing etc.
3. Tobacco smoking.
4. Intake of oily food contents.

Chapter 120 SHWASA

Disease at a glance

- Nature of Disease: *Acute*.
- Major Involving Dosha- *Vata, Kapha*
- Major Involving Dushya- *Rasa*
- Site of Manifestation: *Lungs*
- Srotas: *Pranavaha Srotas*
- Types- *Five*
- Cardinal Feature: *Difficult breathing.*

Prognosis

- Curable - *Kshudra Shwasa*
- Difficult but Manageable with medication- *Tamaka Shwasa*
- Incurable- *Maha Shwasa, Urdhva Shwasa, Chhinna Shwasa*

Diseases for differential diagnosis

1. Udavarta.
2. parshwashool.
3. Vata- Kapha dominant Jwara.
4. Rajayakshma.
5. Hridroga.

Reference reading

- Madhavidana Shwasa Chapter 12.
- Charak Samhita Chikitsasthan. Chapter 17.
- Sushruta Samhita Uttaratantra. Chapter 51.
- Ashtanga Hridaya Sharira Sthana Chapter-5
- Ashtanga Hridaya Nidana Sthana Chapter-4
- Ashtanga Hridaya Chikitsa Sthana Chapter-4
- Sanskrit English dictionary - Apte Shabdakosha.

1. Introduction

Difficulty in breathing is a serious interfering event with human body as respiration is the basic mode by which a body remains alive. Various types of breathing disorder leading to failure of systemic function many times turn into basic cause leading to fatal condition. Description of strenuous breathing and its etiopathology is described very scientifically for the disease Shwasa. Further detailed pathogenesis is described as Nidana Panchaka of Shwasa in this chapter.

2. Definition : Paribhasha

श्यासत्त्वं वेगवदूर्ध्ववातत्वम् ।

श्यासस्तु भक्तिकायानसमवातोर्ध्वगमिता ।

M.Ni.-Shwasa-Commentary 12/15.

कामं प्राणहरा रोगा बहवो न तु ते तथा ।

यथा श्यासश्च हिक्का च प्राणानाशु निकृन्ततः ॥

अन्वैर्युष्णमुष्टस्य रोगैर्जन्तोः पृथग्विधैः ।

अन्ते सन्जायते हिक्का श्यासो वा तीव्रवेदनः ॥

कफवातात्प्राणवेतो पित्तस्थानसमुद्भवौ ।

हृदयस्य रसादीनां धातूनां चोपशोषणौ ॥

तस्मात्साधारणवेतौ मत्तौ परमुर्जयौ ।

मिथ्यापचरितौ क्रुद्धौ हता आशीविषाविद्वि ॥ C.S.Ch 17/ 6-9.

The disease condition in which difficult and strenuous breathing resembling to the sound of iron smith's furnace blowing bladder is called as Shwasa. Aggravation of Prana vayu and Udana vayu is the basic event in the samprapti of Shwasa.

3. Route of development : Marga

Abhayntara- Madhyama : Affliction of the disease is internal and invades vital points of the body.

4. Predisposing factors : Nidana

रजसा धूमवाताभ्यां शीतस्थानाम्बुसेवनात् ।

व्यायामाद्ग्राम्यधर्माध्वरुक्कात्रविषमाशनात् ॥

आमप्रदोषादानाहारीक्ष्यादत्यर्पणात् ।

दौर्बल्यान्मर्गो घाताद्दृष्ट्वाच्छ्रुतियोगतः ॥

अतीसारस्वरस्यप्रतिशयायक्षयश्चान् ।
 रक्तनिर्त्तादुदावतद्विस्फुल्लसकादिपि ॥
 पाण्डुरोपाद्रियाद्येव प्रवर्तते यदाविमो । C.S.Ch 17/ 11-13.
 निषावमापिप्याकतिलतेलनिषेवणात् ।
 पिष्टशालुकविष्टनिविदाहिरुक्रुणोजनान् ।
 जलजातुर्गुणितान्दद्यामशौरसेवनात् ॥
 अभियन्नुचाराच्च श्लेथलानां च येवनात् ।
 कण्ठोदगा प्रतिमालाद्विकचैश्च पृथक्चिदैः ॥
 C.S.Ch 17/ 14-16.

कामवृद्ध्या भवेच्छ्वासः पूर्व्यां दोषकोपनेः ।
 आग्निसारवमश्रुविषमण्डुज्वरेषु ॥ A.H.Ni.4/1.

- Inhalation of dust and smoke.
- Residing in cold atmosphere. Intake of chilled water or cold beverages.
- Excessive physical exercise.
- Excessive sexual indulgence.
- Intake of dried, harsh food items.
- Intake of incompatible food.
- Prolonged starvation.
- Indigestion giving rise to formation of Ama.
- General debility.
- Injury to the vital points of the body. [Marma sthana]
- Dwandwa seva i.e. intake of food items having opposite quality, for e.g. intake of mixture of excessive dry and excessive emollient food (*raksha* and *snigdha*), intake of mixture of hard to digest and easy to digest food (*guru* and *laghu*)
Here 'Dwandwa' must not be understood as fighting or war as it specifies about abnormal mixture of two incompatible food contents and not about Sanskrit term 'Dwandwa' which means war between two persons.
- Faulty applications of Panchakarma procedures.
- As a complication to diseases like Kasa, Raktapitta, Udavarta, Visuchika, Alasaka, Pandu, Atisara, Jwara, Chhardi,

Pratishyaya, Rajajakshma, Vishabadha-Poisoning.

- Excessive intake of beans, horse gram, sesame oil (Sesamum indicum) starchy food etc.
- Excessive intake of sharp or acidic food contents like mustard oil etc.
- Excessive intake of meat of the animals residing at marshy areas. Drinking colostrums or unheated milk of such animals.
- Direct trauma to throat or chest.
- Hereditary factor plays a major role in development of Shwasa in descending generations. A case of Shwasa developed by hereditary cause is always observed as critical to cure in clinical practice. Although it is not mentioned in the texts as cause hence can be considered as Anukta hetu.

5. Pathogenesis : Samprapti

मारुतः प्राणवाग्निनि श्रोतांस्वाविश्य कुच्यति ।
 उरःस्थः कफमुद्ग्य द्विककाधामान्करोति सः ॥
 घोरान् प्राणोपरोधाय प्राणिनां पत्र पत्र च ॥ C.S.Ch 17/ 17.
 यदा श्रोताग्निं संरुध्य मारुतः कफपूर्वकः ।
 विषयजनि संरुध्यस्तदाधामान्करोति सः ॥
 C.S.Ch. 17/ 45.

विनाय प्रकृतिं वायुः प्राणुऽथ कफसंयुतः ।
 श्वासयवृद्धौ भूत्वा तं श्वासं परिचक्षते ॥ S.S.Ur. 51/4.
 कफोपकृष्टगमनः पवनो विषपाशितः ।
 उरःस्थः कुरुते श्वासमाशयसमुद्भवम् ॥ A.H.Ni.4/3.
 एते हि कफसंरुद्धपतिप्राणप्रकोपजाः । A.H.Ch.4/8.

Pranavaha srotas vitiates due to acceptance of above mentioned causes. The causes like fatty food intake etc. produce Ama in the amashaya. Kapha dosha also gets aggravated due to the intake of such causes. This aggravated Kapha obstructs the natural course of Prana vayu and forces it to take adverse direction. Finally Pranavaha srotas gets aggravated to produce Shwasa.

Udakavaha and Annavaha srotas are equally involved in the pathogenesis of Shwasa.

Step wise presentation of Shwasa Samprapti

- Aggravated Vata enters into Pranavaha srotas and the normal soft and smooth internal surface of Pranavaha srotas is altered to dry, rough and coarse structure.
- Kledaka Kapha of Amashaya becomes aggravated and enters the Pranavaha srotas to occlude its pathway. This causes further obstruction to the normal passage of Vata dosha to produce strenuous breathing i.e. Shwasa.
- Kledaka Kapha aggravates in Amashaya hence Amashaya becomes the initial site of pathogenesis of Shwasa. [Udhhbava sthana].
- This aggravated Kledaka Kapha further affects the Avalmbaka Kapha normally residing in the chest. hence the Urosthana [chest] becomes the formation site of pathogenesis of Shwasa. [Adhishthana]
- Pranavaha srotas as a whole is presentation site of pathogenesis of Shwasa. [Sanchara sthana]

Components of pathogenesis: Samprapti ghataka

- Dosha: Vata, Kapha
- Dushya: Rasa.
- Srotas: Pranavaha srotas.
- Adhishthana: Uraosthana -Chest .
- Srotodushiti: Sanga, Vimarmagamana.
- Swabhava: Ashukari.
- Agni dushti: Jatharagni, Rasa agni-Agnimandya.

6. Premonitory features : Purvaroopo

आनाहः पार्श्वगुलं च पीडनं हृदयस्य च ।
 प्राणस्य च विलोमत्वं श्वासानां पूर्वलक्षणम् ॥ C.S.Ch 17/ 20.
 प्राद्युपं तस्य हृत्पार्श्वगुलं प्राणविलोमता ।
 आनाहः शंखभेदश्च । A.H.Ni.4/4.
 प्राद्युपं तस्य हृत्पीडा मन्तद्वेषोऽस्तिः पस ।
 आनाहः पार्श्वयोः गुलं वेरस्यं वदनस्य च ॥ S.S.Ur. 51/6.

- Abdominal distension.
- Pain in flanks.
- Pain in chest.
- Loss of appetite.
- Inspid mouth.
- Restlessness.
- Headache.
- Suffocation.

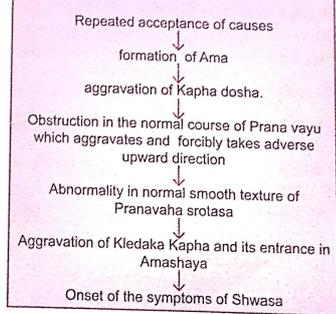
7. Clinical features : Roopa

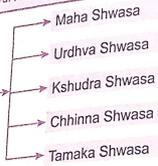
Cardinal feature: Difficult breathing – (Krichhrashwasana).
 The prodromal features are more clearly manifested to form symptoms of Shwasa. Other symptoms are further described with specific types of Shwasa.

8. Types : Prakara : Total five types of Shwasa are explained

महोर्ध्वछिन्नतमकक्षुद्रभेदैस्तु पञ्चधा ।
 भिद्यते स महावायिः श्वास एको विशेषतः ॥ S.S.Ur.51/5.

Flow chart of Samprapti:





8.1 Maha Shwasa

Severely aggravated Vata dosha is forced out in a delayed manner out of the mouth.

Symptoms

1. The noise of forceful outcome of aggravated Vata dosha resembles that of the breathing sound of an angry, agitated bull.
2. Patient is severely restless and out of breath. This breathing is audible from a distance and the patient becomes seriously ill.
3. Eye balls are bulging out of their orbits. Facial expressions are vicious.
4. Patient's voice reduces to inaudible levels and he is unable to speak.
5. Severe pain is felt in head, temples and ears. Chest movements are rapid.
6. Stasis of urine and stool.
7. Loss of consciousness and fainting.

Maha Shwasa generally develops as terminal stage symptom - Arishta laxana - and patient dies within a short period of time.

8.2 Urdhva Shwasa

दीर्घं श्वसिति यत्सूक्ष्मं न च प्रत्याहृत्यस्यः ।
श्लेष्मावृत्तमुज्ज्वलाः क्रुद्धगन्धवहादितः ॥
उर्ध्वदृष्टिविषयंश्च विघ्नान्ताक्ष इवस्ततः ।
प्रमृष्यवेदनार्तश्च शुष्कास्योऽरति पीडितः ॥
उर्ध्वथासे प्रकुपिते स्थः थासो निरुद्धयते ।
मुद्ध्यतस्ताप्यतश्चोर्ध्वं थासस्तस्यैव हन्यसुत् ॥

C.S.Ch 17/ 49-51.

मर्मसु छिन्दमानेषु परिदेवी निरुद्धवाक् ॥ A.H.Ni.4/17.

In this type of Shwasa Pranavaha srotas is seriously aggravated.

The expiration becomes prolonged while inspiration becomes painfully strenuous.

Symptoms

1. Patient becomes partially unconscious with upward turning of the eye balls.
2. Dryness of mouth.
3. Severe restlessness.
4. Loss of speech with reduced voice.
5. Dizziness and fainting.
6. Urdhva Shwasa also develops as terminal stage symptom - arishta laxana and patient dies within a short period of time.

8.3 Chhinna Shwasa

यस्तु श्वसिति विच्छिन्नं सर्वप्राणेन पीडितः ।
न वा श्वसिति दुःखार्तो मर्मच्छेदरुग्दितः ॥
आनाहस्वेदमूर्च्छार्तो दह्यमानेन बस्तिना ।
विप्लुताक्षः परिक्षीणः श्वसन् रक्तैकलोचनः ॥
विचेताः परिशुष्कास्यो विवर्णः प्रलपन् नरः ।
छिन्नथासेन विच्छिन्नः स शीघ्रं प्रजहात्यसुत् ॥

C.S.Ch 17/ 52-54.

In this type the rhythm of breathing is lost. Breathing is imbalanced with few faster breaths and few breaths of slower rate. Between this there is a transient phase of total breathlessness.

Symptoms

1. Total loss of body power.
2. Intense pain all over the body.
3. Stasis of urine with burning sensation in bladder.
4. Intense weakness.
5. Dryness of mouth.
6. Loss of consciousness.
7. Loss of the skin glow.
8. Irrelevant talk.



9. Upward turning of the eyeballs.
 10. Reddening of either or both the eyes with increased lachrymal secretions.
- Chhinna Shwasa also develops as terminal stage symptom - arishta laxana and patient dies within a short period of time.

8.4 Tamaka Shwasa

प्रतिलोमं तथा वायुः स्रोतासि प्रतिपद्यते ।
श्रीवां शिरश्च संगृह्य श्लेष्माणं समुदीर्य च ॥
करोति पीनसं तेन रुद्धो घृयुरुकं तथा ।
अतीव तीव्रवेगं च थासं प्राणपीडकम् ॥
प्रताप्यतिवेगाच्च कासते सन्निरुद्धयते ।
प्रमोहं कासमानश्च स गच्छति मुहुर्मुहुः ॥
श्लेष्मण्यमुच्चमाने तु भृशं भवति दुःखितः ।
तस्यैव च विमोक्षान्ते मुहुर्तं लभते सुखम् ॥
अथास्योर्ध्वसते कण्ठः कृच्छ्रादाकनोति पाषितुम् ।
न चापि निद्रां लभते शयानः श्वासपीडितः ॥
पार्श्वं तस्यावगृह्णाति शयानस्य समीरणः ।
आसीनो लभते सौख्यगुणं चेवाभिनन्दति ॥
उच्छ्रिताक्षो ललाटेन स्विदता भृशमार्तिमान् ।
विशुष्कास्यो मुहुः थासो मुहुश्चैवावघम्यते ॥
मेघाम्बुशीतप्रावातैः श्लेष्मलैश्चाभिवर्धते ।
स याप्यस्तपकथास साध्यो वा स्वात्रवोस्त्यिता ॥

C.S.Ch 17/ 52-62.

In this type process of obstructed breathing gives the patient a feeling as if sinking in the field of darkness. Total obstruction of Pranavaha srotas along with occlusion of mouth and nose produces this particular symptom. Vata dosha aggravates by all its qualities and takes the abnormal upward direction moving speedily all over the Pranavaha srotas to form Tamaka Shwasa. Coughing and sinus block are general features of Tamaka Shwasa.

Symptoms

1. Attack of strenuous breathing produces severe restlessness with the feeling of suffocation.

2. Frequent bouts of coughing with production of small, hard bullet like sputum. Expulsion of such sputum gives some relief for a transient period time from suffocation.

8.5 Pratamaka and Santamaka Shwasa

When symptoms like fever and fainting are associated with other symptoms, the type is called as Pratamaka Shwasa and when sensation of sinking in darkness is of Tamaka shwasa

ज्वरमूर्च्छापरितस्य विद्यात् प्रतमकं तु तम् ।
उदावर्तजोऽजीर्णाक्लिन्नकायनिरोधजः ॥
तमसा वर्धतेऽत्यर्थं शीतेथासु प्रशाम्यति ।
मज्जतस्तमसोवाऽस्य विद्यात्तमकं तु तम् ॥

C.S.Ch 17/ 62-64.

8.6 Kshudra Shwasa

रुक्षायसोऽन्धः कोष्ठे क्षुद्रो वात उदीर्यन् ।
क्षुद्रथासो न सोऽत्यर्थं दुःखेनाङ्गबाधकः ॥
हिनस्ति न स गात्राणि न च दुःखो यथेते ।
न च भोजनपानानां व्यथां नापि काचिदापादयेद्दुःखम् ॥

C.S.Ch 17/ 65-66.

किञ्चिदारम्भाणस्य यस्य थासः प्रवर्तते ।
निषण्णस्यैति शान्तिश्च च स क्षुद्र इति संज्ञितः ॥

S.S.Ur.51/7.

तत्रायासातिभोजनैः ।

भ्रैतितः भ्रैयेत् क्षुद्रं स्वयं संशमनं मरुत् ।

A.H.Ni.4/5.

This is most non serious and minor type of Shwasa. It appears as slight breathing difficulty after excretion or excessive eating. This episode of difficult breathing subsides by natural course by taking rest for some time. Medication is rarely required. The symptoms observed in other types of Shwasa are not witnessed in Kshudra Shwasa. Also routine actions like eating, drinking are not affected in this type. Pathogenesis of this type is very minor. Symptoms of Kshudra Shwasa are also non significant.

9. Complications : Upadrava

1. Swarabheda.
2. Kasa.
3. Hridroga.
4. Netraroga.

10. After effects : Udarka

1. Kasa.
2. Deformity of chest- Urovikriti.
3. Dilatation of lungs with production of foulsmelling sputum - Puffusa shaitihilya - vyasa - Durgandhee Nishthiva.
4. Swarabheda.

11. Prognosis : Sadhyasadyatva

शुक्रः साध्यो मतलेषां तमकः कृच्छ्र उच्यते ।
त्रयः शासा न सिध्यन्ति तमको दुर्बलस्य च ॥

S.S. Utt.51/14.

स साध्य उक्तो बलिनः सर्वे चाय्यक्तलक्षणाः ।

C.S.Ch. 17/67.

11.1 Curable -Sadhya

Kshudra Shwasa is curable.

11.2 Difficult to cure - Kashtasadhya - Yasya - manageable with treatment

Tamaka Shwasa with new onset in a healthy patient is difficult to cure and only can be maintained with continual medication.

11.3 Incurable: Asadhya

Maha Shwasa, Urdhva Shwasa and Chhinna Shwasa are incurable.

12. Fatal symptoms: Arishta lakshan

कासश्वाशौज्वरच्छर्दितृष्णातीसारशोफिन्म् । A.H.Sh. 5/76.

1. Severe cough Fever.
2. Vomiting.
3. Thirst.
4. Edema.

13. Dietary and behavioral regimen**13.1 Pathya**

wholesome regimen:

1. Acceptance of heat- hot food, warm clothing and surrounding.
2. Horse gram soup.
3. Intake of weight gaining food.
4. Rejuvenation therapy -Rasayana.

13.2 Apathhya

unwholesome regimen:

1. Intake of acidic, Kapha dosha provoking, oozing type of food.

Chapter 121 HIKKA**Disease at a glance**

- Nature of Disease: Acute.
- Major Involving Dosh- Vata
- Major Involving Dushya- Rasa
- Site of Manifestation:
- Srotas: Pranava Srotas
- Types- Five
- Cardinal Feature: Production of peculiar- Hik type of sound from mouth.

Prognosis

- Curable - Kshudra Hikka
- Incurable - Gambhira, Mahati and Yamala Hikka

Diseases for differential diagnosis

1. Madatyaya.
2. Tobacco Intake

Reference reading

- Madhavnidan Hikka Chapter 12.
- Charak Samhita Chikitsasthan. Chapter 17.
- Sushruta Samhita Uttara Tantra. Chapter 50.
- Ashtang Hridaya Nidanasthan. Chapter 4.
- Sanskrit English dictionary - Apte Shabdakosha.

1. Introduction

Hikka is a condition which is understood as hiccup in general terms of understanding. Though for most of the times, it is an insignificant symptom which forms for a short period of time and diminishes mostly without any medication. Intake of a little water can resolve the condition. Hiccup is a reflex, an involuntary spasm of the diaphragm with sudden closer of the glottis with a characteristic hiccup sound. Ayurveda very aptly describes Hikka in different types according to degree of seriousness. Further detailed pathogenesis is described as Nidana Panchaka of Hikka in this chapter.

2. Definition : Paribhasha

मुहुर्मुहुर्वायुरुदेति सखनो ।
यकृत्सोहान्त्राणि मुखादिवाक्षिपन् ॥
स घोषवानाशु हिनस्यसून् यतस्ततस्तु हिककेति भिषगिरुच्यते ॥

S.S.Utt.50/6.

The disease in which aggravated Vata dosha is forced out of the mouth making a typical hiccup sound [Hik - Hik] is called as Hikka. The process of forcible production of such sound starts by churning or squeezing of liver, spleen and intestines. Sometimes this disease can harm the life, so named as Hikka. (हिन् हिनस्ति इति = to create harm or threat to life).

3. Route of development : Marga

Abhyantara - Affliction of the disease is internal.

4. Predisposing factors : Nidana

1. Inhalation of dust and smoke.
2. Intake of cold water.
3. Formation of Ama.
4. Intake of incompatible food items.
5. General debility.
6. Excessive applications of panchakarma procedures.

7. Sudden mental shock or agitation.
8. Fullness (of stomach).
9. Fever
10. All those causes which are capable to force the Vata dosha to take the opposite direction are the causes for Hikka.

5. Pathogenesis : Samprapti

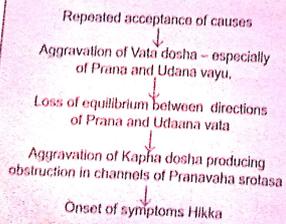
प्राणोदकाववाहिनौ स्रोतांसि रक्तफोऽनिलः ।
हिककाः संरुच्य ।

C.S.Ch.17/21.

Prana vayu and Udana vayu are mainly involved in the Samprapti of Hikka. Due to acceptance of relevant causes normal downward direction of Prana vayu and the normal upward directing of Udana vayu become abnormal. The rhythm between the movements of Prana and Udana is lost and onset of hiccup is caused.

Pranavaha srotasa and Annavaha srotasa is the starting point of the pathogenesis of Hikka. The organ situated between the stomach and lungs that is the diaphragm is the actual presentation site of Hikka. Kapha dosha is also aggravated and causes obstruction in Pranavaha srotasa producing Hikka. Annavaha and Pranavaha srotasa are the sites of initiation in pathogenesis of Hikka. [Udabhava sthana]. Liver, spleen, throat and intestines are the sites of presentation in pathogenesis of Hikka. [Sanchara sthana]

Flow chart of Samprapti



Components of pathogenesis: Samprapti ghataka

- Dosha: Vata, Kapha.
- Dushya: Rasa.
- Srotas: Pranavaha, Annavaha srotasa.
- Adhishthana: Diaphragm
- Srotodushhti: Vimarmagamana.
- Swabhava: Ashukari.
- Agni dushhti: Jalharagni- Agnimandya.

6. Premonitory features : Purvaroopo

सुखं कपायमतिगौरवं कण्ठवक्षसोः ।

पूर्वभागि हिककानामाटोपो जटसरस्य च ॥ S.S.Ut.50/8.

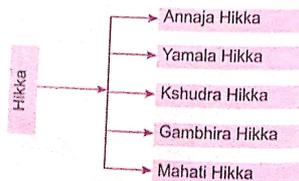
1. Bitter taste of the mouth
2. Heaviness in the chest
3. Restlessness
4. Flatulence

The prodromal features of Hikka are not always expressed. The condition may originate directly or spontaneously.

7. Clinical features : Roopa

1. Production of 'hik—hik' sound via mouth with churning sensation in chest and abdomen.
2. Prolonged attacks of hiccups produce difficulty in swallowing.
3. Difficulty in speaking
4. Strain in the neck, back region and abdomen.

8. Types : Prakara : Total five types of Hikka are explained



अजरां यमलां क्षुद्रां यमिमां महतीं तथा ।

वायुः कफेनानुगतः पंच हिककाः करोति हि ॥ S.S.Ut.50/8.

8.1 Annaja Hikka

यदयाऽत्यभ्यवदुतैः पानानैः पीडितोऽनिलः ।

उर्ध्वं प्रपद्यते कोष्ठान्मधैर्वाऽतिमद्वदैः ॥

तथाऽतिरोषभाप्याघ्नद्वारास्य भावतिवर्तनेः ।

वायुः कोष्ठगतो धावन् पानभोज्यप्रपीडितः ॥

उरः श्लोतः सभाविश्य कुर्याद्विककां ततोऽजराजम् ।

तथाऽशनेसंवन्यं शूर्वंश्रापि स हिककते ॥

न रमवाद्याजननी चेन्द्रियाणां प्रवोधिनी ॥

हिकका पीते तथा भुक्ते श्रापं याति च साऽजरा ॥

C.S.Ch.17/38-41.

त्वस्पाणस्य चाहारं पुश्रानस्यायवा घनम् ।

वायुसैस्वस्तीर्णः कटुकैरर्दितो भृशम् ॥

हिककयस्युर्ध्वो भूत्वा तां विद्यादजरां शिष्यक ॥

S.S.Ut.50/9.

Annaja Hikka basically forms due to quick ingestion of food & drinks and also irritation caused to Pranavaha srotasa. Although other causes like anger, prolonged high pitch vocalization, excessive laughter, lifting heavy loads and intake of spicy food are also capable to form this type of Hikka. Irritation caused by hurried intake of food and drinks remains the main cause and hence the type is named as Annaja Hikka.

Vata dosha gets aggravated. This aggravated Vata further vitiates Pranavaha srotasa to form Hikka. Recurrent episodes of Annaja Hikka may not require food ingestion as a cause to start but just sneezing can restart the onset. This type of Hikka does not produce pain or damage to the body or to the vital points.

Functioning of all the systems remains normal. Routine processes like eating, drinking, breathing or swallowing get slightly affected. There is slight pain in chest and head. Symptoms are relieved by slowly eating a little amount of food or by drinking water.

8.2 Yamala Hikka : [Yamala- Pair]

क्षिणेण यमलेर्देहेयां हिकका संभवन्ति ।

कम्पयन्ती शिरोश्रीवं यमलां तां विनिर्दिशेत् ॥ S.S.Ut.50/10.

व्यपेता जायते हिकका याऽजरायने चतुर्विधे ।

आहापण्णियमाने भूयश्च लभते यलम् ॥

शलापवयन्तीसारगुण्णान्तस्य विचेतसः ।

जुम्भिणो विपुलाक्षस्य शुष्कास्यस्य विनागिनः ॥

पर्याश्रातस्य हिकका या जतुमुलादयन्ता ।

सा व्यपेतेति विज्ञेया हिकका प्राणोपर्याधिनी ॥

C.S.Ch.17/31-33.

यमिका चेतलेन क्षुद्रा अजरा च या माध्यत्वेनोक्ता सा यमलेवेनेन जायमाना यमिका ज्ञेया । C.S.Ch.17/44.

The type in which the attack of Hikka always comes in a pair is called as Yamala Hikka.

Sushruta calls this type as Yamala Hikka while Charaka describes this type as a serious and different type which forms during the process of digestion and calls it as Vyapeta Hikka.

Symptoms

1. Delirium.
2. Vomiting.
3. Loose motions.
4. Thirst.
5. Yawning.
6. Dryness of mouth.
7. Watering of eyes
8. Bending of the body.
9. Intestinal rumble and flatulence.

The routine procedures like breathing, swallowing are severely affected during the episode of Vyapeta Hikka.

8.3 Kshudra Hikka

क्षुद्रवातो यदा कोष्ठायायामपरिघटितः ।

कण्ठे प्रपद्यते हिककां तदा क्षुद्रां करोति सः ॥

अतिदुःखा न सा चोरः शिरोमर्मप्रवाधिनी ।

न चोष्वासास्रापानानां मार्गमावृण्व्य तिष्ठति ॥

वृद्धिपायास्यतो याति भुक्तमात्रे च मार्दमवम् ।

यतः प्रवर्तते पूर्वं तत एव निवर्तते ॥

रूपं क्लोम काठं च तातुकं च नवाशिरा।
मूत्रं सा सुदृक्कति नृणां ताव्या प्रकृतिता ॥

C.S.Ch.17/34-37.

It is a minor type of Hikka produced as a result of sudden abrupt body movements. Slight aggravation of Udana vayu and Pranava srotasa occurs in this type. Due to non serious nature it is called as Kshudra Hikka. The symptoms of this type are insignificant and non troublesome because of the minor pathogenesis. The symptoms like pain to the vital points or difficulty in breathing etc. are not observed. The episode of Hikka is continues for a short period of time and symptoms are relieved with a little eating, drinking water or resting.

8.4 Gambhira Hikka

हिककते यः प्रवृद्धस्तु कृशो दीनमना नरः।

जरीगोत्सां कृच्छं गम्भीरनुनादयन् ॥

संजुम्भन् संक्षिपंचैव तथाऽज्ञानि प्रसारयन्।

पार्श्वे चोभे समायस्य कृजस्तमरुगादितः ॥

नाभैः पक्वाशयाद्वाऽपि हिकका चास्योपजायते।

क्षोभयन्ती मूर्धं देहं नाभयन्तीव ताप्यतः ॥

रुणदस्युच्चवासामां तु प्रनष्टबलचेतसः।

नाभिप्रवृत्ता या हिकका घोर गम्भीरनादिनी।

शुक्रौष्ठकण्ठजिह्वास्यथासपार्श्वरुजाकरा ॥

अनेकोपद्रव्युता गम्भीरा नाम सा सृता। S.S.Utt.50/12-13.

This is a serious type of Hikka defined as 'Paranantiki' or life destructing type. The patient becomes severely emaciated with severe weakness. The Hikka appears to be forming deep down the umbilicus and is very powerful. Hiccups are produced with a loud sound and with great difficulty. Breathing is totally obstructed causing severe body tremor. Body becomes stiff, aching and bends abnormally. Patient experiences dizziness, fainting, dry mouth, yawning and severe pain in throat and flanks.

8.5 Maha Hikka

क्षोभानिबलशगतजसः सक्रोऽमिलः।

गृहित्वा सहसा कण्ठमुच्चैर्धोषवतीं पृथग् ॥

करानि सततं हिककानिद्विशिगुणां तथा।

प्रागः स्तोतासि ममांगि संरुध्याभ्यागमेव च ॥

संज्ञां मुष्णति गात्राणां स्तम्भं संजनयत्यपि।

मार्गं चवान्नपानानां रुणदस्युपहतस्मृतेः ॥

साधुविस्तुतेत्रस्य स्तब्धशक्युतद्रुवः।

सन्तजलप्रलापस्य निवृत्तिं नाधिगच्छतः ॥

महामूला महावेगा महाशब्दा महाबला।

महाहिककति सा नृणां सद्यः प्राणहरा मता ॥

C.S.Ch.17/22-26.

स्तब्धमूर्ध्निखयुमस्य सन्नविस्तुतचक्षुषः।

स्तम्भयन्ती तनुं वाचं स्मृति संज्ञां च मुष्णति ॥

रुच्यति मार्गमन्नस्य कुर्वति मर्मघट्टनम्।

पृष्ठतो नमनं शोषं महाहिष्मा प्रवर्तते ॥

महामूला महाशब्दा महावेगा महाबला ॥ A.H.Ni.-4/25.

मर्माण्यापीडयन्तीव सततं या प्रवर्तते।

देहमायस्य वेगेन घोषयत्यतितुष्यतः।

महाहिककति ज्ञेया सर्वगात्रप्रकम्पिनी ॥ S.S.Utt.50/14.

This is the most serious and fatal type of Hikka. Severe aggravation of Vata dosha with abnormal covering of Kapha is responsible to produce this type. Patient becomes severely emaciated and weak with complete loss of vigor. The episode of Hikka is very deep and resonating. It occupies the heart, umbilicus and lungs. There is formation of multiple numbers of hiccups at one time. It is called as Maha Hikka because of its powerful nature, threat to the life and has loud sound. The other symptoms are;

1. Severe difficulty in breathing with stress at the temples.
2. Upward rolling of eyeballs.
3. Pain at the vital points.
4. Watering of eyes.
5. Ptosis of eyebrows.
6. Patient speaks incoherent words in inaudible sound.

7. Loss of memory.
8. Severe thirst.
9. Cold extremities.
10. Backward bending with protrusion of chest.
11. Maha Hikka generally forms as a terminal symptom to other fatal diseases.

9. Complications : Upadrava

1. Loss of voice.
2. Hoarseness of voice.
3. Pain in chest.
4. General body oedema.
5. Dyspnoea.
6. Fever.
7. General weakness.

10. After effects : Udarka

1. Chronic obstructive, difficult breathing.
2. Chronic obstruction in the pathway of food.

11. Prognosis : Sadhyasadyatva

आयस्यते हिककतो यस्य देहो
दृष्टीशोर्ध्वं नास्यते यस्य नित्यम्।
क्षीणोऽन्नविट् क्षीति यथातिमानं
तौ द्वौ चान्त्यौ वज्रयिद्धिक्कमानौ ॥ S.S.Utt. 50/15.

11.1 Curable : Sadhya

1. Kshudra Hikka.
2. Annaja Hikka.
3. Yamala Hikka [Sadhya if caused to a healthy person.]

11.2 Incurable : Asadhya

4. Gambhira Hikka and Maha Hikka.
5. Yamala Hikka- in elderly, emaciated

- patient with thirst and delirium as additional features.
6. Vyapeta Hikka.

12. Fatal symptoms : Arishta lakshana

धामेकहेतुप्राप्तसङ्ख्याकृतिसंश्रयाः ॥ हिष्मा ॥

A.H.Ni.4/18.

1. Jwara.
2. Chhardi.
3. Trishna.
4. Atisara.
5. Shodha.

Patient showing following symptoms should not be treated; (Varjya)

1. Too much stretching of the body.
2. Fixed gaze.
3. Severe emaciation of the body with aversion of food and drinks.
4. Excessive sneezing.

13. Dietary and behavioral regimen

13.1 Pathya

wholesome regimen:

1. Acceptance of oily, old rice, barley, garlic bulbs, snake gourd etc.
2. Restricted intake of salt.
3. Drinking warm water.
4. Inhalation or smoking of herbal fumes.

13.2 Apathya

unwholesome regimen:

1. Suppressin of natural urges.
2. Acceptance of dust, fumes, direct wind or sun.
3. Intake of incompatible, constipating, citrus food contents.
4. Drinking cold water or drinks.

Disease at a glance

- Nature of Disease: Chronic.
- Major Involving Dasha-Vata, Pitta, Kapha
- Major Involving Dushya- Rasa, Rakta, Mamsa, Meda, Asthi, Majja, Shukra, Oja.
- Site of Manifestation: Whole body-Sarvadehasara.
- Srotas: All the major systems of the body
- Types-Seven- due to depletion in basic body elements and Uraکشاتا.
- Cardinal Feature: Emaciation of the body.

Prognosis

- Difficult to cure in initial stages and incurable in later serious stages.

Diseases for differential diagnosis

1. Rajayakshma.
2. Pandu.
3. Kasa.
4. Jeerna Jwara.
5. Vrana Shotha.
6. Grahani.
7. Arsha.
8. Vishama Jwara.

Reference reading

- Charak Samhita Chikitsasthana. Chapter 11
- Charak Samhita Sutrasthana. Chapter 17
- Charak Samhita Sutrasthana. Chapter 22.
- Sushrut Samhita Sutrasthana. Chapter 17.
- Sushrut Samhita Sutrasthana. Chapter 15.
- Sushrut Samhita Sutrasthana. Chapter 35.
- Sushruta Samhita Uttaratantra. Chapter 41.
- Ashtanga Hridaya Sutrasthana Chapter 11.
- Kashayapa Samhita.
- Sanskrit English Dictionary
- Aple Shabdakosha.

1. Shosha : Introduction

Shosha is explained as state of depletion or reduction in basic body elements due to various types of predisposing factors. Ayurveda science explains total state of depletion of particular dhatu related to particular cause accepted for longer period of time. Shosha is viewed by Ayurveda as depletion of body elements and severe reduction in body strength, shosha is considered as of non infectious origin. Further detailed pathogenesis is described as Nidana Panchaka of Shosha in this chapter.

1.1 Definition : Paribhasha

क्षया एव हि ते ज्ञेयाः प्रत्येकं धातुसंज्ञिताः । S.S.Utt.41/27.

मनसः संप्रभोऽभीक्ष्णपूर्वधातुस्तपो हृदि ।

देहानिवलनाशश्च लङ्घनेतिकृते भवेत् ॥ C.S.Su.22/36-37.

Disease condition which mainly arises as complication of Rajayakshma with some definite underlying causes is called as Shosha. In fact all the types of Shosha are capable to transform into pathogenesis of Rajayakshma due to ignorance, wrong treatment or severity of the condition.

1.2 Route of development : Margā

Abhyantara- Affliction of the disease is internal.

1.3 Predisposing factors : Nidana

General causes of Shosha are explained with exacting capacity for destruction of a particular dhatu such as;

1. Excessive indulgence in sex : Responsible for destruction and diminution of Shukra dhatu.
2. Overpowering with sorrow : Responsible for destruction and diminution of Majja dhatu.
3. Ageing : Responsible for destroy and diminution of Asthi dhatu.
4. Excessive physical exercise like walking : Responsible for destruction and diminution of Meda dhatu.

5. Effect of painful non healing wound: Responsible for destruction and diminution of Rakta dhatu.
6. Starvation : Responsible for destruction and diminution of Rasa dhatu.

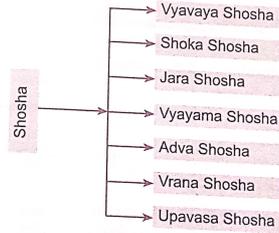
Unlike Rajayakshma, the symptoms of aggravated dosha are not expressed profoundly in Shosha. Also seriousness of the condition is not as fatal as Rajayakshma.

1.4. Types : Prakara

व्यायवशोकस्याविपर्यव्यायामाध्मोपवासतः ।

वृणोरक्षतपीडाभ्यां शोषानये वदन्ति हि ॥ C.S.Su.22/16.

Total seven types of Shosha are explained.



1. VYAVAYA SHOSHA

व्यायवशोपी शुकस्य क्षयलिङ्गैरुद्भूतः ।

पाण्डुदेहो यथापूर्वं क्षीयन्ते चास्य धातवः ॥ S.S.Utt.41/17.

दौर्बल्यं मुखशोषश्च पाण्डुत्वं सदनं श्रमः ।

ल्लैर्बल्यं शुक्राऽविसर्गश्च क्षीणशुकस्य लक्षणम् ॥

C.S. Su.17/69.

Excessive indulgence in sex is the prime cause responsible for this type of shosha, which leads to diminution of other basic elements in ascending order, from Shukra to Rasa.

The symptoms are;

1. Paleness of body.
2. Fatigue.
3. Dryness of mouth.

4. Loss of body strength.
5. Sterility.
6. Loss of libido, painful ejaculation of semen.

2. SHOKA SHOSHA

प्रध्यानशोलः क्लृताङ्ग शोकशोष्यपि तादृशः ।

विना शुकृक्षयकृतैर्विकारैर्मिलक्षितः ॥ S.S.Utt.41/18.

मज्जक्षयेऽल्पशुकृता पर्वमेदोऽस्थिनिस्तोदोऽस्थिशुन्यता च ॥

S.S.Su.15/13.

शीर्यन्त इव चास्थिनि दुर्बलानि लघूनि च ।

प्रतलं वातरोगिणि क्षीणे मज्जनि देहिनाम् ॥ C.S. Su.17/68.

अस्थ्यां मज्जनि सौषिर्ब्यं प्रमस्तिमिदर्शनम् ॥ A.H.Su.11/19.

1. Sudden bereavement in the family, loss of wealth or similar disasters lead to excessive sorrow and becomes responsible to form Shoka Shosha. Diminution of Majja dhatu occurs mainly to this type of shosha.

Symptoms

1. Sadness and disorientation of the surrounding.
2. Feeling of hollowness in the head.
3. Giddiness and fainting.
4. Body tremor.

3. JARA SHOSHA

जराशोपी कृशो मन्दवीर्यबुद्धिबलैर्द्वियः ।

कम्पनोऽरुचिमान् भिन्नकांस्यपात्रहतस्वनः ॥

छीवति श्लेष्मणा हीनं गौरवारुचिपोडितः ।

संप्रसृतान्सासाक्षिः सुप्तरुक्षमलच्छविः ॥ S.S.Utt.41/19,20.

केशलोमनखशहमशुद्धिजप्रपतनं श्रमः ।

ज्ञेयमस्थिक्षयेऽस्थिशूलं दन्तनखभङ्गे । तैक्ष्यं च ।

C.S. Su.Su.17/67.

अस्थिक्षयेऽस्थिशूलं दन्तनखभङ्गे । तैक्ष्यं च ।
सप्ततेरुर्ध्वं क्षीयमाणं घातिन्निर्यवलोयोत्साहमहन्-
हनिवलीपलितखालित्यदुर्दं कासथासप्रभृतिभिरुद्भै-
भिर्मृगमानं सर्वक्रियाऽसमर्थं जीर्णगामिवाभिवृष्टमवसीदन्तं
वृद्धमाचक्षते । S.S.Su. 35/29.

Main cause for this Shosha is ageing.

Ageing causes natural reduction in all body components and this condition is termed as Jara shosha. The symptoms are:

1. Thin, emaciated body;
2. Fragile bones.
3. Loss of body strength, vigor. Loss of memory and thinking capacity.
4. Body tremors.
5. Insipid mouth.
6. Distorted, shaky voice with change in the natural tone.
7. Hyper salivation.
8. Watering of eyes.
9. Dry, rough and lusterless skin.
10. Constipation.
11. Variable graded balding, loss of teeth.
12. Weakness of joints.

4. VYAYAMA SHOSHA

व्यायामशोषो भृशित्थमिदं समन्वितः।

उत्कृतकृतेतिहैः संयुक्तश्च श्रतानि। S.S.Utt.41/22.

Excessive physical exertion is the basic cause for this condition. Exercise performed beyond the limit of physical capacity leads to diminution of Meda dhatu to form this type of Shosha. Vyayama Shosha is caused due to continuous physical exertion practiced over a prolonged period of time. Symptoms are similar as that of Urakshata.

Other Symptoms

1. Weight loss.
2. Pain in lumbar region.
3. Loss of body strength.
4. Grayish discoloration of the body.
5. Numbness of the limbs.
6. Dryness of the mouth.
7. General weakness.
8. Hoarseness of the voice.
9. Pain in the chest.
10. Coughing.

5. ADHVA SHOSHA

अध्व प्रशोषी क्षताङ्गं संनृपपरुषच्छविः।

प्रयुक्तयात्रावयवः शुष्कत्वोमगलाननः॥ S.S.Utt.41/21.

मांसक्षये विशेषेण स्निग्धोदरशुष्कता॥ C.S.Su.17/65.

मांसक्षये स्निग्धोदोपस्थोरुवक्षःकक्षापिण्डिकोदग्रोवा-
शुष्कता

रौक्ष्यतोदौ गात्राणां सदनं धमनीशैथिल्यं च॥ S.S.Su. 15/9.

मांसेऽक्षलानिगण्डस्त्रिकशुष्कतासचिदेदनाः।

A.H.Su.11/18.

Constant practice of walking over long distances is the basic cause for Adhva Shosha. Walking causes diminution of Mamsa dhatu to form this type of Shosha.

Symptoms

1. Grayish discoloration of the body.
2. Dry, rough and lusterless skin.
3. Numbness of the body.
4. Body ache.
5. Dryness of the mouth, throat and whole body.
6. Pain in the joints and laxity of the vessels.
7. General weakness.

6. VRANA SHOSHA

रक्तशयाद्रेदनाभिसद्यैवाहायरन्त्यात्।

ब्रणितस्य भवेच्छोषः स चासाध्यतमः स्मृतः॥

S.S.Utt.41/23.

S.S.Su.15/9.

Chronic wounding is the basic cause responsible for Vrana Shosha. Patient becomes weak and emaciated due to severe dietetic restrictions associated the healing treatment of wound. Also painful nature of the wound causes restlessness and rise in physical debility to cause Vrana Shosha. The symptoms are;

1. General debility and fatigue.
2. Loss of the glory of the skin.

3. Vrana Shosha is an incurable terminal condition.

7. UPAVASA SHOSHA

तत्र पुनर्वातलाहारलाहारेतिनोऽतिव्यायामव्यवायव्ययन-
भयशोकध्यान रात्रिजागरणपिपासाशुष्कपायात्वाशान्प्रभृति-
भिरुपशोषितो रसधातुः शरीरानुक्रमन्त्यत्वात् प्रीणति,
तस्यादतिकार्यं भवति; सोऽतिकृशः क्षुत्पिपासाशोतोऽण-
वातवर्षपारादानेव्यसहिष्णुर्वातरोगग्रयोऽल्पप्राणाश्च क्रियासु
भवति, आसकाशशोषजोहोदरान्निदादुत्पुलरसपित्तानाम्य-
नतममासाद्य मरणमुपयति। S.S.Su.15/33.

घट्टते सहते शब्दं नोच्यैव्रवति शूल्यते।

हृदयं ताम्यति स्वल्पचेष्टस्यापि रसक्षये॥ C.S.Su. 17/64.

शूलारत्याघानमुदप्रकोपज्वराइसादश्रममोहतुष्णाः।

शव्यासनदीविषयेष्व भवन्ति भवन्ति रुपाप्यपतपित्तस्य॥

Kashyapa Samhita.

Prolonged, undue, starvation is the basic cause responsible to cause upavasa shosha in a person who is routinely involved in hectic physical or mental works.

Predisposing factors

- Intake of Vata dosha provoking diet such as intake of bitter, astringent food items.
- Inadequate eating
- Eating excessively dried food items
- Frequent fasting
- Excessive physical exertion
- Excessive indulgence in sex.
- Excessive studying or being over attentive.
- Overpowering fear or sorrow.
- Late night awakening.
- Severe thirst or hunger.

Symptoms

1. General weakness and loss of body functioning.
2. Intolerance towards stress, thirst, hunger and also towards sound and climatic changes.

3. Dyspnoea.
4. Coughing.
5. Tremor.
6. Fatigue.
7. Pain in the chest over slightest effort, palpitations.
8. Pain in the joints.
9. Insipid mouth.
10. Abnormal upward progression of Vata dosha in the form of hiccups and belching.
11. Ringing of the ears.
12. Yawning.
13. Giddiness.
14. Abdominal distension.
15. Pain at the anus.
16. Fever.
17. Insomnia.
18. Diminished libido.
19. Restlessness.

URAKSHATA

2.1 Definition : Paribhasha

व्यायामभाराध्ययनैरभिघातानिभुनैः।

कर्मणा चाधुरस्येन वक्षो यस्य विदारितम्॥

तस्योपि क्षते रक्तं पूवं श्लेष्मा च गच्छति।

कासमानशुद्धदेच्य पीतवृत्तासितारुणम्॥

संततचवक्षः सोऽत्यर्थं दूयनात्सिताम्यति।

दुर्गन्धवदनोच्छ्वासो भिन्नवर्णस्वरो नरः॥ S.S.Utt.41/24.

उपेक्षिते भवेत्सिन्नुबन्धो हि यस्मिन्ः।

प्रागेवागमनात्तस्य तस्मात्तं त्वरया जयेत्॥ C.S.Ch.11/95.

अव्यक्तं लक्षणं तेषां पूर्वरूपमिति स्मृतम्।

उरोरुत्क्षुण्णितच्छदिः कासो वैशेषिकः क्षते॥

क्षीणे सख्तमूत्रत्वं पार्थशूष्ककटिग्रहः॥ C.S.Ch.11/12-13.

Formation of wound in chest especially in lungs is the basic cause of Urakshata. All the causes explained in Sahasaja Rajayakshma are capable to produce Urakshata. Aggravation of Rakta dhatu and Kapha dosha is fundamental event in the pathogenesis of this disease.

2.2 Symptoms

1. Severe bouts of coughing.
2. Suppurative lesions in the lungs.
3. Yellow, sour, reddish-brown vomiting.
4. Pain in the chest.
5. Body warmth.
6. Delusions.
7. Putrid, foul smelling breath.
8. Change in the normal color and texture of the skin.
9. Hoarseness of the voice.

Urakshata is actually further more expressed stage of Vrana Shosha. In which all the premonitory features of Rajayakshma are expressed as features of this condition. Wrong or delayed treatment or ignorance towards the illness leads to the formation of Rajayakshma.

2.3 Dietary and behavioral regimen

Pathya

wholesome regimen

1. Intake of diet rich in nutrition values.
2. Avoiding specific causes responsible for onset of specific Shosha- for e.g. taking rest and avoiding excessive walking during state of Adhva Shosha, avoiding starvation or undue fasting during state of Upavasa Shosha.etc.

Apathya

unwholesome regimen

1. Acceptance of relevant predisposing factors responsible to cause shosha of various body elements.

...

Formation of wound especially lungs.

Chapter

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RAJAYAKSHMA

Disease at a glance

- Nature of Disease: Chronic.
- Major Involving Dosha- Kapha, Vata, Pitta.
- Major Involving Dushya- All the seven basic body elements (Rasa, Rakta, Mamsa, Meda, Asthi, Majja, Shukra- Oja)
- Site of Manifestation: Lungs.
- Srotas: Pranavaha, Annavaha, Rasavaha and Raktavaha, shukravaha srotas.
- Types- Three- as presented symptoms
Four- as underlying cause.
- Cardinal Feature: Severe Depletion In Concentration of Body Elements- Dhātu Kshaya

Prognosis

- Difficult to cure in initial condition.
- Incurable and life threatening on becoming chronic.

Diseases for differential diagnosis

1. Shwasa.
2. Kasa.
3. Pandu.
4. Jeerna Jwara.
5. Grahani.

Reference reading

- Madhavidana Rajayakshma Chapter 21.
- Charak Samhita Nidana Sthana. Chapter 6
- Charak Samhita Sutra Sthana. Chapter 33.
- Charak Samhita Chikitsa Sthana. Chapter 8
- Sushruta Samhita Uttara Tantra. Chapter 41
- Ashtanga Hridaya Sharira Sthana. Chapter 5
- Ashtanga Hridaya Nidana Sthana. Chapter 5
- Yogratnakara- Rajayakshma
- Sanskrit English Dictionary - Apte Shabda-kosha.

1. Introduction

Rajayakshma is one of the eight most serious natured diseases explained as 'Mahagada' or life threatening disease conditions. Chronic in nature but surely fatal if misdiagnosed or mistreated. This disease is elaborately explained in Ayurveda for its causative factors, pathogenesis, types and treatment. Rajayakshma has origin in mythology. Moon-the king of lunar mansion is believed to be suffered from this disease. In today's life malnourishment, poverty and pollution are contributing factors for reappearance of this fatally serious disease. Pulmonary tuberculosis is a bacterial disease condition elucidated by modern science which can be taken for parallel study for Rajayakshma.

Further detailed pathogenesis is described as Nidana Panchaka of Rajayakshma in this chapter

2. Definition : Paribhasha

शंशोषादसादीनां शोष इत्यभिधीयते ।
क्रियाक्षयकरत्वाच्च क्षय इत्युच्यते पुनः ॥
राज्ञश्चन्द्रमसो यस्मादभूदेष किलामयः ।
तस्मात्तं राजयक्षेति केचिदाहुः पुनर्जनाः ॥ S.S.Utt.41/4-5.
यच्च राजा च यक्षा च राजयक्षा ततो मतः ।
देहौषधक्षयकृतेः क्षयस्तत्सम्भवाच्च सः ॥ A.H.Ni. 5/2-3.
अनेकरोगानुगतो बहुरोगपुरोगमः ।
दुर्विज्ञेयो दुर्निवारः शोषो व्याधिर्महाबलः ॥ S.S.Utt. 41/3.
अनेकरोगानुगतो बहुरोगपुरोगमः ।
राजयक्षा क्षयः शोषो रोगरुद्धिति स्मृतः ॥ A.H.Ni. 5/1.

The disease in which loss, depletion and weakening of all fundamental body elements- dhātu- occur as prime feature is called as Rajayakshma. All seven fundamental elements from Rasa dhātu to Shukra dhātu become dried up and very feeble due to affliction of this disease. All mental and physical activities of body are diminished with complete loss of physical as well as mental power.

It is said in mythology that the moon: king of lunar mansion once got afflicted with this disease so it is observed as decreasing in its size. Rajayakshma also defines itself as 'The King of The Diseases' because a lot many minor and major diseases are brought in power with manifestation of Rajayakshma and therefore it becomes the head or the king of all pathologies depending on it. These are various meanings of the term Rajayakshma.

It is a very chronic natured, serious and powerful disease. Wrong diagnosis or wrong treatment can directly become a threat to life of the patient. Onset of disease is composed of many serious elements and its prodromal features as well as features are serious, individual diseases in themselves.

3. Route of development : Marga

Madhyama- affliction of disease is to vital points and deeper planes of the body.

4. Predisposing factors : Nidana

इह खलु चत्वारि शोषयायतनानि भवन्ति।
तद्यथा- साहसं संघारणं क्षयो विषमाशनमिति ॥ C.S.Ni.6/3.
क्षयाद्वैप्रतीघाताद्विषमाशनान्।
जायते कुपितेदोषैर्व्यापिदेहस्य देहिनः ॥ S.S.Utt.41/9.

Causes of Rajayakshma are distinctively divided into four major types.

They are;

1. Vishmashna.
2. Vegavrodha.
3. Sahasa.
4. Kshaya.

Detailed explanation of causative factors:

4.1 Vishmashna

यदा पुनः पानाशनमक्षयलेख्योपयोगान् प्रकृतिकरणसंयोगादि देशकालोपयोगसंस्थोपशयविषमानासेवते; तदा तस्य वैभ्यो वातपित्तश्लेष्माणो वैषम्यमापद्यन्ते ॥

C.S.Ni.6/12.

Irregular quantity and imbalanced nature of consumption of food.

Intake of food not according to 'Ashta aahara vidhi visheshaya-tana'

Intake of food items having opposite qualities or which are incompatible.

Time fluctuations and irregularities of eating schedules.

Such causes are collectively called as Vishmashna. In general, when eight point method of eating the food [Ashta aahara ayatana—Prakruti, Karana, sanyoga, rashi, desh, kala, upayoga and sanstha] is not observed properly then it is called as Vishmashna. Acceptance of above mentioned causes produce aggravation of dosha and production of Ama. As a result of depletion of basic body elements severe emaciation of the body occurs. The patient becomes malnourished and frail. Vishmashna becomes first major cause of Rajayakshma.

4.2 Vegavrodha

यदा पुरुषो राजसमीपे भर्तृसमीपे भर्तृसमीपे वा गुरोर्वापादमूले द्यूतसवभयं वा सतां समाजं स्त्रीमध्यं वा समनुप्रविश्य यानैर्वाप्यु-च्यवचैरभियान् भयालसङ्गाद् होमत्वाद् वृणित्वाद्वा निरुणद्ध्यागतान् वातमूत्रपुरीषवेगान् तदा तस्य सन्धारणाद्वायुः प्रकोपमापद्यन्ते ॥ C.S.Ni.6/6.

Suppression of natural urges is called as Vegavrodha. Restraint of urges is caused specially when;

1. Person is busy accompanying some very important entity like the King, the mentor or the employer.
2. Person is engaged in a meeting of a group of valued people or surrounded by the crowd of people having opposite sex- therefore unable to express and execute his wish.
3. Person is very busy in a particular sort of the work.

4. Person restrains call of the nature due to fear, anxiety, distress or coyness.

5. Person is continuously traveling for a long period of time.

Suppression of natural urges due to preoccupation lead to aggravation of Vata dosha. The ultimate result is development of Rajayakshma. Vegavrodha is second important cause of Rajayakshma.

4.3 Sahasa

यदा पुरुषो दुर्बलो हिमन् बलवता सह विगृह्यति, अति महता वा धनुषा व्याचञ्चति, जल्पति वातिमात्रमतिमात्रं वा भासुद्ब्रह्मति । अपु वा खल्वते चातिदूरम्, उल्सादनपदाघातने वातिप्रगाढभासेवते, अतिप्रकृष्टं वाध्वानं द्रुतमतिपतति, अभिहन्यते बान्ध्या किञ्चिदेवं-विघ्नं विषममतिमात्रं व्यायामजातमारपते, तस्यातिमात्रेण कर्मणोः क्षण्यते ।

C.S.Ni. 6/4.

धनुषाऽऽयस्यतोऽत्यर्थं भासुद्ब्रह्मते गुरुम्।
युच्यमानस्य बलिभिः पततो विषमिच्छतः ॥
वृषं हयं वा धावन्तं दम्य वाऽन्यं निगृह्यतः ॥
शिलाकाष्ठान्मनिर्घातान् क्षिपतो निजतः परम् ॥
आधियानस्य वाऽत्युच्चैर्दूरं वा ब्रजतो द्रुतम्।
महानदीर्वा तरतो हयैर्वा सह धावतः ॥
साहसोत्पततो दूरं तूर्णं वाऽपि प्रनृत्यतः ॥
तथाऽन्यैः कर्मभिः क्लृपेभृशमप्याहतस्य वा ॥
विक्षते वक्षसि व्याधौर्बलवान् समुदीर्यते ॥
स्त्रीषु चातिप्रसक्तस्य रुक्षात्प्रमिताशिनः ॥

C.S. Ch. 11/4-8.

Physical exertion practiced beyond limit of body capacity is called as Sahasa.

Sahasa can be understood as;

1. Wrestling with individuals more powerful than self.
2. Usage of a heavy weight bow.
3. Continuous high pitch vocalization or singing.
4. Lifting of heavy loads.
5. Swimming or running for a long distance.
6. Accepting a very hard and extra powerful

massage of body, kneading of body by foot.

7. Frequent High or long jumping.

8. Continuous dancing.

9. Mountaineering or rock climbing.

10. Training or handling ferocious animals like bull, horse or elephant.

11. Throwing heavy objects over a distance.

12. Physical injury.

13. Excessive indulgence of sexual pleasure with a

14. Emaciation of body.

All such causes lead to aggravation of Vata dosha and further to development of Rajayakshma. Sahasa is third important cause of Rajayakshma.

4.4 Kshaya

यदा पुरुषोऽतिमात्रं शोकचित्तापरोतहृदयो भवति ईर्ष्याक्लण्डा-भयक्रोधादिभिर्वा समाविश्यते कुशो वा सन् रुक्षात्पानसेवो भवति, दुर्बलप्रकृति-त्नाहोऽत्याहारे वाऽस्ते, तदा तस्य हृदयस्थायी रसः क्षयमुपैति, स तस्योपश्रयात्संशोषं प्राप्नोति ॥ C.S.Ni.6/9.

यदा वा पुरुषोऽतिहर्षणात् प्रसक्तभावः स्त्रीष्वपतिप्रसङ्गमारपते, तस्यातिमात्रप्रसङ्गाप्रेतः क्षुद्रमुपैति। क्षयमपि चोपगच्छति रेतसि यदि मनःस्त्रीष्वो नैवास्य निवर्तते, अतिप्रवर्तत एव, तस्य चातिप्रगितसङ्कल्पस्य मैथुनमापद्यमानस्य न च शुक्रं प्रवर्तते, अतिमात्रोपक्षीणरे- तस्त्वात् ॥

C.S.Ni.6/10.

Kshaya is understood by loss or diminution of basic body elements. This diminution can occur by two ways; Anuloma kshaya i.e. diminutions in descending order [from Rasa dhatu to Shukra dhatu] and Pratiloma kshaya i.e. diminutions in ascending order [from Shukra dhatu to Rasa dhatu].

Causes for Anuloma kshaya are;

1. Overwhelming sorrow and worry or imbalanced mind due to mental tension, stress, rivalry, fright and anxiety.

- Practice of eating dried food in very less quantity by an already emaciated person.
 - Longstanding starvation.
- Such causes are responsible in diminution or loss of basic body elements in descending order (Akuloma kshaya).

Cause for Pratiloma kshaya:

1. Excessive indulgence with sex causes weakness to Shukra dhatu. At this stage person should refrain himself from enjoying sex. When due to unrestrained mind sex is practiced forcibly using some artificial aid with feeble Shukra dhatu the diminution starts occurring from Shukra dhatu to Rasa dhatu in an ascending order [Pratiloma kshaya].

5 Pathogenesis : Samprapti

कैशिकी-सिंहः सितं कठं सोदर्यं सर्व्वं ।
 श्लेष्मन्मोक्षविषयं तान् सिगुश्च प्रशोचयन् ॥
 मूत्रवृत्तिं स्वल्पमां रुद्ध्या महेदानीविदूष्य वा ।
 सर्व्वमूर्च्छवर्षसिर्दय्यायत्वं जनेदददम् ॥ A.H.Ni. 5/5-6.

शोषेर्दन्तान्तरत्वेन सौम्यैः कक्रौल्वणैः ।
 कोनोसुखेषु रुद्धेषु धातुमन्वयकेषु च ॥
 विदम्बमानः स्वस्थाने स्मन्मोक्षानुप्रयान् ।
 कुर्यादपठन्मोक्षार्दानमुक्त्वा सोदर्यं प्रथार्वति ॥
 पच्यते कोष्ठं पचाग्रमग्रवदेव चाप्य यत् ।
 प्रयोऽप्राम्भ्यन्तं यत्नं वैद्यतं धातुपुर्ये ॥
 मोक्षं च्यव्य न स्वनाय सांमाय कुन भवतु ॥
 उपस्थः स शकृत्वा केवलं वर्तते क्षयी ॥ A.H.Ni. 5/19-22.

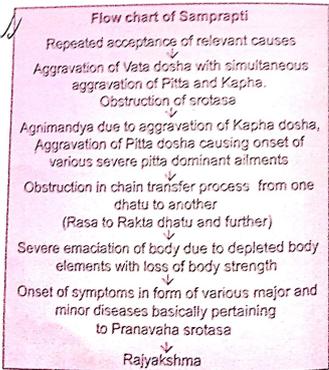
नमिन् काले पच्यन्निर्वदग्रं कोष्ठमंश्रितम् ।
 सर्वापर्वति नशायः कल्पते किचिदोजसि ॥ C.S.Ch. 8/41.

जायन्ते व्यायधधानः पडेकादश वा पुनः ।
 येषां संवातयोपेन यजवश्येति कथ्यते ॥ C.S.Ch. 8/44.

Vata dosha aggravates due to prolonged practice of any or all of four main causes i.e. Vishmashina, Vegavrodha, Sahasa and Kshaya. Aggravation of Vata dosha is main step in the samprapti of Rajayakshma. Vata dosha forces out the already exacerbated Pitta and Kapha from their seats and moves throughout the

body along with them. This abnormal union of all the three dosha causes obstruction in channelled system (srotas) and further leads to obstruction of the whole body functions to produce various ailments especially related to Pranavaha srotasa.

Kapha aggravates severely and causes further obstruction ultimately resulting in deficient digestive power (Agnimandya). Rasa dhatu fails to get transferred to Pakta dhatu and further chain of transformation also fails. Pitta becomes hyper acidic to produce various Pitta prevailing diseases. The failure of transformation of Rasa to further dhatu causes severe emaciation of the affected body. At this stage the patient survives only on the strength of faecal material [purisha mala] saturated in the intestines. As a result of mal nourishment and non transfer of ingested food the body becomes severely emaciated and the aggravated dosha constantly circulate through it. Body immune system fails and several minor as well as major pathologies formed which are collectively called as Rajayakshma.



Components of pathogenesis: Samprapti ghataka

- Dosha: Kapha, Vata, Pitta, Prana, Udana vayu
- Dushya: Rasa, Pakta, Mamsa, Meda, Ashli, Meja, Shukra- Oja.
- Srotas: Pranavaha, Annavaha, Rasavaha, Osharavaha, Shukravaha Srotas
- Adhisthana: Kantha - throat-Pranavaha Srotas- Whole Body
- Swabhava: Chirekari.
- Agni Dushi: Jatharagni, dhatu agni- Agnimandya.

6. Premonitory features : Purvaroopas

रुदं भविष्यन्मस्य प्रविश्याद्यो भृगं क्षयः ।
 प्रसेको मुखनाभुयं मदनं वद्विद्वेद्योः ॥
 म्याल्पमप्राप्तपानादौ शुच्यव्याययशुचीक्षयम् ।
 मक्षिकानुपकेगादिपातः प्रायोऽग्रपानयोः ॥
 हल्म्यासप्रउद्विर्भुचिरश्नतोऽपि बलक्षयः ।
 पाप्योर्वेक्षा पादास्यगोचोऽस्थोनिशुक्लता ॥
 वाय्वः प्रयागजिज्ञासा काये वैभन्त्यदर्शनम् ।
 स्त्रीपथ्यांमृश्रियानावृणित्वं मूर्द्धगुण्डनम् ।
 नखकेशावृद्धिश्च स्वने चाभिपवो भवेत् ।
 पत हकुकलमाहिकपिथापरपक्षिभिः ॥
 केशास्थितुपमसादिगणौ समचिरोहणम् ।
 शुभ्यानां प्राग्देशानां दर्शनं शुभ्यतोऽम्भसः ॥
 ज्योतिर्गिर्णिगां पततां ज्वलतां च महोरुहाम् ॥ A.H.Ni. 5/7-12.

तस्येयानि पूर्वमपि भवन्ति; तद्यथा- प्रतिश्यायः, श्वययुःपीक्षणं, श्लेष्मप्ररोकः, मुखनाभुयं, अनवभिलापः, अन्नकाले चायासः, दोषदर्शनमदोषेवत्वदोषेषु वा भावेषु पात्रोदकाजसूपोपापदंशपद्विशेषेषु, भुक्तवतश्चास्य हल्लसः, तथोल्लेखनपथाहास्यान्त-रान्तर, सुखस्य पादयोश्च शोकः, पाप्योचावेक्षणमत्यर्थम्, अश्लोः शैतावपासताचातिमात्रं, वाय्वोश्च प्रयागजिज्ञासा, सौकामता, निर्वृणित्वं, वीभलसदर्शनताचास्य काये, स्वने चाभीक्षणं दर्शनमनुदकानामुदकस्थानानां शुभ्यानां च ग्रामनगरनिपमजनपदानां शुक्लदंशभनानां च वनानां कृकलासमयूवानरशुक्लसर्षकाकोलुकादिभिः संसर्शनमयिरोहणं यानं वा श्वोऽष्टखरव्राहैः केशास्थिभस्यतुपाडूरागशिनां चाधिरोहणमिति ॥ C.S.Ni..6/13.

- Hyper salivation.
- Morbid sweet feel of mouth.
- Loss of appetite. Feeling of tiredness at meal times.
- Body ache and easy fatigability.
- Suspicious about having dirt, dust or strand of hair on actually clean utensils. Doubts about having dirt or dust mixed with eatables. Constantly finding inaccuracy or faults especially in utensils, water, cereals, pulses, flour recipes, pre food recipes and in serving or catering personnel.
- Nausea- especially after meals.
- Vomiting- irregularly during meals.
- Inspid mouth.
- Mild oedema on foot and face.
- Abnormal bright or whitish appearance of eyes.
- Undue anxiety about body structure of the self for e.g. Measurement of arms.
- Feeling of dirtiness or stickiness of body in spite of having regular bath.
- Excessive desire for sex.
- Excessive desire to eat spicy, pungent non vegetarian food items and to consume alcohol.
- Constant feeling of disdain to self and surrounding. Abnormal changes in personality to become unkind or merciless.
- Tendency to cover the head with a mattress while sleeping.
- Rapid growth of hair and nails.
- Observing Some special kinds of dreams is explained as prodromal feature of Rajayakshma such as :
 - Being attacked and defeated by birds [owls, crows, peacocks etc] and animals [monkeys and snakes],

- ii. Having a ride on back of a camel, pig, dog or donkey.
- iii. Sitting on a pile of ash, bone fragments or hair.
- iv. Wandering in deserted towns and seeing dried up lakes, burnt broken trees.
- v. Falling of hot burning coal on body.
- vi. Collapsing of blazed mountains and trees etc.

These dreams suggest for severe imbalance caused to the body as a result of the disease.

7. Clinical features : Roopa

पीनसधासकासांसमूर्द्धस्वरुजोऽरुचिः ।
उर्ध्वं विद्भ्रंशमंशोपावयः छर्दिश्च कोष्ठमे ।।
निर्वन्ध्यै पार्श्वरुदोषे संचिणे भवति ज्वरः ।
रुपाप्येकादशैतानि जायन्ते राजयक्षिणः ।।

A.H.Ni. 5/13-14.

Rajayakshma presents itself with a wide range of features and most of them are diseases in themselves. The presentation of symptoms depends upon direction of the dosha progression. As described below;

1. With upward progression of aggravated dosha : Nasal congestion, shortness of breath, cough, insipid mouth, headache, pain in shoulders and neck.
With downward progression of aggravated dosha : Irregular changes in defecation pattern; with some times loose stool [विद्वि विभ्रंश] while other times hard stool [विद्वि संश्रंश].
2. With abnormal progression of aggravated dosha towards Amashaya: vomiting.
3. With abnormal progression of aggravated dosha in irregular fashion : Pain in flanks.
With progression of aggravated dosha to joints: fever.

Additional features are

- ✓ 1. Inflammation and irritation of throat.
- ✓ 2. Chest pain.
- ✓ 3. Yawning.
- ✓ 4. Body ache.
- ✓ 5. Hyper salivation.
- ✓ 6. Foul smelling mouth.
- ✓ 7. Indigestion.

Symptoms also can be classified according to dosha dominance as;

7.1 Vata dominant symptoms

तत्र वाताच्छिरः पार्श्वशूलमंसाङ्गमर्दनम् ।
कण्ठोर्ध्वसः स्वरभ्रंशः ।। A.H.Ni. 5/16

1. Head ache.
2. Pain in flanks.
3. Pain in shoulders.
4. Body ache.
5. Inflammation and irritation of throat.
6. Hoarseness and loss of voice.

7.2 Pitta dominant symptoms

पित्तात्पादांसमग्निसु ।
दाहोऽतिसारोऽमुकच्छर्दिर्मुखगन्धोः ज्वरो मदः ।।

A.H.Ni. 5/5-17.

1. Sensation of burning at hands and feet.
2. Sensation of burning at shoulders.
3. Loose motions.
4. Haematemesis.
5. Putrid, foul smell of mouth.
6. Fever.
7. Delirium.

7.3 Kapha dominant symptoms

कृतादरोचकशर्दिः कासो मूर्द्धाङ्गौष्वप ।
प्रमेकः पीनसः धासः स्वरसादोऽल्पवह्निता ।।

A.H.Ni. 5/18.

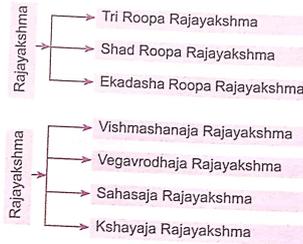
1. Insipid mouth.
2. Vomiting.
3. Coughing.

4. Heaviness of head. ✓
5. Heaviness of body. ✓
6. Hyper salivation. ✓
7. Nasal congestion. ✓
8. Loss of voice. ✓
9. Indigestion. ✓

8. Types : Prakara

वेगवरोधात् क्षयाच्चैव साहसद्विपमाशानात् ।
त्रिदोषो जायते यस्मा गदो हेतुचतुष्टयात् ।।

M.Ni.- Rajayakshma-10/1.



1. Rajayakshma is classified on the basis of two major grounds:-

8.1 On the basis of nature and Presentation of disease as

Triroopa Rajayakshma, Shadroopa Rajayakshma and Ekadasharoopa Rajayakshma.

8.2 On the basis of underlying root cause of disease as

Vishmashanaja Rajayakshma, Vegavrodhaja Rajayakshma, Sahasaja Rajayakshma and Kshayaja Rajayakshma.

1. TRIROOPA RAJAYAKSHMA

अंसपार्श्वोभितापश्च संतापः कस्यादयोः ।
ज्वरः सर्वाङ्गैश्चेति लक्षणं राजयक्ष्मणः ।।

M.Ni.- Rajayakshma-10/5.

Three mode presentation of disease

1. Pain at shoulders and flanks.
2. Sensation of burning at hands and feet.
3. Body warmth.

2. SHADROOPA RAJAYAKSHMA

पडिमानि वा ।

कासो ज्वरः पार्श्वशूलं स्वरभेदवर्चोऽरुचिः ।। C.S.Ch.8/46.
भक्तद्वेषो ज्वरः धासः कासः शोणितदर्शनम् ।
स्वरभेदश्च जायते पडसरुपे राजयक्ष्मि ।। S.S.Uit.41/11.
अग्निमार्धं ज्वरः शैल्यं यान्तिः शोणितपूययोः ।
सत्वहानिश्च दोर्बल्यं रोपराजस्य लक्षणम् ।।

Yogratnakara- Rajayakshama.

Six mode presentation of disease

4. Coughing.
5. Fever.
6. Pain at flanks.
7. Hoarseness of voice.
8. Unformed stools.
9. Insipid mouth.

3. EKADASHAROOPA RAJAYAKSHMA

कासोऽसतापो वैस्वर्षं ज्वरः पार्श्वशिरोरुजाः ।
छर्दनं रक्तकफयोः धासवर्चोर्गदोऽरुचिः ।।
रुपाप्येकादशैतानि यक्ष्मणः ।। C.S.Ch.8/45-46.

Eleven mode presentation of disease

1. Cough.
2. Sensation of burning at shoulders.
3. Fever.
4. Change in quality of voice.
5. Pain in flanks.
6. Headache.
7. Vomiting of blood.
8. Vomiting of mucoid sticky secretions.
9. Dyspnoea.
10. Unformed stools.
11. Insipid mouth.

Actually Rajayakshma always presents itself as a very chronic, powerful and life threatening disease also pathogenesis of disease always comprises equal aggravation of

all the three dosha [Sannipatika vyadhi]. The types like Thiroopa Rajayakshma, Shadroopa Rajayakshma and Ekadasharoopa Rajayakshma are explained only to classify and understand stages of disease.

8.3 On the basis of underlying root cause of disease as

Vishmashnaja Rajayakshma, Vegavrodhja Rajayakshma, Sahasaja Rajayakshma and Kshayaja Rajayakshma.

1. VISMASHNAJA RAJAYAKSHMA

तस्मान्प्रायमानस्य विषनानोपदिता दोषाः पृथक् पृथक् प्रवृत्तव्येति मूयः शरीरमुपचयन्ति तत्र वातः शूलनृमर्दं कण्ठोद्ध्वंसनं पार्श्वसरोजनसंसावमर्दनं स्वरभेदं प्रतिश्यायं चोपजनयति।
पित्तं पुनर्ज्वरतीसारमन्तर्दहं च, स कासप्रसङ्गादुपति क्षते सशोणितं ष्ठीवति, शोणितमनाच्यास्य दौर्बल्यमुपजायते। एवमेते विषनाशानोपदितास्वयो दोषा राजयक्षाणानभिनवर्तयन्ति। स तैरुपशोषणैरुपद्रवैरुद्धतः शनैः शनैरुपशुष्यति॥
C.S.Ni. 6/12.

विविधान्यप्रभानानि वैषम्येण समश्रतः।
जनयन्त्यामयान् घोरान्निषमारुहादयः॥
स्वोतांसि रधिगदीनां वैषम्याद्विषमं गताः।
रुद्धा रोगाय कल्पने पुष्यन्ति न च शतवः॥
प्रतिश्यायं प्रसेकं च कासं छर्विरोचकम्।
ज्वरसंभितापं च छर्दनं रुधिरस्य च॥
पार्श्वशूलं शिरःशूलं स्वरभेदमपि च।
कफापित्तानिलकृतं लिङ्गं विद्याद्यथाक्रमम्॥
C.S.Ch.8/28-31.

Special predisposing factors

1. Practice of eating various food contents in improper or imbalanced proportions causes formation of Ama in srotasa which further blocks other channeled systems e.g. Raktavaha srotasa to cause Vishmashnaja Rajayakshma.

Clinical features

- Symptoms due to aggravated Vata dosha-
1. Various types of pain in body.

2. Body ache.
3. Inflammation and irritation of throat.
4. Pain at flanks.
5. Pain in shoulders.
6. Hoarseness of voice.
7. Common cold (coryza).

Symptoms due to aggravated pitta dosha -

8. Fever.
9. Loose motions.
10. Burning sensation.
11. Wounding of lungs due to constant bouts of coughing and blood spitting [haemoptysis].
12. Severe fatigue due to blood loss.
13. Steady depletion of body elements.
14. Vomiting
15. Insipid mouth

2. VEGAVRODHJA RAJAYAKSHMA

स वातः प्रकुपितः पित्तश्लेष्माणौ समुदीर्योर्ध्वमधस्तिर्यक् च विहरति।
ततश्चाश्विशेषेण पूर्वकं च शरीरावयवविशेषं प्रविश्य शूलमुपजनयति, भिनत्ति पुरिषमुच्छोषयति वा, पार्श्वं चातिरुजति, अंसोचावमृद्नाति, कण्ठनुरक्षावयमति, शिरश्चोपहन्ति, कासं, श्वासं, ज्वरं, प्रतिश्यायं चोपजनयति। ततः सोऽप्युपशोषणैरुपद्रवैरुद्धतः शनैरुपशुष्यति॥
C.S.Ni. 6/7.

हीमत्वाद्वा घृणित्वाद्वा भयाद्वा वेगमागतम्।
वातमूर्पुरीषाणां निगृह्णाति यदा नरः॥
तदा वेगप्रतिघातात् कफपित्तं समीरयन्।
उर्ध्वं तिर्यग्धक्षैव विकारान् कुरुतेऽनिलः॥
प्रतिश्यायं च कासं च स्वरभेदमरोचकम्।
पार्श्वशूलं शिरःशूलं स्वरसंसावमर्दनम्॥
अङ्गमर्दं मुहुश्छर्दिं वचोभेदं त्रिलक्षणम्।
रुग्ण्येकादशैतानि यस्मा वैरुच्यते महान्॥ C.S.Ch.8/20-23.

Practice of suppression of natural urges causes aggravation of all the three dosha to form blockages in channeled systems of body which leads to restrain further body nourishment.

1. Pain in stomach.

2. Irregular loose or hard motions.
3. Pain at flanks.
4. Body ache.
5. Throat and chest pain.
6. Cough.
7. Dyspnoea.
8. Fever.
9. Hoarseness of voice.

3. SAHASAJA RAJAYAKSHMA

तस्योरः क्षतमुत्सवते वायुः, स तत्रावस्थितः श्लेष्माणुरः स्फुमसंकुञ्च शोषयन् विहरत्यूर्ध्वमधस्तिर्यक् चयोऽशस्तस्य शरीरस्थानाविशति तेनास्य जुम्भाङ्गमर्दो ज्वरश्चोपजायते यस्वामाशयमभ्युपैति तेनास्य वर्चो भिद्यते।
यस्तु हृदयमाविशति तेन रोगा भवन्ति उरसाः यो रसानां तेनाऽस्य अरोचकश्च।
य कण्ठमभियपद्यते, कण्ठस्तेनोद्ध्वंस्यते स्वरक्षावसीदति।
यः प्राणवहानिन स्त्रोतांस्यन्वेति, तेन श्वासः प्रतिश्यायश्चोपजायते।
यः शिरस्वतिष्ठते, शिरस्तेनोपहन्यते, ततः क्षणानाच्चैवोरसो विषमगतित्वाच्च वायोः कण्ठस्योद्ध्वंसनात्कासः सततमस्य संजायते, स कायप्रङ्गादुपति क्षते सशोणितं ष्ठीवति, शोणितमनाच्यास्य दौर्बल्यमुपजायते, एवमेते साहसप्रभवाः साहसिकमुपद्रवाः सृशन्ति। ततः सोऽप्युपशोषणैरुपद्रवैरुद्धतः शनैः शनैरुपशुष्यति।
C.S.Ni. 6/5.

युद्धाध्ययनभारगलङ्घनलवनादिभिः।
पतनैरपिघातेर्वा साहसैर्वा तथाऽपरेः॥
अयथाबलमारमैर्जन्तोरसि विक्षते।
वायुः प्रकुपितो दोषातुदीर्योभौ प्रघावति॥
स शिरस्थः शिरःशूलं करोति गलमाश्रितः।
कण्ठोर्ध्वसं च कासं च स्वरभेदमरोचकम्॥
पार्श्वशूलं च पार्श्वस्यो वर्चस्यो वचोभेदं गुदे स्थितम्॥
जुम्भां ज्वरं च सन्धिस्थ उरःस्थोरोसो रुजम्॥
क्षणनादुरसः कासात्कफं ष्ठीवेत् सशोणितम्।
जर्जरणोरसा कृच्छ्रमुः शूलातिपीडितः॥
इति साहसिको यस्मा रुषैरैः प्रपद्यते।
एकादशभिरात्मज्ञो भजेत्साम्राज साहसम्॥ C.S.Ch.8/14-19.

Sahasa [over exertion] leads to direct wounding of lungs and also provocation of all three dosha. These aggravated dosha circulate through the body in all possible directions and

produce a variety of symptoms depending on chosen pathway of their progression.

Special predisposing factors

1. Excessive physical exertion and further depletion of body elements due to war (fighting), loud recitation(study), carrying heavy loads, extensive swimming, physical trauma due to fall(etc.), practice of other types of extensive physical activities.

Symptoms as per affliction to various body parts

1. Symptoms due to affliction of joints: yawning, body ache, fever.
2. Symptoms due to affliction of Amashaya: unformed stool with change in quality of stool, loose motions.
3. Symptoms due to affliction of Heart: diseases of chest.
4. Symptoms due to affliction of Rasa dhatu: insipid mouth.
5. Symptoms due to affliction of throat: hoarseness of voice, swelling of throat.
6. Affliction to Pranavaha srotasa: asthma, common cold (coryza).
7. Symptoms due to affliction of head: loss of orientation, head ache, heaviness of head.

In Sahasaja Rajayakshma, inflammation and irritation of throat causes constant coughing which is enhanced by aggravated Vata dosha. This results in more blood spitting causing severe fatigue to body. The patient becomes severely emaciated.

4. KSHAYAJA RAJAYAKSHMA

अथास्य वायुव्याधिच्छमानशरीरस्यैव घमनीरुमुविश्य-शोणितवाहिनीऽताम्यः शोणितं प्रच्यावयति, अस्य पुनः तच्छुक्रक्षयात् शुक्रमार्गेण शोणितं प्रवर्तते वातानुसृतलिङ्गम्।
अथास्य शुक्रक्षया-च्छोणितप्रवर्तनाच्च सन्ध्यः शिथिलीभवन्ति, रौक्ष्यमुपजायते मूयः शरीरं दौर्बल्यमाविशतीति, वायुः प्रकोपमापद्यते, स प्रकुपितो

वशिकं शरीरमुत्सर्गं श्लेष्मपित्तं संरुजति पार्थे,
चाबमृशान्तौ, कण्ठमुद्वस्यति, शिरः श्लेष्माणुपुप्लवेश्य
परिसृजति श्लेष्मणा, सन्मीध्रं प्रपीडयन् करोत्यङ्गमर्दमरोचका
विषाको च पित्तश्लेष्मोत्प्लेषात् प्रतिलोमगत्वाच्च वारुज्वरं,
कासं, धाम्स्वस्वभेदं, प्रतिशयायज्ज्वोपजनयति, सकास-
प्रसङ्गदुरिहिते, शोणितं निष्ठीवति। शोणितगमनाच्चास्य
दोषं बल्युपजायते।

ततः सोऽप्युपशोषणैतरेणरवेरुद्धतः शनैः शनैरुपशुभ्यति।
वशिकं-शून्य-शूक- शोणितक्षयाद् र्स्मितं इति॥

C.S.Ni. 6/10.

ईर्ष्याकण्ठाभयत्रासक्रोधशोकातिकर्षणात्।
अतिव्यवायानशनाच्छुक्रमोजश्च हीमते॥
ततः स्नेहक्षयाद्वायुवृद्धो दोषावुदीर्यते।
प्रतिशयायं ज्वरं कासमङ्गमर्दं शिरोरुजम्॥
धाम्स्विभेदमरुचिं पार्थशूलं स्वस्वम्।
करोति चांसंतापमेकादशगदानिमान्॥
लिङ्गान्यावेदयन्त्येतामेकादश महापदम्।

संघातं राजयस्मागं क्षयात् प्राणक्षयमदम्॥ C.S.Ch. 8/24-27.

Aggravated Vata dosha causes destruction of Rakta dhatu and hence further up to Shukra dhatu respectively. This process of destruction of basic body elements causes looseness of joints, severe dryness and depletion of body elements. Vata dosha creates hollowness in various sites of body with its dry-raksha and harsh -khana qualities. The action of aggravated Vata dries up Mamsa, Rasa and Rakta dhatu. Destruction and drying up produces severe debility and damage to various channeled systems - srotasa- of body.

Special predisposing factors

1. Emaciation of body due to overpowering emotions like jealousy, excitement, fear, sorrow.
2. Excessive practice of sex.
3. Prolonged starvation.

Clinical features

1. Pain at flanks.
2. Hoarseness of voice.

3. Joint pain.
4. Body ache.
5. Insipid mouth.
6. Indigestion.
7. Fever.
8. Cough.
9. Dyspnoea.
10. Common cold (coryza).
11. Wounding of lungs due to constant coughing and haemoptysis.
12. Severe fatigue.
13. Headache.
14. Unformed stool.
15. Pain in shoulder (ptosis of shoulders)
16. Death is possible due to severe depletion of body elements.

9. Complications : Upadrava

तेषामुपद्रवान् विद्याल्लण्डोद्ध्वंसमुरोरुजम्।

जृम्भाङ्गमर्दनिष्ठीववह्निसादास्पृशितः॥ A.H.Ni. 5/15.

1. Inflammation and irritation of throat.
2. Chest (lung) lesion. Chest discomfort.
3. Body ache.
4. Productive cough with purulent sputum.
5. Indigestion.
6. Foul, putrid smelling mouth.
7. Fever.

10. After effects : Udarka

1. Emaciation of body.
2. Chronic indigestion.
3. Pain in chest.
4. Intolerance to physical exertion.

11. Prognosis : Sadhyasadyatva

11.1 Sadhya : symptoms of curable Rajayakshma

ज्वरानुबन्धरहितं बलवन्तं क्रियासहम्।

उपक्रमेदात्मवन्तं दीप्ताग्निमृकृशं नरम्॥

M.Ni.- Rajyakshma-10/13.

1. Patient is afebrile.
2. Developed only few symptoms.
3. With good body strength and immunity.
4. Receiving proper treatment and good diet with adequate rest.
5. With good response and tolerance to all types of treatments prescribed to him.
6. With good digestive capacity.
7. Not severely emaciated.

11.2 Asadhyā : symptoms of incurable Rajayakshma

एकादशभिरेभिर्वा षड्भिर्वाऽपि सगन्धितम्।

कासातीसारार्थातिस्वरभेदारुचिज्वरैः॥

त्रिभिर्वा पीडितं लिङ्गैः कासश्चासासुनामयैः।

जड्याच्छोषादितं जन्तुमिच्छन् सुविमलं यशः॥

S.S. Utt. 41/14-15.

सर्वैर्यैः त्रिभिर्वाऽपि लिङ्गैर्नासबलक्षये।

युक्तो वर्ज्यश्चिकित्स्यस्तुसर्वरुपोऽप्यतोऽन्यथा॥

C.S. Ch. 8/47.

महाशनं क्षीयमाणमतीसारनिपीडितम्।

शून्युच्छोदरं चैव यद्विषणं पक्विज्येत्॥ S.S. Utt. 41/31.

शुक्लाक्षमत्रद्वेष्टारुर्ध्वं धासनिपीडितम्।

कृच्छ्रेण बहुमेहनतं यक्ष्मा हन्तीह मानवम्॥ S.S. Su. 33/20.

1. Patient afflicted by Shad Roopa or Ekadasha Roopa Rajayakshma.
2. With severe coughing, loose motions, pain in flanks, hoarseness of voice, insipid mouth and fever.
3. Severe emaciation of body.

4. Patient who consumes large quantity of food and still undergoes wasting or emaciation of body.
5. Swelling of genital organs, abdomen and loose motions.
6. Pale (abnormally white) colored eyes.
7. Severe loss of appetite.
8. Severe dyspnoea.
9. Strenuous but voluminous urination.

12. Fatal symptoms : Arishta lakshana

यक्ष्मा पार्थरुजानाहवक्तच्छर्धसतापिनम्। A.H.Ni. 5/77.

1. Pain in flanks.
2. Flatulence.
3. Hemoptysis – blood vomiting.
4. Fever of rising grade.

13. Pathyapataya - Diet Regimen

13.1 Pathya

wholesome regimen:

1. Intake of goat milk.
2. Intake of meat (of goat)
3. Complete rest.

13.2 Apathya

unwholesome regimen:

1. Intake of acidic, Kapha dosha provoking, oozing type of food.
2. Physical exertion.

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1. Definition

Pneumonia is a generic term applied for the inflammatory conditions of the lung tissue.

2. Causative agent

Streptococcus pneumoniae.

3. Morphology

They are Gram positive, non motile, lancelet shaped diplococci. They are capsulated.

4. Classification

Classification is based on causative factor:

1. Bacterial
2. Viral.
3. Fungal.
4. Accidental.
5. Rickettsial.
6. The major classification is under the heading:
7. Lobar pneumonia
8. Bronco pneumonia

This classification is based on the affected site of the lung.

Lobar pneumonia: Pneumonia involving the whole lobe or more than one lobe is called as lobar pneumonia.

5. Mode of infection

Inhalation by droplet method: When the person comes in the contact with sneezing or coughing of a patient, the infection is spreads and caught by the healthy person.

6. Pathogenesis

After entering the body via nasal canal

pneumococi enters into the bronchial path, penetrate bronchial mucosa and spread through the lung along the peribronchial tissue. Due to spread and multiplication they increases in number and bacterimia occur.

Three stages of pneumonia are explained according to the appearance of the lung.

6.1 Red hepatisation

consolidated part of the lung appears red in the colour. The alveoli get thickened and the lung gives the appearance of the liver. This happens due to the collection of the blood and the serous fluid inside the alveoli. This stage is called as red hepatisation.

6.2 Gray hepatisation

this is the second stage of the disease. As the time passes the consolidated red coloured alveoli turn grayish black due to the collection of the fibrinous fluid inside them. These thickened alveoli are airless and blood circulates around them.

6.3 Stage of resolution

after proper diagnosis and treatment bacteria disappear from the blood stream and the debris of the fluid and dead cells is cleared by the phagocytes. Slight purulent discharge is present in the bronchi.

7. Clinical features

1. Abrupt onset.
2. Common cold with shaking chills once or twice in a day.
3. Fever.
4. Chest pain- increases with coughing.

5. Production of rusty, purulent sputum.

6. Patient appears extremely ill with peripheral cyanosis.

7. Dull note on percussion of the chest.

8. Patient tends to sleep by pressurizing the affected site.

8. Laboratory diagnosis

1. X-Ray Chest, P/A View.
2. Staining Of the Sputum.
3. Haemogram with E.S.R.

9. Complications

Empyema, Pneumothorax.

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1. Definition

Bronchitis is defined as inflammation of the bronchi in the lungs.

2. Types

Bronchitis is divided into main two types:

1. Acute Bronchitis (chest cold)
2. Chronic Bronchitis.

2.1 Acute Bronchitis

Acute bronchitis, also known as a chest cold, is short term inflammation of the bronchi of the lungs.

General Symptoms

1. Cough with mucoid sputum.
2. Wheezing.
3. Shortness of breath.
4. Chest discomfort.

The most common symptom is a cough. The infection may last from at five to ten days. The cough may persist for several weeks afterwards with the total duration of symptoms usually around three weeks. Some patients have symptoms up to six weeks.

Causes

1. Viral infection: In more than 90% of cases the cause is a viral infection. These viruses may be spread through the air, when people cough or by direct contact. Risk factors include exposure to tobacco, smoke, dust, and other air pollution. A small number of cases are due to high levels of air pollution or bacteria such as *Mycoplasma pneumoniae* or *Bordetella pertussis*. Diagnosis is typically based on a person's signs and symptoms. The colour of the sputum does not indicate if the infection is viral or bacterial. Determining the

underlying organism is typically not needed.

Prevention is by not smoking and avoiding other lung irritants. Frequent hand washing may also be protective. Acute bronchitis is one of the most common diseases. About 5% of adults are affected and about 6% of children have at least one episode a year. It occurs more often in the winter.

2.2 Chronic Bronchitis

Chronic bronchitis is defined as a productive cough that lasts for three months or more per year for at least two years. Most people with chronic bronchitis have chronic obstructive pulmonary disease (COPD).

Causes

1. Smoking cigarettes or other forms of tobacco.
2. Chronic inhalation of air pollution or irritating fumes or dust from hazardous exposures in occupations such as coal mining, grain handling, textile manufacturing, livestock farming, and metal moulding may also be a risk factor for the development of chronic bronchitis.
3. Protracted bacterial bronchitis is usually caused by streptococcus pneumoniae, non-typable haemophilus influenzae, or *Moraxella catarrhalis*.

Symptoms

1. Wheezing
2. Shortness of breath (especially upon exertion.)
3. The cough is often worse soon after awakening and the sputum produced may have a yellow or green color and may be streaked with specks of blood.
4. Decreased ratio of pulmonary function tests.

1. Definition

Pleural effusion is excess fluid that accumulates in the fluid : Filled space that surrounds the lungs called as pleural cavity. This excess can impair breathing by limiting the expansion of the lungs.

2. Types

Five types of fluids can accumulate in the pleural space:

1. Serous fluid (hydrothorax)
2. Blood (hemothorax)
3. Chyle (chylothorax)
4. Pus (pyothorax or empyema)
5. Urine (urinorhox)
6. While, Pneumothorax is the accumulation of air in the pleural space.

3. Causes

Causative factors are different for transudate and exudates type of fluids.

Transudate : fluid produced through pressure filtration without capillary injury.

Exudates: fluid is "inflammatory fluid" leaking between cells.

A. Conditions associated with transudate type of pleural effusions

1. Congestive Heart Failure (CHF)
2. Liver cirrhosis
3. Hypoproteinemia
4. Nephrotic syndrome
5. Acute atelectasis
6. Myxedema
7. Peritoneal dialysis
8. Meigs syndrome
9. Obstructive uropathy
10. Endstage : Kidney disease

B. Conditions associated with exudative pleural effusions

1. Malignancy
2. Infection- bacterial / viral
3. Trauma
4. Pulmonary infarction
5. Pulmonary embolism
6. Autoimmune disorders
7. Pancreatitis
8. Ruptured esophagus (or Boerhaave's syndrome)
9. Rheumatoid Pleurisy
10. Drug : Induced Lupus
11. Tuberculosis
12. Bacterial pneumonia
13. Cancer : Lung cancer, breast cancer, and lymphoma)

Exudative type of pleural effusion is confirmed with diagnostic tastes such as:

1. Pleural fluid amylase is elevated in cases of esophageal rupture, pancreatic pleural effusion, or cancer.
2. Glucose is decreased with cancer, bacterial infections, or rheumatoid pleuritis.
3. Pleural fluid pH is low in empyema (<7.2) and may be low in cancer.
4. If cancer is suspected, the pleural fluid is sent for cytology. If cytology is negative, and cancer is still suspected, either a thoracoscopy, or needle biopsy[3] of the pleura may be performed.
5. The fluid is also sent for Gram staining and culture, and, if suspicious for tuberculosis, examination for TB markers (adenosine deaminase > 45 IU/L, interferon gamma > 140 pg/mL, or

positive polymerase chain reaction (PCR) for tuberculous DNA).

C. Pleural effusions may also occur through

1. Medical/surgical interventions, including the use of medications.
2. Coronary artery bypass surgery
3. Abdominal surgery
4. Endoscopic variceal sclerotherapy
5. Radiation therapy
6. Liver or lung transplantation
7. Intra- or extravascular insertion of central lines.

4. Diagnosis

Pleural effusion is usually diagnosed on the basis of medical history and physical exam, and confirmed by chest x-ray.

Clinical diagnostic symptoms: Once accumulated fluid is more than 300 ml, there are usually detectable clinical signs in the patient.

1. Decreased movement of the chest on the affected side
2. Stony dullness to percussion over the fluid
3. Diminished breath sounds on the affected side
4. Decreased vocal resonance and fremitus
5. Pleural friction rub.
6. Bronchial breathing and egophony.
7. A large effusion there may cause tracheal deviation away from the effusion.

Thoracentesis

Once a pleural effusion is diagnosed, the cause must be determined. Pleural fluid is drawn out of the pleural space in a process called thoracentesis, and it should be done in all patients who have pleural fluid that is ≥ 10 mm in thickness on CT, ultrasonography, or lateral decubitus x-ray and that is new or of uncertain etiology. In general, the only patients who do not require thoracentesis are those who have heart attack with symmetric pleural effusions and no chest pain or fever; in these patients, diuresis can be tried, and thoracentesis avoided unless effusions persist for ≥ 3 days. In thoracentesis, a needle is inserted through the back of the chest wall in the sixth, seventh, or eighth intercostal space on the midaxillary line, into the pleural space. The fluid may then be evaluated for the following:

1. Chemical composition including protein, lactate dehydrogenase (LDH), albumin, amylase, pH, and glucose
2. Gram stain and culture to identify possible bacterial infections
3. Cell count and differential
4. Cytopathology to identify cancer cells, but may also identify some infective organisms
5. Other tests as suggested by the clinical situation – lipids, fungal culture, viral culture, specific immunoglobulins

1. Definition

Bronchiectasis is a disease in which there is permanent enlargement of parts of the airways of the lung. The mechanism of disease is breakdown of the airways due to an excessive inflammatory response. Involved bronchi become enlarged and thus less able to clear secretions. These secretions increase the amount of bacteria in the lungs, result in airway blockage and further breakdown of the airways. Worsening may occur due to infection and in these cases antibiotics are recommended. Medications to dilate the airways may be useful in some but the evidence is not very good. While the disease may cause significant health problems to some, many other people with the disease do well.

2. Symptoms

1. Cough productive of frequent green/yellow mucus (sputum)
2. Wheezing.
3. Shortness of breath
4. Coughing up blood in the absence of sputum, called "Dry Bronchiectasis".
5. Halitosis : Bad breath, Indicative of active infection.
6. Frequent bronchial infections and breathlessness
7. Crepitations and expiratory rhonchi
8. Nail clubbing (rare)

3. Causes

Causative factors are divided into three categories : Acquired causes, Infective causes and other causes.

3.1 Acquired causes

1. Tuberculosis
2. Pneumonia
3. Inhaled foreign bodies
4. Allergic bronchopulmonary aspergillosis

3.2 Infective causes

Formation of bronchial tumours due to infections from,

1. Staphylococcus
2. Klebsiella
3. Bordetella pertussis
4. Bronchiectasis may result from congenital infections

3.3 Other causes

1. Aspiration of ammonia and other toxic gases
2. Pulmonary aspiration
3. Alcoholism
4. Narcotic drug use
5. Various allergies
6. Inhalation of fungal spores
7. Smoking.
8. Various immunological and lifestyle factors have also been linked to the development of bronchiectasis.

Some disease conditions also contribute in the formation of bronchiectasis such as:

1. Childhood Acquired Immune Deficiency Syndrome (AIDS)
2. Inflammatory bowel disease, like ulcerative colitis and Crohn's disease
3. Rheumatoid arthritis
4. Hiatal hernia

4. Patho physiology

Bronchitis is a result of chronic inflammation compounded by an inability to clear mucoid secretions. This can be a result of genetic conditions resulting in a failure to clear sputum (primary ciliary dyskinesia), or resulting in more viscous sputum (cystic fibrosis), or the result of chronic or severe infections. Inflammation results in progressive destruction of the normal lung architecture, in particular the elastic fibres of bronchi.

5. Diagnosis

1. Bronchitis may be diagnosed clinically

2. x-ray imaging.
3. CT scanning.
4. Blood tests
5. Sputum culture test.
6. Tests for specific genetic disorders.

6. Preventive majors

1. Immunization : Children should be immunized against measles, pertussis, pneumonia, and other acute respiratory infections of childhood.
2. Avoid smoking and other forms of tobacco.

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1. Definition

Asthma word is derived from the Greek word- asthma meaning- "panting".

It is a common chronic inflammatory disease of the airways characterized by variable and recurring symptoms, reversible airflow obstruction and bronchospasm. Common symptoms include wheezing, coughing, chest tightness, and shortness of breath. Asthma is the result of chronic inflammation of the airways which subsequently results in increased contractability of the surrounding smooth muscles. This among other factors leads to bouts of narrowing of the airway and the classic symptoms of wheezing. The narrowing is typically reversible with or without treatment. Occasionally the airways themselves change. [17] Typical changes in the airways include an increase in eosinophils and thickening of the lamina reticularis. Chronically the airways smooth muscle may increase in size along with an increase in the numbers of mucous glands.

2. Causes

Asthma is thought to be caused by a combination of genetic and environmental factors. It is caused by a combination of complex and incompletely understood environmental and genetic interactions. These factors influence both its severity and its responsiveness to treatment.

1. Genetics: Family history is a risk factor for asthma, with many different genes being implicated. Frequent
2. Use of higher antibiotics in early life

has been linked to the development of asthma.

3. Changing living environment is becoming a predisposing factor to Asthma.
4. Many environmental factors have been associated with asthma's development and exacerbation including allergens, air pollution, and other environmental chemicals.
5. Smoking during pregnancy and after delivery is associated with a greater risk of asthma-like symptoms.
6. Low air quality from factors such as traffic pollution has been associated with both asthma development and increased asthma severity.
7. Exposure to indoor volatile organic compounds may be a trigger for asthma, formaldehyde exposure, for example, has a positive association. Perfumes are a common cause of acute attacks in women and children.
8. Phthalates in certain types of PVC are associated with asthma in children and adults.
9. Asthma is associated with exposure to indoor allergens. Common indoor allergens include dust mites, cockroaches, animal dander, and mold. Efforts to decrease dust mites have been found to be ineffective.
10. Certain viral respiratory infections, such as respiratory syncytial virus and rhinovirus, may increase the risk of developing asthma when acquired as young children.
11. Caesarean section is associated with

an increased risk (estimated at 20–80%) of asthma—this increased risk is attributed to the lack of healthy bacterial colonization that the newborn would have acquired from passage through the birth canal.

12. Medical conditions- Due to affliction of diseases like eczema, hay fever, Churg–Strauss syndrome, urticaria, vasculitis ect. Psychological stress may worsen symptoms

3. Evidence supporting the hygiene hypothesis includes lower rates of asthma on farms and in house holds with pets.

4. Symptoms

Asthma is characterized by:

1. Recurrent episodes of wheezing,
2. Shortness of breath,
3. Chest tightness,
4. Coughing,
5. Sputum may be produced from the lung by coughing but is often hard to bring up. During recovery from an attack, it may appear Pus-like due to high levels of white blood cells called Eosinophils.

Symptoms are usually worse at night and in the early morning or in response to exercise or cold air. Some people with asthma rarely experience symptoms, usually in response to triggers, whereas others may have marked and persistent symptoms.

5. Diagnosis

A diagnosis of asthma should be suspected if there is a history of recurrent wheezing, coughing or difficulty in breathing. These symptoms occur or worsen due to exercise, viral infections, allergens or air pollution. It is mainly done by Spirometry

1. An acute asthma exacerbation is commonly referred to as an asthma attack. Previously known as status asthmaticus. The classic symptoms are shortness of breath, wheezing, and chest tightness while these are the primary symptoms of asthma, some people present primarily with coughing, and in severe cases, air motion may be significantly impaired such that no wheezing is heard.

Signs which occur during an asthma attack include the use of accessory muscles of respiration (sternocleidomastoid and scalene muscles of the neck), there may be a paradoxical pulse (a pulse that is weaker during inhalation and stronger during exhalation), and over-inflation of the chest. A blue color of the skin and nails may occur from lack of oxygen. [

2. In a mild exacerbation the peak expiratory flow rate (PEFR) is ≥ 200 L/min or $\geq 50\%$ of the predicted best. [87] Moderate is defined as between 80 and 200 L/min or 25% and 50% of the predicted best while severe is defined as ≤ 80 L/min or $\leq 25\%$ of the predicted best.]
3. Brittle asthma is a kind of asthma distinguishable by recurrent, severe attacks. **Type 1** brittle asthma is a disease with wide peak flow variability, despite intense medication. **Type 2** brittle asthma is background well-controlled asthma with sudden severe exacerbations.
4. Exercise induced asthma : Exercise can trigger bronchoconstriction in both people with and without asthma.
5. Occupational asthma: Asthma as a result of (or worsened by) workplace exposures, is a commonly reported occupational disease. The highest risk of problems include to those who spray paint,

bakers, persons who process food, nurses, chemical workers and those who work with animals, welders, hairdressers, timber workers etc.

6. Differential diagnosis

1. Allergic rhinitis
2. Sinusitis
3. Foreign body aspiration
4. Tracheal stenosis
5. Laryngotracheomalacia
6. Vascular rings,
7. Enlarged lymph nodes

7. Preventive majors

The evidence for the effectiveness of measures to prevent the development of asthma is weak.

1. Limiting smoke exposure both in utero and after delivery,

2. Breastfeeding,
3. Increased exposure to daycare or large families
4. Early pet exposure may be useful.
5. Reducing or eliminating compounds known to sensitive people from the work place may be effective.

8. Prognosis

The prognosis for asthma is generally good, especially for children with mild disease. Mortality has decreased over the last few decades due to better recognition and improvement in care of asthma diagnosed during childhood, half of cases will no longer carry the diagnosis after a decade. Airway remodeling is observed, but it is unknown whether these represent harmful or beneficial changes.

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ANNAVAHA SROTAS

1. Definition

The channelled system which deals with digestion of ingested food and thereto deals with complete process of digestion and separation between wanted and unwanted, is called as Annavaaha srotasa. Organs related to digestion are included under Annavaaha srotasa.

2. Origin of Annavaaha srotasa: Moolasthan

अन्नवहानां स्रोतसामाशयो मूलं वामं च पार्श्वम्।

C.S.Vi. 5/8.

अन्नवहे द्वे तयोर्मूलं, वामं च पार्श्वम्।

S.S.Sh. 9/12.

1. Annavaaha srotas originates from stomach- Amashaya and loops of intestines- Annavaahini dhamani.
2. Annavaaha srotas are two in number and they originate from stomach - Amashaya and Vama parshva- left hypochondrium.

3. Causes of vitiation of Annavaaha srotasa

अतिमात्रस्य चाकाले चाहितस्य भोजनम्।

अन्नवाहिनि दुष्यन्ति वैगुण्यात् पावकस्य च ॥ C.S.Vi. 5/12.

1. **Atyashana: Overeating:** Excessive intake of food causes extra and unnecessary load on the digestive system to cause disturbance to Annavaaha srotasa.
2. **Akala bhojana : Untimely eating :** Eating without any fixed and constant schedule can cause trouble to the processes of digestion and hence causes vitiation of Annavaaha srotasa.

3. **Ahita bhojana : Unhealthy eating:** Intake of food which is harmful to the body such as poisoned, rotten or unclean food can cause severe vitiation of Annavaaha srotasa.

4. **Pavaka Vaigunya : Depletion in power of digestive fire :** When power of digestion reduces due to certain cause the whole chain of transformation via digestion gets disturbed. It imparts direct harmful effect on Annavaaha srotasa.

4. Symptoms of Annavaaha srotas vitiation

अन्नवहानां स्रोतसामाशयो वामपार्श्वं च, प्रदुष्टानां तु खल्वेषामिदं विशेषविज्ञानं भवति। तद्यथा- अनन्नाभिलाषणमरोचका-विपाकौ छर्दि च दृष्टवाऽन्नवहान्यस्य स्रोतांसि प्रदुष्टानि इति विज्ञात्। C.S.Vi. 5/7.

1. Anorexia.
2. Insipid mouth.
3. Indigestion.
4. Vomiting.

PURISHAVAHA SROTAS

1. Definition

The channelled system which deals with formation and expulsion of faecal material and thereto deals with process of evacuation of unwanted solid wastes from the body, is called as Purishavaha srotasa. Organs related to circulation are included under Purishavaha srotasa.

2. Origin of Purishavaha srotas: Moolasthan

पुरिषवहे द्वे तयोर्मूलं पक्वशयो गुदं च तत्रविद्धस्यानाहो दुर्गन्धिता ग्रथितान्त्रता च ॥ S.S.Sh. 9/20.

1. Purishavaha srotasa are two in number and they originate from large intestines- Pakvashaya and anus- Guda.

3. Causes of vitiation of Purishavaha srotasa

संधारणातदत्यशानात् अजीर्णघ्नशनात्तथा।

वर्षोवाहिनी दुष्यन्ति दुर्बलायैः कृशस्य च ॥ C.S.Vi. 5/19.

1. **Suppression of urge to defecate:** When a person holds the urge for defecation for long period of time, Purishavaha srotasa gets disturbed.
2. **Excessive, repeated eating:** When a person consumes excessive food, Purishavaha srotasa gets over stressed.
3. **Indigestion:** When continual state of indigestion occurs due to any cause produces vitiation to Purishavaha srotasa.
4. **Thin, emaciated body:** In a thin person the total body strength is very less and also the digestive power is very low. It affects Purishavaha srotasa.

4. Symptoms of Purishavaha srotasa vitiation

पुरिष वहानां स्रोतां पक्वशयो मूलं स्थूलगुदं च, प्रदुष्टानां तु खल्वेषामिदं विशेषविज्ञानोयं भवति; तद्यथा- कृच्छ्रेणाल्पात्संशब्दशूलमतिद्रवमतिग्रथितमति बहुचोषविशानं दृष्टवा पुरिषवहान्यस्य स्रोतांसिप्रदुष्टानिति विद्यात्। C.S.Vi. 5/7.

1. Difficult defecation- passing of small quantity of faeces with pain, difficulty and sound.
2. Passing of watery loose stool or passing of very hard (dried) faeces.
3. Passing of excessive quantity of faeces in mucoid or fibrous form.

5. Symptoms of injured srotasa

Purishavaha srotas on getting injured displays following symptoms:

तत्र विद्धस्यानाहो दुर्गन्धिता ग्रथितान्त्रता च ॥ S.S.Sh.9/12.

1. Abdominal distension.
2. Passing of foul smelling faeces.
3. Intussusceptions of intestine.

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Disease at a glance

- Nature of Disease: *Chirakan- Chronic.*
- Major Involving Dosha-Samana-*pitta, Vata, Kapha.*
- Major Involving Dushya-*Rasa, Rakta.*
- Site of Manifestation: *Mahakoshtha-
Amamshaya- Annavahe Srotas.*
- Srotas: *Annavahe Srotas*
- Types- *Three.*
- Cardinal Feature: *Diminished Capacity
Of Digestion.*

Prognosis

- Difficult To Cure.

Diseases for differential diagnosis

1. Grahani.
2. Rajayakshma.
3. Gulma.
4. Mano dalnya- depression.

Reference reading

- Madhavidana- Agnimandya-Ajeerna-
Visuchika- Chapter-6.
- Charak Samhita Chikitsa Sthana
- Chapter- 15.
- Sushrut Samhita Sutrasthana 35.
- Sanskrit English dictionary
- Apte Shabdakosha.

1. Introduction

Agnimandya is commonly compared with the term indigestion. But Ayurveda explains it as diminished power of digestive capacity (Jatahra Agni). It can be a very insignificant event to look at, but in reality it is the actual and only base cause for formation of all the diseases possible to human life वेगः सर्वेषु मन्दिनो सुतरमुदराणि च। Hence Agnimandya remains the eternal causative factor or premonitory symptom or a main symptom to all the diseases. In further deeper consideration *Mandya* or lack in capacity of fire can be understood as diminished power of digestion and transformation pertaining to seven dhatu (Dhatu agni mandya) which is again the base for formation of all the diseases. Further detailed pathogenesis is described as Nidana Panchaka of Agnimandya in this chapter.

2. Definition : Paribhasha

The disease in which the power of digestion i.e. 'Agni' diminishes to result in the onset of various symptoms, is called as Agnimandya. Due to Agnimandya nutrition of various body elements hampers and so the total body system becomes feeble. This is the basic disease condition or the initial point for manifestation of all the diseases possible to occur in the human body. No disease is possible to take place without having Agnimandya as the fundamental point of its pathology. This disease is so critical to dingoes as well as to treat that is termed as **Bhishag mohakara** vyadhi meaning a deceptive disease condition.

3. Route of development : Marga

Abhyantara- Disease affects the body internally.

4. Predisposing factors : Nidana

अभोजनादजीर्णाति भोजनाद्विषमाषनात्।
असात्म्यगुरुशीततिरुक्षसंदुष्टभोजनात्।।
विकल्पनस्नेह विभ्रमाद् व्यधिकर्षणात्।
देषकालुर्वैषम्याहेतानां च विघारणात्।।

दुष्यत्यग्निः स दुष्टोऽन्नं न तत् पचति लब्धरि।

अपच्यमानं शुक्लत्वं यत्संज्ञं विषरुपताम्।। C.S.Ch. 15/44.

1. Long standing starvation.
2. Over eating.
3. Intake of incompatible food items.
4. Intake of food which is not liked by the self, eaten without interest or the food which is not in routine practice of eating.
5. Intake of contaminated food or food which is frozen, over dried, stale, decayed, hard to digest or poisoned.
6. Erroneous application of Panchakarma procedures.
7. As a result of severe weakness of the body due to affliction of various serious diseases.
8. Due to hazardous effects of home land [Desha], time [Kala] or season [Ritu].
9. Suppression of natural urges.
10. Due to mental disturbance because of overpowering emotions like worry, sorrow

5. Pathogenesis : Samprapti

दुष्यत्यग्निः स दुष्टोऽन्नं न तत् पचति लब्धरि।

अपच्यमानं शुक्लत्वं यत्संज्ञं विषरुपताम्।। C.S.Ch. 15/43.

Dosha aggravate due to constant acceptance of causes over a long period of time and further vitiate the Agni i.e. the digestive power of a person, to form Agnimandya. Here dosha become responsible to upset the Agni, on the other hand the Agni also becomes responsible for further vitiation of dosha. Irregular changes in the capacity of digestion (Agni vaigunya) and dosha aggravation have the consistent relation with each other.

6. Clinical features : Roopa

Specific symptoms as such are not mentioned in the text. Symptoms of Agnimandya are explained here by explaining specific type occurring due to vitiation of specific dosha.

विषमो धातुवैषम्यं करोति विषमं पचन्।

नीशयो मन्दिमनो धातुन् दिग्गोपयति पावकः।।

C.S.Ch. 15/ 50-51.

विषमो वातजान् रोगांस्तीक्ष्णः पित्तमिहितजान्।

करोत्यनिरतया मन्दी विकारात् कफसंभवान्।।

S.S.Sa.35 / 30.

Four major types of digestive fire -Agni - are explained as per prevalence of dosha.

1. Vata dosha dominant Agni: Vishama Agni.
2. Pitta dosha dominant Agni :Tikshna Agni.
3. Kapha dosha dominant Agni: Manda Agni.
4. All dosha in balanced concentration: Sama Agni.

These types are found as body constitutional factors (Prakriti Ghataka) fixed for every human being as per his Prakriti. Due to acceptance of relevant causes over a period of time, abnormal changes are observed in capacity of digestion and they are referred as Agnimandya.

संसृज्यमानं पित्तेन दाहं तृष्णां सुखमयान्।
जनयत्यन्वपिचं च पित्तजांश्चापान् गदान्।।
यक्ष्मीनसपेहादीन् कफजान् कफसङ्गतम्।
करोति वातससृष्टं वातजांश्च गदान् बहुन्।।
मूत्ररोगांश्च मूत्रस्थं कुक्षिरोगान् शकृद्वत्।
रसादिभिश्च संसृष्टं कुर्यान्नान् रसादिजान्।।

C.S.Ch. 15/47- 49.

6.1 Vishama Agni

This is Vata dominant type of Agni. Irregular nature of digestion i.e. at one point digestion occurs satisfactory while at the other there is total indigestion although the person eats same food contents in regular quantity during both these conditions. Various vata dominant diseases crop up due to this type of Agnimandya for e.g. **Mutra roga, various types of Vata vyadhi etc.**

6.2 Tikshna Agni

This is the Pitta dominant type of Agni. In this type, any quantity of food is digested by the person within no time and immediately severe hunger as if starved for a long time. This type also is called as 'Pittraja Agnimandya'. Various pitta dominant diseases crop up due to it. For e.g. Daha, Trishna etc.

6.3 Manda Agni

This is the Kapha dominant type of Agni. In this type smaller amount of food, which can otherwise normally be digested is not digested properly by the person. Various kapha dominant diseases crop up due to this type of Agnimandya for e.g. Rajayakshma, Pinasa etc.

Diseases caused due to improper digestion are termed as Annavisha- दोषन्नविषं च तत् ।।

Charaka Samhita explains the theory of Agnimandya as an effect of all the three dosha vitiation. Further he explains the role of three dosha as competent factors to produce weak or feeble body elements as follows;

- Vishama Agni creates irregular digestion of the food which is ultimately responsible for further production of feeble dhatu.
- Tikshna Agni accelerates the digestion more than the required speed and results ultimately in burning up and ultimate loss in normal formation of dhatu.
- Manda Agni lacks to create proper digestion due to its weak nature and

thus production of healthy basic body elements suffers. Hence all the three types are ultimately responsible to cause disturbance in normal digestion procedures.

- Further Charaka suggests that Agnimandya can be considered as Grahani as the symptoms of both the conditions are closely identical. That is why Agnimandya is termed as 'Grahani roga abhasa' in Vagbhata tika.

7-8. Complications : Upadrava – and After effect : Udarka

A variety of diseases arise as Upadrava and also as Udarka of Agnimandya.

9. Prognosis : Sadhyasadhya**9.1 Difficult to cure-Kashtasadhy**

All the types of Agnimandya are difficult to cure.

10. Dietary and behavioral regimen**10.1 Pathya**

wholesome regimen:

- Intake of light, easy to digest type of food.
- Restricted diet

10.2 Apathhya

unwholesome regimen:

- Intake of hard to digest, unctuous food.
- Overeating.

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Disease at a glance

- Nature of Disease: Acute.
- Major Involving Dosha-Vata, Pitta, Kapha.
- Major Involving Dushya-Rasa.
- Site of Manifestation: Mahakoshtha.
- Srotas: Annavaha Srotas
- Types- Five
- Cardinal Feature: Diminished capacity of digestion.

Prognosis

- Difficult to cure.

Diseases for differential diagnosis

- Agnimandya.
- Grahani.
- Rajayakshma.
- Gulma.
- Mano dainya- depression.

Reference reading

- Madhavi Nidana. Agnimandya- Ajeerna- Visuchika-Chapter 6
- Charak Samhita Vimana Sthana Chapter 2
- Charak Samhita Chikitsasthan. Chapter 15
- Sushruta Samhita Sutrasthan. Chapter 46
- Sanskrit to English Dictionary - Apte Shabdakosha.

1. Introduction

Ajeerna is the base cause for many diseases pertaining to elementary system. Commonly known as indigestion, Ajeerna, is today's most observed complaint due to fast life of modern society. Further detailed pathogenesis is described as Nidana Panchaka of Ajeerna in this chapter.

2. Definition : Paribhasha

The disease in which food remains undigested in Amashaya for a prolonged period of time is called as Ajeerna. Digestion does not occur in spite of having food in proper form or in usual quantity.

3. Route of development : Marga

Abhyantara- Disease affects the body internally.

4. Predisposing factors: Nidana

अल्पवृषानाद्विषमाशनाच्च संघारणात्त्वन्विपर्ययाच्च ।
कालेऽपि साल्प्यं लघु चापि मुक्तं गन्धं न पाकं भजते न रस्य ।।
इर्षापयक्रोधपरिसृतेन लुब्धेन रुदेभ्य निषिधितेन ।
प्रद्वेषयुक्तेन च सेव्यमानमन्नं न सयन्मस्त्रिकमेति ।। S. S. Su. 46/507-508.।
तृदश्यासदाहपूरुर्घा व्याधयोऽत्यन्तसंभवाः ।
अभोजनादजीर्णाधिभोजनाद्विषमाशनात् ।।
असाल्प्यगुरुशीततिरुक्षसंदुष्टभोजनात् ।
चिरेन वमनस्नेहविभ्रमाद्व्याधिकर्षणात् ।।
देशकालतुर्वैषम्याद्देहानां च विधारणात् ।
दुष्यत्यग्निः ।। C.S.Ch. 15/42-44.

अनात्मन्तः पशुवद् भुञ्जते येऽप्रमाणतः ।
रोगानीकस्य ते मूलमजीर्णं प्राप्नुवन्ति हि ।। M.Ni.- Chapter 6/14.
मात्रयाऽप्यभ्यवहृतं पथ्यं चान्नं न जीर्षति ।
चिन्ताशोकभयक्रोधदुःखशय्याप्रजागरेः ।। C.S. Vi. 2/9.

- Excessive intake of water.
- Intake of incompatible food - Vishmaashana.
- Suppression of natural urges.

4. Daytime sleep and late night awakening-irregular schedule of sleep and keeping awake.
5. Excessive intake of heavy, unctuous, acerbic, contaminated food.
6. Due to eating food in a wavering, unstable state of mind or with anger, mental irritation, hatred, fear etc.
7. As an effect of other serious ailments.
8. Habitual excessive eating without following any rule about eating.
9. When the mind is afflicted by emotions like worry, grief, fear, anger or due to excessive sleep or late night awakening.

5. Pathogenesis : Samprapti

स दुष्टोन्नं न तत् पचति लब्धिः।
अपच्यमानं शुक्लत्वं यावन्नं विषरुतम् ॥ C.S.Ch.15/44.
अत्युष्णान्नाद्विपश्माशान्नाच्च संघाग्नात्त्वन्निर्विषयाच्च।
कातेऽपि सान्ध्यं लघु चापि भुक्तमन्नं न पाकं भजते नरस्य।
ईर्ष्याभयक्रोधपरिक्लितेन तुल्येन रुदेऽग्निर्गोडितेन।
प्रद्वेषयुक्तेन च सेव्यमानमन्नं न सम्यक् परिणामयेति ॥

S.S.Su.46 / 507-508.

Pitta dosha and Kapha dosha, the essentials of digestion are not properly formed in Annavaaha srotasa. These dosha become responsible for malfunctioning of the system. Which results in formation of Ama. This Ama is responsible for the onset of innumerable types of diseases, one of them is Ajeerna.

During the state of Ajeerna food eaten in proper manner, in required quantity or on regular time also does not get digested.

When a person eats food with mind full of emotions like jealousy, fear, anger, grief, defencelessness and hatred, he is unable to digest the food properly.

Premonitory features : Purvaroopo

Premonitory symptoms of Ajeerna are not specifically mentioned. The disease demonstrates itself directly with symptoms.

6. Clinical features : Roopa

तस्य लिंगमजीर्णस्य विदम्भः सदनं तथा।
शिरसो रुक् च मूर्च्छा च भ्रमः पृष्ठकटिग्रहः ॥
जुम्भाऽङ्गमर्दस्तृष्णा च प्दच्छदिः श्वाहनम्।
अरोचको विपाकश्च ॥ C.S.Ch.15/45-46.
स्नानिगीर्णविट्भ्रमममारुतमूढताः।
विदम्भो वा प्रवृत्तिर्वा सामान्याजीर्णं लक्षणम् ॥

M.Ni.-Ajeerna-chapter-6/27.

1. Loss of hunger.
2. Heaviness in abdomen.
3. Insipid mouth.
4. General fatigue.
5. Abdominal distension.
6. Constipation.
7. Headache and giddiness.
8. Yawning.
9. Nausea.
10. Mild fever.
11. Low back pain.

तत्र वातः शूलानाहाङ्गमर्दमुखशोषमूर्च्छाभ्रमान्निर्वैषम्यपाश्च
पृष्ठकटिग्रहसिरासङ्कोचनस्तम्भनानि करोति, पित्तं पुनः
ज्वसतीसारमन्ददं तुण्णामदन्नं प्रलपनानि, श्लेष्मा तु
छद्मरोचकविपाकशीतज्वरालस्यगान्नगौरवाभिनिर्यक्तिकरः
संपद्यते ॥ C.S.Vi. 2/7.

- Symptoms due to Vata dosha dominance:
 1. Pain in the abdomen.
 2. Abdominal distension.
 3. Body pain.
 4. Facial edema.
 5. Giddiness and fainting.
 6. Indigestion.
 7. Low back pain.
 8. Stretching sensation in blood vessels.
- Symptoms due to Pitta dosha dominance:
 1. Fever.
 2. Loose motions.
 3. Burning sensation in the heart.
 4. Thirst.
 5. Giddiness.
 6. Incoherent speech.

- Symptoms due to Kapha dosha dominance:
 1. Vomiting.
 2. Insipid mouth.
 3. Indigestion.
 4. Fever with chills.
 5. Lassitude.
 6. Heaviness in the body.

7. Types : Prakara



आमं विदधं विदधं कफपित्तानिलैस्त्रिभिः।
अजीर्णं केचिदिच्छन्ति चतुर्व्यं रसशेषतः ॥
अजीर्णं पंचमं केचिन्निदोषं दिनपाकि च।
वदन्ति षष्ठं चाजीर्णं प्राकृतं प्रतीवासरम् ॥ S.S.Su. 46 / 498.
माद्युर्मन्नं गतमामसंज्ञं विदधसंज्ञं गतमदलभावात्।
किंचिद्विषयं भृशतोदशूलं विदध्यामाह्विरुद्धवातात् ॥
उद्गाशुद्धावपि भक्तकाङ्क्षा न जायते हृद्भ्रुता च यस्य।
सावशेषेण तु सप्रसेकं चतुर्थमितत् प्रवदन्त्यजीर्णम् ॥

S.S.Su.46 /509 -510.

Ajeerna is classified as per Vata dosha, Pitta dosha and Kapha dosha dominance and specific names are given for each dosha dominant type.

7.1 Ama Ajeerna [Kapha dosha dosha dominant type]

तत्रामे गुरुतोल्नेदः शोथो गण्डाक्षिकृत्गः।
उद्गाश्च यथा भुक्तमविदधः प्रवर्तते ॥

M.Ni. Ajeerna- Chapter 6/10.

1. Extreme heaviness in the stomach.
2. Vomiting sensation.
3. Edema at face especially at chick bones.
4. Smell of belching resembles to previously consumed and undigested food flavor.

7.2 Vidagdha Ajeerna [Pitta dosha dominant type]

विदधेभ्रमं तूष्णमूर्च्छाः पित्ताच्चविविधा रुजः।
उद्गाश्च सधूमाम्नाः स्वेदो दाहश्च जायते ॥

M.Ni. Ajeerna- Chapter 6/11.

1. Giddiness.
2. Thirst.
3. Stupor.
4. Various other Pitta dosha prevailing symptoms like sour belching, sour mouth, sweating, burning sensation of the body are observed.

7.3 Vishtabdha Ajeerna [Vata dosha dominant type]

विदधे शूलाम्भानं विविधा वातवेदनाः।
मलवाताप्रवृत्तिश्च सत्त्वो मोहोङ्गोडनम् ॥

M.Ni. Ajeerna- Chapter 6/ 12.

1. Various types of body pain.
2. Abdominal distension.
3. Constipation.
4. Obstruction of flatus.
5. Stiffness of the body.
6. Confused state of mind, delirium.

7.4 Rasashesha Ajeerna

रसशेषे ऽ रचिवेषो हृदयाशुद्धि गौत्वे ॥

M.Ni. Ajeerna- Chapter 6/13.

उद्गाशुद्धावपि भक्ताकाङ्क्षा न जायते हृद्भ्रुता च यस्य।
सावशेषेण तु सप्रसेकं चतुर्थमितत् प्रवदन्त्यजीर्णम् ॥

S.S.Su.46 /510.

This is a special type of Ajeerna explained by Sushruta in Sushruta Samhita, Sutra Sthana-46th chapters. In this type, digestive power or Jathara Agni is proper and formation of Ahara rasa is also normal but Agni of Rasa dhatu becomes abnormal. This abnormal Rasa dhatu Agni is unable to digest the Ahara rasa formed by Jathara Agni and this undigested Ahara rasa remains in the Rasavaha srotasa to produce Rasashesha ajeerna.

Manifestation of Rasasheshajeerna occurs in Rasavaha srotasa rather than in Annavaha srotasa with basic underlying cause of Rasa dhatu Agnimandya. **Clear belching** is the sign of this event. Rasasheshajeerna is the fundamental step for many further serious diseases of Annavaha srotasa.

Symptoms

1. Belching is clear and normal.
2. Hyper salivation.
3. Heaviness in chest.
4. Loss of appetite.
5. Joint pain.
6. Heaviness of head.

7.5 Dinapaki Ajeerna

दिवा विदुद्धे हृदये जाग्रतः शुष्करीकवत् ।
अन्नमास्तिन्नघातुत्वाद्दजीर्णोऽपि हितं निशि ॥
हृदि संमीलिते रजो प्रसुप्तस्य विशेषतः ।
क्लिन्नविस्मयसत्तातुत्वाद्दजीर्णे न हितं दिवा ॥

S.S.Su.46 / 537-538.

Sushruta Samhita explains Dinapaki Ajeerna as a very mild type of Ajeerna.

All the symptoms appearing in other types are present here, but they are very negligible. In such condition a person must not eat and preferably should remain on fasting for at least twenty four hours until he feels totally hungry. To get recover from the symptoms of Dinapaki Ajeerna. Generally this type gets cured automatically and medicinal treatment is not required.

The nature and severity of Dinapaki Ajeerna depends on the quantity of food ingested by the person at night meal. Because heart does not work actively during the night and hence all systemic functions including digestion slow down.

Charaka Samhita explains the rules of consumption of food in Vimana sthana

chapter 1. Kashyapa Samhita explains some particular symptoms which appear when rules of eating are not followed properly by the person. They are as under;

On consumption of unctuous food in excess.	Dizziness, thirst, ascitis, diseases of throat.
On consumption of excessive food stuff.	Constipation, body ache, loose motions, lethargy.
On consumption of less quantity of food.	Weight loss, giddiness, insomnia, a reduced amount of urination and dried stools, loss of body power.
On consumption of watery, liquid food.	Frequent urination, nausea, pain in flanks, common cold, loose motions.
On consumption of very dry food.	Constipation, a reduced amount of urination.
Consumption of food without feeling hungry.	Indigestion, insipid mouth, vomiting, pain, flatulence.
Frequent Consumption of food.	Thirst, fainting, body ache, fever, loses motions, loss of body power.
Constant Consumption of any one flavor [rasa].	General weakness, frail body structure.

7.6 Complications : Upadrava

मूर्च्छा प्रलापो वग्द्युः प्रसेकः सदनं भ्रमः ।
उपद्रवाः भवन्त्येते मरणं चाप्यजीर्णतः ॥

M.Ni. Ajeerna- Chapter 6/13.

1. Stupor.
2. Incoherent speech.
3. Vomiting.
4. Hyper salivation.
5. Weakness.

6. Giddiness.

7. Death if Ajeerna becomes very chronic.

8. After effects : Udarka

1. Indigestion.
2. Pain.
3. Appearance of diseases like Alasaka and Vilambika.

9. Prognosis : Sadhyasadyatva

All the types except Rasasheshajeerna are Sukhasadhyatva- curable while Rasasheshajeerna is Kashtasadhyatva- difficult to cure.

10. Dietary and behavioral regimen

10.1 Pathya

wholesome regimen:

1. Langhana- fasting.
2. Following rules of diet.
3. Intake of light, easy to digest type of food- for e.g. Peaya- liquid obtained from

cooked rice, soup of radish added with pepper and oil or ghee, spiced meat soup with ghee, pomegranate and butter, soup of lentils, pigeon peas and all types of sour liquids.

4. Usage of buttermilk, sour gruel, wine etc.
5. Pungent quality medicines with ghee and medicated oils.
6. Vegetable and meat soups.

10.2 Apathhya

unwholesome regimen:

1. Intake of hard to digest type of food- for e.g. food made up from wheat, white beans, peas, black gram, barley, ginger, mushroom, ash gourd, drum sticks, potatoes and other tubers, sugar cane, berries, mango, betel nut, milk, sour fruits like grapes etc.
2. Intake of incompatible food items.
3. Eating food during night.

Disease at a glance

- Nature of Disease: Acute.
- Major Involving Dosha: Vata, Pitta, Kapha.
- Major Involving Dushya: Rasa.
- Site of Manifestation: Tongue.
- Srotas: Annavaha Srotas.
- Types - Four.
- Cardinal Feature: Loss of taste.

Prognosis

• Curable

Reference reading

- Charak Samhita Chikitsasthan, Chapter 26.
- Ashtanga Hridaya Nidana stahna Chapter 5.
- Sushruta Samhita Uttaratantra, Chapter 57.
- Bhavprakash.
- Sanskrit-English dictionary - Apte Shabdakpsha.

1. Introduction

Commonly explained as a symptom felt by the patient as tasteless mouth. It is observed as a commonest feature for many diseases. Further detailed pathogenesis is described as Nidana Panchaka of Arochaka in this chapter.

2. Definition : Paribhasha

वाताग्निः शोकभयातिलोभक्रोधैर्मनोच्चाशनगन्धरुषैः ।
अरोचकाः स्युः ॥ C.S.Ch. 26 /124.

प्रकिर्णतुमुखे चात्रं यन्ननास्वादतेनरः अरोचकसविज्ञेयः । Bhavprakash-474.

The disease in which the taste of the ingested food is not felt is called as Arochka. Generally tasty food produces certain flavour in the mouth. This flavour is not identified or sensed in the particular condition called as Arochka.

3. Synonyms

1. Bhaktopaghata
2. Asyavairasya
3. Virasasyata
4. Ashradha
5. Abhaktachhanda
6. Bhaktadweshha
7. Anannabhilasha.

4. Route of development: Marga

Abhyantara- Affliction of the disease is internal.

5. Predisposing fact ors: Nidana

वाताग्निः शोकभयातिलोभक्रोधैर्मनोच्चाशनगन्धरुषैः ।
अरोचकाः स्युः ॥ C.S.Ch. 26 /124.

1. Chronic indigestion.
2. Intake of heavy, excessively emollient, sweet food or food having only single flavour.
3. Mental stress, worry, fright.
4. Sight of decaying, foul smelling, rotten, dirty food.
5. Intake of unclean, contaminated food.

6. Pathogenesis : Samprapti

दोषैः पृथक् सह च चित्तविपर्ययाच्च ।
भक्तायनेषु हृदि चायुते प्रगाढम् ॥
नात्रे रुचिभक्तिं तं भिषजो विकारम् ।
भक्तोपचानिह पञ्चविधं वदन्ति ॥ S.S.Utt. 57 /3.

पृथक् दोषै समस्ते वा जिह्वाहृदयस्थितैः ।
जायतेऽरुचिहारे द्विदोषैश्च मानसैः ॥ C.S.Ch.8/60.

Due to the acceptance of related causes or due to causes like mental distress, aggravated dosha separately or in combination vitiate Annavaaha srotasa to form Arochaka. Arochaka rarely forms as the primary disease condition, most of the times it develops as the symptom to other major diseases like Jwara, Rajayakshma, Grahani, Udara rog etc.

7. Clinical features : Roopa

अरोचकानां-प्रायुषानाभिधानं, रुपाणमेव अव्यक्तानां प्रायुषत्वात् ।
कषायतिक्तं मधुरं वाताग्निं मुखं क्रमात् ।
सर्वोत्थे विरसं शोकक्रोधादिषु यथामलम् ॥ A.H. Ni. 5/29.

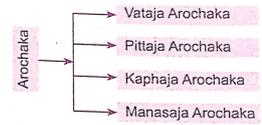
1. Loss of appetite.
2. Inability to recognize proper taste of food.
3. Taste of ingested food is felt different than its real taste.
4. Purvaroopa and Roopa of Arochaka are similar, All the prodromal features are expressed more clearly as Roopa of Arochaka.
5. Feel of the mouth is bitter when Vata dosha is dominating in the samprapti of Arochaka.
6. Feel of the mouth is acidic or pungent when Pitta dosha is dominating in the samprapti of Arochaka.
7. Feel of the mouth is morbidly sweet when Kapha dosha is dominating in the samprapti of Arochaka.

8. Types : Prakara

Total four types of Arochaka are explained.

पृथक् दोषैः समस्तेर्वा मानसैः (अरोचको भवेत्) ।

S.S.Utt. 57/3.



8.1 Vataja Arochaka

हृद्दहलपीडनयुतं विरसाननत्वं वातात्मके भवति लिङ्गभरोचके तु ।
परिहृददन्तः कषायवक्त्रश्च मतोऽभिलेन । C.S.Ch.26/ 125.

1. Bitter feel of the mouth.
2. Pain in chest.
3. Inability to identify the flavour of the food.

8.2 Pittaja Arochaka

हृद्दाहचोषबहुता मुखतिक्तता च मूर्च्छा सवृद् भवति पित्तकृते तथैव ।
कट्वम्लमुष्णं विरसं च पूति पित्तेन विद्याल्लवणं च वक्त्रम् ।
S.S.Utt. 57 /5.

1. Heart burn.
2. Sour, bitter feel of mouth.
3. Feeling of body warmth.
4. Thirst.
5. Inability to identify the flavor of the food.

8.3 Kaphaja Arochaka

कण्डूगुरुत्वकफसंश्लेषादतन्द्राः श्लेष्मालके मधुरमास्य-
रोचके तु ।
माधुर्यमिच्छित्यगुरुत्वशैत्यवह्नसंबद्धयुतं कफेन ।
S.S.Utt. 57 /5.

1. Salty, sweet and sticky feel of mouth with inability to spit.

2. Itching sensation.
3. Heaviness in the body.
4. Weakness of the body.
5. Dizziness.
6. Sensation of cold.

8.4 Manasaja Arochaka

संगमशोकभयविस्तृतवेतसु चिन्ताकृतो भवति सोऽशुचि-
दर्शनाच्च ॥ S.S.Utt. 57/5.

अरोचके शोकभयतिलोभक्रोधादहृद्यशमनगन्धजे स्यात् ।
त्वामादिकं वक्रप्रमयाऽरुचिश्च ॥ C.S.Ch.26/125.

1. Onset is due to affliction of external causes like mental irritation, sorrow, fear, anger, greed etc. it can also be caused due to observing, eating or smelling filthy things.
2. Inability to identify the taste of food.
3. Symptoms depend upon the nature of accepted predisposing factor.

8.5 Sannipatika Arochaka

सर्वात्मके पवनपित्तकफा वद्धौ नि रूपाप्यथास्य हृदये
समुदीर्यन्ति ॥ S.S.Utt. 57/5.

त्रिवेदोपजे नैकासं भवन्तु । C.S.Ch.26/126.

Three dosha dominant type of Arochaka displays combination of symptoms of all the three dosha such as different taste in mouth or discomfort in the heart.

9. Complications : Upadrava

1. Nausea.
2. Vomiting.

10. After effects: Udarka

1. Debility.

11 Prognosis : Sadhyasadhyaiva

Arochaka is curable- Sadhya if originated and related only to Annavaha srotasa. If it arises as a complication to other major disorders of other srotasa, it becomes difficult to cure- Kashtasadhya or sometimes incurable - Asadhya.

12 Dietary and behavioral regimen

12.1 Pathya

wholesome regimen:

1. Intake of light, easy to digest type of food e.g.- red variety of rice, green gram, wheat, meat of goat, deer etc.
2. Fruits like melons, mangoes, vegetables like radish, drum stick etc.

12.2 Apathhya

unwholesome regimen:

1. Intake of hard to digest, unctuous food.
2. Suppression of urge of hunger.
3. Avoiding view of dirty, unclean sites.

...

Disease at a glance

- Nature of Disease: Acute.
- Major Involving Dosha- Vata- Vyana and Udana vata, Pitta, Kapha.
- Major Involving Dushya- Rasa.
- Site of Manifestation: Mouth
- Srotas: Annavaha Srotas
- Types-Five.
- Cardinal Feature: Expulsion of aggravated dosha with food contents of stomach via mouth.

Prognosis

- Curable.

Diseases for differential diagnosis

1. Ajeerna.
2. Pregnancy.
3. During teething state in infants.

Reference reading

- Madhavanidana Nidana- Chhardi Chapter 15.
- Charak Samhita Chikitsasthan 20
- Sushruta Samhita Uttaratantra 49.
- Ashtanga Hridaya Nidana Sthana 5
- Vangasena- Chapter- Chhardi.
- Sanskrit To English Dictionary - Apte Shabdakosha.

1. Introduction

Chhardi—Vomiting is a commonly observed disease condition. Generally it is of non serious and curable nature. Chhardi is enlisted in one of the thirteen types of Adharniya Vega i.e. non suppressible urges of human body. Its a natural body reflex of throwing away unwanted, harmful foreign content out from elementary canal before it starts causing further trouble to human body. Explanation of special types like Dwisharthja Chhardi and Agantu Chhardi is beauty of Ayurveda science showing the depth of thinking about pathogenesis of this disease. Further detailed pathogenesis is described as Nidana Panchaka of Chhardi in this chapter.

2. Definition : Paribhasha

छादयज्ञानं वेगैर्यमज्ञपञ्चैः ।
निरुच्यते छर्दिरिति दोषो वक्रादिनिश्चरन् ॥ S.S.Utt. 49/6.

The disease in which the vitiated dosha are thrown out vigorously from the mouth creating pain in the body is called as Chhardi.

3. Route of development : Marga

Abhyantara- affliction of the disease is internal.

4. Predisposing factors : Nidana

अतिद्रवैरतिस्निग्धैरुच्चैर्लवणैरिति ।
अकाले चातिमात्रैश्च तथाऽसात्यैश्च भोजनैः ॥
श्रमात् क्षयात्थोद्देशादजीर्णात् कृमि दोषत् ॥
नार्याश्चापन्नसत्त्वायास्तथाऽ विद्वत्प्रश्नताम् ॥
अत्यन्तापपरितस्य छर्दवैसंभवो युवम् ।
दोषस्तैर्हेतुभिश्चान्यैर्द्वुत्सुक्लेशितो बलात् ॥ S.S.Utt. 49/ 3-5.

1. Intake of too much liquid, fatty, unctuous or salty food.
2. Untimely eating, excessive eating, intake of food which is hated or disliked by self.
3. Intake of incompatible food items.
4. Immediate intake of food after physical exertion, during state of emaciation or during mental stress.

5. Repeated intake of food without proper digestion.
6. Due to intestinal worm manifestation.
7. Pregnancy.
8. Intake of food in a hurry or haste.
9. Formation of Ama in the srotasa.
10. Observing or smelling filthy or offensive looking things.

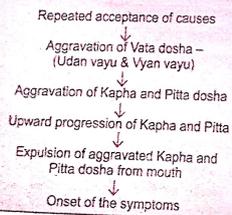
5. Pathogenesis : Samprapti

शेषानुदीयन् वृद्धानुदानो व्यानसङ्गतः ।
उर्ध्वभागच्छति भृशं विरुद्धाहारसेवनात् ॥
छर्दिस्त्रानि भृशं विरुद्धाहारसेवनात् । S.S.Utt. 49/7.

Due to acceptance of the causes, Vyana and Uadana Vayu aggravate and initiate throwing of already vitiated Pitta and Kapha dosha [along with ingested food contents out from mouth in the form of vomiting i.e. Chhardi.

Kapha and Pitta dosha are vitiated with all their qualities in this condition. Due to this Amashaya also becomes affected and further more episodes of vomiting continue to occur. The agitation of Vyana and Udana Vayu create upward promotion of aggravated Kapha and Pitta dosha and they are expelled out from the mouth (along with contents of stomach). This also creates pain in abdomen. As the condition becomes chronic, signs of dehydration are observed on the body.

Flow chart of Samprapti



Components of pathogenesis: Samprapti ghataka

- Dosha: Vata-Pitta-Kapha
- Dushya: Rasa.
- Srotas: Annavaha srotasa.
- Adhsthana: Amashaya
- Srotodushhi: Atipravritti, Vimarmaga-mana.
- Swabhava: Ashukari.
- Agni dushti: Jatharagni, Rasa agni - Agnimandya

6. Premonitory features: Purvaroopa

हृत्तासोद्गारो यो प्रसेको लवणस्तनुः ।
द्वेषोऽन्नपाने च भृशं वमीनां पूर्वलक्षणम् ॥ S.S.Utt. 49/8.
श्रुतिको हृदयोत्प्लेशो भवतस्याभिनन्दनम् ।
पूर्वरुपं मतं छर्दा यथात्वं च विभावयेत् ॥ S.S.Utt. 49/2.
तापां हृदुक्लेशकफप्रसेको द्वेषोऽग्ने चैव हि पूर्वरूपम् ॥
C.S.Ch. 20/6.

1. Nausea.
2. Obstructed belching.
3. Hyper salivation with salty taste of mouth.
4. Loathing of food.
5. Dryness of soft palate, mouth and lips.
6. Burning sensation in the body.
7. Dizziness.
8. Delirium.
9. Stupor.

7. Clinical features : Roopa

All the premonitory features [Purvaroopa] become more steady and clear hence are called as symptoms [Roopa] of Chhardi.

8. Types : Prakara

Total five types of Chhardi are explained.
दोषैः पृथक् त्रिप्रभवा चतुर्थी द्विद्वययोगादपि पञ्चमि स्यात् ।
छर्दिदोषैः पृथक् सर्वोद्विष्टैश्च पञ्चमि ॥ A.H.Ni. 5/29.



Chhardi is classified into five type

1. Vataja Chhardi
2. Pittaja Chhardi
3. Kaphaja Chhardi
4. Sannipatika Chhardi
5. Dwishtarthja Chhardi

8.1 Vataja Chhardi

Causes

व्यायामतीक्ष्णोपघशोकोरोगभयोपवासवतिकर्षितस्य ।
वायुर्नहास्रोतसि संश्रुद्ध उल्केश्य दोषांस्तत उर्ध्वमस्यन् ॥
आमाशयोत्प्लेशकृतां च मर्म प्रपीडयंश्छर्दिमुदीरेत् ॥
हृत्साथपीडापुखशोपमूर्धनाभ्यतिक्रासस्त्राभेदतोदैः ॥
उद्गाशब्दप्रवर्तं सफेनं विचदछिन्नकृष्णं तनुकं कषायम् ।
कृच्छ्रेण चालं महता च वेगेनातोऽनिलजाच्छर्दयतीह
दुःखः ॥ C.S.Ch. 20/7-9.

1. Physical exertion.
2. Intake of strong, intoxicating medicines.
3. Affliction of other diseases.
4. Mental state of sorrow or fright.
5. Emaciation of body as a result of prolonged starvation, fasting or other serious disease conditions.

Vata dosha aggravates due to all such reasons and it forcibly expels out Kapha and Pitta dosha along with contents of stomach.

Clinical features

1. Pain in the chest (heart) and flanks.
2. Dryness of mouth.
3. Head ache, Pain at umbilical region.
4. Coughing.

5. Hoarseness of voice.
6. Pricking type of body pain.
7. Excessive belching.
8. The nature of the vomitus is watery, frothy and grayish black in color. Taste of mouth is bitter. Processes of vomiting is painful and strenuous. There is constant sensation of nausea but actual vomiting is in small quantity. Patient is heavily exhausted and vomiting occurs especially after digesting the meals.

8.2 Pittaja Chhardi

अजीर्णकट्वन्त विदाह्यशोतेरमाशये पित्तमुदीर्णवियम् ।
सायनीपित्तिसुतं प्रपीड्य मर्मोव्यमापस्य वमं करोति ॥
मूच्छापिपासापुखशोपमूर्धतात्वक्षिंसतापतनोप्रमार्तः ।
पीतं भृशोष्णं हरितं सतिक्तं धूमं च पित्तेन वनेत् सदाहम् ॥
C.S.Ch. 20/10-11.
सोऽलं भृशं वा कटुद्विक्तपीतं सवत्तं हरितं वनेद्वा ।
सदाहचोपज्वरक्रशोषो मूच्छान्वितः पित्तेनमित्तजा सा ॥
S.S.Utt. 49/10.

Causes

1. Indigestion.
 2. Excessive intake of acidic, sour, pungent, bitter, spicy, hot food items.
- Acceptance of all causes vitiates Pitta dosha by its Drava and Sara qualities and secrets profusely in and around Rasayani (Amashaya). This causes abnormality of Amashaya and also of Rasavaha srotasa, the heart gets agitated and vomiting is produced.

हृदाहचोपज्वरता मुखतिक्तता च ।
मूर्च्छां सतुद् पित्तकृते तथैव ॥ सु. G.57-4. S.S.Utt. 57/4.
मूच्छापिपासापुखशोपमूर्धतात्वक्षिंसतापतनोप्रमार्तः ।
पीतं भृशोष्णं हरितं सतिक्तं धूमं च पित्तेन वनेत् सदाहम् ॥
C.S.Ch. 20/11.

Clinical features

1. Burning sensation in the heart.
2. Burning and stretching sensation in the throat and chest.

3. Bitter taste of mouth.
4. Stupor.
5. Thirst.
6. Dryness of mouth.
7. Burning sensation in the scalp, soft palate and eyes.
8. Giddiness and fainting.
9. Nature of the vomitus is yellowish green, smoky and mixed with blood. Taste of mouth is sour, bitter and pungent. Quantity of the vomitus is large and watery in nature.

8.3 Kaphaja Chhardi

लिंगातिवृत्तवर्णविदाहिभोजैः स्वनादिभिश्चैव कफोऽति-
वृद्धः।
उःशियो मूत्रं खापनोश्च सर्वाः समानुत्पद्यन्ति करोति।।
तन्नास्यसुयुक्तकफप्रसेकसंतोषनिद्राहृदिगीर्वातः।
लिंगं घनं स्वादु कफाद्विशुद्धं सतोमहर्षोऽल्लरुजं वनेत्।।
C.S.Ch. 20/12-13.

Causes

1. Excessive intake of unctuous, fatty, heavy, uncooked, acidic food.
2. Aggravation of Kapha dosha due to daytime sleep.

Kapha dosha vitiates due to acceptance of such causes. Aggravation of Kapha dosha affects Ura, Shira and Hridaya - Marma sthana - the vital organs. Rasavaha srotasa also gets vitiated. Increased and vitiated dosha collect in Amashaya and vomiting is produced.

Clinical features

तन्नास्यसुयुक्तकफप्रसेकसंतोषनिद्राहृदिगीर्वातः।
लिंगं घनं स्वादु कफाद्विशुद्धं सतोमहर्षोऽल्लरुजं वनेत्।।
C.S.Ch. 20/13.

यो हृदरोमा मधुरं प्रभूतं शुक्लं हिमं सान्द्रकफानुविद्धम्।
अमक्ताहृत्गौरव साशुक्लो वनेद्वयो सा कफकोपजा स्यात्।।
S.S.Utt. 49/11.

कफात्लिंगं घनं शीतं श्लेष्मदमत्तनुपयश्चितम्।
मधुरं लवणं घृतिं प्रसक्तं तोमहर्षणम्।।

मुदश्चयधुमाधुर्यतन्द्राहल्लासकासयान्।।A.H.Ni.5/34-35.
कण्डू गुरुत्वकफसंलवसाद्वन्ना।
श्लेष्मालके मधुरमास्यपरोचके।।S.S.Utt. 49/5.

1. Drowsiness.
2. Morbid sweet taste in mouth.
3. Hyper salivation.
4. Fullness of stomach. Loathing of food.
5. Lassitude.
6. Heaviness in body.
7. Insipid mouth.
8. Edema on face.
9. Nausea.
10. Coughing.
11. Nature of the vomitus is white in color, thick, sticky, fibrous. Taste of mouth is morbidly sweet or salty. Process of vomiting is painless and quantity of the vomitus is large.

8.4 Sannipatika Chhardi

समश्रुतः सर्वरसान् प्रसक्तयामप्रदोषतुर्विपर्ययैश्च।
सर्वे प्रकोपं युगमत् प्रपन्नाच्छर्दि त्रिदोषां जनयन्ति दोषाः।।
शूलाविषाकारचिदाहतूष्णाश्वासप्रमोहप्रबला प्रसक्तम्।
छर्दिस्त्रिदोषाल्लवणाम्नील सान्द्राण्यक्तं वमतां नृणां
स्यात्।।
C.S.Ch. 20/ 14- 15.
सर्वालिङ्गा मतेः सर्वैरिष्टोक्ता या च तां त्यजेत्।
Ash.H.Ni.5/35.

Causes

1. Intake of incompatible food. Intake of mixture of food containing all the six flavors [Rasa].
 2. Chronic indigestion.
 3. Extreme change in seasonal weather.
- Acceptance of such causes all the three dosha vitiate and the vomiting is produced.

Clinical features

शूलाविषाकारचिदाहतूष्णाश्वासप्रमोहप्रबला प्रसक्तम्।
छर्दिस्त्रिदोषाल्लवणाम्नीलसान्द्राण्यक्तं वमतां नृणां
स्यात्।।
C.S.Ch. 20/15.

सर्वाल्पे पयनित्तकफा बहूनि।
रुपाप्यथास्य हृदये समुदीर्यन्ति।।
S.S.Utt. 49/5.

1. Pain in the abdomen.
2. Indigestion.
3. Insipid mouth.
4. Burning sensation in the body.
5. Thirst.
6. Dyspnoea
7. Delirium.
8. Nature of vomitus is bluish colored, thick, and mixed with blood. Taste of mouth is salty and sour. Vomitus is warm.

8.5 Dwishtarthja Chhardi

द्विष्टप्रतिपाशुचिपूयमेध्यवीभत्सगन्धाशनदशनिश्च।
यच्छर्दयेत्तन्मना मनोजैद्विष्टार्थसंयोगभवा मता सा।।
C.S.Ch. 20/18.
चिन्ताकृतो भवति सोऽशुचिर्दशानाच्च।।S.S.Utt. 49/ 5.

Causes

1. This type of Chhardi occurs due to glancing or smelling at offensive, foul or filthy sites.
2. Forcible consumption of rotten food is also a cause.

Vomiting starts due to disturbance of mind and any of the above mentioned causes, later on mere recollection or memory of such incidences reproduces vomiting.

Clinical features

1. Loathing of food.
2. Insipid mouth.

8.6 Agantuja Chhardi

बीभत्सजा दौर्हृदजाऽभजा च असात्पया च क्रिमिजा
च या हि। सा पश्यति तां च विभावयेच्च दोषोचदछयेणैव
ययोक्तमादौ।। S.S.Utt. 49/ 12.
वातादिनेव विमूश्लुकमितूष्णामदौहृदै।
शूलवेषपुह्लासैर्विशेषात् कृमिजां वदेत्।।
कृमिरोगलिङ्गैश्च।। A.H.Ni.5/37.

This type of Chhardi is caused due to affliction of various external causes so the name is Aagantuja Chhardi.

Aagantuja Chhardi is further subdivided as

1. Krimija Chhardi : Vomiting due to manifestation of intestinal worms.
2. Trushnaja Chhardi : Vomiting due to excessive thirst.
3. Aamaja Chhardi : Vomiting due to formation of Ama in the srotasa.
4. Dauhрудaja Chhardi : Vomiting due to Pregnancy (early stage).

All such causes create aggravation of all the three dosha and vomiting is produced. Other symptoms are similar as in other types of Chhardi. Remission of symptoms occurs with eradication of relevant cause.

9. Complications : Upadrava

कासश्वासो ज्वरः तूष्णा हिकका वैचित्यमेव च।
हृद्रोगस्तमकश्चैव त्रैयाश्छर्देरुपद्रवाः।।

Vangasena- Chhardi-72.

Major diseases are explained as complication of Chhardi as under,

1. Kasa.
2. Shwasa.
3. Jwara.
4. Hilka.
5. Trishna.
6. Hridroga.
7. Mental distress.

10. After effects : Udarka

1. Pain in abdomen.
2. Weight loss.
3. Chronic indigestion.

11. Prognosis : Sadhya asadhyatva

विट्स्वेदमूत्रान्बुवहानि वायुः स्रोतांसि संरुध्य यदोर्ध्वमेतत्।
उत्सन्नदोषस्य समाचितं तं दोषं समुद्ध्य नस्य कोष्ठात्।।

विष्णुनयोस्तस्यमन्वयवर्णं तृश्वाराहिककारिविभुतं प्रसक्तम् ।
प्रसक्तमिदं विहाति केनात्वाऽदितश्चाशु विनाशमेति ॥
C.S.Ch. 20/16-17.

शौणस्य या छदितिरसक्तता सोपद्रवा शोणितप्रसुक्तता ।
सचञ्चिकां तां प्रवेदेसाध्यां चिकित्सेनिरुपद्रवां च ॥
C.S.Ch. 20/19.

The disease Chhardi without any serious complications is sadhya. It is curable.

When the patient becomes very weak and Chhardi takes up a serious turn by acquiring the smell of fecal material or urine, associated with Trishna, Hikka etc. The vomiting is profuse then it becomes Asadhya i.e. incurable.

12. Fatal symptoms : Arishta lakshana

छदिविभवती मूत्रशकृन्धिः सचञ्चिका ।
सातविद्वूरक्कासश्वासवत्यनुषङ्गिणी ॥ A. H.Sh. 5/77.

The patient is certain to die when;

1. Vomiting is very profuse and projectile.

2. Vomiting smells like faecal material or urine.
3. Vomitus shows thin shining film on its surface.
4. Vomitus is mixed with blood, urine or fecal material.
5. Vomiting is associated with pain.
6. Vomiting becomes chronic with all the above mentioned symptoms.

13. Dietary and behavioral regimen

13.1 Pathya

wholesome regimen:

1. Intake of light, easy to digest type of food.
2. Intake of fruit juices.

13.2 Apathya

unwholesome regimen:

1. Intake of hard to digest, unctuous food.
2. Overeating.

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Chapter 134 AMLAPITTA

Disease at a glance

- Nature of Disease: Ashukari- Acute and Chirakari-Chronic.
- Major Involving Doshya-Pachaka Pitta, Samana Vta, Kledaka Kapha.
- Major Involving Dushya- Rasa.
- Site of Manifestation: Amashaya.
- Srotas: Annavahe Srotas
- Types : Three.
- Cardinal Feature: Hyperacidity.

Prognosis

- Curable When disease is in its initial condition. (Nava Vyadhi)
- Difficult to cure- when disease becomes chronic.

Diseases for differential diagnosis

1. Raktapitta
2. Vidagdha Ajeerna.
3. Parinam Shool
4. Pittaja Grahani

Reference reading

- Madhavanidan Amlapitta Chapter 51.
- Kashyap Samhita Khila Sthana Chapter 16.
- Kashyap Samhita Khila Sthana Chapter 7.
- Sharangdhara Samhita Prathama Khanda Chapter 10.
- Sanskrit To English Dictionary - Aple Shabdakosha.

1. Introduction

Amlapitta is a most common condition in today's life, most of the people know this condition commonly as 'acidity'. It can be simple to handle at newer onset but can create serious health hazards if becomes chronic. Today's fast lifestyle, stress and imbalanced diet are the main predisposing factors contributing to Amlapitta. Further detailed pathogenesis is described as Nidana Panchaka of Amlapitta in this chapter.

2. Definition : Paribhasha

अल्पगुणान्निवतं पित्तं अल्पपित्तं । M.Ni. Amlapitta- Chapter-51.
अविशुक्के यथा क्षीरं प्रक्षिप्तं दधिभाजने ।
क्षिमेवाग्लतामेति कूर्चीभावं च गच्छति ॥
रसघातौ तथा व्यन्ते युक्तं विददस्यते ॥ Kashyapa Samhita.

The disease in which sour quality of Pitta dosha aggravates and changes to extreme acidic sourness is called as Amlapitta. It is a very chronic type of disease and it displays itself via many stages starting from simple heart burn to blood vomiting. Its severity vary according to types.

3. Route of development : Marga

Abhyantara- affliction of the disease is internal.

4. Predisposing factors : Nidana

विरुद्धदुग्धालविदाहिपित्तप्रकोपिपानान्नयुजो विदग्धम् ।
पित्तं स्वहेतुपचितं पुरा यत्तदमल्पपित्तं प्रवदन्ति सन्तः ॥

M.Ni.Amlapitta-chapter-51/1.

विरुद्धाश्रयशनाजीर्णादामे घामे च पूरणात् ।
पिष्टान्नामपक्वानां भवानां गोरसस्य च ॥
गुवीभिष्यन्दिभोज्यानां वेगानां धारणस्य च ।
अस्युष्ण स्निग्ध रुक्षास्तद्वृत्वाणापत्तिसेवनात् ।
फाणितेषुवाकाराणां कुलस्थानां प्रसुकानां तथैव च ॥
भुक्त्वा भुक्त्वा दिवास्वप्नादतिलानावगाहनात् ।
अन्तरोदकपानाच्च भुक्तमर्गुषिताशनात् ॥ Ka.S.Khi.16/3-6.
आनुप देशे प्रायेण संभवत्येश देहिनाम् । Ka.S.Khi.16/3-6.

1. Intake of incompatible food contents.
2. Intake of decaying, stale, poisonous food.
3. Excessive intake of hot, spicy, pungent, liquid, heavy, ball-crusted food made up with black gram etc.
4. Intake of food items made up by milk, milk products and jaggery.
5. Intake of food which is hard to digest and eating with affluence.
6. Intake of liquor which is not fully prepared.
7. Intake of dried food items made up of small grains i.e. Kahuha dhanya.
8. Intake of sour butter milk, kurji, dried vegetables etc.
9. Suppression of natural urges.
10. Over eating.
11. Long standing fasting or starvation.
12. Daytime sleep over a full meal.
13. Prolonged bathing or sitting in hot water.
14. Repeated drinking of water during meals.
15. Intake of stale food.

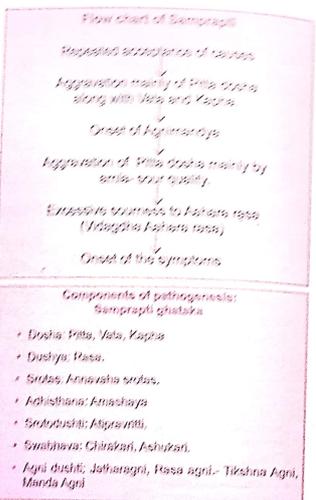
5. Pathogenesis : Samprapti

वापद्यः शुकुर्पति नेपपयवती यदा।
 मदीकरीव कार्याविसनी मदीवमवते॥
 एवायव तथा भूयः सेवमानय दुर्पतेः।
 यन्किंश्चिन्मेशिनं पीनं देहि मर्लज्जं दम्यति॥
 विदग्धं शुक्लमा यति शुक्लमाभासवे खिनम्।
 तदम्बित्तमिवाह भूयिष्ठं पित्तदूषयान्॥

Ka.S.Khi.16/7-13.

Due to acceptance of all the above mentioned causes Pitta along with Vata and Kapha dosha vitiate and produce Agnimandya. If causative factors like diet and habits are not controlled after onset of Agnimandya, Pitta further vitiates by its sour quality. Due to increased sourness digestive juice (Aahara rasa) also becomes excessively sour [vidagdhdha]. There forms a vicious cycle between more fermentation and souring of food and

thus to produce more sourness in Pitta. By this process Aaharaya becomes weak and Amlapitta is produced.



6. Premonitory features : Purvaroopo

1. Slight pain in the abdomen during the digestion period.
2. Burning sensation in the chest.
3. Sour belching.

7. Clinical features : Roopa

विद्भेधे शुक्रकोटलमलोव्यलेशः शिरोरुजा।
 हृदयुदराध्यामपङ्गावोऽन्त्रकूजनम्॥
 कण्ठोत्थी विदग्धेते वेपहर्षद्य जायते॥ Ka.S.Khi.16/14.
 अविशुक्ले यथा क्षीरं प्रक्षिप्तं दधिभाजने।
 क्षिप्रमेवाभ्यन्तारमिति कुर्याभावं च पच्छति॥
 सघातौ तथा व्यसे भुक्तं मुक्तं विदग्धते॥ Ka.S.Khi.16/15.

अम्लपित्तस्य लक्षणानि निम्नलिखितानि सन्ति।

M.Ni.Amlapitta-chapter-51/2

1. Loose, unformed feces.
2. Heaviness in the abdomen.
3. Sour belching.
4. Head ache.
5. Chest pain.
6. Abdominal distension.
7. Weakness in the body.
8. Rumbling of intestines.
9. Sensation of burning in the throat and chest.
10. Horripilation.
11. Immediate acidification of ingested food as milk becomes sour when comes in contact with curd. Thus digestive juices becomes abnormally sour to create sourness to Rasa dhatu.

8. Types : Prakara

अम्लोर्पित्तं त्रिधा प्रोक्तं वानेन श्लेष्मणा तथा।
 नृतीयं श्लेष्मनात्मान्यं॥ Sh.S.RKa. 7/103.

Amlapitta is mainly described with two types as per the route and manifestation of the symptoms in the body.

1. Urdhvaga Amlapitta.
2. Adhoga Amlapitta

8.1 Urdhvaga Amlapitta

वानं हरितितनीलकृष्णमारुक्तापमतीव चान्तम्।
 मांसोदकामं त्वतिपिच्छलाच्छं श्लेष्मालुजातं विविचं रसेन॥
 भुक्ते विदग्धे त्वथवाऽप्यभुक्ते कगेति तिवताम्लवमिं कदाचित्।
 उद्गारेवविचयेव कण्ठहृत्कुक्षिदाहं शिरसो रुजं च॥
 करचरणदाहभोग्यं महतीभरुचिं ज्वरं च कफपित्तम्।
 जनयति कण्ठ्पण्डलपिडकाशतनितितगत्रमेगचयम्॥

M.Ni.Amlapitta-chapter-51/4-6.

The presentation of morbid pitta is towards upper route of the body so the name is given

as Urdhvaga Amlapitta. Vomiting is the presenting feature in this type. Nature of the vomitus is yellowish green or bluish black in colour. Profound sour pungent or bitter taste is felt in the mouth while vomiting. Vomitus is scanty or non scanty in the nature. vomiting occurs immediately after food intake and also on empty stomach. Symptoms are relieved after vomiting.

Other features are:

1. Sour belching along with vomiting.
2. Sensation of burning in the heart, throat and stomach etc.
3. Head ache and warm feeling in the body.
4. Insipid mouth.
5. Fever.
6. Body itching with urticarial rashes.
7. Nausea with hyper salivation.

8.2 Adhoga Amlapitta

दृढ द्राघमुच्छ्रां प्रमोहकारिं प्रयात्यो वा विविचक्राम्।
 हन्तामकोटानमसादहर्षमेवाङ्गीतत्वकरं कदाचित्॥

M.Ni.Amlapitta-chapter-51/3.

1. The presentation of morbid pitta is towards lower route of the body so the name is given as Adhoga Amlapitta. Loose or unformed motions are the presenting feature in this type. The excreta is loose unformed and of greenish, yellowish or blackish red in color with foul, sour smell.

Other features are :

2. Thirst.
3. Burning sensation in the body.
4. Stupor.
5. Giddiness.
6. Nausea.
7. Diminished power of digestion.
8. Urticarial rashes.
9. Sweating.

10. Horripilation.
 11. Paleness of the body.
- Amlapitta can create loose motions and vomiting simultaneously as per the two routes of presentation of the disease. Thus it may become a matter of confusion from the treatment point of view.

9. Presentation of symptoms as per dominance of dosha in the samprapti

मृणितं सानिलकं सक्कं तच्च लक्षयेत् ।
 शोथलिङ्गेन मनिमन् पिपद्भोहकरं हि तत् ॥
 कम्बलासन्ध्यादिनिविनगात्रावसादशूलानि ।
 नमो दशनिविप्रनाविनोहहर्षेण्यनिलकायात् ॥
 कृमिच्छादनगौरवजडताशिशानसावभिलेसा ॥
 श्वनवसायकपद्मिप्रशिर्हं ककानुगते ।
 उमपादिनेव चिह्नं नारुनकरुसंभवे भवत्यन्ते ॥
 तिक्तालकटुकोरारहृक्कुसिकपटदाहकृत् ॥
 प्रमो मूच्छाशिशठरिगतस्यं च शिरोरुजा ।
 प्रेको सुखनाद्युषं श्लेष्मनित्तस्य सन्नगम् ॥

M.Ni.Amlapitta-chapter-51/ 8 -12.

9.1 Following symptoms are seen when Vata dosha is dominant in the Samprapti of Amlapitta.

1. Tremor.
2. Incoherent talk.
3. Stupor.
4. Tingling sensation.
5. Lassitude.
6. Pain.
7. Giddiness.
8. Horripilation.

9.2 Following symptoms are seen when Kapha dosha is dominant in the Samprapti of Amlapitta.

1. Sputum production and sticky mouth.
2. Heaviness in the body.
3. Heaviness in the stomach.
4. Insipid mouth.

5. Shivering with chills.
6. Lassitude.
7. Diminished power of digestion.
8. Weakness.
9. Body itching.
10. Drowsiness.

In Kapha-Vata dominant type all the over mentioned symptoms are observed.

10. Complications : Upadrava

ज्वरतिसायाण्डुत्वशूलशोयाशुचिप्रमैः ।
 उपद्रवैस्त्रिजुष्टः क्षीणयातुर्न सिद्ध्यति ॥ Ka.S.Khi.16.

1. Jwara.
2. Atisara.
3. Pandu.
4. Shool.
5. Shotha.
6. Arochaka.
7. Giddiness-Brahma.
8. Diminished power of body elements-Dhatu ksheenata.

11. After effects : Udarka

1. Pain in abdomen-Shool.
2. Intestinal ulcers-Aantra Vrana.

12. Prognosis : Sadhya asadhyatva

रोगोऽयमल्पित्ताख्यो यत्नात् संसाध्यते नवः ।
 चिरोत्थितो भवेद्यायः कृच्छ्रसाध्यः स कस्यचित् ॥

M.Ni.Amlapitta-chapter-51/ 7.

The disease with new onset is curable—sadhya, with due restrictions of the diet, while it can only be maintained with medicines and diet but cannot be totally cured—yapya. Sometimes even in a strong patient, with proper dietary restrictions, the disease may become chronic *Kashtasadhya* i.e. difficult to cure.

13. Fatal Symptoms : Arishta laxana

Severe hemorrhage from body apertures.

14. Dietary and behavioral regimen

14.1 Pathya

Wholesome regimen:

1. Intake of light, easy to digest type of food e.g.- red variety of rice, green gram, wheat, meat and meat soup of wild animals.
2. Fruits like pomegranate, Indian berries etc.
3. All food ingredients of bitter quality.

14.2 Apathya

Unwholesome regimen:

1. Intake of hard to digest, unctuous food.
2. Intake of incompatible food.
3. Obstruction to the flow of vomiting.
4. Intake of sesame seeds, black gram, horse gram, deep fried items, sheep milk etc.
5. Intake of all food ingredients of sour quality and liquor.

Disease at a glance

- Nature of Disease: Acute
- Major Involving Dosha- Samana Vata, Pachaka Pitta.
- Major Involving Dushya- Rakta
- Site of Manifestation: Mahakoshha- Annavaaha across
- Srotas: Annavaaha Srotas
- Types- Eight
- Cardinal Feature: Pain in the abdomen

Prognosis

- Curable- single dosha dominant types.
- Difficult to cure- two dosha dominant types.

Reference reading

- Madhavanidan - Shoola Chapter-25.
- Madhavanidan - Shoola Chapter-55.
- Sushruta Samhita Uttarasthana, Chapter-42.
- Kashyapa Samhita.
- Yagratrakara.
- Sanskrit English Dictionary - Apte Shri Chhatrapati

1. Introduction

Shoola is a generic term meaning 'pain' but in Ayurveda terminology, Shoola is generally understood as 'pain in abdomen'. In modern terms abdominal pain can be described as pain localized at the site of abdomen. This type of pain occurs due to abnormality caused to other organs or systems of the body. Ayurveda explains Shoola as very serious, moderately serious or mild types of pain related only to abdomen. Therefore for any disease if symptom is termed as Shoola it must be understood as pain in abdomen only. Further detailed pathogenesis is described as Nidana Panchaka of Shoola and its variants in this chapter.

2. Definition : Paribhasha

शंङ्कु स्फीटमवलास्य यसात्तौज्राश्च वेदना।
शूलानवलास्य तदपने वलाच्छूलनिहोच्यते ॥ S.S. Utt.42/81.
शूलनिवृत्तावत् वेदानानकत्वाच्च शूलः। M. Ni. Shoola- Chapter-26.
अग्निह रक्ताऽपि भवति। यदुक्तं रक्तं दिव्यस्तथा याति तच्चेनास्ति न चानि वत् ॥ M. Ni.-Kshudrasroga Chapter-55.

The disease in which severe stabbing type of pain(as if stabbed with a sharp conch) is felt in the abdomen is called as Shoola. Generally the solitary word 'Shoola' is always meant as 'udara shoola' or pain in abdomen. It is a chronic as well as serious type of disease.

3. Route of development : Marga

Abhyantara- Affliction of the disease is internal.

4. Predisposing factors : Nidana

वातदुग्धुनिर्गमां निग्रहायानयान्।
अग्निपच्यमानायामिन्द्रप्रभोरसंविनात् ॥
पानेयवनात् शुष्काले विरटानां च सेवनात्।
पिटाग्निशूलनां गानुदुग्धोपागमदिव च ॥
एवं विद्यानां रुच्याणामन्येषां चोपसेवनात्।
वातुः प्रकृतिः कोट्ये शूलं संजनयेत्प्रुदात् ॥
निग्रहयामो पनेनेन वेदना पीडितो नरः। Ss.Utt.42/77-80.
शोभाशमाच्यनयनात्प्रमहात्। शुष्काले चायममः पानदोषात्।

वेगानां वा निग्रहायानयानां वा मादुर्ग्रहायानां वा
धान्याशनाद्वा ॥ Kashyapa Samhita.

5. General predisposing factors

1. Excessive intake of sprouted beans and seeds.
2. Excessive intake of cereals, dried meat, food items lacking the fibers, dried and roasted food.
3. Excessive eating without the digestion of the previous food.
4. Excessive intake over eating.
5. Eating food items of incompatible nature.
6. Refraining of natural urges like excretion of urine and faecal material.
7. Formation of Ama in the system.
8. Drinking water in a hungry condition.
9. Deformities to the abdominal organs like ptosis of the stomach.
10. Disturbances to the Annavaaha srotas due to excessive intake of hot and pungent quality food.
11. Loud vocalization-continuous reading or rehearsing in loud voice.

6. Pathogenesis : Samprapti

सर्वेषु एतेषु शूलेषु प्रायेण पवनः प्रभुः।
M. Ni. Shoola- Chapter-26.

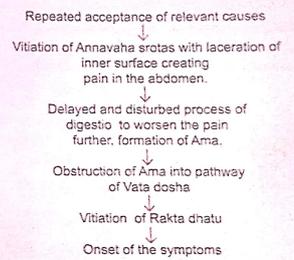
क्रुद्धो वायुः कर्तनायामतोदेः। कमजानेगविशन्
कुशिशेषे ॥
शूलं पित्तान्वितः श्लेष्मया वा। द्वाभ्यां वाऽपि प्रेर्दमाजः
करोति। Kashyapa Samhita.

Manifestion of all the types of Shoola is always dominated by Vata dosha.

Vata dosha vitiates due to the acceptance of relevant predisposing factors and further vitiates Annavaaha srotas. The srotas becomes lacerated due to abnormal functioning of Vata and constant pricking type of pain is formed. The digestion process is disturbed as well as delayed and thus pain becomes constantly severe. The obstruction in the pathway of

Vata dosha due to Ama is the main cause for occurrence of Shoola while Rakta dhātu is the main dushya. The onset of the disease is in Annavaaha srotas and the observance is through out in the koshtha. Due to the unstable nature of the disease, the pain can be felt any where including urinary bladder, chest, lumber and back regions.

Flow chart of Samprapti:



Components of pathogenesis: Samprapti ghataka

- Dosha: Pitta
- Dushya: Rakta.
- Srotas: Raktavaaha srotas
- Adhishthana: Yakrit and Pleeha.
- Srotodushhi: Atpravritti, Vimarma-gamana.
- Swabhava: Ashukan.
- Agni dushhi: Jatharagni, Rasa agni and Rakta agni- Agnimandya.

7. Premonitory features : Purvarroopa

1. Diminished digestion of the food.
2. Tasteless mouth.
3. Abdominal distension.
4. Foul smell to fecal material.
5. Restlessness.

8. Clinical features : Roopa

1. Indigestion.

2. Pain in the stomach.
3. Severity of the pain is unstable.
4. Abdominal rumbling.
5. Abdominal distension.
6. Constipation.

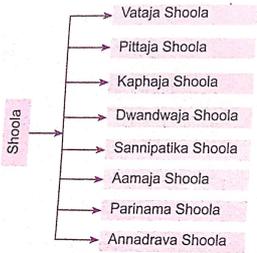
9. Types : Prakara

Total eight types of Shoola are explained.

दोषैः शुष्क समस्तामद्वैः शूलोऽष्टया भवेत्।

M. Ni. Shoola- Chapter-26.

Total eight types of Shoola are described.



9.1 Vataja shoola

व्यायामयानादतिभैरुनाच्च प्रजागराच्छीतजलातिपानात्।
कलायमुदढकेकोरुद्रसादत्यर्थरुद्राव्यशानाभिघातात्।
कषायविकृतातिविरुद्रजावविरुद्रवल्लुकशुष्कशाकात्।
विटशुकमुत्रानिलवेगरोघाच्योकोपवासादतिहास्यभाषात्।
वायुः प्रवृद्धो जनयेच्छी शूलं हतार्थपृच्छत्रिकबलितेशो।।
जीर्णो प्रदोषे च घनागमे च शीते च कोपं समुपैति गाढम्।
गुहगुहशोषशमप्रकोपी विडवातसंस्तम्भनतोदभेदैः।।
संवेदनाभ्यज्जनमर्दनाथैः स्निग्धोष्णभोज्ये च शर्म प्रयाति।।

M. Ni. Shoola- Chapter-26.

निराहारस्य यस्यैव तीव्रं शूलमुदीर्यते।
प्रलब्धयात्रो भवति कृच्छ्रेणोच्छ्वसितीव च।
वातमूत्रपुरीषाणि कृच्छ्रेण कुरुते नरः।
एतैर्लिङ्गैर्विजानीयाच्छूलं वातसमुद्भवम्।। S.S. Utt.42/81.

Special predisposing factors

1. Physical exertion.
2. Traveling via rocking or jerking type of vehicles.

3. Excessive sexual indulgence.
4. Late night awakening.
5. Drinking very chilled water.
6. Excessive intake of green gram, Horse gram etc.
7. Excessive eating of food items like dried vegetables and dried meat.
8. Forcible refraining of urge for urination, passing of stool or semen ejaculation.
9. Extreme grief.
10. Fasting or starvation.
11. Speaking or laughing loudly and for prolonged time.
12. Due to all such causes Vata vitiates to produce Vataja Shoola.
13. Special Clinical features.
14. Pain in chest, urinary bladder, lumber region and abdomen.
15. Nature of the pain is of pricking type.
16. Difficult or strenuous passing of urine and stool.
17. Rigidity in the body.
18. Breathing difficulty.
19. The pain is relieved by eating hot, unctuous food, massaging with oil and hot fomentations.
20. The intensity of the pain increases during evening, cloudy whether and after digestion of the food.

9.2 Pittaja Shoola

क्षारतितोष्णोष्णविदाहितैलनिष्पावपिण्याककुलत्ययुषैः।
कट्वन्तसौवीरसुराविकारैः क्रोधानलायासरवोप्रतापैः।
ग्राह्यातियोगादशनेविदधैः पित्तं प्रकुप्याशु करोति शूलम्।
वृष्णोहदाहातिकरा हि नाभ्यां संस्वेदमूर्च्छाप्रगचोषयुजतम्।।
मध्यन्दिने कुप्यति चार्धरात्रे विदाहकाले जलदात्यये च।
शीते च शीतेः समुपैति शान्तिं सुखादुशीतेरभोजनैश्च।।

M. Ni. Shoola- Chapter-26.

Special predisposing factors

1. Excessive intake of salty, spicy, hot food.
2. Excessive intake of cereals and tripods.
3. Excessive intake of pungent and sour type of food.

4. Excessive intake of various types of fermented beverages or drinks.
5. Hyperhostile nature.
6. Acceptance of direct heat [from a burning stove etc.] for longer times.
7. Physical exertion.
8. Prolonged walking under the scorching sun.
9. Excessive sexual contact.
10. Souring [vidaha] of the food in Annava srotas.
11. Due to all such causes, Pitta vitiates and combines with already vitiated Vata to produce Pittaja Shoola.

Clinical features

तृष्णा दाहो भवो मूर्च्छा तीव्रं शूलं तथैव च।
शीतापिक्रामो भवति शीतेनैव प्रशाम्यति।
एतैर्लिङ्गैर्विजानीयाच्छूलं पित्तसमुद्भवम्।। S.S. Utt.42/84.

1. Thirst.
2. Burning sensation.
3. Dizziness.
4. Sweating.
5. Giddiness and fainting.
6. Excessive body warming
7. Severe pain especially felt around the umbilicus.
8. The intensity of the pain increases during mid day, mid night, during the second phase of digestion i.e. Amla avastha paka, summer time and Sharada ritu.
9. The pain is relieved by eating food of sweet, cold nature and by following cold contacts such as contact with water or cold fomentation.

9.3 Kaphaja Shoola

अनूप वारिज किलाटपयोविकारै।
मसिष्ठुपिष्टकृशरतिलशङ्कुलिभिः।
अन्यैबलासजनकैरपि हेतुभिश्च श्लेष्मा प्रकोपमुपगम्य करोति शूलम्।

हस्तासकामसदनाहयिसंग्रहेकैरमाशये स्निहितकोच्छशिते-
गुरुत्वेः। सूयैर्दयेऽय शिशिरे कुसुमागमे च।

M. Ni. Shoola- Chapter-26.

Special predisposing factors

1. Meat of animals from marshy places.
2. Various milk products, buttermilk.
3. Sugar, jaggery and other product made from these components.
4. Floury food, krushra [rice cooked with daal], seasm seeds.
5. Kapha vitiates and combines with already vitiated Vata to produce Kaphaja Shoola.

Special Clinical features

शूलेनोलीडयमानस्य हस्तास उपजायते।
अतीव पूणकोष्ठत्वं तथैव गुरुमात्रता।।
एतच्छल्मसमुत्पस्य शूलस्योक्तं निदर्शनम्।। S.S. Utt.42/85.

1. Nausea.
2. Excessive salivation or mouth watering.
3. Insipid taste of mouth.
4. Fatigue.
5. Feeling of heaviness in the stomach.
6. Feeling of heaviness in the head.
7. Intensity of the pain is mild and it is felt immediately after having food.

9.4 Dwadvaja Shoola

वस्तौ हस्तार्थपृच्छेयु स शूल कफवातिकः।
कुक्षीहत्राभिमथ्येयु स शूलः कफपैतिकः।
दाहज्वरकरो घोरो विज्ञेयो वातपैतिकः।

M. Ni. Shoola- Chapter-26.

This type is formed with combination of two dosha.

Vata and Kapha dominant Shoola is mainly felt at urinary bladder, heart and back.

Vata and Pitta dominant Shoola mainly shows fever and burning sensation and the disease condition is serious.

Kapha and Pitta dominant Shoola is mainly

felt at hypochondrias, heart and at the center of umbilical region.

9.5 Sannipatika Shoola

सर्वेषु दोषेषु च सर्वलिङ्गं विद्याद्विषक्, सर्वभवं हि शूलम्।
सकटभेन विषवज्रकलं विवर्जनीयं प्रवदान्ते तज्ज्ञाः।

M. Ni. Shoola- Chapter-26.

सर्वाणि द्रष्टव्या रुपाणि निर्दिशेत्सन्निपातिकम्।
सन्निपातिस्युक्त्यामसाध्यं तं विनिर्दिशेत्।
शूलानां लक्षणं श्रेयन्तं। S.S. Uta-42/87.

Clinical features

All the symptoms explained in single dosha dominant types are collectively observed in this type. Other symptoms are:

1. Severe pain.
2. Fever.
3. Restlessness.
4. Stupor.
5. Loathing of food.
6. Body ache.
7. The condition is fatal and called as 'Vishavjra kalpa'.

9.6 Amaja Shoola

आदोषहल्लासवमीशुरत्वंस्त्रीमित्यकानाहकफप्रसैकैः।
कफस्य लिङ्गेन समान लिङ्गामामोन्द्रवं शूलमुदाहरन्ति।

M. Ni. Shoola- Chapter-26.

In this type all the symptoms are similar as Kaphaja Shoola but the intensity of the pain is severe than Kaphaja Shoola.

Symptoms

1. Intestinal rumblings.
2. Nausea.
3. Vomiting.
4. Heaviness in the body.
5. Abdominal distension.
6. Excessive salivation or mouth watering.

10. Complications : Upadrava

वेदनातिवृषा मूर्च्छां द्यानाहो गौरवारुची।
अमो ज्वरः कृशत्वं च बलहानिस्तथैव च।।

कासः श्वासश्च हिकका च शूलस्योपद्रवाः स्मृताः।।

Yogratnakara.

1. Severe pain in the abdomen.
2. Thirst.
3. Stupor.
4. Abdominal distension.
5. Heaviness in the abdomen.
6. Weakness.
7. Weight loss.

Diseases like Jwara, Kasa, Shwasa, Hicca and Bhrama are the Upadrava of Shoola.

11. After effects : Udarka

Annadrava Shoola.

12. Prognosis : Sadhyasadyatva

एकदोषोत्थितः साध्यः कृच्छ्रसाध्यो द्विदोषजः।
सर्वदोषोत्थितो घोरत्त्वसाध्यो युतुषद्रवः।।

M. Ni. Shoola- Chapter-26.

1. Shoola with single dosha dominance is curable - sadhya.
2. Shoola with two dosha dominance [Dwadvaja] is difficult to cure- kashtasadhya.
3. Shoola with all the three dosha dominance as well as with many upadrava is incurable- asadhya.

13. Fatal symptoms: Arishta lakshana

1. Raktapitta.
2. Chhidrodara.

14 Dietary and behavioral regimen

14.1 Pathya

wholesome regimen:

1. Intake of light, easy to digest type of food.
2. Intake of liquid diet.

14.2 Apathya

unwholesome regimen:

1. Intake of hard to digest, unctuous food.
2. Overeating.

...

1. Definition : Paribhasha

स्वैनिदानैः प्रकृतौ वायुः सनिहितस्तदा। कफपित्ते समावृत्य
शूलकारी भवेद्दली।
धुक्ते जीर्यति यच्छूलं तदेव परिणामजम्। तस्य लक्षणमथेत-
त्समानसेनाभिधीयते। M. Ni. Shoola- Chapter-26.
आध्यानाटोपविष्णुविविच्यारतिवेनेः। लिङ्गोष्णोपशवमश्रायं
वतिकं तद्वदेद्विषक्।
तृष्णादाहारतिवेदं कट्वप्लवणोत्तरम्। शूलं शीतशामश्रायं
पैतिकं लक्षयेद्विषुधः।
छर्दिहल्लाससंमोहं स्वल्परुदीर्यसन्तति। कटुतिक्तोपशान्तं च
तस्य ज्ञेयं कफालकम्।
संसृष्ट लक्षणं युद्धवा द्विदोषं पकिलयेत्। त्रिदोषजनासाध्यं
तु क्षीणमांसवलानलम्। M. Ni. Shoola- Chapter-26.

Shoola which originates and becomes severe in between the digestion of the food is called as Parinama Shoola.

2. Pathogenesis : Samprapti

Due to the acceptance of various causes all three dosha vitiate with the dominant vitiation of Pitta. Due to this and severe kind of pain is felt at hypochondrias, stomach, back, umbilicus, chest and urinary bladder. Rasavaha srotas is vitiated with Rakta dhatu in this condition. Due to the inclusion of Rakta dhatu in the Samprapti the nature of the pain becomes further more intense with formation of ulcers in the intestines. Intensity of pain increases during digestion. Pain is relieved temporarily after vomiting out the ingested food or on empty stomach. Pain increases with the intake of sour natured food. As the condition becomes chronic pain becomes permanent in nature. Synonym is **Pakti Shoola.**

3. Types : Prakara

As per the dosha dominance Parinama shoola is classified into four types.

3.1 Parinama Shoola with Vata dominance shows the symptoms as:

1. Flatulence.
2. Intestinal rumbling.
3. Difficult or strenuous passing of urine and stool.
4. Restlessness.
5. Tremor.
6. The pain is relieved by eating hot, unctuous food and treatments.

3.2 Parinama Shoola with Pitta dominance shows the symptoms as:

1. Thirst.
2. Burning sensation.
3. Restlessness.
4. Sweating.
5. Increase in the pain by eating pungent, hot and sour type of food while decrease with cold type of food and treatments.

3.3 Parinama Shoola with Kapha dominance shows the symptoms as:

1. Vomiting.
2. Nausea.
3. Dizziness.
4. Mild intensity and chronic nature of the pain.
7. Relief in symptoms with bitter and pungent type of food intake.

3.4 Parinama Shoola with two dosha dominance

Parinama Shoola with two dosha dominance

[Dwadva] shows combined symptoms of the involving dosha.
3.5 Parinama Shoola with three dosha dominance
 Parinama Shoola with three dosha dominance

[Sannipatika] shows all the mixed symptoms of all the three dosha. The disease in this stage becomes very serious and intestinal ulcers are formed. The nature of the pain is very severe.

Chapter

137

ANNADRAVA SHOOLA

Diseases for differential diagnosis

1. Ajeerna.
2. Amlapitta
3. Vidradhi
4. Udavarta
5. Gulma
6. Aemamshayagata Vata
7. Krimi
8. Makkala

Reference reading

- Madhavnidan – Shoola Chapter-26.
- Madhavnidan. – Shoola Chapter-55.
- Sushruta Samhita Uttaratantra. Chapter 42.
- Kashyapa Samhita.
- Yogratnakara.
- Sanskrit English Dictionary – Apte Shabdakosha

1. Definition : Paribhasha

जीर्णे जीर्णत्वजीर्णे वा यच्छू लमुपजायते ।
 पथ्यापथ्ययोगेण भोजनाभोजनेन वा ।
 न शर्म याति नियमात्सोऽन्नद्रव उदाहृतः । M. Ni. Shoola- Chapter-26.
 तदुपसाध्यं नित्यत्वात्, उक्तं वैद्य विशादेः । Yogratnakara.

In this type of Shoola, pain in the abdomen is constant and very intense. There is no change in the severity of the pain according to the stage of digestion. Also no typical food content can be blamed for causing the pain and there is no particular change in the state of the pain with starvation or eating.

This type can be called as the last and incurable stage of Parinama Shoola.

2. Kukshi Shoola

प्रकुप्यति यदा कुक्षौ वन्दिमाक्रम्य मारुतः ।
 तदाऽस्य भोजनं भुक्तं सौप्तं न पच्यते ।
 उच्छ्वसित्वामशकृता शूलनाहन्त्यते मुहुः ।
 नैवासने न शयने तिष्ठन् वा लभते सुखम् ।
 कुक्षिशूलमिति ख्यातो वातादामसमुद्भवः । S.S. Utt.42/ 123-125.

This type of the disease is produced due to the mixture of vitiated Vata with Ama. Vata creates Agnimandya and thus produces pain in the hypochondriac region. In this condition stool is unformed and foul smelling. Indigestion, difficult in breathing, and restlessness are the main features.

3. Annadoshja Shoola

अतिमात्रं यदा भुक्तं पावके मुदुतां गते ।
 स्थिरीभूतं तु तत्कोष्ठे वायुरावृत्त्य तिष्ठति ।
 अविपाकगतं स्थन्नं शूलं तीव्रं करोत्यति ।
 मूर्च्छाऽऽधानं विदाहश्च हृदुत्वलेशो विलम्बिका ।
 विरिच्यते छर्दयति कमतेऽथ विमुच्यति । ।
 अविपाकाद्भवेच्छूलस्त्वग्दोषसमुद्भवः ।
 अतिमात्रमित्यादि । अविपाकगतम् अविपाकं प्राप्तम् ।

S.S. Utt.42/ 142-143.

When over eating is done in the state of Agnimandya, Vata vitiates and blocks the food inside the koshta to create severe type of pain. This pain is called as Annadosha

Shoola. The other symptoms of the disease are, fainting, flatulence, sourness to the food [vidaha], nausea, loose motions, vomiting, tremor and dizziness.

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Chapter 138 ATISARA

Disease at a glance

- **Nature of Disease:** Acute.
- **Major Involving Dosha:** Vata- Samana and Apana, Pitta, Kapha
- **Major Involving Dushya:** Rasa, Rakta, Mamsa, Meda.
- **Site of Manifestation:** Amashaya, Pakvashaya.
- **Srotas:** Annavaha Srotas, Udakavaha srotas.
- **Types:** Three
- **Cardinal Feature:** Bleeding From Body Orifices.
- **Prognosis:**
- **Curable When disease is in its initial condition.**

Diseases for differential diagnosis

1. Krimi.
2. Ajeerna.
3. Adhoga Amlapitta.
4. Visuchika.
5. Pravahika.
6. Grahani.
7. Visha seva- poisoning.

Reference reading

- Madhava Nidana. Atisara- Chapter 3
- Charak Samhita Chikitsasthan. Chapter 19.
- Sushruta Samhita Uttaratantra. Chapter 40
- Ashtanga Hridaya Nidanasthan. Chapter 8.
- Ashtanga Hridaya Chikitsasthan. Chapter 10.
- Vangasena
- Sanskrit English Dictionary -Apte Shabdakosha.

1. Introduction

Atisara is the term used for loose motions. The term Atisara is well explained in the Sanskrit term अतीसराण्- meaning excessive defecation of loose or watery form obviously causing dehydration of mild, moderate or severe grade. If not diagnosed and treated efficiently, Atisara can cause very serious life threatening situation. Further detailed pathogenesis is described as Nidana Panchaka of Atisara in this chapter.

2. Definition : Paribhasha

सामं शकृन्निरामं वा जीर्णं येनातिसार्यति।
सोऽतिसारोऽतिसरणात्।

आशुकारी स्वभावतः। A. H.Ni. 8/16 -17.

सरस्यतीवातिसारं तमाहुः। S.S.Utt. 40/ 6.

गुदेन बहुद्रवसरणं अतीसारः। M.Ni. Atisara Chapter-3.

The disease in which frequent loose watery stool is passed is called as Atisara. This disease is very acute in nature and affects the body very quickly and severely. The symptoms produced are also very critical.

3. Route of development : Marga

Abhyantara- Affliction of the disease is internal.

4. Predisposing factors : Nidana

गुर्वतिसिन्धुरुक्षोष्णद्रवस्थूलातिशीततैः।
विरुद्धाव्यशनाजीर्णवैषमैश्चापि भोजनैः।।
स्नेहाघैरातियुक्तैश्च मिथ्यायुक्तैर्विषैर्भयैः।।
शोकाद्दुष्टास्त्रुमद्यतिपानैः सत्यतुर्पर्ययैः।।
जलाभिरस्यर्णैर्वगविद्यातैः क्रिमिदोषतः।।
नुर्णां भवत्यतीसारो। S.S.Utt. 40/ 3-5.

1. Intake of food items which are excessively oily, unctuous, very dry, hot, spicy, watery, bulky or chilled and hard to digest.
2. Intake of incompatible food content.
3. Overeating.
4. Imbalanced diet.

5. Intake of food which is prepared by adding excessive fat or oil in it.
6. Intake of food which is rotten or poisoned.
7. Overwhelming emotions like extreme fear or sorrow.
8. Intake of contaminated water or contaminated liquor.
9. Due to abnormal seasonal changes.
10. Enjoying water by swimming etc. for a longer period of time.
11. Intake of water in large quantity.
12. Intake of dried meat or the meat of very thin animals.
13. Intake of sesame seeds (sesamum indicum) and sprouted legumes in excess.
14. As a complication of the diseases like Arsha or Krimi.

5. Pathogenesis : Samprapti

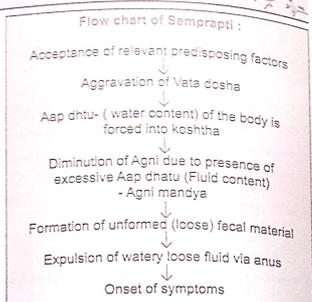
संश्लेषाद्यत्तुः कृशानु वचोमिश्रो मास्तेन प्रसुत्रः ।
 वृद्धोऽनोवाचः सस्त्रेय यस्माद्ब्याधे चोरे तं त्वतीसामाहुः ॥
 S.S.Utt. 40/ 6.

कुपितोऽनिलः ।
 दिनसंयत्तयोऽभ्यातुं हत्वा तेनैव चानलम् ॥
 व्यापधानुशकृत्कोर्धं पुरीषं द्रवतां नयन् । प्रकल्पतेऽतिसाराय ॥
 A. H.Ni. 8/3.

Due to repeated acceptance of relevant predisposing factors, Vata dosha aggravates and forces Aap dhatu – body fluid – which is already in imbalanced form – to koshtha. This Aap dhatu mixes with faecal material to make it unformed or loose. This loose faecal material is expelled frequently via anus, the condition is called as Atisara.

6. Premonitory features : Purvarroopa

हृत्पापयूरकुक्षितोदगात्रावसादानिलसन्निरोधाः ।
 विटसङ्ग आधानमथाविषाको भविष्यतस्तस्य पुरःसराणि ॥
 S.S.Utt. 40/ 8-9.



- Components of pathogenesis: Samprapti ghataka
- Dosha: Vata, Pitta, Kapha.
 - Dushya: Rasa, Rakta, Mamsa, Meda.
 - Srotas: Annavaha srotas, Udakavaha srotas.
 - Adhithana: Amamshya, Pakvashaya
 - Srotodushiti: Atipravritti.
 - Swabhava: Ashukari and Chirakari.
 - Agni dushti: Jatharagni, Rasa agni – Agnimandya.

1. Pricking type of pain around heart, umbilicus, flanks, abdomen and at the anus.
2. General weakness.
3. Abdominal distension.
4. Constipation. [Special prodromal feature of Atisara, opposite to the nature of the disease.]
5. Indigestion.

7. Clinical features : Roopa

1. Frequent passing of watery loose fecal material.
2. Uncontrolled defecation with pain around the umbilicus.

3. Exhaustion and fatigue.
4. Dyspnoea.
5. Roughness of the skin.
6. Pain in the chest.
7. Loss of tolerance to sound.

8. Types : Prakara

Total six types of Atisara are explained
 पञ्चविधं तं वदन्ति । एकैकशः सर्वशक्षापि दोषैः शोकेनान्यः ।
 पृष्ट आग्नेन चोक्तः । S.S.Utt. 40/ 7.
 दोषैर्वल्लैः समस्तैश्च पचाच्छोकाच्च पञ्चविधः ।
 Ash.H.Ni. 8/1.

According to Charaka Samhita Atisara is classified into six types

1. Vataja Atisara
2. Pittaja Atisara
3. Kaphaja Atisara
4. Sannipaika Atisara
5. Agantua Atisara- Shokaja Atisara and Bhayaja Atisara

According to Sushruta samhita Atisara is classified into six types

1. Vataja Atisara
2. Pittaja Atisara
3. Kaphaja Atisara
4. Sannipaika Atisara
5. Shokaja Atisara
6. Aamaja Atisara

Vangasena has described dwardwaja type of atisara

8.1 Vataja Atisara

अथावकालं वातलस्य वातातपव्यायामातिमात्रनिषेधेणो रुक्षाल-प्रमिताशिनस्तीक्ष्णमद्यव्यवायनित्यस्योदावर्तयतश्च वेगान् वायुः प्रकोपमापद्यते, पक्ता चोपहन्त्यते स वायुः कुपितोऽन्नातुपहते मूत्रत्वेदो पुरीषाशयमुपहृत्य, ताभ्यां पुरीषं द्रवीकृत्य अतिसाराय प्रकल्पते । C.S.Ch.19/5.
 तस्य रुपाणि विज्जलमानं विज्जुतमवसादि रुखं द्रवं सशूल मामगन्धमीषच्छशब्दं वा विवद्धमूत्रवात मतिसार्यते पुरिषं,

वायुश्चातः कोष्ठे सशब्दं शुलसिर्द्यक् चरति विवद्ध इत्यामातिसारो वातात् ।
 Ch.Chi.19/5.
 पक्वं वा विवद्धमलालं सशब्दं सशूलफेनापिच्छापकितिकम् हृष्टरोमा विनिधसज् शुष्कमुलः कट्युन्निकजातुमुच्छार्थ-शूलो प्रष्टगुदो महमुहुविप्रयितवर्त्तत्वात् । तत्र वातेन विज्जलम् ।
 C.S.Ch.19/5.
 अलालं शब्दशूलादयं विवद्धमुपवेश्यते ।
 रुखं सफेनमच्छं च प्रयितं वा मुहुर्मुहुः ॥
 तथा दग्धमुडामासं सपिच्छापकितिकम् ।
 शुष्कास्यो प्रष्टपासुध हृष्टरोमा विनिष्टनम् ॥
 A. H.Ni. 8/ 6- 7.

Predisposing factors : Nidana : When a Vata dosha prevalent in a person than basic body constitution practices the causes like :

1. Wandering under the sun or accepting wind for a prolonged time.
2. Excessive physical work.
3. Intake of over dried food items.
4. Infrequent eating with Irregular timings.
5. Excessive intake of honey or pungent, spicy food items.
6. Excessive practice of sex.
7. Suppression of natural urges, especially of defecation.

Stepwise presentation of Vataja Atisara

1. Due to continual acceptance of causes, Vata dosha aggravates and diminishes the power of digestion.
2. The morbid action of Vata dosha forces urine and sweat into the Pakvashaya. At this site the faecal material mixes with them and becomes watery loose.
3. This loose, unformed faecal material is forced out frequently again due to the action of the Vata dosha via the anus and the condition is called as Vataja Atisara.

The symptoms of Vataja Atisara are different according to Ama and Pakva stage of Atisara.

1. VATA DOMINANT AMA ATISARA

1. Foul, sour smelling, watery ,unformed stool which gets absorbed easily in the ground

2. Defecation is painful and faecal material is hot, oily and watery.
3. Motions are produced with a loud sound.
4. Abdominal rumbling and pain.
5. Stasis of urine.

2. VATA DOMINANT PAKVA ATISARA

1. Frequent passing of bulky loose but formed stool.
2. Motions are produced with a loud sound.
3. Pain in the abdomen.
4. Faecal material is foamy and loose.
5. Severe Lacerating type of pain at the anus.
6. Horripilation.
7. Dyspnoea.
8. Dryness of the mouth.
9. Pain in the lumber region, thighs, sacrum, knees, back and flanks.

Method of diagnosis for sama (abnormal) and pakva (normal) faeces. (Ama and Pakva-Purisha mala)

Ama Purisha

संयुग्मेभिर्वैसु न्यस्यन्वदीतिः।

पुरिषं भृशदुग्धं पिच्छिलं चापसंज्ञितम् ॥ S.S.Utt. 40/ 17

1. Faecal material dips in the water, is sticky and has very foul smell.

Pakva Purisha

एतन्नेव तु लिङ्गानि विचरिदानीयस्य वै।

तापवं च विरोधेन तस्य पक्वं विनिर्दिशेत् ॥

S.S.Utt. 40/ 18.

1. Faecal material floats on the surface of the water, it is non sticky in nature and devoid of foul smell.

8.2 Pittaja Atisara

सिसलस्य दुर्गन्धस्य कटुकासागिभ्यातीव्रगणितानिपेविमः
प्रदोषानि स्वर्गनांशानासनीकृतरागस्य क्रोधर्षावहुलस्य
पित्तकोस-माद्यते। दग्धं श्लेष्मिं प्रवन्वदुष्मासुपुष्कृत्युरिया
श्लेष्मिदुष्मासुपुष्कृत्युरिया श्लेष्मिदुष्मासुपुष्कृत्युरिया
श्लेष्मिदुष्मासुपुष्कृत्युरिया श्लेष्मिदुष्मासुपुष्कृत्युरिया

स्वतःपित्तोपहितमति दुर्गन्धमति सार्यते पुरिषं, तुष्णामाहस्वेदमूत्रं
छशूलान्नसंताप पाकपरित इति पित्तातिसारः। C.S.Ch. 19/6
दुर्गन्धमुष्णं वेगवर्णांसतोयप्रख्यं भिन्नं स्विन्नवेहोऽतितीक्ष्णम्।
पित्तात् पीतं नीलमालोहितं वा तृष्णामूर्च्छादाहपाक ज्वरतः।
S.S.Utt. 40/10.

पित्तेन पीतमसितं हारितं श्याद्वलप्रभम्।
सर्वतमतिदुर्गन्धं तृष्णामूर्च्छां स्वेददाहवान्।
सशूलं पायु संतापपाकवान् ॥

A. H.Ni. 8/8.

Predisposing factors : Nidana

1. Excessive intake of sour, spicy pungent, hot food.
2. Acceptance of direct or indirect heat.
3. Getting overwhelmed by the emotions like anger or enmity.

Acceptance of such causes aggravates Pitta dosha especially by its liquid quality. The increased liquidity of Pitta dosha hampers the power of digestion i.e. the Agni and Pittaja Atisara is caused.

Clinical features

1. Unformed, watery stool of various shades of yellow, green, blue and black
2. The smell of the faecal material is extremely foul, putrid and with stains of blood.
3. The motions are massive, forcful and uncontrolled.
4. Severe thirst.
5. Stupor.
6. Sensation of burning in the body.
7. Excessive sweating.
8. Pain in the abdomen.
9. Fever.
10. Sensation of burning at anus.
11. Proctitis.

8.3 Kaphaja Atisara

श्लेष्मलस्य तु गुरुमद्युरशीतस्निग्धोपसेविनः संभूकस्य
चिन्त्यतो दिवास्वनपरस्यालस्यालसस्य श्लेष्मा प्रकोपमाद्यते।
स स्वभावान्

गुरुमद्युरशीतस्निग्धः स्रस्तोऽग्निमुपहस्यसौष्यस्वभावात्।
गुरिषाशयगुपहस्योपक्वलेथ पुरिषमति साराय कल्पते ॥

C.S.Ch. 19/ 7.

तस्य रुपाणि- निग्धं श्वेतं पिच्छिलं तन्नुमदामं गुरु दुर्गन्धं
श्लेष्मोपहितं गुरु- शूलमल्पं मभीक्ष्णमति सार्यते
सामाहिकं गुरुदुग्ध-चस्तिवक्षणादेशः कृतेऽप्यकुतसंज्ञः
सलोमहर्षः सौऽस्त्वेशो निद्रातस्यपरीतः सदनोऽनृहेपी
चेति श्लेष्मातिसारः ॥

C.S.Ch. 19/ 7.

पिच्छिलं तन्नुमत् श्वेतं स्निग्धमामं कफान्वितम्।

अभीक्ष्णं गुरु दुर्गन्धं विबद्धमनुबद्धरुक् ॥

निद्रातुलसोऽनृहेऽस्त्वेशो सप्रवाहिकम् ॥

सरोमहर्षः सौऽस्त्वेशो गुरुस्तिगुदोदरः ॥

कृतेऽप्य कृत संज्ञाश्च ॥ A. H.Ni. 8/ 9- 11.

Predisposing factors : Nidana

1. Intake of food items which are hard to digest, unctuous, sweet and cold.
2. Excessive eating.
3. Lethargic stress free mentality.
4. Enjoying daytime sleep.

These causes aggravate Kapha dosha especially by its heavy, cold and sweet qualities.

These morbidly increased qualities affect and hamper the capacity of digestion to produce Kaphaja Atisara. The Pakvashaya is affected and the fecal material becomes watery loose to form Kaphaja Atisara.

Clinical features : Roopa

1. The nature of the faecal material is whitish, soft, sticky, viscous, sour smelling and mucoid.
2. Defecation is effortful, unsatisfactory and with little quantity of faecal material.
3. Heaviness at abdomen and lumber area.
4. Horripilation.
5. Nausea.
6. Drowsiness.
7. Body ache.
8. Loss of appetite.

8.4 Dwidoshja [sansargika] Atisara

कटवादिभो रसेः कृद्धैः प्रयुद्धौ पित्तमारुतौ।
व्यासाद्य ग्रहणां नृणामतीसारी स्तुतौ ॥

सशब्दं फेनिलं रुवं कषायोदकसन्निभम्।
पक्वाम्बरसवर्णानं हस्तिप्रतिभं धनम् ॥
विभूतकार्पां सुजतिं सशूलं दाहपाकवान्।
विद्यालदाहशोथान्तवातपित्तातिसारिणाम् ॥

Vangasena-Atisara-226-228.

कट्वल्लवणालिधयुग्मिदोषसेवनात्।
श्लेष्मपित्ते प्रकुपिते वह्नि संशय देहिनाम् ॥
कषायन्तं द्रवं स्निग्धं मन्दवेगं सवेदनम्।
धनं शास्त्वितिच्छांपं पचपत्रनिभं क्वचित् ॥
पिच्छिलं शशवर्णानं क्तविन्दुभिश्चितम्।
सुचुणे चातिबहुले श्लेष्मपित्तातिसारिणाम् ॥

Vangasena-Atisara-233-235.

रसेः स्वादुकटुमायैरुभौ वातकफौ नृणाम्।
कुरुत्सावतीसारं कृद्धौ वह्नि निरस्य च ॥
द्रवं सफेनं पुरिषं तत्सुल्गमाम्बिकम् ॥
सशब्दं वेदनावन्तं न चामं परिच्यते ॥
नित्यं गुडगुडायन्तं तन्नामूर्च्छाप्रमक्त्वनेः ॥
प्रसक्तं सन्निकटदुरुजानुष्णस्थिशूलिनः ॥

Vangasena-Atisara-246-248.

Vata-Pitta dominant Atisara : The causes like intake of spicy, pungent food etc. produce aggravation of vata and pitta dosha causes vata and pitta dominant type of Atisara.

Clinical features : Roopa

1. The motions are produced with a sound.
2. The faecal material is foamy, semisolid and like a color of a decoction, or yellowish, resembling to the color of ripped tamarind fruit.
3. Pain in the abdomen.
4. Burning sensation of the body.
5. Suppuration [at the anus].
6. Weight loss.

Kapha-Pitta dominant Atisara : forms due to intake of pungent, sour, spicy, emollient, and sweet food content.

8.5 Sannipatika Atisara

अतिशीतस्निग्ध रुक्षोऽगुरुखरुकाठिनविषमविरुद्धासात्प-
भोजनात् कालातीतभोजनाद् यत्किंचिदभ्यवहरणात्
प्रदुग्धमद्य-पानयिषानाद्यतिषद्य पानयिषानापांनादतिनद्यपानादत्
शोचनत् प्रतिकर्मणां विषमपानादनुषारणज्वलनादित्य

स्वनसति सति विनाह-स्वनाहो विघासाहो विषययादयया-
 बलनास्मद्वयशो कचितोऽपि तिपोयात् कुमिशोचन्ना-
 शोभिकापातिकर्षणाया व्यननानेत्रयो दोषाः प्रकुपिता भूप-
 एवास्ति तु हृत्प-रक्ताशय-मनुष्यवैर्यतिसारं सर्वदोषलिङ्गं
 जनयति। C.S.Ch. 19/8.

तत्रापुनो मोहसावात्सरोषो वचः कुपात्रैकरुपं वृषार्तः।
 सौन्दर्यः सवतिज्ञोपतिः कुम्भासायो बालवृद्धा-
 सहायम्।।
 Mangasena-Atisara.

Predisposing factors

1. Intake of cold,unctuous, dry, hot, harsh, hard to digest type of food.
2. Intake of incompatible food prepared with contents of opposite qualities.
3. Irregular schedule of eating.
4. Voracious eating without considering its qualities and effects.
5. Avoiding to eat.
6. Consumption of contaminated food or poisoned liquor.
7. Excessive intake of liquor.
8. Avoiding body purification- Panchakarma procedures required to be performed for body cleansing.
9. Acceptance of direct or indirect heat and wind.
10. Enjoying swimming over a long period of time.
11. Late night awakening and daytime sleep, excessive sleeping.
12. Suppression of natural urges.
13. Abnormal seasonal climatic changes.
14. Over exertion.
15. Overpowering emotions like fear, sorrow or anxiety.
16. Serious affliction of diseases like Jwara, Shosha, Krimi etc.

All these causes produce aggravation of all the three dosha. These exacerbated dosha further cause destruction of the power of digestion i.e. the Agni. These dosha take the abnormal

seat at the Pakvashaya to form Sannipatika Atisara. Aggravation of three dosha is further responsible for vitiation of Rasa and Rakta dhatu and various symptoms are displayed as per prevalence of participating dosha as well as dushtya.

Clinical features : Roopa

1. Sannipatika Atisara having Rakta as the prevalent aggravated element produces dark yellowish, green, blue colored loose motions which are extensively painful or totally painless. The faecal material is alternately semi formed, bulky or totally watery loose.
2. Insipid mouth.
3. Loss of digestive power.
4. Delirium.
5. Lassitude.

8.6. Raktaja Atisara

पित्तातिसारी यस्त्वेतां क्रियां मुक्त्वा निषेवते।
 पित्तलान्द्रपानानि तस्य पित्तं महाबलम्।।
 कुयद्रिक्तातिसारं तु रक्तमाशु प्रदूषयेत्।
 तृष्णां शूलं विदाहं च मुदपाकं दारुणम्।। C.S.Ch.19/ 70.

When a person already affected by Pittaja Atisara continues practicing the same causes, leads himself to Raktaja Atisara develops as the advanced stage of the disease. Totally aggravated Pitta dosha involves Rakta dhatu with it and the pathogenesis of Raktaja Atisara is formed.

Clinical features

1. Blood stained loose motions.
2. Severe thirst.
3. Severe sensation of burning of the body.
4. Pain in abdomen.
5. Fever.
6. Suppuration of anus.

9. Classification according to Sama-Nirama stage

9.1 Ama Atisara

अग्रजीर्णलुद्धताः क्षोभयन्तः कोष्ठं दोषा त्तुसंघान्मलांश्च।
 नानावर्णं नैकशः सारयन्ति शूलोपेतं पृष्ठनेनं वदन्ति।।

S.S.Utt. 40/ 15-16.

Chronic indigestion is the fundamental cause responsible for formation of Ama Atisara. Aggravation of dosha produces irritation of koshtha and thus formation of Ama. The digestive capacity diminishes and unformed, loose stool is frequently passed to cause Ama Atisara.

Clinical features : Roopa

1. Ingested food passes in partially digested form in the form of fæces.
2. Faecal material is sticky, mucoid and foul smelling.

10. Agantuja Atisara

आगन्तु द्वावतिसारी मानसौ भयशोकजौ।
 तत्तयोत्संशानं बायोर्वदतीसारलक्षणम्।।
 मारुतो भयशोकान्यां शीघ्रं हि परिक्लृप्यति।।

C.S.Ch.19/ 11.

The cause responsible for the production of this type of Atisara is external. Main two sub types are described as; Bhayaja Atisara and Shokaja Atisara:

10.1 Bhayaja Atisara

This type of Atisara forms due to getting struck or shocked for any reason. The features are :

1. Paleness of the body.
2. Meek and depressed mental status.
3. Delusions.
4. Tremor.
5. Foamy, loose motions.
6. Fever.
7. Dryness of the mouth and soft palate.

10.2 Shokaja Atisara

This type of Atisara develops due to sudden grief and mental shock on hearing very sad news e.g. bereavement over the loss of family member.

Clinical features : Roopa

1. Depressed, sad mental status.
2. Loss of sleep.
3. Restlessness.
4. Giddiness.
5. Dryness of the mouth.
6. Loathing of food.
7. Foamy, soft, smooth, watery loose motions.

11. Complications : Upadrava

उद्धतमतिसारोपद्रवैः शोधादिभिर्मुनम्।
 यदुक्तं-- शोथं शूलं ज्वरं तृष्णाम् थ्यासं कासमरोचकम्।
 छर्दिं मूर्च्छां च हिक्कां च दृष्ट्वातिऽसारीणं त्यजेत्।।

M.Ni. Atisara Chapter-3/ 20.

तृष्णा दाहोऽरुचिः शोथः पार्थशूलोऽपतिर्विभिः।
 मुदपाकः प्रलापश्च स्याधानं थ्यासकासको।।
 मूर्च्छां हिक्का मदः शूलं बहुवेगो ज्वरस्ताया।
 एतेरुपद्रवैर्मुदमतिसारिणामुपसृज्येत्।। S.S.Utt. 40/ 21.

1. Edema.
2. Pain in abdomen.
3. Fever.
4. Thirst.
5. Dyspnoea.
6. Cough.
7. Insipid mouth.
8. Vomiting.
9. Stupor.
10. Hiccup.
11. Delirium.
12. Pain in loin.
13. Severe restlessness.
14. Incoherent speech.
15. Abdominal distension.

12. After effects : Udarka

अशोतिसाग्रहणीविकारः।
प्रायेणचान्योनियानभूताः॥
सत्रेऽनले सन्ति न सन्ति दीप्ते।
खेदतलेषु विशेषतोऽग्निम्॥ A.H.Ch. 8/164.

Major diseases like Arsha : Hemorrhoids, Grahani, are interdependent for their onset. They are primarily caused due to feebleness of digestive fire. Maintaining the strength of Agni- digestive fire, can prevent the onset of these diseases.

13. Prognosis : Sadhyasadyatva

पक्वजम्बुवावसंकाशं यकृतखण्डनिभं तनु-
घृततैलवसामज्जवेशवारपयोदधि॥
मांसधावनतोयामं कृष्णं नीलारुणमम्।
मेचकं सिन्धुकर्बूरं चन्द्रव कोषगतं घनम्॥
कुण्ठं मसुलुङ्गमं सुगन्धि कुथितं बहु।
तृष्णादाहतम : थासहिककागार्धस्थिशूलिनम्॥
संमूर्च्छातिमोहयुक्तं पक्ववलीगुदम्।
प्रलापयुक्तं च भिषवर्ज्यदितिसारिणम्॥
अंसवृणुगुदं क्षीणं दूरघातपुद्गतम्।
गुदे पक्वे गतोप्लानमतिसाक्षीणं त्यजेत्॥
थासशूलपिपासातं क्षीणं ज्वरनिपीडीतम्।
विशेषेण नरं वृद्धमतीसारो विनाशयेत्॥ S.S.Utt. 40/ 21.

1. Colour of faecal material resembles to fruit of Jambu (Indian black Berry), liver, ghee, oil, fat, marrow, milk, curd, water in which meat is washed.
2. Colour of faecal material resembles to copper blue, green, orange, gray, black, red, resembling like black kajal or feather of peacock.
3. Faecal material appears as clear like water or turbid and fibrous.
4. Faecal material smells like dead body, (decaying) fish, fermented decaying (food).
5. Presence of flies on the faecal material.
6. Faecal material is mostly watery in nature or with very small amount of faeces.

7. Atisara becomes incurable when patient suffers from severe dyspnoea, abdominal pain, thirst, sensation of burning, hiccups, pain in loin, pain in bones, restlessness, suppuration of anus nous, like coloured,

14. Fatal symptoms : Arishta lakshana

हस्तापादाङ्गुले : सधिप्रपाको मूर्धनिग्रहः।
पुरीषस्योष्णता चैव मरणापतिसारिणाम्॥

M.Ni. Atisara Chapter-3 /22.

1. Burning sensation at fingers with red colored swollen joints.
2. Stasis of urine.
3. Passing of searing, hot loose motions with severe sensation of burning.

15. Symptoms of remission of Atisara

यस्योच्चारं विना मूत्रं सम्यग्वासुश्च गच्छति।
दीप्ताभेर्तुकोष्ठस्य स्थितस्तस्योदरामयः॥

A.H.Ch. 10/123.

When patient suffering from Atisara, urinates without passing fart, when he feels lightness in the abdomen and his digestive fire is powerful, such symptoms are understood as remission of the disease.

16. Dietary and behavioral regimen**16.1 Pathya**

wholesome regimen:

1. Intake of light, easy to digest type of food.
2. Intake of butter milk.
3. Drinking water boiled in earthen pot.

16.2 Apathya

unwholesome regimen:

1. Intake of hard to digest, hot, acidic food.
2. Physical exertion.

Chapter 139 PRAVAHIKA**Diseases for differential diagnosis**

1. Atisara.
2. Grahani.
3. Visuchika.
4. Shoola.

1. Introduction

Pravahika is the Sanskrit term evolved from the word 'प्रवाहणम्' meaning action related to forcible or strenuous action, here action of defecation. Pravahika is the disease in which strenuous, mucoid, unformed and frequent defecation with abdominal gripping pain is the main feature. By mentioning the word Pravahana, this disease is ruled out from Atisara. Further detailed pathogenesis is described as Nidana Panchaka of Pravahika in this chapter.

2. Definition : Paribhasha

प्रवाहमाणस्य प्रवाहिका। S.S.Utt. 40/138.

The disease in which a laborious effort is required to defecate and the motions are sticky, mucoid and blood stained is called as Pravahika. The nature of this disease is chronic but non serious.

3. Route of development: Marga : Abhyantara**4. Predisposing factors: Nidana**

All the causes responsible to form Atisara like repeated eating, indigestion, eating incompatible food etc. are equally responsible to cause Pravahika

5. Pathogenesis : Samprapti

वासुः प्रवृद्धो निधितं बलासं सुदस्यधस्तादहिताशनस्य।

प्रवाहतोऽल्पं बहुशो मलाक्तं प्रवाहिका तां प्रवदन्ति तज्ञाः॥

S.S.Utt. 40 /138.

Aggravated Vata dosha pushes down Kapha dosha saturated in the lower part of the Pakvashaya. Due to extra emollience and stickiness already aggravated Kapha does not easily expelled out of the anus and requires additional force to defecate. Only a little quantity of fecal material with mucous is passed via anus after strenuous and effortful action.

Reference reading

- Sushrut Samhita Uttartantra Chapter 40.
- Sanskrit English Dictionary - Apte Shabdakosha.

1. Amashaya is site of initiation of pathogenesis of Pravahika. [Udhhava sthana]
2. Pakvashaya is the site of formation of pathogenesis of Pravahika. [Adhishthana]
3. Udakavaha srotas is the sites of presentation pathogenesis of Pravahika. [Sanchara sthana]

Premontory features : Purvaroopo

- a. Pain in the abdomen.
- b. Unsatisfactory motions.

6. Clinical features: Roopa

प्रवाहिका वातकृता सशूल पित्तात् सदाहा सकफा कफाच्च ।
सशोणिता शोणितसम्भवा तु ताः स्नेहकृमप्रभवा मतास्तु ॥
तासामनोसारवद्विशेषे लिङ्गे क्रमचामविपक्वताश्च ॥
S.S.Utt. 40/139.

1. Pain around the umbilicus.
2. Strenuous effort to pass the stool.
3. Fecal material mainly consists of mucous.
4. Frequent, unsatisfactory episodes of defecation.
5. Pain in calf muscles.

7. Types : Prakara

प्रवाहिका वातकृता सशूल पित्तात् सदाहा सकफा कफाच्च ।
सशोणिता शोणितसम्भवा तु ताः स्नेहकृमप्रभवा मतास्तु ॥
तासामनोसारवद्विशेषे लिङ्गे क्रमचामविपक्वताश्च ॥
S.S.Utt. 40/140.

7.1 Vataja Pravahika

1. Strenuous and painful defecation.
2. Fecal material is of mucoid nature.

7.2 Pittaja Pravahika

1. Thirst.
2. Sensation of burning while passing the motions.
3. Motions are yellowish and mucoid in nature.

7.3 Kaphaja Pravahika

1. Stool is very sticky and mucoid.
2. A lot of mucus is expelled while defecation.

7.4 Raktaja Pravahika

1. Easy fatigability.
2. Motions are mucoid with blood stains.

7.5 Sannipatika Pravahika

This is very chronic type of Pravahika with sticky stool and pain in the abdomen as the main symptoms. Additional effort to defecate is always required and still there is unsatisfactory feeling on passing the stool. (कृतेऽपि अकृत संज्ञा ।).

8. Complications : Upadrava

1. Pandu.
2. Guda bhransha.
3. Atisara.
4. Chhidrodara.
5. Gulma.
6. Yakrut-Pleeha roga.

9. After effects : Udarka

1. Guda bhransha.
2. Shoola.
3. Agnimandya.

10. Prognosis : Sadhyasadhvatva

Pravahika becomes asadhya

1. Due to onset of dehydration.
2. Prolapsed anus due to frequent strenuous passing of stool.
3. Severe pain in the lower abdomen.

11. Fatal symptoms: Arishta laxana

1. Severe dehydration.
2. Body edema.
3. Stupor.
4. Paleness of the body [due to loss of blood].

12. Dietary and behavioral regimen

As like Atisara.

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Chapter 140 GRAHANI

Disease at a glance

- Nature of Disease: Chikari-chronic.
- Major Involving Dosha- Vata-Pitta-Kapha
- Major Involving Dushya- Rasa
- Site of Manifestation: Grahani-duodenum
- Srotas: Annava Srotas
- Types- Four.
- Cardinal Feature: दुर्नियन्त्रितादुसा न्यानेन विपुचरि-irregular hard or loose, unformed motions.

Prognosis

- Difficult to Cure.

Diseases for differential diagnosis

1. Ajeerna.
2. Shoola.
3. Atisara.
4. Pravahika.
5. Malavshlamba.
6. Krimi.

Reference reading

- Madhavidana Grahani Chapter 4.
- Chareka Samhita Chikitsa Sthana, Chapter 15
- Sushruta Samhita Uttara Tantra, Chapter 40
- Ashtanga Hridaya Sharira Sthana, Chapter 3
- Ashtanga Hridaya Chikitsa Sthana, Chapter 8
- Harita Samhita-Grahani.
- Yogarajinakaar-Grahani
- Sanskrit English Dictionary
- Apte Shabda-kosha

1. Introduction

Day to day life of this era has become very fast, challenging, and more stressful. Busy routines of today are compelling the humans for irregular intake of food, irregular sleep and unavoidable mental stress. All these things are leading to chronic indigestion ultimately resulting in weaker strength of digestive fire-Agnimandya and many other serious disorders. One of them is described very aptly as Grahani. Further detailed pathogenesis is described as Nidana Panchaka of Grahani in this chapter.

2. Definition : Paribhasha

पृष्ठी पित्तघरा नाम या कला परिकल्पितः ।
पक्वभाशय मध्यस्था ग्रहणी सा प्रकीर्तितः ॥
ग्रहण्या बलमनिर्हि स चापि ग्रहणी श्रितः ।
तस्मात् संदृश्यते बन्धो ग्रहणी संप्रदुष्यति ॥ S.S.Utt. 40/169-170.

अन्यधिष्ठानमन्नस्य ग्रहणाद्ग्रहणी मत्तः ।
नाभेरुपरि सा स्थानिवलोपस्तंभवृहिता ॥
अपक्वं धारयत्यन्नं पक्वं भुजति पार्थतः ।
तदधिष्ठानमन्नस्य ग्रहणाद्ग्रहणी मत्ता ।
सैव धन्वन्तरिस्ति कला पित्तघराह्वया ॥
आयुरारोयविवीची भूतधात्वन्निपुदये ।

स्थिता पक्वभाशयद्वारि भुक्तनार्गागतेव सा ॥ A.H.Sh. 3/ 50-51.

ग्रहण्या बलमनिर्हि स चापि ग्रहणीवत्तः ।

दूषितेऽमावतौ दुसा ग्रहणी रोगकारिणी ॥ A.H.Sh. 3/ 53.

The disease in which the digestion capacity of the organ called as Grahani diminishes due to feeble power of digestive fire is called as Grahani roga.

The portion of Annava srotas starting from the last part of stomach-Amashaya, till the starting part of the intestine [unduka] is called as Grahani. i.e. the portion between pyloric end of the stomach till the starting of the large intestine is referred as grahani in the texts for showing its functional importance. Grahani is the seat for Agni or the digestion fire. The Agni stays and works

in relation with Grahani. Power of Agni and functioning of Grahani is interrelated; also Pitta dosha and Agni are working hand in hand that is why organ (Grahani) is also called as (Pitradhara Kala). The major function of digestion and assimilation of the ingested food is done by Grahani. In this process the ingested food is converted into suitable, absorbable and beneficial form with the help of Agni. This process is carried out at the site of Grahani. The first transform of ingested food via this conversion is Rasa dhatu. After formation of Rasa dhatu further chain of dhatu formation is promoted. The unwanted part of ingested is transformed into purisha mala or fecal wastes. 'Smana vayu' also stays and works to fulfill all the above said functions. All these events are possible only with the healthy status of organ Grahani. That is why organ called as Grahani is of utmost importance.

The disease called as Grahani affects all these important functions and thus affects the overall body health very badly. It is a very critical and chronic natured disease.

The organ Grahani and digestive fire-Jatharagni- are closely associated with each other. Grahani strengthens Agni and in return Agni strengthens Grahani.

3. Route of development : Marga

Abhyantara- Affliction of the disease is internal.

4. Predisposing factors : Nidana

अभोजन-शुभानिभोजनादिप्रमाथनात् ।
असुप्त्युत्थानातिरुद्रसंयुक्तभोजनात् ।
विक्रममन्त्रेणविप्रमादयाधिकरण्यात् ।
देशकालादीन्निषेधाद्देवानां च विचारणात् ।
दुष्कर्मिभिः स दुष्टोऽन्नं, न तत् पचति तच्चपि ॥

दृष्यति ग्रहणी जन्मोर्गनादन्तरेतुभिः ।
अनीसारे निवृत्ते ऽपि मन्दाग्नेरिदनाग्निः ।
भूयः संदृषितो वादिरंशयोर्षपदुष्मयेन ॥

अशान्तिमारग्रहणीविकाराः शयेपचान्योन्यं निदानमूलाः ।
सन्नेऽनले संति, न संति दीपे, रक्षेतदस्तेषु विशेषतोऽग्निम् ॥

when a person practices unhealthy habits of eating etc. during the convalescence period of Atisara in which the stage of Agnimandya or low digestive power is not fully recovered. Disease Grahani occurs. Although, It is not always essential to acquire the disease after an rise to lowered digestive capacity- agnimandya can cause Grahani. Onset of agnimandya is the prime requirement for the manifestation of Grahani.

5. Pathogenesis : Samprapti

अन्यधिष्ठानमन्नस्य ग्रहणाद् ग्रहणी मत्ता ।
नाभेरुपर्यन्निबलेनोपब्योपवृद्धिता ॥
अपक्वं धारयत्यन्नं पक्वं सृजति पार्श्वतः ।
दुर्बलानिबलादुष्टा त्वाममेव विमुञ्चति ॥

Due to unhealthy practices of eating, the power of the Agni diminishes i.e. agnimandya occurs. With diminished power the Agni Grahani cannot function properly and normal functions like digestion-pachana, separation-vivechana, to send forward-munchana etc. also get diminished. When function of Grahani reduces, simultaneously the functions of Agni as well as Samana vayu also get altered.

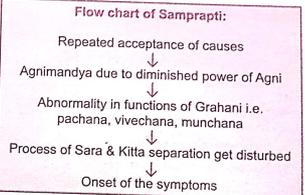
The main function of Grahani-sara and kitta vibhajana i.e. separation between wanted and unwanted contents of ingested food does not take place. In such condition, the ingested food only is defecated in undigested or

partially digested form (ama or apakva). The fecal material becomes unformed, sticky and foul smelling.

When Pitta dosha is in excess, the stool becomes loose and when Vata becomes dominant the stool becomes hard. That is why, the fecal material is sometimes formed and some times unformed in Grahani.

The disease also produces many ill effects on the body.

Onset of the disease is in agnimandya, Pitta dosha and Kapha along with Vata are the dosha participating in the pathogenesis. It demonstrates in gastrointestinal tract-koshtha. Annavaha, Sweadavaha and Udakavaha srotas are mainly affected.



- Components of pathogenesis: Samprapti ghataka**
- Dosha: Vata-Pitta-Kapha
 - Dushya: Rasa.
 - Srotas: Annavaha, Swedavaha and Udakavaha srotas.
 - Adhithana: organ Grahani
 - Srotodushti: Vimarmagamana.
 - Swabhava: Chirakari.
 - Agni dushhi: Jatharagni, Rasa agni - Agnimandya.

6. Premonitory features : Purvarupa

पूर्वरूपं तु तस्येदं तृष्णाऽऽसन्नं बलक्षयः ।
निदाहोऽस्य पाकश्च चिरात् कायस्य गौरवम् ॥

ग्रहणं तस्य मदनं विद्यमानमन्नकः ।
प्रमेको यच्छ्रेयस्यसर्गचमूट कलपो प्रपः ॥
अन्योदयना धर्दिः कार्यश्रेष्ठोऽन्नकृजनम् ॥

1. Lassitude.
2. Fatigue.
3. Body ache.
4. Improper, delayed digestion of the food.
5. Extra salivation.
6. Insipid taste of mouth.
7. Thirst.
8. Giddiness.
9. Abdominal distension.
10. Ringing of the ears.
11. Intestinal rumble.

7. Clinical features : Rupa

एकैकशः सर्वशश्च दोषैरेत्यंमुच्यन्ते ।
सा दुष्टा बहुषु भुक्तामामेव विमुञ्चति ॥
पक्वं वा सन्नं पृति मुहुर्वद्धं मुहुर्ववम् ॥
ग्रहणीरोगमाहुस्तमायुर्वेदविदो जनाः ।

उच्यते सर्वमेवात्र प्रायो ह्यस्य विदव्यते ।
अतिसृष्टं विवर्द्धं वा द्रवं तदुपविश्यते ॥
तृष्णारोचकवेरस्यप्रसेकतमकान्तिः ।
शून्यादकरः साक्षिपर्वरुक् छर्द्धनं ज्वरः ॥
रोहामग्नित्तिकतालो उद्गारश्चास्य जायते ॥

वाताच्छूलाधिकैः पाहुहत्वाधौदमस्तकैः ।
मित्तात् सदाहेर्गुल्भिः कफाभ्यस्तित्थस्त्रिलक्षणैः ॥
दोषवर्णनेल्लेत्तद्वृत्तिपूत्रमनमानैः ।
हस्ताङ्गुल्याभ्यां स्त्रीहाशंकी च मनवः ॥

अथ जातेभवेज्जनुः शून्यादकरः ।
पर्वरुत्तोत्पट्टुच्छदिज्वरारोचकदाहवान् ॥
उरिरेच्छुक्त्वित्तिकतालोहृष्टमामग्निकम् ।
प्रसेकमुखवैरस्यमकाचिपीडितः ॥ S.S. Utt. 40 / 174-175.

Ingested food is defecated as it is meaning without getting completely digested.

Quantity of stool is large, irregularly loose or in nature. [मुहुर्वद्धं मुहुर्ववम्]

1. As the disease condition advances, nature of the stool continues to be unformed or loose only. This happens due to weakness occurred to the musculature of the organ.

Other features :

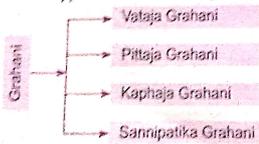
2. Weakness and weight loss.
3. Joint pain.
4. False sensation of hunger.
5. Giddiness.
6. Thirst.
7. Hyper salivation.
8. Vomiting.
9. Sour belching.
10. Fever.
11. Swelling of hands and feet.
12. Colour of nails, eyes, urine, stool and face is greyish or blackish when Vata dosha is dominant in the Samprapti.
13. Colour of nails, eyes, urine, stool and face is yellowish or copper coloured when Pitta dosha is dominant in the Samprapti.

Colour of nails, eyes, urine, stool and face is whitish when Kapha dosha is dominant in the Samprapti.

Patient becomes suspicious for himself. Doubts about suffering with other serious diseases like Udara, Gulma, Arsha, Pandu etc. Recurrent mouth ulcers is also a common feature.

8. Types : Prakara

Total four types of Grahani are explained.



स चतुर्धा वृष्योवेः सत्रिप्राणक जायते | A.H.N. 4 / 18.

8.1 Vataja Grahani

कटुतिक्तकपातिकमगोदतभोजनेः |
 अनिवासानाम्यच्छडीनप्रहरेद्युनेः ||
 कर्मणि कुपितो मन्मथि संवाद्य मानतः |
 तन्मार्गं रच्यते दुःखं सुदुर्लभकं खर्गानां ||
 कण्ठोत्थोषः कुचुष्णा तिलिं कर्मोः स्वयः |
 नखोत्थंशमोः शालनीऽ पीशो विमुचिद्या ||
 हृद्योऽकारधैर्यं वैर्यं परिकल्पिका |
 दुःखिः सरोसानी च नमसः सदनं तथा ||
 मोक्षं कोपिते चाश्रमं मुच्यतेऽप्यनुते च |
 स वातुल्लङ्घनात्सोऽहारीको च मानवः ||
 क्रियादुःखं उरुं शूलकं तन्मार्गं शब्दजनयत् |
 बुधः सुतः सृष्टवर्चः काशश्वासोऽर्शोऽपिनात् ||

C.S.Ch.15 / 59-65.

Special predisposing factors

1. Excessive intake of pungent, bitter, astringent, dried and cold food.
2. Prolonged fasting or insufficient intake of food.
3. Excessive walking.
4. Suppression of natural urges.
5. Excessive sexual indulgence.

With acceptance to all such causes Vata dosha vitiates to create Agnimandya and Vata dominant Grahani develops.

Clinical features : Roopa

1. Delayed digestion of the food.
2. Dryness of skin.
3. False hunger.
4. Thirst.
5. Stupor.
6. Ringing of the ears.
7. Pain in back, thighs, neck, chest etc.
8. Vomiting and loose motions.
9. Weakness with weight loss.
10. Anal fissures with pain at anus.
11. Depressive moods.

12. Breathing difficulty, coughing.
13. Nature of the stool is some times very loose and watery and some times stony hard. Motions are frequent and stool passing is noisy.
14. Patient feels as if suffering from other serious diseases like Shwasa, Gulma, Hridroga etc.

8.2 Pittaja Grahani

कटुपिपाकविशेषान्शराद्यैः पित्तमुत्पन्नम् |
 अग्निमान्नावदुर्हनि जलं तन्निवायत् ||
 सोऽजीर्णसिक्तितानं पीताभः सत्येन उच्यते |
 दूधन्मोऽशकृत्कण्ठपाशानीचदुर्हनिः || C.S.Ch.15 / 66.

Predisposing factors : Nidana

1. Excessive intake of pungent, sour, fermented and salty food.
2. With acceptance to all such causes Pitta dosha aggravates by its liquid quality and due to increase in liquidity, Agni diminishes and becomes ill functioning to result in Agnimandya. Thus Pitta dosha dominant Grahani develops.

Clinical features : Roopa

1. Bluish- yellow colored, unformed feces.
2. Defecation is frequent, unformed and excess in quantity.
3. Special feature of Grahani : Sometimes the stool is loose and hard at other times but in general the stool is loose in form.
4. Sour and foul smelling belching.
5. Heart burn.
6. Insipid mouth.
7. Thirst.
8. Ringing of the ears.
9. Fever.

8.3 Kaphaja Grahani

गुर्वतिलिग्यशीतादिभोजनादतिभोजनात् |
 भुक्तमात्रस्य च खनाद् हन्यन्निं कुपितः कफः ||

तन्मार्गं रच्यते दुःखं क्लमसठधैर्यककाः |
 आयोपदेशनाद्युपकासटोवनगनाः ||
 हृदयं मन्थने मन्थानेदुर्गं तिलिंते सुह |
 दुष्टो मधु उदाः सदनं स्त्रीऽवर्धयत् ||
 भिग्रामश्लेषसंयुक्तमुद्वर्धं प्रवर्तयत् |
 अकृशास्वपि दीर्घच्यपालन्वं च कठालके ||

C.S.Ch.15 / 68-70

Special predisposing factors

1. Excessive intake of heavy, unctuous, oily and fatty food.
2. Excessive, uncontrolled eating.
3. Daytime sleep immediately after lunch.

With acceptance to all such causes Kapha dosha vitiates with all its qualities to create loss of digestion - Agnimandya and Kapha dosha dominant Grahani develops.

Clinical features : Roopa

1. Delayed digestion of the food.
2. Vomiting.
3. Insipid, Sticky, sweet taste of mouth.
4. Heaviness in the chest.
5. Foul smelling belching.
6. Weakness.
7. Decreased libido.
8. The stool is unformed, sticky, and heavy in nature. It sinks in the water.

8.4 Sannipatika Grahani

पृथक्वातादिनिर्दिष्टहेतुलिङ्गनापने |
 त्रिदोषं निर्दिशोत्सोषं भेषजं शृण्वतः सत् || C.S.Ch.15 / 72.

Clinical features : Rupa

- Mixed symptoms of single dosha dominant types are observed in Sannipatika Grahani. They are as;
1. Quantity of the stool is large, watery loose and foul smelling.
 2. Urge to defecate is very strong and beyond patient's control.

3. Dryness of the skin.
4. Weight loss.
5. Thirst.
6. Fever.
7. Severe heaviness in the stomach on eating.
8. Fatigue.
9. Nausea.
10. Pain.
11. Mouth ulcers.

8.5 Sangrahi : Sangarha Grahani

अन्नं कृन्मनात्सं वीर्यं सदनं तथा ।
 इव गीतं घनं निर्यं सकटीवेदनं शक्यम् ॥
 ज्ञानं बहु परीक्षितं रसाद्यं भववेदनम् ॥
 रसान्नास्यं शक्यादित्यं वाऽप्य सुञ्जति ॥
 दिवा प्रकाशं भवति रात्रौ शान्तिं व्रजेच्च या ।
 अग्निरेवैव शकित्वा विर-कालात्सुवन्ति ॥
 सा भवेत्सकतेन संग्रहग्रहणी मता ॥

M.Ni.Grahani- chapter- 4/1-3.

It is a special and critical type of Grahani. Symptoms like abdominal pain, hyper peristalsis, weakness, lumber pain are observed in this type. Nature of stool is unformed, watery and sticky. Passing of stool is noisy. Passing loose stool is more during the day time while there are no motions during night time. All these symptoms occur at an interval of ten to fifteen days or a month. As the condition worsens these symptoms may occur daily. Sangrahani is a very critical type to diagnose and also to treat.

Vata dosha mainly aggravates and Ama formation is the main event in the samprapti of Grahani.

The Synonyms of Grahani are :

1. Dardnaya.
2. Duschakritsa.
3. Sangrahanas grahani.
4. Grahanaana grahani.

Sangraha Grahani is assumed to be the Ama avastha of any other type of Grahani.

Charaka has explained this as; when ever dosha are mixed with Ama they produce all the above mentioned symptoms. Whereas intervals of ten or fifteen days or a month is a special feature for Sangrahani.

8.6 Ghatiyantra Grahani

स्वपतः पार्श्वयोः शूलं गलज्जलघटीभ्रमिः ।
 तं वदन्ति घटीयंत्रनसाद्यं ग्रहणीमवम् ॥

M.Ni.Grahani- chapter- 4/4.

'Ghati yantra' means the old age mechanism used to water a farm. When water pulled out from a well in a chain of earthen utensils a certain sound is produced while transferring the water from one pot to the other. This particular noise is compared with the rumble formed due to very weak condition of intestines. In one way Ghatiyantra Grahani can be described as the further stage of Sannipatika Grahani. When the patient is in sleeping posture, a special type of intestinal rumble is heard which resembles to the sound of water getting poured from one utensil to the other. In this type of Grahani patient is always in semi conscious state and it is incurable.

9. Complications : Upadrava

स्नीहा यकृज्जठरकण्डुमलस्य बन्धोऽपीला क्रिमिर्नरुणो
 भवतोऽथ पृष्ठ। एते भवति ग्रहणीसकित्तम
 घोरास्तयादुःखदाश्च मनुजस्य चित्ते ॥ *Harta Samhita- 3*

1. Diseases of liver and spleen.
2. Itching.
3. Constipation.
4. Prostate gland enlargement
5. Krimi.
6. Udara.

13. Dietary and behavioral regimen

13.1 Pathya

wholesome regimen:

1. Langhana- fasting.
2. Intake of light, easy to digest type of food- e.g. Peya- liquid obtained from cooked rice, soup of radish added with pepper and oil or ghee, spiced meat soup with ghee, pomegranate and butter, soup of lentils, pigeon peas and all types of sour liquids.
3. Usage of sesame seed oil (Sesamum indicum) banana, butter made up from goat's milk, curd and honey etc.
4. Usage of buttermilk, sour gruel, wine etc.
5. Rest sleeping.
6. Pungent quality medicines with ghee and medicated oils.
7. Vegetable and meat soups.

13.2 Apathhya

unwholesome regimen:

1. Intake of hard to digest type of food- e.g. food made up from wheat, white beans, peas, black gram, barley, ginger, mushroom, ash gourd, drum sticks, potatoes and other tubers, sugar cane, berries, mango, betel nut, milk, sour fruits like grapes etc.
2. Intake of incompatible food items.
3. Intake of large volume of water.
4. Application of therapies like fomentation, bloodletting etc.
5. Physical exertion.
6. Acceptance of heat in any form- sun light or fire etc.
7. Wandering at night.

...

7. Pandu.
8. Jwara. Atisara.
9. Arsha.
10. Shotha.

10. After effects : Udarka

1. Weight loss.
2. Chronic indigestion.

11. Prognosis : Sadhyasadyatva

लिङ्गैसाध्यग्रहणीविकारो वैलैरतिसारादो न सिध्यत् ।
 वृद्धस्य नूनं ग्रहणीविकारो हत्व नैव निवर्ततेच ॥
 बालके ग्रहणी साध्या यूनि कृच्छ्रा समीरिता ।
 वृद्धत्वसाध्या विज्ञेया मत्तं धन्वन्तेहिम् ॥

M.Ni. Grahani- chapter 4/ 19-20.

In general, Grahani once developed is said to be incurable or very difficult to manage. Although in young age there are chances to cure due to good strength of the organ itself but with the advancing age, the condition becomes critical. As musculature and tone of the organ, Grahani becomes feeble with advancing age, the disease becomes more and more serious as well as incurable.

12. Fatal symptoms : Arishta laxana

संसृष्टा व्याधयो यस्य प्रतिलोमनुलोमगाः ।
 अपन्नग्रहणीरोगाः सोऽर्धमासं न जीवति ॥

Yogaratnakara- Grahani.

Uncontrolled severe loose motions and vomiting with symptoms of dehydration, pale, sunken eyes suggests the terminal, incurable stage of Grahani. Patient definitely dies within fifteen days on occurrence of these symptoms.

Disease at a glance

- Nature of Disease: Acute and Chirakari-chronic
- Major Involving Dosha- Vata, Pitta, Kapha.
- Major Involving Dushya- Rasa, Rakta, Mamsa.
- Site of Manifestation: Heart, Umbilicus, Flanks, Anashaya- Stomach, Large intestines.
- Srotas: Annava srotas, Rasavaha Srotas, Raktavaha srotas, Mamsa-vaha srotas
- Types- Fiva.
- Cardinal Feature: formation of hard deep rooted lump in the abdominal cavity.

Prognosis

- Curable – single dosha dominant types.
- Incurable – Three dosha dominant type.

Diseases for differential diagnosis

1. Grahani.
2. Udera roga.
3. Pregnancy.

Reference reading

- Madhuvandana Gulma Chapter 28.
- Ashtang Hridaya Nidana Sthana- Chapter 11.
- Charak Samhita Chikitsasthan, Chapter 5
- Bhusruta Samhita Utharetantra, Chapter 42.
- Bhusruta Samhita Sutra Sthana, Chapter 23.
- Sanskrit English Dictionary - Apte Shrikrishna-kosha.

1. Introduction

हस्त्राभ्योन्तरे प्रस्थिः सञ्चारि यदि वा चलः ।
वृत्तश्चापचयवान् स गुल्म इति कीर्तितः ॥ S.S.Utt. 42/4.

The name Gulma is derived from Sanskrit word 'गुल्मः' - a shrub- a plant species, which grows in dwarf, rounded but is to enlighten the concept of this disease, its spreading nature resembling the growth of a shrub. Modern world understands the concept of Gulma as - formation of a mass, a lump or a hard, spreading type of growth which can be of benign or malignant nature. Further detailed pathogenesis is described as Nidana Panchaka of Gulma in this chapter.

2. Definition : Paribhasha

कुपितानिलमूलत्वाद् गुडमूलोदयादपि ।
गुल्मवद्वा विशालत्वाद् गुल्म इत्यभिधीयते ॥ S.S.Utt. 42/ 6.

दुष्टा वातादयस्त्वर्थ मिथ्याहारविहारतः ।
कुर्वन्ति पञ्चविधं गुल्मं कोष्ठान्तरप्रस्थिरुपिणम् ॥
तस्य पञ्चविधं स्थानं पार्थं हसृभि बस्तयः ॥
स्त्रीणां ज्ञेयो रक्तेन चारः ॥ S.S.Utt. 42/ 8.

Gulma is defined by Acharya Charak in Charak Samhita- Nidan Sthan-3 and Chikitsa Sthan- 5 chapter as, a hard rounded lump formed in the abdominal cavity due to acceptance of relevant dietary and behavioral predisposing factors. Acharya Sushrut explains special type of Gulma forming only in female gender as- Raktaja Gulma--a surgically treatable disease, explained in Sushrut Samhita- Uttartantra -chapter 42.

3. Common sites of onset of Gulma

1. At both sides behind the ribs- in the flanks.
2. Inside the heart.
3. At umbilicus.
4. Inside urinary bladder.
5. Inside the uterus- Raktaja Gulma.

4. General predisposing factors: Samanya nidana

विट्श्लेष्मपित्तातिपरिखवाद्वा तेव वृद्धैः परिधीडनाद्वा ।
वेभेरुदीर्णवित्तेरेद्यो वा वाय्वाभिघातेतिपीडनेर्वा ॥
स्वाग्रपानेतिवेतिर्वा शोकेन विध्याप्रतिकर्णणा वा ।
विचेष्टितैर्वा विषमातिमात्रैः कोष्ठे प्रकोपं ससृपेति वायुः ॥
C.S.Ch. 5/6-7.

1. Excessive formation of faecal material, Kapha and Pitta in the digestive system, which in turn produces severe discomfort and also causes density or solidity due to their undue accumulation.
2. Suppression of natural urges- especially urges progressing downwards- e.g. urge to urinate or defecate.
3. Physical external injury.
4. Excessive intake of dry, harsh type of food and drinks.
5. Mental state of severe grief.
6. Erroneous application of elimination therapies.
7. Excessive and abnormal physical activities.

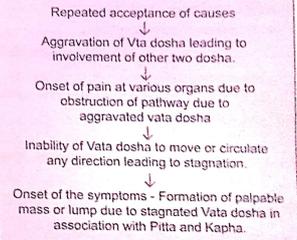
5. Pathogenesis : Samprpti

कफं च पित्तं च स दुष्टवायुरुद्भूय मार्गान् विनिबद्ध्य ताभ्याम् ।
हन्नापिपाथोदरबलिशूलं करोत्यघो याति न बद्धमार्गः ॥
पवनाशये पित्तकफाशये वा स्थितः स्वतन्त्रः परसंश्रयो वा ।
सर्शापलभ्यः परिपिण्डितत्वादगुल्मो यथादोषसुपैति नाम ॥
C.S.Ch. 5/6-7.

Due to acceptance of relevant causes, Vata dosha aggravates and further provokes Kapha and /or Pitta dosha. Further Vata dosha creates obstruction in pathways of body systems to create pain in cardiac region, umbilicus, flanks, abdomen and urinary bladder. Aggravated Vata dosha cannot move further and down wards due to obstruction in the pathway and remains positioned at

Pakvashaya- large intestines, Pittashaya- gall bladder or Kaphashaya- stomach, either independently or in combination with other two dosha. Later, it becomes palpable because of acquiring round shape and hence termed as Gulma. Types are made and named due to involvement of various dosha in the pathogenesis of the disease.

Flow chart of Samprpti



Components of pathogenesis: Samprpti ghataka

- Dosha: Vata, Pitta, Kapha
- Dushya: Rasa, Rakta, Mamsa.
- Srotas: Annava srotas, Rasavaha Srotas, Raktavaha srotas, Mamsa-vaha srotas.
- Achisthana: bilateral at chest, abdomen, inside urinary bladder, uterus
- Srotodushthi: Sanga, Granthi.
- Swabhava: Asukani and Chirakani.
- Agni dushthi: Jatharagni- Dhatu agni- Agnimandya.

6. Prodromal features : Poorvarooapa

उद्ग्रावाहृल्य- पुरीषवन्ध- नृत्त्यक्षमत्वान्विकुजनात् ।
आटोप आम्भानमपक्तिशक्तिरासत्रगुल्मस्य वदन्ति चिह्नम् ॥
A.H.N.11/5.

1. Excessive belching.
2. Constipation- hard stools.
3. Fullness of Stomach without eating food.
4. Loss of strength.
5. Intestinal rumbling.
6. Abdominal distention and flatulence.
7. Indigestion due to lack of digestive capacity.

7. General features : Roopa

अस्ति : कृच्छ्रविष्णु- वातान्नविकृषणम् ।
आमाह शोर्षवातत्वं सर्वगुणेषु लक्षयेत् ॥
M.Ni.Gulma-chapter-28/ 5.

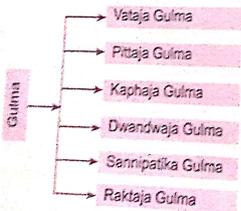
8. Inspid mouth.
9. Difficulty in passing fecal material, urine and flatus.
10. Flatulence.
11. Abnormal upward progression of Vata dosha.

8. Types : Prakara

Total six types of Gulma are explained.

स चत्सैर्जन्तवे शोषैः सनलैरपि चोच्छ्रितैः ।
पुरुषाणां तथा कोणां द्वयो रस्तेन चास्य ॥ S.S.Utt. 42/ 7.

Due to morbid combinations of aggravated dosha, total five types of Gulma can occur. Three types of single dosha dominant (Ek doshaja), with two dosha dominance - Dwandwaja Grahani, one type of all the three dosha dominant (Sannipatika) and (Raktaja Gulma) dominant only in female gender.



8.1 Vataja Gulma

Predisposing factors- Nidana:

रुक्षान्नपानविषमातिपात्रं विचेष्टनं वेगविनिग्रहश्च ।
शोकोऽभिघातोऽतिमलक्षयश्च निरजताचानिगुण हेतु ॥
C.S.Ch. 5 / 9 -11.

- a. Intake of very dry and incompatible type of food.
- b. Excessive intake of food.
- c. Irregular movements of the body.
- d. Suppression of natural urges.
- e. Sorrow.
- f. Physical trauma.
- g. Severe decrease in normal concentration of Mala
- h. Starvation.

Clinical features : Roopa

यः स्थानसंस्थान रुजा विकल्पं विड्वातसङ्गं गल वक्त्रशोषम् ।
श्यावारुणत्वं शिशिरज्वरं च हृत्कुक्षि- पार्थासि- शिरोरुजं च ।
करोति जीर्णं त्वधिकं प्रकोपं भुक्तै मृदुत्वं समुपैति यथा ॥
वातात् स गुल्मो न च तत्र रुजं कषाय तिवर्त- कटुघोषोत्ते ॥
C.S.Ch. 5 / 9 -11.

- a. In Vataja Gulma, site of origin, size, shape and nature of pain is variable.
- b. Difficult excretion of fecal material and flatus.
- c. Dryness of mouth and throat.
- d. Blackish red discoloration of the skin.
- e. Continuous fever with chills.
- f. Pain in heart, abdomen, flanks and shoulders.
- g. Increase in pain at end point of digestion which subsides with eating.
- h. Intake of dry, astringent, pungent food is contraindicated.

8.2 Pittaja Gulma

Predisposing factors- Nidana:

कटुदन्त निशोष्य विदाहि रुक्ष क्रोधातिमथा कहुनामयेवा ।
आमाभिघातोऽचिरं च दुष्टं पैतस्य गुल्मस्य निमित्तमुक्तम् ।
C.S.Ch. 5 / 12 -13.

1. Intake of bitter, sour, spicy, hot, acidic and dry food items.
2. Hyper hostile nature.
3. Alcoholism.
4. Long time acceptance of direct harsh sunlight.
5. Long time acceptance of direct heat.
6. Ama formation.
7. Physical injury.
8. Morbidity to Rakta dhatu due to relevant causes.

Clinical features : Roopa

ज्वरः पिपासा यदनाङ्गायः शूलं महज्ज्वीर्यति भोजने च ।
स्वेदो विदाहि ब्रणवच्च गुल्मः सशर्षासहा पैतिक गुल्मरुम् ॥
C.S.Ch. 5 / 12 -13.

- a. Fever.
- b. Intense thirst.
- c. Redness to face and body.
- d. Pain- abdominal pain especially during the process of digestion.
- e. Excessive sweating.
- f. Sensation of burning.
- g. Severe pain on touch at Gulma site.

8.3 Kaphaja Gulma

Predisposing factors- Nidana

शीतं गुरु लिग्घनघेष्टनं च समुष्णं प्रक्षपनं दिवा च ।
गुल्मस्य हेतु कफसंभवस्य सर्वस्तु दुष्टो निचयालकस्य ॥
C.S.Ch. 5 / 12 -13.

- a. Intake of heavy, unctuous, cold food items.
- b. Acceptance of all Kapha dosha aggravating causes. (dietary and routine)

Clinical features : Roopa

मैमिन्व शीतज्वर गात्रमाद हल्लाय कामाकचि गोवाणि ।
शील्यं रुग्णला कटिनोन्नतत्वं गुल्मस्य रुपाणि कफ अत्यकस्य ॥
C.S.Ch. 5 / 14 -15.

1. Numbness of the body.

2. Fever with chills.
3. Lassitude.
4. Nausea.
5. Coughing.
6. Inspid mouth.
7. Heaviness of the body.
8. Undue feeling of cold.
9. Less intensity of pain (as compared to other types.)
10. Gulma is hard to touch.

8.4 Dwandwaja Gulma

निमित्तरुपाण्युपलभ्य गुल्मे द्विदोषने दोषदलावलम्ब च ।
व्यानिश्रलिङ्गनपरंश्च गुल्मान्नोनादिशोषयद्यकल्पनाद्यै ॥
C.S.Ch. 5 / 12 -13.

Based on the history of accepted predisposing factors, presented symptoms, and on strength of dosha aggravation, onset of Gulma with any possible combination of any two dosha shall be judged and treatment shall be done accordingly.

8.5 Sannipatika Gulma

महारुजं दाहपरितमप्रभद्वन्द्वनोन्नतं श्रीश्रविदाहि दाहयाम् ।
मनः शरीरान्निवलासहरिणम् त्रिदोषजं गुल्ममयाच्चनादिशेत् ॥
C.S.Ch. 5 / 17.

Predisposing factors- Nidana: As Sannipatika Gulma originates from aggravation and morbid combination of all the three dosha, predisposing factors, responsible to aggravate Vata, Pitta and Kapha are collectively responsible for its manifestation. All such factors are already explained in single dosha dominant types.

Clinical features : Roopa

1. Severe pain at the site of Gulma.
2. Sensation of burning.
3. Touch of Gulma is stony hard and shape is elevated.

4. Very serious natured disease which takes away the strength of mind and body.
5. Incurable.

8.6 Raktaja Gulma

नक्षत्रदुःखितभोजना या या चामनार्ण विमुनेदुर्गौ वा ।
वायुहितस्या परिपुष्य रत्नं करोति गुल्मं सरुनं सदाहम् ॥
सितत्व सिद्धेन समानतिङ्ग विशेषण चायनरं निबोध ॥

S.S. Ut. 42 / 13-14.

यः संदते पिण्डित एवङ्गैशिरात्सशूलः समनर्गलिङ्गः ॥
स गैधिरः सौमव एव गुल्मो मासे व्यतिते दशमे चिकित्स्यः ॥

C.S.Ch. 5 / 19.

Sushrut Samhita explains this as specially forms in female gender only.

Predisposing factors- Nidana

- a. Acceptance of irregular (harmful) diet and daily regimen by a lady who has recently delivered a baby.
 - b. A lady who has undergone abortion.
 - c. A lady who practices abnormally (regarding diet and daily regimen) during menstruation.
- All such conditions in a female are susceptible to cause Raktaja Gulma. Due to such conditions, Raja (menstrual blood) is obstructed inside the uterus by aggravated Vata dosha to manifest into Raktaja Gulma.

Clinical features : Roopa

- a. All the symptoms are alike Pittaja Gulma.
- b. Feeling of a heavy, pulsating, occasionally painful mass (with no organ wise differentiation) inside the uterus.
- c. Many times symptoms of pregnancy (nausea etc.) are also observed
- d. Dominant only for female gender.
- e. Starting of treatment is advised only after crossing tenth month of onset of the disease.

9. Prognosis : Sadhya- Asadhya laxana

सञ्चितः क्रमशो गुल्मो महाबाहु परिग्रहः ।
कृतमूलः सिरानद्धो यदा कूर्मश्चोदितः ॥
दीर्घल्यानिचि-हल्लास- कास-च्छद्यति- च्चरेः ।
तुष्णा- तन्त्रा- प्रतिशययैयुन्त्यते स न सिध्यति ॥
गृहित्वा सञ्चरं धासच्छद्यतिसारापोदितम् ॥
हृन्नाभि हल्लापादेवु शोथः कचति गुल्मिन्म् ॥

C.S.Ch. 5 / 169-171.

Symptoms of incurable type of Gulma

- a. Gulma which has grown very slowly, wide spread and has become chronic.
- b. Which is bounded by vessels and appears like back of a tortoise.
- c. Gulma in which symptoms like fatigue, insipid mouth, nausea, coughing, vomiting, restlessness, fever, thirst, lassitude and common cold are observed with severity.
- d. The patient of Gulma, who has developed symptoms like fever, dyspnoea, vomiting and loose motions and also has developed oedema on his chest, abdomen and on extremities, does not cure (certainly dies).

10. Fatal symptoms : Arishta laxana

धासः शूलं पिपासात्रविद्वेषो ग्रन्थिमूढता ।
जायते दुर्बलत्वं च गुल्मिनो मरणाय वै ॥ S.S.Su. 33 / 21.

The patient of Gulma definitely dies on development of symptoms as under;

1. Dyspnoea.
2. Severe pain.
3. Intense thirst.
4. Oedema over cardiac region, umbilicus and extremities.
5. Vomiting and diarrhea.
6. Fever.
7. Loathing of food.
8. Sudden remission of Gulma.

11. Dietary and behavioral regimen

11.1 Pathya

wholesome regimen:

1. Intake of light, easy to digest type of food e.g. old rice, red variety of rice, barley, green gram etc.
2. Intake warm, nutritious, unctuous, food like meat soups, vegetable soups, thin gruel made up of rice etc.
3. Usage of cow urine for consumption.
4. Rest.

11.2 Apathya

unwholesome regimen:

1. Intake of food which is provoking to Vata dosha by its qualities.
2. Intake of incompatible food.
3. Intake of food contents like dry meat, radish, fish, dried vegetables etc.
4. Food which causes constipation and which is hard to digest.
5. Excessive intake of water and other drinks.

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Diseases for differential diagnosis

1. Pitra Grahani.
2. Vidagdha Ajeerna.
3. Medoroga.
4. Prameha.
5. Trishna
6. Shoola.

1. Introduction

Name of disease Bhasmaka is evolved from Sanskrit term 'भस्म' meaning – (to turn into) ash or cinders. In this disease, food ingested in large amount of heavy or hard to digest also gets digested within no time as if burnt to ash, hence is the name Bhasmaka. Further detailed pathogenesis is described as Nidana Panchaka of Bhasmaka in this chapter.

2. Definition : Paribhasha

क्षणत् युक्तं भस्मं स योगे भसकः स्मृतः । Vagasesa.

The disease in which the consumed food is digested within no time and patient feels hungry again is called as Bhasmaka. It is assumed as in a patient affected by Bhasmaka, consumed food actually burns out in Anavaha strotas and cannot nourish the body hence patient remains unsatisfied and hungry forever.

Synonym: Synonym to this condition is Atryagni.

3. Route of development : Marga

Abhyantara : Affliction of the disease is internal.

4. Predisposing factors : Nidana

Intake of very pungent, spicy and dry type of food.

5. Pathogenesis : Samprapiti

ने शौणकके पित्तं कृपितं मारुताग्नात् ।
स्वोष्णं पावकस्थाने बलमग्नेः प्रयच्छति ॥
तदा लब्धबलौ देहे विरुक्षे सानिलोऽनलः ।
परिभूय पचत्यत्र तैश्चयादाशु गुरुर्गुहः ॥
पक्त्वाऽत्रं सततो धातुऽञ्जोणितादीन् पचत्यपि ।
ततो दीर्घत्वमातङ्कान्मृत्युं चोपनयेन्नरम् ॥
भुक्त्वाऽत्रे लभते शान्तिं जीर्णमात्रे भ्राताम्यति ।
तुट्थासदाहमूर्च्छाद्या व्याधयोऽत्यनिर्भवाः ॥ C.Ch.1.15/217-220.
आहारं पचति शिखी दोषानाहारवर्जितः पचति ।
दोषक्षये च धातुस्यारक्षणे तथा प्राणान् ॥ Yogaratnakara.

Reference reading

- Charak Samhita Chikitsa Sthana-15.
- Yogaratnakara.
- Vagasesa.
- Sanskrit English Dictionary
- Apte Shabdakosha



Due to acceptance of the causes, Pita dosha aggravates by Ushna and Tikshna [hot and sharp] qualities and combines with Vata dosha, due to this morbid union Kapha dosha dries up and decreases in the quantity [Kapha kshaya]. Aggravated Pita dosha enhances the speed of digestion in Anavaha strotas. Rasa dhātu also dries up due to morbid increase in ushna quality of Pita dosha.

6. Clinical features : Roopa

1. Remarkable increase in the hunger.
2. Excessive urge for eating.
3. The ingested food is absorbed immediately and severe hunger is felt again.
4. No satisfaction over any amount of food intake.
5. The patient looks undernourished and ill.
6. Thirst.
7. Burning sensation in the body.
8. Giddiness.
9. Cough.
10. Edema.
11. Dry stools.

7. Prognosis : Sadyasadhyaiva

The disease condition is very rare but whenever it strikes the body it becomes incurable-Asadhya.

In early stage of Bhasmaka, digestion of ingested food occurs while in later stages as there is in availability of food in the system to mavalability digest, there starts digestion of body elements and at the end it causes death of the patient.

8. Dietary and behavioral regimen

- 8.1 Pathya**
Wholesome regimen
1. Intake of nutritious food with regular intervals.
2. Rest.
3. Avoiding physical and mental stress.
- 8.2 Apathya**
Unwholesome regimen
1. Starvation.
2. Insufficient intake of food.
3. Physical and mental exertion.

...

Diseases for differential diagnosis

1. Agnimandya.
2. Ajerna.
3. Grahni.
4. Shoola
5. Kaphaj Kimi
6. Alsara.
7. Ulara roga
8. Pavalika

1. Introduction

Condition of flatulence or abdominal distension or indigestion is described as Aanaaha by Ayurveda texts. Various types are described for Aanaaha and Aatopa. Basic cause responsible to create Aanaaha, Aatopa and all the related diseases of gastrointestinal system is weak or feeble power of digestive fire. Further detailed pathogenesis is described as Nidana Panchaka of Aanaaha in this chapter:

आमं शकृद्वा निवितं क्रमेण भूयो विबद्धं विगुणानितेन ।
प्रवर्तमानं यथास्वप्नेन विकारमानाहमुदाहरन्ति ॥
तस्मिन् भवन्त्यामसमुद्भवे तु गुणान्नाश्रियायशिरौविदाहरन्ति ॥
तस्मिन् भवन्त्यामसमुद्भवे तु गुणान्नाश्रियायशिरौविदाहाः ।
अमाशये शूलमयो गुरुत्वं हलासा उन्नयविधातश्च ॥
रसम् : कटीपुष्कुरिष्यन्ने शूलोऽथ मूत्र्यां स शकृद्भेषजम् ॥
शसश्च पक्वाशयजे भवन्ति लिङ्गानि याजातसकोऽन्वयानि ॥

S.S.Utc. 56/20-22

Due to long time, gradual accumulation of Ama or faeces in the gastrointestinal tract and interruption for elimination of these contents from relevant exits, a condition is called as Aanaaha. It occurs due to action of aggravated and disorientated Vata dosha.

Clinical features : Roopa

A. Aanaaha produced due to manifestation of Ama.

1. Thirst.
 2. Common cold.
 3. Sensation of burning inside the head.
 4. Pain and heaviness in the stomach.
 5. Nausea.
 6. Obstruction in belching.
- B. Aanaaha produced due to accumulation of faeces.
1. Stiffness at waist and back.
 2. Constipation due to stragrated stool.

Reference reading

- Sushrut Samhita Sutra Shihana Chapter 21.
- Sushrut Samhita Sutra Uttaranta Chapter 56
- Sanskrit English Dictionary
- Apte Shabdakosha.

AATOPA

3. Stasis of urine.
4. Pain in abdomen.
5. Fainting.
6. Vomiting of faecal material.
7. Dyspnoea.
8. All symptoms resembling to Alsaka disease.

•••

1. Definition : Paribhasha

आतोपो रूपापूर्वक उदरक्षोभः ॥ S.S.Su. 21/32.
Aatopa is defined as painful movements of (aggravated) Vata dosha and irritation of abdomen due to it.

Disease at a glance

- Nature of Disease: Chronic.
- Major Involving Dosh: Vata, Kapha Pitta.
- Major Involving Dushya - Rasa, Udana Pitta.
- Major involving mala - Sweata.
- Site of Manifestation: Abdomen
- Strotas: Rasavaha Strotas, Udakavaha strotas, Svedavaha strotas, Amravaha strotas
- Types- Eight
- Cardinal Feature: Accumulation of dosha at Udana- siva of abdomen.

Prognosis

- Difficult to cure.
- Chikitsa and Badhithagudgara- Incurable

Diseases for differential diagnosis

1. Garbhini - pregnancy.
2. Gulma
3. Medoroga- sthauilya
4. Shotha

Reference reading

- Madhav Nidana Udana Rogo- Chapter-35.
- Charaka Samhita Chikitsasthana-13.
- Charaka Samhita Sutrasthana-18.
- Susruta Samhita Nidanassthana-7.
- Susruta Samhita Chikitsasthana-33.
- Ashtanga Hridaya Nidanassthana-12.
- Yogarajnakara
- Sanskrit English Dictionary
- Ape Shabda-kosha

1. Introduction

उदर is a Sanskrit word meaning abdomen or abdominal cavity. But in Ayurveda meaning for Udana in respect to disease understanding is taken as Udana roga meaning disease strictly restricted to abdominal cavity. As per modern science formation of ascetic fluid in abdominal cavity can be considered as similar disease condition. Further detailed pathogenesis is described as Nidana Panchaka of Udana roga in this chapter.

2. Definition : Paribhasha

- भगवदुदरैः वैदुष्यन्ते स्मार्दिता नराः ।
शुक्रवक्त्राः कुशीपानैराभ्रातोदकुक्षयः ॥
प्रथानिबलाहाराः सर्वचैषस्वनीश्वराः ।
दीनाः प्रतिक्रियामातान्जहतेऽसूनशधवत् ॥ C.S.Ch. 13/5-6.

3. Route of development : Margya

Abhyantara-affliction of the disease Udana roga is internal.

4. Predisposing factors : Nidana

- अत्युष्णत्वप्राकारविदार्यन्तराशनम् ।
निष्वाससर्जनश्वविरुद्धशुचिभोजनम् ।।
स्त्रीहाशप्रोहणीदाषकर्षणम् कर्मविप्रमाम् ।
क्लेशनामप्रतिकाराद्रीक्ष्याद्वैगवियाणाम् ।।
स्रोतसां दूष्णानाम् संशोभावतिपूष्णाम् ।।
अशीबालशुक्रोधादन्सुन्दनभेदनाम् ।।
असिचिदवैषण्यं पापं कर्म च कुर्वताम् ।
उदरगुणजनने मन्थनीनां विशेषतः ॥ C.S.Ch. 13/ 12-15.
- 1. Intake of excessively hot (by quality and nature) salty, alkaline, acidic, excessively sour or poisonous type of food.
- 2. Erroneous application of sansarjanakarma- post procedure dietetic regimen- to be given after both purification treatments (panchakarma therapy).
- 3. Intake of very dry, incompatible and unclean type of food.

4. Emaciation of the body due to affliction of diseases like plethorog, arsha, grahani.
5. Erroneous application of body purification- Panchakarma- procedures.
6. Negligence in treatment of diseases like pletharog, grahani or arsha.
7. Vitiation of body systems - strotas.
8. Ama formation.
9. Irritation to body systems via some irritant.
10. Over saturation of body systems (strotas Aiti Purana).
11. Obstruction of intestines due to arsha (haemorrhoids), hair or fecal material.
12. Intestinal perforation and laceration.
13. Excessive accumulation of aggravated Dosh.
14. Involvement in various sinful acts.

5. Pathogenesis : Samprapiti

अग्निरोषान्मुष्ण्यणां रोसङ्गाः प्रथानिषाः ।
मलदुष्टयो प्रवर्तन्ते विशेषान्तराणि तु ॥
मन्देऽनौ मलिनैर्मुत्सैसाकाद्वैषसंशयः ।
ग्राणान्प्रथानान् संदूष्य मार्गाभूद्व्याऽशरोत्तरान् ॥
लङ्गमासान्सागत्य कुक्षिमाभ्यापयेद् पृथग्म् ।
जनयन्त्युदरं । C.S.Ch. 13/9- 11.

रुद्ध्या स्वान्मुवाहीनि दोषाः स्रोतोसि संचितः ।
ग्राणान्प्रथानान् संदूष्य जनयन्त्युदरं नृणाम् ॥
C.S.Ch. 13/ 20.

रोषाः सर्वेऽपि मन्देनौ सुतरगुदराणि तु ।
अजीर्णमलिनैश्चात्रैर्जपन्ते मलसञ्चयम् ॥ A.H.N. 12/1.

यस्य वातः प्रकुपित्स्त्रग्मासान्तरसाक्षितः ।
शोकं संजनयेत् कुक्षावुदरं तस्य जगते ॥ C.S.Sa. 18/31.

कोष्ठदुष्परेहिवदस्यारो निःसृत्य दुष्टेऽनिलेवेषुः ।
त्वरः संसुप्तय शनैः समत्नाद्विदधेभानो जटरं करति ॥
S.S.Ni. 7/6.

Indigestion develops due to prolonged acceptance of relevant predisposing factors this also cause weakening of musculature of Grahani. Transfer of ahara rasa to Rasa dhātu

hampers and results in formation of immature or abnormal Rasa dhātu, which cannot flow through the channels of Rasavaha strotas and also starts producing obstruction in the system (Rasavaha strotas avarodha). Obstruction in strotas and formation of immature Rasa dhātu is an interdependent processes, which further affects other components such as Prana and Apana vāyu, and digestive fire-jatrahara agni- to make them abnormal in their respective functions. This helps to enhance further obstruction in the strotas. Aggravated dosha tend to saturate in channels of Rasavaha and Svedavaha strotas. Due to specified nature of the disease, dosha tend to accumulate mostly in abdominal region than any other part of the body and symptoms like flatulence, abdominal distension etc. are observed.

6. Premonitory symptoms : Purva-roopa

धुत्राशः स्वाद्वलित्स्थिभ्युदरं पच्यते चिरम् ।
भुक्तं विदस्यते सर्वं जीर्णजीर्णं न कीर्तते च ॥
सहते नातिशैहिन्यपीच्छोऽप्यश्च पादयोः ।
शश्वद्वलक्षयोऽनेऽपि व्यापाने श्वासमुच्छति ॥
वृद्धिः पुरितनिचयो रक्षीदावहेतुका ।
बालिसन्धी रणाभ्यान् वधति पादयतेऽपि च ॥
अतन्मदो च जटरसपि लज्जलभोजनम् ।
राजीवनं वलीनाश इति लिङ्गं भविष्यताम् ॥
C.S.Ch. 13/ 16-19.

1. Loss of appetite.
2. Delayed digestion of sweet, unctuous, hard to digest type of food.
3. Formation of acidity after intake of any kind of food.
4. Intolerance to slightest over eating.
5. Mild edema on the feet.
6. Continual deterioration of physical strength.

5. Obstruction in the pathway of Apana Vata and subsequent aggravation. Aggravated Apana Vata suppresses digestive and also obstructs movements of stool along with Kapha and Pita to produce Baddhagundodara.

Clinical features : Roopa

1. Thirst.
2. Sensation of burning.
3. Fever.
4. Dryness of mouth and soft palate.
5. Weakness of thighs.
6. Cough.
7. Dyspnoea.
8. General Weakness.
9. Insipid mouth.
10. Retention of stool, stasis of urine.
11. Abdominal distension
12. Vomiting.
13. Sneezing.
14. Headache.
15. Pain at heart, umbilicus and anus.
16. Absence of peristalsis in abdomen.
17. Soggy condition of abdomen.
18. Appearance of firm, reddish blue coloured vessels of the abdomen and formation of cow tail shaped nœvus of vessels over the umbilicus.

8.7 Chhidrodara

शर्करावृणकाष्ठास्थिकण्टकैरससंयुतैः ।
शिवितान्नं यदा शुकतैर्गुण्णयाऽत्यशनेन वा ॥
पाकं गच्छेत्प्रसवेऽप्यशिशुरेषः प्रसवद्वहिः ।
पूयन् युदमन्नं च जनयुत्सदं ततः ॥ C.S.Ch. 13/ 42-43

Predisposing factors : Nidana

1. Intestinal perforation due to ingestion of gravels, grass leaves, flecks of wood or bones, thorns etc. along with food.
2. Excessive yawning after eating food.
3. Overheating.

Sampapti : Intestinal wounding gets suppured and creates discharge or diffusion which accumulates into the rectum and intestines to produce saturated area and to manifest Chhidrodara.

Clinical features : Roopa

1. Abdominal distension especially below the umbilicus.
2. Accumulation of fluid in abdominal cavity leading to Utkhodara.
3. Symptoms displayed reflect dominance of particular Dosha.
4. Patient defecates red, blue, yellow, sticky, foul smelling (as a dead body), improper or unformed stool.
5. Hiccup.
6. Dyspnoea.
7. Cough.
8. Thirst.
9. Delirium.
10. Excessive urination
11. Insipid mouth.
12. Indigestion.
13. General Weakness.

Predisposing factors : Nidana

1. Who has ingested large amount of oleation (Snehā).
2. Who's body has become excessively emaciated due to application of body cleansing (panchakama) procedures such as medicated emesis-Vamana, medicated purgation-Virechana or medicated enema-Basti.
3. A person who is severely emaciated due to depletion of Meda and Mamsa dhātu or due to affliction of various other diseases, drinks large volume of cold water. Vata and Kapha Dosha aggravate and saturate at abdomen as an effect of cold water to manifest Utkhodara or Dakodara.

Clinical features : Roopa

1. Loathing of food.
2. Thirst.
3. Anal secretion.
4. Pain.
5. Dyspnoea.
6. Cough.
7. Insipid mouth.
8. Abdominal pain.
9. Emaciation.
10. Observation of various coloured vessels on the abdomen.
11. Feel of the abdomen resembles to water filled leather bag.
12. By percussion on the abdomen physician feels sensation likeripples on water with dull percussion note.
13. Fluid shifts its place as the patient shifts his side while sleeping which is felt clearly by the patient. (physician also can clinically observe shifting dullness)

8.6 Baddhagundodara

पुन्यबलैः सशशनेन शुकतैर्बलवाने युते ।
उत्तर्बलयाऽशीभिन्नसंयुक्तेन वा ॥
अपानो मार्गसोधात्कलाऽनि कुतिलोऽनिलः ।
वर्ष शितकफान् रक्ष्यान्नुत्सदं ततः ॥
C.S.Ch. 13/ 39.

Predisposing factors : Nidana

1. Blockage in anal passage due to accidental intake of foreign contents like eye lashes, hair strands etc.
2. Due to manifestation of Udvartana.
3. Manifestation of hemorrhoids.
4. Intussusception of intestines.

Similar Pathogenesis of Pleehodara when occurs to liver, the type is called as Yakritodara or Yakritidhrodara.

14. Abdomen is enlarged in size with smooth touch and stable appearance.
15. Protrusion of symptoms and formation of ascitic fluid is simultaneous in Udakodara. Also in udakodara, there is no presentation of symptoms as per dominance of Dosha. This differentiates Udakodara from jatrodaka avashta of Udara roga.

9. Ajatrodaka avashta

अजातरोदकस्य शब्दं नातिगात्रिकम् ।
 अजातरोदकस्य शब्दं नातिगात्रिकम् ॥
 यथा गुडुशयवत् शिवाजातवाक्षितम् ॥
 नातिं शिष्यं शरीरं तु भेदं कृत्वा प्राणशयति ॥
 ह्यग्निवद्व्यकृत्युत्पत्त्येकशक्तिः ॥
 कर्कशं भुजति वार्तं नातिरन्ध्रे च पावके ।
 लालसा विसे चारो मूत्रेऽन्ते संहते विधिः ॥
 C.S.Ch. 13/55-57.

Clinical features : Reopa

1. Absence of abdominal edema.
2. Reddish brown tinge of abdomen.
3. Intestinal rumbling.
4. Feel of heaviness (of the abdomen) is less.
5. Appearance of mesh of veins at abdomen.
6. Distended umbilicus due to Vata and normalcy after passing of the flatus.
7. Pain at heart, umbilical region, pelvis, lumbar region and anus.
8. Passing of harsh flatus.
9. Moderate power of digestive fire.
10. Insipid mouth due to (lyper) salivation.
11. Oliguria and constipation.

10. Complications : Upadrava

रोगोऽगुण्युत्पन्नः सुशुचौ धर्मेसातमकर्मणाश्वास
 क्वासादिक्वातार्दन्त्याशुशुभ्रादीदिव्यभेदद्वयसङ्गातः
 रसादिभेदादिभिश्च विधातव्ये ।
 1. Vomiting
 2. Distention
 C.S.Ch. 13/ 49.

3. Dyspnoea.
4. Blackouts.
5. Thirst.
6. Cough.
7. Hiccup.
8. Debility.
9. Pain at flanks.
10. Insipid mouth.
11. Hoarseness of voice.
12. Retention of urine etc.

Patients displaying these symptoms shall be considered as untreatable.

11. Prognosis : Sadyasadhya

जन्मनैवोदरं सर्वं शप्यः कृच्छ्रतमं भयम् ॥ C.S.Ch. 13/58
 बलिनस्तस्मात्तान्मु यन्तसाध्यं नवोत्थितम् ॥
 पश्चाद्भ्युदं त्वृक्षसर्वं जातोदकं तथा ।
 शयो भवत्यभावाय शिक्षानं चोदरं गुणम् ॥ C.S.Ch. 13/59

1. All the types of Udara roga are termed as difficult to cure right from the onset of the disease.
2. Disease is curable in patients with strong constitution and when ascetic fluid is not formed, it is curable also in early stage of onset.
3. Udara roga becomes out right incurable due to;
 - a. Intestinal obstruction becomes chronic for more than a fortnight.
 - b. formation of ascetic fluid.
 - c. Intestinal perforation.

12. Fatal symptoms : Arishta laxana

शुभाक्षं कुटिलोभस्ययुक्लिन्नतनुत्वयम् ।
 वलशोणितनासाग्निशक्तिणं च वलशेत् ॥ C.S.Ch. 13/52
 पार्श्वमन्नादिविद्वेषशोथानीसारणीडितम् ।
 विरिक्तं चायुर्विणं मूर्ध्मापण विवर्धयेत् ॥ S.S.Ch. 33/14
 An intelligent physician shall reject the patients of Udara roga for treatment who develop following symptoms.



1. Edema at eyes.
2. Abnormality in pubic region.
3. Sticky and abnormally smooth skin.
4. Severe loss of body strength, blood, musculature and complete loss of digestive fire.
5. Pain in flanks, loathing of food, onset of oedema, onset of loose motions.
6. When ascetic fluid is developed very speedily in spite of administration of purgation- Virechana.

बालसित्वात्कफत् स्निग्धः सन्निपाताशोदकात् ।
 परं परं कृच्छ्रममुदरं पिपाताशेत् ॥ C.S.Ch. 13/ 50.

Udara roga becomes increasingly serious from Vataja Udara roga- Pittiraja Udara roga -Kaphaja Udara roga -Sannipatika Udara roga -jalodara.

Chhidrodara is incurable right from the start. Badhahagudodara becomes incurable after fifteen days of onset. Generally all types of Udara roga become fatal after formation of ascetic fluid and also after intestinal perforation.

शय्युः सर्वमोक्षः शरीरो विक्रान्तोऽन्तेः सद्गुट् ।
 मूर्च्छां च्छर्त्ततेवासो निहन्त्युदरिणं मयम् ॥ C.S.Ch. 13/ 53.

- Udara roga is said to be fatal when following symptoms develop:
1. Severe body oedema.
 2. Dyspnoea.
 3. Hiccup.



4. Insipid mouth.
5. Thirst.
6. Stupor.
7. Vomiting.

13. Dietary and behavioral regimen

13.1 Pathya
 wholesome regimen:
 1. Intake of light, easy to digest type of food- for e.g. old rice, red variety of rice, barley, green gram etc.
 2. Intake of milk.
 3. Usage of cow urine for consumption.
 4. Pungent quality medicines with ghee and medicated oils.
 5. Vegetable and meat soups.
 6. Rest.

13.2 Apathya

unwholesome regimen:
 1. Intake of hard to digest, unctuous food, dry, creating stickiness or moisture.
 2. Excessive eating of heavy meals e.g. meat of aquatic animals, aquatic vegg-tablets, food prepared from sesame seeds, hot, salty, acidic type of food.
 3. Physical exertion.
 4. Travelling on fast moving vehicles.
 5. Consumption of large volume of water.
 6. Alcohol consumption.
 7. Day time sleep.

Disease at a glance

- Nature of Disease: Acute
- Major Involving Dosh: Kapha-Vata
- Samana Pitta
- Major Involving Dushya- Rasa
- Site of Manifestation: Large intestine.
- Srotas: Annavaha Srotas
- Cardinal Feature: Abdominal discomfort with typical rumbling of intestines.

Prognosis

- Curable

Diseases for differential diagnosis

1. Garam.
2. Gulma.
3. Pakvashaya
4. Maroosanya.

References reading

- Madhavan's Nigama Veda Vyakhi
- Charak CC
- Susrut Samhita Nigama Srotas
- Charak 1

1. Introduction

Aadhmana is not a disease, it is a prime symptom found in various diseases mainly of Annavaha srotasa. It is most common situation felt by a person when he feels his stomach is upset. Generally it is taken as non serious symptom and home remedies are preferred than to take regular course of medicines. Distension of abdomen and typical rumble of intestine are primary features of this condition. Further detailed pathogenesis is described as Nidana Panchaka of Aadhmana in this chapter.

2. Definition : Paribhasha

सादापमच्युत्तनान्तरुदं दृशम् ।
अजानिनि तं विद्याद्वैक्वातानिरोधनम् ॥
विचुक्तागदद्वयं तदेवमाशयोत्थितम् ।
प्रत्यान्नं विजानोवाकफ्रव्याकुलितानितम् ॥ S.S.Ni.1/88-89.

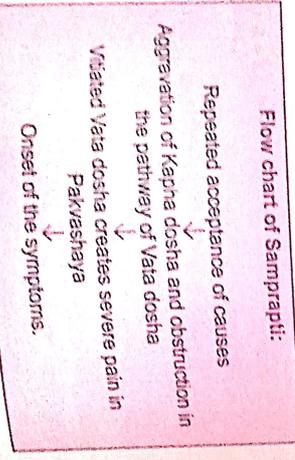
The disease in which pain in the abdomen with clear movements of the intestines is noted by the patient is called as Aadhmana. In this disease severe pain is felt in the abdomen. When the condition limits itself only upto Amashaya it is termed as Pratyadhmana.

3. Route of development : Marga

Abhyantarara- Affliction of the disease is internal.

4. Pathogenesis : Samprapti

Due to acceptance of relevant causes Kapha dosha



Components of pathogenesis: Samprapti ghataka

- Dosh: Kapha- Vata
- Dushya: Rasa.
- Srotas: Annavaha srotasa.
- Adishhana: Pakvashaya.
- Srotodushti: Virmamagamana.
- Swabhava: Ashukari.
- Agni dushti: Jatharegni, Rasa agni- Agnimandya.

aggravates and creates obstruction in the pathway of Vata dosha. Vata dosha gets further aggravated and accumulates in

Pakvashya to create severe pain, abdominal distension and a typical rumbling sound [gud-gud] in the abdominal cavity. When distension is restricted only upto the stomach; the condition is called as Pratyadhmana.

5. Clinical features : Roopa

1. Movements of the intestines are clearly felt by the patient.
2. Peculiar rumbling [gud -gud] noise in the abdomen.
3. Severe pain in the abdomen.

6. Dietary and behavioral regimen

As like Agnimandya

Diseases at a glance

- Nature of Disease: Acute
- Major Involved Dosha: Kapha- Vata
- Sanga Pitta
- Major Involving Dushya- Rasa
- Site of Manifestation: Large Intestine
- Socius: Annavaha Stasis
- Cardinal Feature: Abdominal discomfort
- Main typical numbering of Intestines

Prognosis

- Course

Diseases for differential diagnosis

1. Anura.
2. Gananuroga.
3. Vibandha
4. Aalsava.

Reference reading

- Sutrā Samhitā Uttarānta Chapter-56.
- Ashtanga Hridaya Sūrasana Chapter-8.
- Sanskrit English Dictionary
- Aro- Samskṛtasha

1. Introduction

Visuchika is an acute natured disease condition explained in texts of Ayurveda. Visuchika indicates pricking type of pain in the abdomen. It is the condition which makes the patient uncomfortable. Mostly the onset is sudden without any pre intimation. Further detailed pathogenesis is described as Nidana Panchak of Visuchika in this chapter.

2. Definition : Paribhasa

सूचीभिरिव गात्राणि तुव्यं संनिष्ठतेऽनिलः ।
यस्यानौर्णं सा वैदैन्यन्तति तिसूचिका ॥ S.S.Utt. 56/4.
न तौ प्रतिताहारा लपन्ते विदितमसाः ।
मूढात्सामजितानानो लपन्ते कल्पुषाशयाः ॥ S.Utt.56/4-5.
तं द्विविधमभयद्रोपमाचक्षते भिषजः - तिसूचिकाम्, अलसकं च । आ
विमुचिकामूढं बाधश्च प्रवृत्तानद्रोषं यद्योक्तमनंगं विशान् ॥
च.वि. २/१०-३१.

विविधैर्वनोद्धैर्वाज्यादिभृशक्रोभः ।

सूचीभिरिव गात्राणि विच्यतीति तिसूचिका ॥ A.H. Su.8/7.

The disease in which Vata dosha exaggeration and severe indigestion creates serious pricking type of pain in the whole body is called as Visuchika. This is a serious and acute type of ailment.

The person who consumes food in regulated or proper amount and observes all the rules of dietetics righteously, does not fall victim to the disease Visuchika. It afflicts that person who has no control over eating due to which whos Amashaya gets afflicted by disease Visuchika.

3. Route of development : Marga

Abhyantarara: Affliction of the disease is internal.

4. Predisposing factors : Nidana

अजीर्णमपि विरचं च यदीतिम् ।
तिसूचलसको तस्माद्भवत्येति विलचिका ॥ S.S.Utt. 56/4.

Visuchika, Aalsava and Vitambhika are caused as a resultant to manifestation of Amajecma, VidagdhaJecma and VisthabdhaJecma.

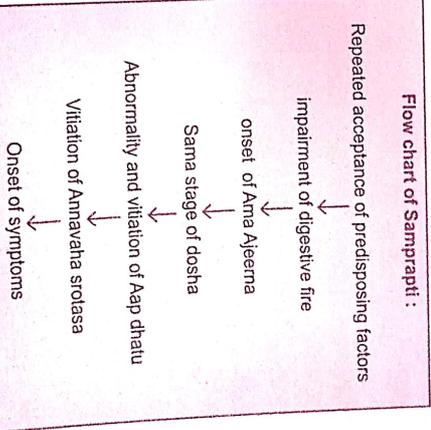
Other relevant factors

1. Uncontrolled intake of food.
2. Voracious eating or imbalanced eating without following any rules or restrictions.
3. Intake of contaminated or polluted food items.

5. Pathogenesis : Samprapti

Factors like excessive eating of contaminated food etc. cause Ama ajecma and result into aggravation of all the three dosha. Also the dosha acquire poisonous nature to become 'sama'. This creates irritation and harmful effects to all the parts of Annavaaha strotasa and produces a serious ailment called as Visuchika. Water content i.e. the 'Aapa dhatu' is seriously afflicted in this disease and watery loose motions is the prevailing feature followed by serious life threatening complications if not diagnosed and treated efficiently.

Flow chart of Samprapti :



Components of pathogenesis: Samprapti ghataka

- Doshha: Vata - Pitta- Kapha
- Dushya: Rasa.
- Strotas: Annavaaha strotasa.
- Adhisthana: Amashaya
- Strotodushi: Atporvriti, Sanga, Vimarnaganama.
- Svabhava: Ashukari.
- Agni dushi: Jatharagni, Rasa agni- Agnimandya.

1. Amashaya is site of initiation of pathogenesis of Visuchika. [Uthbhava sthana]
2. Annavaaha strotasa is the site of formation of pathogenesis of Visuchika. [Adhishthana]
3. Utkavaha strotasa is the sites of presentation of pathogenesis of Visuchika. [Sanchara sthana]

6. Premonitory features : Purvaroopo

This condition is a fast developing, acute disease condition therefore, many a times prodromal features are not observed and direct onset of the symptoms is commonly observed. All the symptoms in vague or unexpressed condition can be considered as premonitory features of Visuchika.

7. Clinical features : Roopa

मुख्यतिसारो वमयुः पिपासा शूलो भ्रमोद्वेगनुमथात्ताः ।
हेतुष्यकर्मा हृदये रुजश्च भवन्ति तस्यो शिरसश्च भेदः ॥
S.S.Utt. 56/4 -6.

तत्र शूल भ्रमनाहकभसम्प्रादयोऽनिलत्वा ।

पित्तज्वरानिसारान्दहदृग्दालाद्यः ।

कफाच्छर्दश्शुक्रनावाकस हृष्टीवनाद्यः ॥ A.H.Su. 8/18 -9.

1. Snopor.
2. Severe loose motions.
3. Vomiting.

4. Thirst.
5. Pain in the abdomen.
6. Delirium.
7. Pain in calf muscles.
8. Yawning.
9. Sensation of burning.
10. Discoloration of the skin.
11. Tremor.
12. Pain in chest and head.
13. Cold extremities.
14. Severe restlessness.
15. Sunken eyes.

8. Types : Prakara

Visuchika is an acute and fatally serious disease condition. All the three dosha in union aggravate with equal severity to cause this disease. Therefore only one type i.e. Samiparika Visuchika is practically observed.

9. Complications : Upadrava

- रः स्यादन्तौष्ठमखोलसंशो वयवितोऽथान्तयानत्रः ।
 शमस्तः सविभुक्तसन्ध्यात्रः सोऽपुनरागाम ॥
 निशानाशो ऽतै कम्पो मूत्रावातो विसंशिता ।
 अग्नी स्युपद्रवा धरा विद्व्याः षष्ठ दारणाः ॥

S.S.Utt. 56/11.

1. Insomnia.
2. Severe restlessness.
3. Body tremors.
4. Severe restlessness.
5. Sunken eyes.
6. Stasis of urine.
7. Fainting.

10. After effects : Udarika

Severe dehydration.

11. Prognosis : Sadhyasadhya

Symptoms of incurable- Asadhya- Visuchika
 • Blackish discoloration of the teeth, lips and nails.

- Partial comatose condition.
- Severe vomiting.
- Loss of voice.
- Flaccid, weak joints.

12. Fatal Symptoms : Arishta laxana

Incurable features explained for prognosis of Visuchika shall be read also as fatal symptoms of the disease.

13. Dietary and behavioral regimen

As like Atisara.

Chapter 147 ALASAKA

Disease at a glance

- Nature of Disease: Chronic
- Major Involving Dosh- Vata, Kapha
- Major Involving Dushya- Rasa
- Site of Manifestation: Stomach
- Srotas: Annavaha Srotas
- Types- Three
- Cardinal Feature: Delayed Digestion of Food.

Diseases for differential diagnosis

1. Aagnimandya.
2. Ajema.
3. Ayashana- excessive eating.
4. Grahani.
5. Kaphaja Krimi.

References/reading

- Madhava Nidana – Agnimandya Chapter- 6.
- Charak Samhita Virmana sthan. Chapter 2
- Susruta Samhita Uttaratantra. Chapter 56.
- Ashanga Hridaya Sutrashan. Chapter 8
- Sanskrit English Dictionary -Apte Shabdakosha

1. Introduction

Some diseases are specifically described by Ayurveda. One of them is Alasaka. The Sanskrit word 'अलस' meaning lethargy is the key word here to understand this disease. Lingering of food for prolonged time causing various ill effects on the body is described in this condition. Further detailed pathogenesis is described as Nidana Parichaka of Alasaka in this chapter.

2. Definition : Paribhasna

आमाशयेऽन्तरीयसूतः नेत्र चालसकसूतः ।
 अलसक इति दोषस्थित्वनिमित्ता मज्ञा ॥

M. Ni. -Agnimandya-Chapter- 6.

The disease in which food remains undigested for prolonged time and process of digestion becomes sluggish is called as Alasaka.

3. Route of development : Marga

Abhyantarara- affliction of the disease is internal

4. Predisposing factors : Nidana

अनीर्णमर्णविद्युच्चं विदग्धं च यदीरिम् ।
 विसृज्यलसकौ तस्योद्वेज्यापि विलम्बिका ॥

M. Ni. -Agnimandya-Chapter- 6.

विशेषादुर्बलसालनवर्हेर्गोविधारिणः ।

शैथिलं मरुतेनान्नं श्लेष्मणाम् रुद्धमन्तरा ॥ A.H. Su. 8/ 10-11.

1. Prolonged state of indigestion. It is the fundamental cause for diseases like Alasaka, Visuchika and Vitambhika to occur.
2. Agnimandya – lack of digestive fire.
3. Suppression of natural urges.

5. Pathogenesis : Samprapiti

आलसं शोभितं दोषैः शाल्यत्वेनैव संस्थितम् ।
 शूलानीनं कुरुते तीव्रशुद्धरीतीसावसितान् ॥ A.H. Su. 8/ 10-11.

Feeble musculature of Aamashaya, aggravated Vata and

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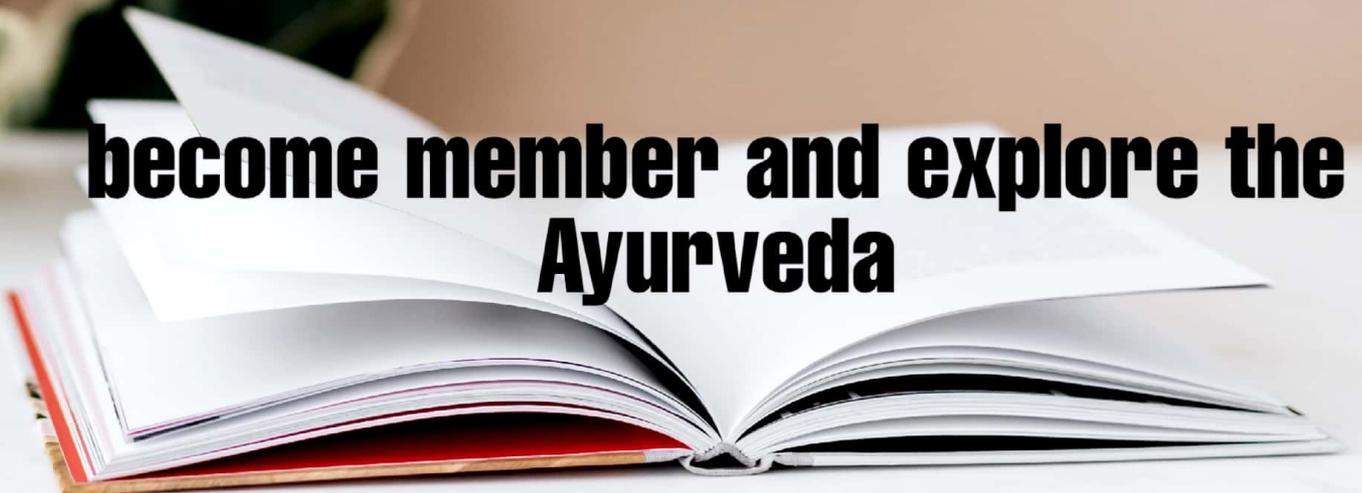
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Kapha dosha are major factors in samprapti of Alaska. Recurrent indigestion- Aecena produces severe laxity and weakness to masticature of Amashaya. Digestion is hampered due to Agnimandya and as a result of this ingested food cannot progress forward and thus remain in the Amashaya for prolonged period.

Components of pathogenesis: Samprapti ghataka

- Dosh: Vata, Kapha
- Dushya: Rasa.
- Srotas: Annavaha Srotas.
- Adhisthana: Amashaya.
- Srotodushhi: Sanga.
- Swabhava: Chitrakari.
- Agni Dushhi: Jatharagni, Rasa Agni - Agnimandya.

6. Clinical features : Rupa

कुक्षिरास्यतेऽस्य र्वासाति विकृतिः।
निरुद्धो मारुतश्चाग्नि कुक्षौ विपरिवर्तितः।।
वातव्योनिरोधश्च कुक्षौ यस्य शृणुम्यवेत्।
तस्मात्सकमाचरे तुष्णोद्गाराद्येकौ।। S.S.Ur.56/7-8.

1. Severe abdominal distention.
2. Pain in throat, chest, abdomen due to irregular Vata dosha movements.
3. Stupor.
4. Onset of Whining or wheezing sound.
5. Complete obstruction in passing flatus with Constipation
6. Restlessness.
7. Thirst.
8. Excessive belching.

8. Types : Prakara

Types are defined as per dominance of dosha in the samprapti.

1. Vata dosha dominant Alaska.
2. Pita dosha dominant Alaska.
3. Kapha dosha dominant Alaska.

9. Complications : Upadrava

अग्निमन्त्रदुष्टश्च दोषाः शृणुम्यपशुमस्तिरप्युष्णः।
कदाचिद् केवलमेवास्य शरीरं दंडवत् संभ्रमति, तस्मिन्
दंडालसकमसास्यं वृत्ते।।
C.S.V. 215.
विरुद्धास्यनाजोशक्तिनो विष्वक्क्षणम्।
आमदीर्घं महत्तोरं वर्तते विष्वक्क्षणम्।
विष्वक्पुक्कारित्वाहिरुद्धोपक्रमत्तः।। A.H. Su. 8/ 13-14.

10. Dandalasaka

When dosha vitiation is severe and still the person constantly accepts causes responsible for Alaska, at such stage the most serious condition called as 'Dandalasaka' arises. In this condition the whole body becomes rigid and stiff like a wooden log. Aggravated dosha and Ama occlude the openings of Rasavaha and Ana to produce severe symptoms which are incurable. As particular complications of Alaska are not clearly mentioned Dandalasaka may be considered as Upadrava of Alaska.

11. Prognosis : Sadyasadyava

Difficult to cure: Kashtasadyava- Alaska is a very chronic disease and usually considered as difficult to treat while Dandalasaka is incurable.

12. Dietary and behavioral regimen

As like Agnimandya.

Chapter 148 INTRODUCTION TO PEPTIC ULCER DISEASE (PUD)

1. Definition

This condition is also known as a peptic ulcer or stomach ulcer.

Peptic ulcer is a break in the lining of the stomach, first part of the small intestine, or occasionally the lower esophagus. An ulcer in the stomach is known as a gastric ulcer while that in the first part of the intestines is known as a duodenal ulcer.

A history of heartburn, gastro esophageal reflux disease (GERD) and use of certain forms of medication can raise the suspicion for peptic ulcer.

The first description of a perforated peptic ulcer was in 1670 in Princess Henrietta of England. H. pylori was first discovered in 1981 by Barry Marshall and Robin Warren.

Peptic ulcers are present in around 4% of the population. About 10% of people develop a peptic ulcer at some point in their life

2. Common causes : Causes of ulcer formation mainly include

1. **Bacterial infection:** infection of Helicobacter pylori- A major causative factor for 60% of gastric and up to 50-75% of duodenal ulcers. In H. pylori colonization responses to increased gastrin resulting into chronic active gastritis (type B gastritis), Gastrin stimulates the production of gastric acid by parietal cells. The increase in acid can contribute to the erosion of the mucosa and therefore ulcer formation.
2. **Drug induced:** Due to side effect of non-steroidal anti-inflammatory drugs (NSAIDs). The gastric mucosa protects itself from gastric acid with a layer of mucus, the secretion of which is stimulated by certain prostaglandins. NSAIDs block the function of cyclooxygenase 1 (cox-1), which is essential for the production of these prostaglandins. COX-2 selective anti-inflammatories (such as celecoxib or the since withdrawn rofecoxib) preferentially inhibit cox-2, which is less essential in the gastric mucosa, and roughly halve the risk of NSAID-related gastric ulceration.
3. **Tobacco smoking:** Continual smoking of tobacco although, smoking by itself may not be much of a risk factor unless associated with H. pylori infection.
4. **Mental stress:** Stress due to serious health problems such as those requiring treatment in an intensive care unit is well described as a cause of peptic ulcers, which are termed stress ulcers
5. **As a complication of medical conditions:** e.g. Behcet disease, Zollinger-Ellison syndrome, Cohn's disease, liver cirrhosis.
6. **Age factor:** Older people are more sensitive to the ulcer causing effects of NSAIDs.
7. **Diet:** It does not play an important role in either causing or preventing ulcers. Dietary factors such as spice consumption, were hypothesized to cause ulcers until late in the 20th century, but have been shown to be of relatively minor importance. Caffeine and coffee, also commonly thought to

cause or exacerbate ulcers, appear to have little effect. Similarly, while studies have found that alcohol consumption increases risk when associated with *H. pylori* infection, it does not seem to independently increase risk. Even when coupled with *H. pylori* infection, the increase is modest in comparison to the primary risk factor.

3. Classification

1. By area of presentation:
 - a. Esophagus- esophageal ulcer
 - b. Stomach- gastric ulcer
 - c. Duodenum- duodenal ulcer
 - d. Mucosa
 - e. Submucosa
 - f. Muscle
 - g. Meckel's diverticulum (called Meckel's diverticulum ulcer; is very tender with palpation)
2. By site of presentation at stomach:
 - a. Type I: Ulcer along the body of the stomach, most often along the lesser curve at incisura angularis along the locus minoris resistenziae. Not associated with acid hypersecretion.
 - b. Type II: Ulcer in the body in combination with duodenal ulcers. Associated with acid oversecretion.
 - c. Type III: In the pyloric channel within 3 cm of pylorus. Associated with acid oversecretion.
 - d. Type IV: Proximal gastroesophageal ulcer
 - e. Type V: Can occur throughout the stomach. Associated with chronic use of NSAIDs (such as ibuprofen).

4 Signs and symptoms

The most common symptoms are the pain

is often described as a burning or dull ache. Other symptoms include belching, vomiting, weight loss, or poor appetite. About a third of older people have no symptoms.

Signs and symptoms of a peptic ulcer can include one or more of the following:

1. Abdominal pain, classically epigastric strongly correlated to mealtimes. Waking at night with upper abdominal pain or upper abdominal pain that improves with eating. In case of duodenal ulcers the pain appears about three hours after taking a meal.
 2. Bloating and abdominal fullness
 3. Waterbrash : Rush of saliva after an episode of regurgitation to dilute the acid in esophagus. Although this is more associated with gastroesophageal reflux disease.
 4. Nausea, and copious vomiting.
 5. Loss of appetite and weight loss.
 6. Hematemesis (vomiting of blood): This can occur due to bleeding directly from a gastric ulcer, or from damage to the esophagus from severe/continuing vomiting.
 7. Melanarry; foul-smelling feces due to presence of oxidized iron from hemoglobin.
 8. Rarely, an ulcer can lead to a gastric or duodenal perforation, which leads to acute peritonitis, extreme, stabbing pain, and requires immediate surgery.
- In patients over 45 yrs with more than two weeks of the above symptoms, the odds for peptic ulceration are high enough to warrant rapid investigation by esophago-gastro-duodenoscopy.
- The timing of the symptoms in relation to the meal may differentiate between gastric

and duodenal ulcers: A gastric ulcer would give epigastric pain during the meal, as gastric acid production is increased as food enters the stomach. Symptoms of duodenal ulcers would initially be relieved by a meal, as the pyloric sphincter closes to concentrate the stomach contents, therefore acid is not reaching the duodenum. Duodenal ulcer pain would manifest mostly 2-3 hours after the meal, when the stomach begins to release digested food and acid into the duodenum.

Also, the symptoms of peptic ulcers may vary with the location of the ulcer and the patient's age. Furthermore, typical ulcers tend to heal and recur and as a result the pain may occur for few days and weeks and then wane or disappear. Usually, children and the elderly do not develop any symptoms unless complications have arisen.

Burning or gnawing feeling in the stomach area lasting between 30 minutes to 3 hours commonly accompanies ulcers. This pain can be misinterpreted as hunger, indigestion or heartburn. Pain is usually caused by the ulcer but it may be aggravated by the stomach acid when it comes into contact with the ulcerated area. The pain caused by peptic ulcers can be felt anywhere from the navel up to the sternum, it may last from few minutes to several hours and it may be worse when the stomach is empty. Also, sometimes the pain may flare at night and it can commonly be temporarily relieved by eating foods that buffer stomach acid or by taking anti-acid medication. However, peptic ulcer disease symptoms may be different for every sufferer.

5. Appearance : Macroscopic

Gastric ulcers are most often localized on the lesser curvature of the stomach. The ulcer is a round to oval parietal defect ("hole"), 2

to 4 cm diameter, with a smooth base and perpendicular borders. These borders are not elevated or irregular in the acute form of peptic ulcer, regular but with elevated borders and inflammatory surrounding in the chronic form. In the ulcerative form of gastric cancer the borders are irregular. Surrounding mucosa may present radial folds, as a consequence of the parietal scarring.

Microscopic : A gastric peptic ulcer is a mucosal defect which penetrates the muscularis mucosae and lamina propria, produced by acid-pepsin aggression. Ulcer margins are perpendicular and present chronic gastritis. During the active phase, the base of the ulcer shows 4 zones: inflammatory exudate, fibrinoid necrosis granulation tissue and fibrous tissue. The fibrous base of the ulcer may contain vessels with thickened wall or with thrombosis.

6. Diagnosis

The diagnosis is mainly established based on the characteristic symptoms. **Stomach pain** is usually the first signal of a peptic ulcer. In some cases, doctors may treat ulcers without diagnosing them with specific tests and observe whether the symptoms resolve, thus indicating that their primary diagnosis was accurate.

The diagnosis on clinical symptoms is confirmed technically with assistance of diagnostic tests. These tests are typically ordered if the symptoms do not resolve after a few weeks of treatment, or when they first appear in a person who is over age 45 or who has other symptoms such as weight loss, because stomach cancer can cause similar symptoms.

1. General tests : Endoscopy-esophago-gastro-duodenoscopy (EGD) also known as

Gastroscopy: EGD can often provide an alternative diagnosis if gastric ulcers are not present.

2. Barium swallow: Barium contrast x-ray's- If a peptic ulcer perforates, air will leak from the inside of the gastrointestinal tract (which always contains some air) to the peritoneal cavity (which normally never contains air). This leads to "free gas" within the peritoneal cavity. If the patient stands erect, as when having a chest X-ray, the gas will float to a position underneath the diaphragm. Therefore, gas in the peritoneal cavity, shown on an erect chest X-ray or supine lateral abdominal X-ray, is an omen of perforated peptic ulcer disease.
3. Tests for antibodies typically suspected due to the presenting symptoms due to bacterial infection (*H. pylori*): these are
 - a. Blood tests- Although, blood tests are not reliable for accurate peptic ulcer diagnosis on their own is their inability to differentiate between past exposure to the bacteria and current infection. Additionally, a false negative result is possible with a blood test if the patient has recently been taking certain drugs, such as antibiotics or proton pump inhibitors.
 - b. Urea breath test.
 - c. Direct detection of urease activity in a biopsy specimen by rapid urease test.
 - d. Testing the stool for signs of the bacteria- Stool antigen test.
4. Biopsy of the stomach- Histological examination and staining of an EGD biopsy
5. Direct culture from an EGD biopsy

specimens; this is difficult to do, and can be expensive. Most labs are not set up to perform *H. pylori* cultures

7. Complications

1. Gastrointestinal bleeding is the most common complication. Sudden large bleeding can be life-threatening. It occurs when the ulcer erodes one of the blood vessels, such as the gastroduodenal artery. Bleeding occurs in as many as 15% of people.
2. Perforation (a hole in the wall of the gastrointestinal tract) often leads to catastrophic consequences if left untreated. Erosion of the gastro-intestinal wall by the ulcer leads to spillage of stomach or intestinal content into the abdominal cavity. Perforation at the anterior surface of the stomach leads to acute peritonitis, initially chemical and later bacterial peritonitis. The first sign is often sudden intense abdominal pain (Valentino's syndrome) Posterior wall perforation leads to bleeding due to involvement of gastro-duodenal artery that lies posterior to the 1st part of duodenum. Perforation and penetration occurs when the ulcer continues into adjacent organs such as the liver and pancreas.
3. Gastric outlet obstruction is the narrowing of pyloric canal by scarring and swelling of gastric antrum and duodenum due to peptic ulcers. Patient often presents with severe vomiting without bile.
4. Cancer is included in the differential diagnosis (elucidated by biopsy), *Helicobacter pylori* as the etiological factor making it 3 to 6 times more likely to develop stomach cancer from the ulcer.

8. Differential diagnosis

- Gastritis
- Stomach cancer
- Gastroesophageal reflux disease
- Pancreatitis
- Hepatic congestion
- Cholecystitis
- Biliary colic
- Inferior myocardial infarction
- Referred pain (pleurisy, pericarditis)
- Superior mesenteric artery syndrome

Treatment includes stopping smoking, stopping NSAIDs, stopping alcohol, and

medications to decrease stomach acid. The medication used to decrease acid is usually either a proton pump inhibitor (PPI) or an H2 blocker with four weeks of treatment initially recommended. Ulcers due to *H. pylori* are treated with a combination of medications such as amoxicillin, clarithromycin, and a PPI. Antibiotic resistance is increasing and thus treatment may not always be effective. Bleeding ulcers may be treated by endoscopy, with open surgery typically only used in cases in which it is not successful.

Chapter 149 INTRODUCTION TO IRRITABLE BOWEL SYNDROME

1. Introduction

Irritable bowel syndrome: (IBS) is a group of symptoms including abdominal pain and changes in the pattern of bowel movements without any evidence of underlying damage. These symptoms occur over a long time, often years. It has been classified into four main types depending on if diarrhea is common, constipation is common, both are common, or neither occurs very often (IBS-D, IBS-C, IBS-M, or IBS-U respectively). IBS negatively affects quality of life and may result in missed school or work. Disorders such as anxiety, major depression, and chronic fatigue syndrome, are common among people with IBS.

The causes of IBS are not clear. Theories include gut-brain axis problems, small intestinal bacterial overgrowth, genetic factors, food sensitivity, and gut motility problems. Onset may be triggered by an intestinal infection, or stressful life event. IBS is a functional gastrointestinal disorder.] Diagnosis is based on signs and symptoms in the absence of worrisome features. Worrisome features include onset at greater than 50 years of age, weight loss, blood in the stool, or a family history of inflammatory bowel disease. Other conditions that may present similarly include celiac disease, microscopic colitis, inflammatory bowel disease, bile acid malabsorption, and colon cancer.

There is no cure for IBS. Treatment is carried out to improve symptoms. This may include dietary changes, medication, probiotics,

and counselling. Dietary measures include increasing soluble fiber intake, a gluten free diet, or a diet low in fermentable oligosaccharides, disaccharides, monosaccharides, and polyols (FODMAP). The medication loperamide may be used to help with diarrhea while laxatives may be used to help with constipation. Antidepressants may improve overall symptoms and pain. Patient education and a good doctor-patient relationships are an important part of care.

About 10 to 15% of people in the developed world are believed to be affected by IBS. It is more common in South America and less common in Southeast Asia. It is twice as common in women as men and typically occurs before age 45. The condition appears to become less common with age. IBS does not affect life expectancy or lead to other serious diseases. The first description of the condition was in 1820 while the current term "irritable bowel syndrome" came into use in 1944.

2. Causes

1. Exact cause of IBS is unknown.
2. Some theories suggest that the entire gut-brain axis is affected.
3. The risk of developing IBS increases six-fold after acute gastrointestinal infection.
4. Other factors which can be considered as responsible for the onset of IBS are: young age, prolonged fever, anxiety, and depression.

3. Types

IBS can be classified as either diarrhea-

predominant (IBS-D), constipation-predominant (IBS-C), or with alternating stool pattern (IBS-A) or pain-predominant. In some individuals, IBS may have an acute onset and develop after an infectious illness characterized by two or more of: fever, vomiting, diarrhea, or positive stool culture. This postinfective syndrome has consequently been termed "postinfectious IBS" (IBS-PI).

4. Symptoms

The primary symptoms of IBS are abdominal pain or discomfort in association with frequent diarrhea or constipation and a change in bowel habits. Symptoms usually are experienced as acute attacks that subside within one day, but recurrent attacks are likely. There may also be urgency for bowel movements, a feeling of incomplete evacuation (tenesmus), bloating, or abdominal distension. In some cases, the symptoms are relieved by bowel movements. People with IBS, more commonly than others, have gastroesophageal reflux, symptoms relating to the genitourinary system, chronic fatigue syndrome, fibromyalgia, headache, backache, and psychiatric symptoms such as depression and anxiety. About a third of men and women who have IBS also report sexual dysfunction typically in the form of a reduction in libido.

5. Diagnosis

1. No specific laboratory or imaging test

•••

can be performed to diagnose irritable bowel syndrome.

2. Clinical examinations to exclude other disease conditions such as parasitic infections etc.
3. Screening colonoscopy for patients above fifty years of age.

6. Differential diagnosis

1. Colon cancer.
2. Thyroid disease.
3. Giardiasis.
4. Inflammatory bowel disease.
5. Bacterial overgrowth.

7. Investigations

- Investigations are performed to exclude other conditions:
1. Stool microscopy and culture (to exclude infectious conditions)
 2. Blood tests: Full blood examination, liver function tests, erythrocyte sedimentation rate, and serological testing for coeliac disease
 3. Abdominal ultrasound (to exclude gallstones and other biliary tract diseases)
 4. Endoscopy and biopsies (to exclude peptic ulcer disease, coeliac disease, inflammatory bowel disease, and malignancies)
 5. Hydrogen breath testing (to exclude fructose and lactose malabsorption)

1. Introduction

The word Vilambika is derived from Sanskrit word 'विलम्बन्' meaning dangling down or hanging down from original place. This word is very skilfully used to explain the disease condition 'Vilambika' which occurs to the Amashaya- stomach to create very serious, incurable symptoms. Further detailed pathogenesis is described as Nidana Panchaka of Vilambika in this chapter.

2. Definition : Paribhasha

अनोर्णम विष्टं विरवं च परीरित् ।
विद्यत्सकौ तस्यप्रवेज्याणि विलम्बिका ॥

S.S.Utc. 56/4.

इदं तु क्तं कफशालायां परती नोर्ध्वश्वस्य परा ।
विलम्बिकां तौ पृशुश्रित्कित्ताभावसरो शालाविरः
युगः ॥

M.N. Agnimitra chapter 6

गीयसो भवेत्तीनादानावेव विलम्बिका ।
कफशालानुबद्धाऽश्लिष्ठा तस्यसाधना ॥

A.H.Su.8/28.

The disease in which chronic and recurrent formation of Ama causes obstacle in Annavaha strotasa with vitiation of Vata and Kapla is called as Vilambika. Amashaya becomes seriously affected and feeble due to chronic nature of the disease. Also musculature of Amashaya becomes weak and the organ hangs down from its original place. Weak musculature of Amashaya causes stagnation of ingested food which cannot move in upward or downward direction and becomes stale. Due to this staleness again Ama is formed in a very large quantity to make the condition more critical.

Marga : Abhyantarara- Affliction of the disease is internal.

3. Predisposing factors: Nidana

Not specifically mentioned, the causes for Alasaka can be considered as the causes of Vilambika. This condition is considered as the further stage or complication of Alasaka.

4. Pathogenesis : Samprapiti

Acceptance of all the causes over a prolonged period of time result in chronic and recurrent formation of Ama which causes obstacle in Annavaha strotasa. Vitiation of Vata dosha and Kapha dosha is main event Vilambika. Amashaya becomes seriously affected and feeble due to chronic nature of the disease. Weakness of the musculature of the organ causing obstacle to routine digestion and thus production of Ama is the main event of samprapiti. The stagnant food becomes morbidly sour due to aggravated of Pita and becomes harmfully toxic.

5. Clinical features : Roopa

1. Burning sensation.
2. Delirium.
3. Fever.
4. Restlessness.
5. Pain is less severe as compared to Alasaka.

6. Complications : Upadrava

As like Visuchka.

7. Prognosis : Sadhyasadyatva

Incurable-Asadhyatva.

1. Definition

Diarrhea is defined by the World Health Organization as having three or more loose or liquid stools per day, or as having more stools than is normal for that person. Acute diarrhea is defined as an abnormally frequent discharge of semisolid or fluid fecal matter from the bowel, lasting less than 14 days, (World Gastroenterology Organization). Diarrhea or diarrhoea (from the Ancient Greek word meaning "flow") is the condition of having at least three loose or liquid bowel movements each day. It often lasts for a few days and can result in dehydration due to fluid loss. Signs of dehydration often begin with loss of the normal stretchiness of the skin and changes in personality. This can progress to decreased urination, loss of skin color, a fast heart rate, and a decrease in responsiveness as it becomes more severe. Diarrheal disease may have a negative impact on both physical fitness and mental development especially during childhood. Evidence suggests that diarrheal disease has significant impacts on mental development and health.

2. Causes

The most common cause is an infection of the intestines, this condition is known as gastroenteritis. It is due to :

1. Viral infection.
2. Bacterial infection
3. Parasitic infection

These infections are often acquired from food or water that has been contaminated by stool, or directly from another person who is infected.

Other non-infectious causes:

1. Hypertyroidism,
2. Lactose intolerance,
3. Inflammatory bowel disease,
4. A number of medications,
5. Irritable bowel syndrome

3. Classification

It may be divided into three types:

1. **Short duration watery diarrhea**—May be due to an infection by cholera.
2. **Short duration bloody diarrhea**—It is also known as dysentery
3. **Persistent diarrhea**—If it lasts for more than two weeks.
4. **Secretory diarrhea**—Secretory diarrhea means that there is an increase in the active secretion, or there is an inhibition of absorption. There is little or no structural damage. The most common cause of this type of diarrhea is a cholera toxin. In this type of diarrhea intestinal fluid secretion is isotonic with plasma even during fasting. It continues even when there is no oral food intake.
5. **Osmotic diarrhea**—Osmotic diarrhea occurs when too much water is drawn into the bowels. If a person drinks solutions with excessive sugar or excessive salt, these can draw water from the body into the bowel and cause osmotic diarrhea. Osmotic diarrhea can also be the result of indigestion e.g., pancreatic disease or Coeliac disease, in which the nutrients are left in the lumen to pull in water. Or it can be caused by osmotic laxatives which work to

alleviate constipation by drawing water into the bowels. In healthy individuals, too much intake of magnesium or vitamin C or undigested lactose can produce osmotic diarrhea and distention of the bowel. A person who has lactose intolerance can have difficulty absorbing lactose after an extraordinarily high intake of dairy products. In persons who have fructose malabsorption, excess fructose intake can also cause diarrhea. Sugar alcohols such as sorbitol (often found in sugar-free foods) are difficult for the body to absorb and, in large amounts, may lead to osmotic diarrhea. In most of these cases, osmotic diarrhea stops when offending agent (e.g. milk, sorbitol) is stopped.

6. Exudative diarrhea—Exudative diarrhea occurs with the presence of blood and pus in the stool. This occurs with inflammatory bowel diseases, such as Crohn's disease or ulcerative colitis, and other severe infections such as *E. coli* or other forms of food poisoning.

7. Inflammatory diarrhea—Inflammatory diarrhea occurs when there is damage to the mucosal lining or brush border of the intestines, which leads to a passive loss of protein rich fluids and a decreased ability to absorb these lost fluids.

Features of all three of the other types of diarrhea can be found in this type of diarrhea. It can be caused by bacterial infections, viral infections, parasitic infections, or autoimmune problems such as inflammatory bowel diseases. It can also be caused by tuberculosis, colon cancer, and enteritis.

8. Dysentery—If there is blood visible in the stools, it is also known as dysentery. The blood is trace of an invasion of bowel tissue. Dysentery is a symptom of others, Shigella, Entamoeba histolytica, and Salmonella.

4. Prevention

Prevention of infectious diarrhea is by improved sanitation, clean drinking water, and hand washing with soap. Breastfeeding for at least six months is also recommended as is vaccination against rotavirus. Oral rehydration solution (ORS), which is clean water with modest amounts of salts and sugar, is the treatment of choice. Zinc tablets are also recommended. These treatments have been estimated to have saved 50 million children in the past 25 years. When people have diarrhea it is recommended that they continue to eat healthy food and babies continue to be breastfed. If commercial ORS are not available, homemade solutions may be used.

Chapter 152 INTRODUCTION TO SHIGELA INFECTION [SHIGELLOSIS]- BACILLARY DYSENTERY

1. Causative agent

The causative agent for Shigellosis is from Shigela family. Shigellosis can be caused by any one of the four members of Shigela family. Shigellosis is the term referring to bacillary dysentery.

2. Morphology

They are Gram negative, non sporing, non capsulated, non motile organisms.

Shigellosis is an enteric infection caused by:

1. Shigella soni
2. Shigella boydi
3. Shigella flexneri
4. Shigella dysenterii.

3. Mode of infection

1. Via contaminated food.
2. Via house flies.
3. Via direct contact with handles of toilets, lavatory seats, spoiled towels etc.

4. Incubation period

Usually 48 hours. Can be extended up to 7 days.

Pathogenesis: Shigellosis is an epidemic type of disease associated with poverty and low grade of sanitation. The disease is characterized by frequent passing of loose stools with mucus and blood. This symptom is associated with fever, gripping pain in the abdomen and

teneismus i.e. difficult or strenuous passing of urine and stools. This disease is also called as bacillary dysentery. The disease is common in all the seasons. All the races, both the sexes and all age groups are equally susceptible to this disease. Overcrowding, low grade sanitation and chronic ailments of the intestines are the predisposing factors responsible for manifestation of the disease.

The bacilli affect the large intestines by gaining entry via mouth. The villi of the large intestines get infected and multiplication inside the villi takes place. Capillaries supplying the particular villus get thrombosed and further necrosed. The necrosed tissue sloughs off leaving transverse superficial ulcers. Bacteremia may occur occasionally

5. Clinical features

1. Frequent passing of loose stools.
2. Abdominal discomfort.
3. Stool material is stained with blood and mixed with mucus.
4. Gripping pain in the abdomen.
5. Fever.

6. Complications

Toxic neuritis, arthritis. The severity of the disease varies from mild diarrhea to full blown disease. Man is the only host.

7. Laboratory diagnosis

Staining and culture of the stools.

1. Definition

Constipation also known as costiveness or dyschezia refers to bowel movements that are infrequent or hard to pass. Constipation is a common cause of painful defecation.

It is further defined as:

1. Infrequent bowel movements: Typically three times or fewer per week.
2. Difficulty during defecation: Straining during more than 25% of bowel movements or a subjective sensation of hard stools.
3. The sensation of incomplete bowel evacuation.

Severe constipation includes obstipation (failure to pass stools or gas) and fecal impaction, which can progress to bowel obstruction and become life threatening and is common. In general the incidence of constipation varies from 20 to 30%. Chronic constipation (symptoms present at least three days per month for more than three months) associated with abdominal discomfort is often diagnosed as irritable bowel syndrome (IBS) when no obvious cause is found.

2. Causes

Constipation is a symptom with many causes. These causes are mainly of two types:

1. Obstructed defecation—This type of constipation has mechanical and functional causes.
2. Colonic slow transit or hypomobility—Causes of colonic slow transit constipation include diet, hormonal

disorders such as hypothyroidism, side effects of medications, and rarely heavy metal toxicity. Because constipation is a symptom, not a disease, effective treatment of constipation may require first determining the cause.

The causes of constipation can be further divided into:

3. Congenital: Due to defective defecation system by birth.
4. Age: Constipation in children usually occurs at three distinct points in time: after starting formula or processed foods while an infant, during toilet training in toddlerhood, and soon after starting school (as in at kindergarten). While in the elderly age, constipation occurs due to intake of insufficient dietary fiber, inadequate fluid, and decreased physical activity.
5. Side effects of medication—Many medications have constipation as a side effect, e.g. common painkillers, opioids, diuretics, antidepressants, antihistamines, antispasmodics, anticonvulsants, and aluminum antacids.
6. Hypothyroidism.
7. Mechanical obstruction by colorectal cancer.
8. Gender differences in prevalence: females are more often affected than males
9. Metabolic and endocrine problems which may lead to constipation include: hypercalcemia, hypothyroidism, diabetes mellitus, cystic fibrosis, celiac disease, muscular and myotonic dystrophy.

10. Psychological—Voluntary withholding of the stool is a common cause of constipation.

11. Structural and functional abnormalities—Constipation has a number of structural (mechanical, morphological, anatomical) causes, including: spinal cord lesions, Parkinsons, colon cancer, anal fissures, proctitis, and pelvic floor dysfunction.

Constipation also has functional (neurological) causes, including anismus, descending perineum syndrome, and Hirschsprung's disease. In infants, Hirschsprung's disease is the most common medical disorder associated with constipation. Anismus occurs in a small minority of persons with chronic constipation or obstructed defecation

3. Symptoms

The diagnosis is essentially made from the patient's description of the symptoms.

Bowel movements that are difficult to pass, very firm, or made up of small hard pellets (like those excreted by rabbits) qualify as constipation, even if they occur every day.

1. Bloating,
2. Distension,
3. Abdominal pain,
4. Headaches,
5. A feeling of fatigue and nervous exhaustion,
6. Sense of incomplete emptying.

4. Examination

During physical examination, *ryhbal* manually palpable lumps of stool, may be detected on palpation of the abdomen. Rectal examination gives an impression of the anal sphincter tone and whether the lower rectum contains any feces or not. Rectal examination also gives information on the consistency of the stool, presence of hemorrhoids, admixture of blood and whether any tumors, polyps or abnormalities are present. Physical examination may be done manually by the physician, or by colonoscopy. X-rays of the abdomen, generally only performed if bowel obstruction is suspected, may reveal extensive impacted fecal matter in the colon, and confirm or rule out other causes of similar symptoms.

5. Preventive majors

Constipation is usually easier to prevent than to treat. Following the relief of constipation, maintenance with adequate exercise, fluid intake, and high-fiber diet is recommended. Children benefit from scheduled toilet breaks, once early in the morning and 30 minutes after meals.

6. Complications

1. Hemorrhoids.
2. Anal fissures.
3. Rectal prolapse.
4. Fecal impaction.
5. Vomiting.

Chapter 154 INTRODUCTION TO INFLAMMATORY BOWEL DISEASE (IBD)

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1. Definition

Inflammatory bowel disease (IBD) is a group of inflammatory conditions of the colon and small intestine.

1. Crohn's disease: Colitis disease affects the small intestine and large intestine. It can also affect the mouth, esophagus, stomach and anus.

2. Ulcerative colitis: Ulcerative colitis primarily affects the colon and the rectum.

2. Causes

IBD is a complex disease which arises as a result of the interaction of environmental and genetic factors. It is increasingly thought that alterations in normal bacteria can contribute to inflammatory gut disease.

IBD affected individuals have been found to have 30-50 percent reduced biodiversity of commensal bacteria such as a decrease in Firmicutes (namely Lactobacillus) and Bacteroides. Further evidence of the role of gut flora in the cause of inflammatory bowel disease that IBD affected individuals are more likely to have been prescribed antibiotics in the 2-4 year period before their diagnosis than unaffected individuals. The overall bacteria can be altered by environmental factors, such as consumption of milk, iron (a common ingredient of processed foods and cereals) or oral medications such as antibiotics and oral iron preparations.

Crohn's disease and ulcerative colitis are inflammatory diseases and are not specifically curable. Surgery can essentially

remove ulcerative colitis if the large intestine is removed. Surgery cannot cure Crohn's disease. IBD can lower quality of life because of pain, weakness, diarrhea and other socially understood symptoms. It is rarely fatal on its own. Further, due to complications such as toxic megacolon, bowel perforation and surgical complications are also rare.

While patients of IBD do have an increased risk of colorectal cancer, this is usually caught much earlier than the general population. In routine surveillance of the colon by colonoscopy, and therefore patients are much more likely to survive.

New evidence suggests that patients with IBD may have an elevated risk of endobiliary dysfunction and coronary artery disease.

3. Genetics

The genetic contribution is poorly understood and seems to arise from the small contribution of dozens of genes.

4. Classification

The main types of inflammatory bowel disease are Crohn's disease and ulcerative colitis (UC). Inflammatory bowel disease fall into the class of autoimmune diseases in which the body's own immune system attacks elements of the digestive tract.

The difference between Crohn's disease and UC is the location and nature of the inflammatory changes. Crohn's can affect any part of the gastrointestinal tract from mouth to anus (skip lesions). About a majority of the cases start in the small

intestine. Crohn's disease affects the



thickness of the bowel wall (extramural lesions). Ulcerative colitis, in contrast, is restricted to the colon and the rectum. Macroscopically, ulcerative colitis is restricted to the mucosa (epithelial lining of the gut). Crohn's disease and ulcerative colitis present with extra-intestinal manifestations such as liver problems, arthritis, skin manifestations and eye problems in different proportions. In 10%–15% of cases, a definitive diagnosis of Crohn's disease may be made because of idiopathic colitis can be made because of idiopathic colitis in the presentation. In this case, a diagnosis of ulcerative colitis may be made.

5. Other types

1. Collagenous colitis
2. Lymphocytic colitis
3. Diversion colitis
4. Pseudo Crohn's disease
5. Indeterminate colitis

Signs and symptoms:

1. Abdominal pain
2. Vomiting
3. Diarrhea
4. Rectal bleeding
5. Severe internal cramps/muscle spasms in the region of the pelvis
6. Weight loss
7. Anemia is the most prevalent extraintestinal complication of inflammatory bowel disease.
8. Arthritis
9. Psoriasis/gangrenous
10. Primary sclerosing cholangitis
11. Non-thyroidal illness syndrome (NTIS)
12. Deep vein thrombosis (DVT)
13. Bacteroides obliquans organizing pneumonia (BOOP)

	Crohn's disease	Ulcerative colitis
Diagnosis	Often peroxide-like, sometimes antibodies	Often mucin-like and with blood
Frequency	Less common	More common
Location	Caecum	Indicates severe disease
Prognosis	Common	Seldom
Weight loss	Often	More seldom

6. Diagnosis

Diagnosis is usually confirmed by biopsy on colonoscopy. In children fecal calprotectin is useful.

	Diagnostic findings	
	Crohn's disease	Ulcerative colitis
Terminal ileum involvement	Commonly	Seldom
Colorectal involvement	Usually	Always
Rectum involvement	Seldom	Usually
Involvement around the anus	Common	Seldom
Rectal disease involvement	No increase in rate of primary sclerosing cholangitis	Higher rate
Distribution of Disease	Discontinuous areas of inflammation (Skip lesions)	Continuous area of inflammation
Endoscopy	Deep geographic and serpiginous (snake-like) ulcers	Continuous ulcer
Depth of inflammation	May be transmural deep tissue	Shallow, mucosal
Stenosis	Common	Seldom

Diagnostic findings		Ulcerative colitis
Crohn's disease	May have non-necrotizing non-peri-intestinal crypt-granulomas	Non-peri-intestinal crypt granulomas not seen

7. Complications

1. Iritis/uvetitis

2. Primary sclerosing cholangitis
3. Ankylosing spondylitis
4. Pyoderma gangrenosum
5. Erythema nodosum

Prognosis

Nutrient deficiency	Crohn's disease	Ulcerative colitis
Higher risk	Slight	Considerable

Chapter 155 INTRODUCTION TO CHOLERA [ASIATIC CHOLERA]

1. Causative agent

Vibrio Cholerae : First isolated by Robert Koch in 1883. The disease is also known as Koch's disease.

Morphology : Gram negative, comma shaped, bacteria with high grade motility; non-sporing, non-capsulated.

2. Mode of infection

1. Via faeco- oral rout.
2. Via houseflies.
3. Via old carrier patients.

The disease is characterized by its epidemic occurrence with violent precipitated vomiting, massive diarrhoea and dehydration. Severe muscle cramps, suppuration of urine and depletion of salts and electrolytes. Cholera is essentially a disease of poverty and affects preferentially the poorer nations and persons.

Vibrios can survive in water for at least seven days. Drying in sunlight can kill the bacteria instantly. All ages, either sexes, all the races are equally susceptible to the disease. The water born infection is the main source of infection. The factors affecting the susceptibility are low grade of sanitation, old age is more susceptible.

Pathogenesis: Throughout the course of infection, vibrios appear to have their location in the intestine, mainly in the ileum. They produce an enter toxin called as choleraegen. Which affects the walls of the intestine. The affected part of the intestine appears intensely hyperemic with desquamatisation of epithelium. The action of the toxin produces an isotonic fluid from the walls of

the intestines which after diffusion collects inside the cavity and when evacuated gives the appearance typical appearance of rice water or starch water stool. Peyer's patches are inflamed and swollen. Choleraegen can affect Liver, Gallbladder, Kidneys which get filled with the same fluid as in the intestines. Severe loss of water content and electrolytes is the major event of the pathogenesis.

3. Incubation period

12hrs to 2 days.

4. Classification

1. Cholera Gravis.
2. Ambulatory Cholera.
3. Choleric Diarrhoea.
4. Cholera Sicca.

4.1 Cholera Gravis

Commonest type [90% occurrence] the onset is sudden, sometimes mild abdominal discomfort with nausea and diarrhea may be observed as prodromal factors.

The disease shows three main stages:

1. Stage of evacuation: After first few evacuations of faecal material, the loose motion gives the appearance of rice water. The fluid contains flakes of epithelium and it is odorless. It rarely contains blood stains. Evacuation is totally painless. Absence of colic pain is the special feature of this stage. The diarrhea is soon followed by profuse vomiting. After evacuating food contents of stomach, the vomitus also gives the appearance of rice water. Patient develops

severe hiccups. Due to loss of electrolytes severe body cramps are developed in the body especially in calf muscles, abdomen muscles etc. Intense thirst is developed and patient becomes restless. Duration of this stage is between 03 to 12 hrs.

2. Stage of collapse: In this stage the purging and vomiting continues but with less frequency and intensity because of dehydration. The dominant features of the stage are shock and collapse. The patient develops sunken eyes, hollow cheeks with cold and sticky skin. [Cholera facies] The thirst and restlessness increases, cyanosis develops, circulatory failure occurs with feeble pulse, fall in blood pressure and decreased body temperature. Patient is unable to speak. Oliguria is present due to suppression of urine. The duration of this stage varies from few hours to 3 days if untreated may lead to the third stage.
3. Stage of reaction: This stage may take favorable or unfavorable turn. In case of favorable turn the symptoms seem to abate. Vomiting and purgation stops, temperature rises, blood pressure comes to normal. If untreated it leads to coma and death due to hypovolemic shock.

Important causes of death are-

1. Hypovolemic shock.
2. Metabolic acidosis.
3. Uremia

4.2 Complications

1. Hypovolemic shock
2. Coma
3. Uremia
4. Corneal ulcers due to severe dehydration
5. Bed sores

4.3 Prognosis

Mortality rate is high without treatment.

Laboratory Diagnosis: Stool collected in the acute stage of the disease without administration of antibiotics, is the most valuable specimen for laboratory diagnosis. It is done by

1. Hanging drop method for microscopy.
2. Culture of stool and vomitus.

4.4 Other types

1. **Ambulatory Cholera:** Found in apparently healthy individuals. Faecal material carries Vibrios. [Mild type]
2. **Choleric Cholera:** Diarrhea of similar kind but without suppression of urine. [Mild type]
3. **Dry Cholera:** Neither vomiting nor purgation. Happens generally in old, undernourished people. Patient dies without displaying typical features. Post mortem examination if done shows distended intestines with voluminous quantity of rice fluid. Usual cause of death is pulmonary embolism resulted due to severe haemoconcentration.

1. Introduction

The channelled system which deals with functioning of water and plasma balance of the body is called as Udakavaha srotasa. Organs related to maintenance of water balance in the body are included under Udakavaha srotas.

2. Origin of Udakavaha srotas:

Moolasthan

उदक वहे द्वे तयोर्गुलं तलु क्लोमच तत्र विद्वस्य पिपासा स्रोतस्य च ।
S.S.Sh.9/13.

1. Udakavaha srotasa are two in number ; it originates from soft palate- Talu and Kloma.

3. Causes for vitiation of Udakavaha srotas

औष्ण्यवातप्रवाद घनार्त् अतिशुष्कात्त सेवनात् ।
अंगुवाहिति दुष्यन्ति तृष्णाशान्ति पीडनात् ।।

C.S.Vi. 5/11.

1. Intake of hot quality food or constant contact with heat- It produces dryness of the srotasa and depletion of body fluid.
2. Formation of Ama: Formation of toxic content called as Ama due to improper digestion renders it's toxic effect to body fluid to cause imbalance.
3. Fear, scary mind: Due to intense and overpowering fright the body fluid gets dried out and produces immediate symptoms like dryness of tongue and soft palate. These indications are suggestive of vitiation of Udakavaha srotasa.

4. Inake of liquor: The qualities of liquor

are exactly opposite to that of the qualities of Oja as well as Rasa and Udaka [the liquid components]. Excessive intake of liquor cause disturbances in Udakavaha srotasa.

5. Intake of excessively dry food: Continual habit to eat dried, preserved or stale food lacking the required softness in it causes drying of bodily fluid causing vitiation of Udakavaha srotasa.
6. Suppression of thirst: When the desire to drink water is suppressed on purpose or with a cause it produces drying out of body fluid and causes disturbance in Udakavaha srotasa.

4. Symptoms of Udakavaha srotas dushi

उदकवहनानां स्रोतसां तालुमुलं क्लोमं च, प्रदृशानां तु खल्वेषामिदं विशेषविज्ञानं भवति । तद्यथा-- चिकित्सात्मनोऽप्युक्तं क्लोमशेषं पिपासां यत्किंचिद्द्वन्द्वबोदकवहनान्तरस्य स्रोतसि प्रदृशनीति विद्यात् । C.S.Vi. 5/7.

1. Dryness at tongue, soft palate and lips.
2. Extensive thirst.

5. Symptoms of injured srotasas:

Srotas viddha laxana

उदक वहे द्वे तयोर्गुलं तलु क्लोमच तत्र विद्वस्य पिपासा स्रोतस्य च ।
S.S.Sh. 9/13.

1. Extensive thirst.
2. Instantaneous death.

Diseases for differential diagnosis

1. Pittaja mahamajjala vikara.
2. Pramsaha.
3. Poisoning.
4. Physical exertion.
5. Vidyadhatuema.
6. Rakapitta.
7. Jwara.

1. Introduction

Trishna is a Sanskrit word derived from the term तृष्ण meaning thirst. Thirst is a feeling or need to drink water. It is a common natural demand of the body especially when water balance gets low. Ayurveda explains Trishna as a symptom for various diseases in severe or non severe form. It is also explained as a separate disease condition when severe non clenching thirst develops in the body. Further detailed pathogenesis is described as Nidana Panchaka of Trishna in this chapter.

2. Definition : Paribhasaha

सततं यः पिबेद्यदि न तुस्मिन्निश्चिद्यति ।
पुनः कांक्षति तोयं च तं तुष्णार्दिमादिशेत् ॥ S.S.Ur. 48/3.

The disease in which non satisfying thirst is prime feature is called as Trishna. In this condition desire for water never ends despite of frequent drinking of water. Trishna generally is a minor condition appearing more of as a symptom than a full blown disease.

3. Route of development : Marga

Abhyantara- Affliction of the disease is internal.

4. Predisposing factors : Nidana

- शेषाद्भयच्छमात्पि शोकात्कोषाद्विलङ्घनामधार् ।
शरीरालवणकटुकोष्णशुष्कात्सरोवाणि : ॥
शतुक्षयादकर्षणमनघातियोगसुसंतपैः । C.S. Ch. 22/4-5.
सङ्क्षोभशोकश्रमघणानादुष्णान्शुष्कोष्णकटुपयोगात् ।
घातुक्षयाल्लङ्घनसुस्यतापत् । S.S.Ur. 48/4.
1. Undue mental or physical irritation.
 2. Intense emotions like fear or sorrow.
 3. Excessive physical exertion.
 4. Anger, hyper hostility.
 5. Prolonged starvation.
 6. Excessive intake of liquor.
 7. Intake of food which is hard to digest or intake of

Reference reading

- Susruta Samhita Uthartantra Chapter 48
- Charaka Samhita Chikitsa Sthana Chapter 22
- Asheranga Hridaya Nidanasthana Chapter 5
- Yogaratnakara.
- Kashyapa Samhita
- Sanskrit English Dictionary
- Apte Shabdakosha

alkaline, sour, salty, pungent, hot, dried natural food.

8. Severe emaciation of the body as an effect of other serious diseases.
9. Faulty application of Panchakarma procedure like medicated emesis-Yamana and hyper emesis caused due to it.
10. Direct contact with heat or sun light.

5. Pathogenesis : Samprapti

पित्तानिली प्रवृद्धौ सौम्यास्यतश्च शोषयत् ।
रसवाहिनीश्च नातीर्जिह्वामूलालातुक्लोन्मः ॥
संशोष्य नृणां देहे कुलरसृणां महाबलावेतौ ।

C.S. Ch. 22/5-6.
अवायं पित्तपवनो देहे स्युदीर्घ ओजोवां संजनोद्वि
तुष्णाम् ।
शिरोगतः स्थाननिरुद्धवर्णो हस्तलोम संतापयते ततस्तद् ॥

Kashyapa Samhita.
अव्यातुः देहस्यः कुपितः पवनो यदा विशेषयति ।
तस्मिन्शुष्के शुभ्रस्यबलस्यस्यश्च विशुष्णम् ॥
C.S. Ch. 22/11.
भीतं भीतं हि जलं शोषयत्सत्तावतो न याति शमम् ॥
C.S. Ch. 22/7.

नानि विना हि तर्षः पवनाद्वा तौ हि शोषणे हेतू ।
अव्यातोरितिवृद्धवर्षांशये तुष्यते नरो हि ॥ C.S. Ch. 22/19.
Due to prolonged acceptance of causes Vata dosha aggravates and takes abnormal seat at the head. Further aggravated Vata dosha forces already aggravated Pitta from its normal site and circulates along with it around the head, soft palate and throat. The 'Vap dhanu' i.e. the normal fluid content gets absorbed and dried up due to the action of morbid Vata and Pitta dosha. The reduction of this fluid levels produce constant dryness in the throat along with general weakness of the body. Repeatedly sipped water gets instantly absorbed by the action of aggravated Vata and

Pitta dosha. Thus the thirst remains constantly unsatisfied.

6. Premonitory features : Purvarroopa

ग्राणुं मुखशोषः, सदैवऽसुक्तात्मिन् ।
तुष्णानां सर्वतां तिङ्गानां लाषवाभमाणः ॥ C.S. Ch. 22/8.
तात्काल्यकण्ठस्यदिशिवाहाः संतापमोहप्रमथिलताः ।
पूर्वाणि रुपाणि भवन्ति तासां मुलरक्तिलेवु विशेषतस्तु ॥
S.S.Ur. 48/7.

1. Dryness of the throat, mouth and lips.
2. Hoarseness of the voice.
3. Pricking sensation in the throat and mouth.
4. Sticky, humid feeling.
5. Delirium and giddiness.
6. Incoherent speech.

7. Clinical features : Roopa

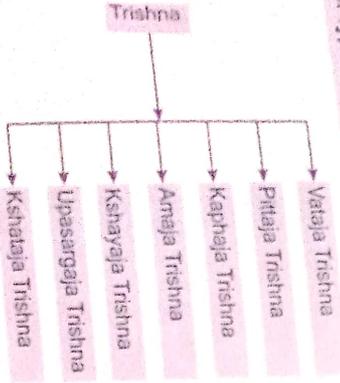
सर्वद्विभ्रमोक्तमनात्तुड्दहासोहेकुत् । A.H.Nr. 5/46.
तासां समान्य लक्षणम् ।
मुखशोषो जलावृत्तिरक्षेत्रः स्वस्वयः ॥
कण्ठौष्ठजिह्वाकार्कश्यं जिह्वातिक्रमणं क्लमः ।
प्रलापाश्चित्तविभ्रसृश्रवहस्तस्यऽऽमयाः ॥
A.H.Nr. 5/48-49.

1. Dryness of the throat, mouth and lips.
2. No satisfaction over frequent drinking of water.
3. Loathing of food.
4. Loss of voice, Hoarseness of voice.
5. Coarseness of the tongue and throat.
6. Loss of sensation to touch — at the tongue.
7. Deafness.
8. Giddiness.
9. Incoherent speech.



10. Disorientation of the mind, delirium.
11. Stupor.
12. Pain in the chest.
13. Dryness of the body.
14. Protrusion of the tongue out of the mouth.
15. Pain in the vital organs of the body.

8. Types : Prakara



वर्तमानकालानुसारविभाजनप्रकारम् ।

पर्यायानुसंगीत्वा ॥ A.H.N. 5/45.

तिस्रः सुतास्ताः क्षतवायुर्षोऽक्षयत्वाऽन्त्याऽसत्पुत्रपत्न्या
वा । स्यात् सप्तमी भवन्निमित्ता तु निबोध
क्लिन्त्यनुसंगीत्वा ॥ S.S.Ur. 48/6.

Ashanga Hridaya explains six types of Trishna. Sushrut samhita explains seven types of Trishna and Charaka Samhita explains five types of Trishna.

8.1 Vataja Trishna

निम्नान्तराः शिरसो प्रमत्तवा शुक्लविरागमुखला च ।

कोणोऽर्धेण हृदि च स्थान्तिर्न यानुष्णाकाः ॥

C.S. Ch. 22/12.

Clinical features

1. Insomnia.
2. Giddiness.
3. Dry, insipid mouth.
4. Pain in the temporal region.
5. Deafness.

6. Inability to eat or chew.

7. Pain in the throat.

8. Thirst increases by drinking cold water.

8.2 Pittaja Trishna

शिरसं मत्मानेयं कृत्स्नं चेतस्यस्यो धातुम् ।

संतप्यः स हि जलस्यनुष्णा यानुष्णा नृणाम् ॥

वितस्तास्य शिरसो धारः शीतोभिनन्दितो मुखर्षा ।

शीतोक्ष्णरूच्यं चेतस्यमृत्तिः पित्तगुणान्याः ॥

C.S. Ch. 22/13-14.

पित्तमूर्च्छास्यतिक्रान्ता ।

रक्तैश्चान्नं प्रतप्तं शोषो धारोऽपि युक्तः ॥ A.H.N. 5/51.

शोषोष्णरूक्षभावात्पित्तं पित्तानिलो प्रकोषयति ।

शोषयतोऽपि धातुं तादेव हि मणशीलनम् ॥

नस्यास्त्विदं सिकतायु हि तोयमायु शुष्यति क्षिप्यम् ।

नेषा संतप्तानां हिमजलस्यानन्दवति शर्म ॥

C.S. Ch. 22/21-22.

उष्णकालस्य सरसा शीतान्मो भजतरुणम् ।

उष्णं रुद्धो गतः कोट्यं यां कुयलित्तर्जयसा ॥

A.H.N. 5/55.

विशिरस्तास्योष्णं रुद्धः कोट्यं प्रथमं तर्पयति ।

तस्मान्नोष्णकालान्तो भजेत सरसा जलं शीतम् ॥

C.S. Ch. 22/23.

The 'Aap dharu' (water content) gets heated up due to increased hot quality of Pitra doha and further gets absorbed and dried up. Pittaja Trishna can be caused due to bathing with cold water immediately after acceptance of scorching heat (Sun).

Clinical features

1. Bitter feel of mouth.
2. Burning sensation in the head.
3. Desire to drink or eat icy cold food items.
4. Excessive dryness of mouth.
5. Constant severe thirst.
6. Yellow discoloration of the skin, urine, stool and red colour of the eyes.
7. Feeling as if fumes emerging from the mouth.
8. Supor.

9. Relief is felt only for seconds on sipping icy cold water. The thirst resumes immediately.

8.3 Kaphaja Trishna

वायव्यशोथान्कफसंयुक्तोऽनौ तुष्णा बलात्तेन भवेत्तया तु ।

निद्रा गुरुत्वं मधुरासता च तुष्णार्दितः शुष्यति यातिमान्मम् ॥

S.S.Ur. 48/10-11.

Kapha dosha is individually unable to produce Trishna because 'Sheeta' i.e. coldness is its own natural quality. Kapha dosha is able to produce Kaphaja Trishna only after combining with aggravated Pitra or Vata dosha.

Clinical features

1. Excessive sleep.
2. Heaviness of body.
3. Morbid sweet feel of the mouth.
4. Kaphaja Trishna resembles with Amaja Trishna by its symptoms.

8.4 Amaja Trishna

तुष्णा वाऽऽभ्यभवा साऽधानेयाऽऽभित्तनितत्वात् ।

लिङ्गं तस्याश्चालित्वानकफसत्वेकी च ॥

C.S. Ch. 22/15.

कफवृत्ताभ्यामनिलान्ताभ्यां कफोऽपि शुष्कः प्रकोटि तुष्णम् । निद्रा गुरुत्वं मधुरासता च तथाऽर्दितः शुष्यति चातिमान्मम् ॥

कण्ठोपलेपो मुखमिच्छित्तत्वं शीतव्यशश्छदिसोचकश्च ।

कफालिकायां गुरुरात्रता च शाखायु शोफस्त्वन्वियाक एव ॥

एतानि रूपाणि भवन्ति तस्यां तथाऽर्दितः कांक्षति नाति चाभ्यः ।

S.S.Ur. 48/10-11.

स्त्रियं तथाऽस्त्वं लवणं च युक्तं युर्वनेवातिगुणं करोति ।

S.S.Ur. 48/14.

युर्वनेपयः सोहैः संमुख्यद्विर्विककाले च ।

यसुष्यतेऽर्दं वृत्तमार्गे तत्राव्यनिलान्तौ हेतु ॥

C.S. Ch. 22/20.

Amaja Trishna forms as a result of Ama

formation in the system. The symptoms are same as Kaphaja Trishna.

8.5 Kshaya Trishna

देशो रसजोऽनुभवो रसश्च तस्य क्षयव्य रुच्येत् ।

दीनस्यः प्रलाप्यसंशुष्कहृदयमलतायुः ॥ C.S. Ch. 22/16.

This type of Trishna forms due to diminution or loss of Rasa dhātu due to causes like starvation

Clinical features

1. Loss of the voice.
2. Giddiness.
3. Pain in the chest.
4. Dryness of throat, soft palate and chest.
5. Tremors.
6. Loss of consciousness - Stupor.
7. Coarse and rough skin.
8. Thirst does not subside in spite of continuous drinking of water.

8.6 Upasargaja Trishna

भवति चतुः योपसर्गं तुष्णा शोषिणी कथा ।

ज्वरभेक्ष्यशोषश्चाद्युपसृद्धेलात् ॥ C.S. Ch. 22/17.

क्षतस्य रुक्षशोषितनिर्माणम् तुष्णां चतुर्धा क्षतजा मता तु ।

तथाऽभिमूर्त्तस्य निशदिनानि गच्छन्ति दुःखं पिबतोऽपि नोयम् ॥

S.S.Ur. 48/12.

क्षीरशोषसर्गतः । A.H.N. 5/7.

Upasargaja Trishna forms as an after effect of other serious disease conditions. This condition presents itself as a symptom or complication to other major diseases like Jwara, Prameha, Rajayakshma, Shwasa, Kasa, Asha, Grahani, Pravahika and Vrana.

8.7 Kshataja Trishna

क्षतस्य रुक्षशोषितनिर्माणम् तुष्णा चतुर्धा क्षतजा मता तु ।

तथाऽभिमूर्त्तस्य निशदिनानि गच्छन्ति दुःखं पिबतोऽपि नोयम् ।

S.S.Ur. 48/12.

Kshataja Trishna is caused due to haemorrhage through a wound. Patient suffers from pain

during day & night his thirst does not clench inspite of consumption of water.

9. Complications : Upadrava

बन्धो मोहः श्वसः कासः श्वातो वायिपीव ।
वर्षिकिर्निजिह्वत्वं सर्वातो रुक्मपलाः ॥

Yogarunakara

1. Jwara.
2. Delirium.
3. Cough.
4. Dyspnoea.
5. Numbness of body.
6. Protrusion of tongue.

10. After effects : Udatka

1. Deafness.
2. Hoarse ness of the voice.
3. Kasa.

11. Prognosis : Sadhyasadhyaiva

सर्वस्त्वभिषक्तो रोगकुशांतं वरिष्ठसक्तानां ।

शोथोदरवृक्तास्त्वृष्णा मन्थाद विज्ञेया ॥ C.S. Ch. 22/ 18.

Generally Trishan is a curable, minor type of condition. Onset of serious symptoms like fainting, dehydration, pain and burning sensation in the throat and soft palate, lips, body warmth, delusions, delirium, incoherent speech and emaciation of the body make the condition incurable.

12. Fatal symptoms: Arishta Laxana

शीर्णं विचितं वरिष्ठं युष्मत् विवर्जयेदितिहासायु ॥

S.S.Ur. 48 / 15.

The patient is advised to be rejected for treatment on displaying following symptoms.

1. With severely emaciated body.
2. Disorientation of mind.
3. Deafness.
4. Protrusion of the tongue.

13. Dietary and behavioral regimen

13.1 Pathya

wholesome regimen:

1. Intake of milk, meat soup, ghee, sweet food contents, old varieties of rice, raw sugar, jaggery etc.
2. Acceptance of cold air, pleasant surroundings, cold showers.
3. Rest and cheerful mind.

13.2 Apathya

unwholesome regimen:

1. Intake of acidic, hard to digest type of food.
2. Hot food, warm clothing and surrounding, citrus food, bitter and astringent type of food.
3. Smoking.
4. Acceptance of direct heat in any form.
5. Excessive talking, physical exercise.
6. Tobacco smoking.
7. Sexual intercourse.

Disease at a glance

- Nature of Disease Acute
- Major Involving Dasha Vata-Sama Vayu-Pitta
- Major Involving Dushya Rasa-Rakta
- Site Of Manifestation Skin
- Stages: Rakthavaha Stage, Uddahavaha strotasa
- Types - Eight
- Cardinal Feature - sensation of burning

Prognosis

- Incurable-Raktapurnakoshthitaya Daha
- Dhrukshavyajya Daha, Marmahatyaajya Daha

Diseases for differential diagnosis

1. Raktapitta
2. Pittaja Dvata
3. Uraksheta
4. Rajayakshma
5. Pittaja Pandu.
6. Pittaja Nanamajja Vikara

Reference reading

- Sushruta Samhita Uttaratantra Chapter 47
- Haridasanika Chapter 3
- Yogaratnakara
- Sanskrit English Dictionary
- Apte Shabdakoosa

1. Introduction

The term Daha is derived from Sanskrit word दाहः - दहनं meaning 'burning' or 'conflagration'. Sensation of severe internal and external burning is the prime feature of this disease. Actually Daha or sensation of burning is a kind of symptom, but when it becomes severe and overpowering other symptoms it has to be considered as a separate disease and a separate line of treatment is required to be administered. Further detailed pathogenesis is described as Nidana Panchaka of Daha in this chapter.

2. Definition : Paribhasha

दग्ने श्नी शोः । Shrangdhara Samhita.

The condition in which a person feels severe sensation of burning ablaze is called as Daha.

3. Route of development : Marga

Abhyantara. Affliction of the disease is internal.

4. Predisposing factors: Nidana

शौण्डि युष्मिं सिद्दं वा एके श्वातीति शतम् । 1. Vagrasanika.

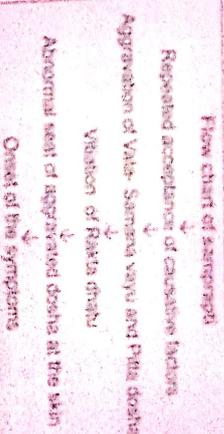
1. Intake of liquor (of sharp and hot quality) is the only cause described for daha to occur.

5. Pathogenesis: Sampatti

Vata doha- Samana Vayu and Pitta doha aggravate and take abnormal seat at skin, to cause Daha.

श्वानाम्भुजो वरिष्ठवर्षे सिं वरिष्ठवर्षम् ।

नारसो वा एवो वरिष्ठे वरिष्ठे वरिष्ठे ॥ 11. Flora Samhita V.17



**Components of pathogenesis
Samprapti ghataka**

- Doshha: Vata- Samana vayu, Pitta
- Dushya: Rasa, Rakta.
- Srotas: Raktavaha srotasa.
- Adhsthana: Skin.
- Srotodushhti: Vimarmagamana.
- Swabhava: Ashukari.
- Agni dushti: Jatharagni, Rasa agni and Rakta dhatu agni. Agnimandya.

6. Clinical features : Roopa

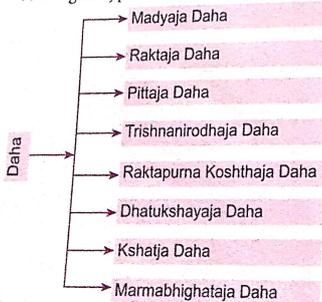
तदा दंतच्छर्षो भवति मनुजां दाह उदये ।
भवेद् शितार्यातिः श्वसनमपि शोषपरतिः ॥

Harita Samhita 3/27.

1. Sore teeth.
2. Desire for cold (food, drink or surrounding)
3. Dyspnoea.
4. Dryness (of mouth, tongue or throat etc.)
5. Restlessness.

7. Types : Prakara

Total eighth types of Daha are explained.



7.1 Madyaja Daha

त्वचं प्राप्तसु पातोभा पित्तक्ताभिमूर्च्छितः ।
दाहं प्रकुरुते घोरं पित्तवत्तत्र भेषजम् ॥ S.S.Utt.47/54.

Intense heat of alcohol reaches skin to combine with Pitta and Rakta to create Pittaja dosha alleviating medication.

7.2 Raktaja Daha

कृत्स्नदेहातुर्गं रक्तमुद्रिकं दहति घृचम् ।
संचयते दृश्यते च ताम्रापलाप्रलोचनः ॥
लोहगन्धाद्भवदनी वाक्किनेवावकीर्यते ॥ S.S.Utt.47/67-68.

Due to severely vitiated Rakta dhatu following symptoms are observed;

1. Severe sensation of burning, sucking type of pain.
2. Copper coloured skin and eyes.
3. Odour of iron from body and breath.
4. Patient feels as if his body is poured with burning charcoal.

7.3 Pittaja Daha

पित्तज्वरसमः पित्तात् स चायस्य विधिर्हितः ।

S.S.Utt.47/70.

Severe aggravation of Pitta dosha produces Pitta dominant type of Daha. Line of treatment is similar to Pittaja Jwara.

7.4 Trishnanirodhaja Daha

तृष्णानिरोधादध्यातौ क्षीणे तेजः समुद्धतम् ।
सबाह्याभ्यंतरं देहं दहेद्देहैन्मचेतसः ॥
संशुष्कगलतात्वोष्ठो जिह्वा निष्कृत्य चेष्टते ॥

S.S.Utt.47/70-71.

When a person does not drink water on feeling thirsty, body heat increases which subsequently reduces fluid amount of the body to create severe type of sensation of burning inside and outside the body, which is called as trishnanirodhaja Daha.

Clinical features

1. Dryness of throat
2. Dryness of soft palate and lips
3. Prolapse of tongue
4. Irregular and abnormal movements of the body.

7.5 Raktapurnakoshthaja Daha

अमुना पूर्णकोष्ठस्य दाहो भवति दुःसहः ।

S.S.Utt.47/73.

This type of Daha occurs due to accumulation of blood inside a vacant space (Aashaya) In the body.

Clinical features

1. Fever.
2. Sensation of burning
3. Bleeding through urinary tract, anus, mouth and nose.
4. Stupor.
5. Dyspnoea.
6. Thirst
7. Abdominal distension.
8. Loathing of food.
10. Retention of stool, urine and flatus.
11. Sweating.
12. Redness of eyes.
13. Odour of iron through mouth and breath.
14. Foul odour of body.
15. Pain at heart and flanks.

7.6 Dhatukshayaja Daha

धातुक्षयोक्तयो दाहस्तेन मूर्च्छानुपाचिता ।
शामस्वरः क्रियाहीनः पृशं सोदति पीडितः ।

S.S.Utt.47/74-75.

This type of Daha occurs due to depletion in concentration of basic body elements (dhatu)

Clinical features

1. Stupor.
2. Thirst
3. Feeble voice.
4. Loss of physical activities
5. Severe fatigue

7.7 Kshataja Daha

क्षतजेनाशनश्चान्यः शोचतो वाऽयनेकधा ।
तेनार्नदस्यतेऽत्यर्थं तृष्णामूर्च्छाप्रलापवान् ॥ S.S.Utt.47/76.

When a person is unable to eat properly due to being injured, or who is afflicted severely by emotions like grief etc. develops a type of Daha called as Kshataja Daha

Clinical features

1. Severe sensation of burning
2. Thirst
3. Stupor.
4. Delirium

7.8 Marmabhighataja Daha

मर्माभियतजोऽयस्ति स चासाध्यतमः स्मृतः ।
सर्व एव च वर्ज्याः सुः शितपात्रेषु देहिषु ॥ S.S.Utt.47/78.

Trauma to vital points of the body causes Marm abhighataja Daha. This type is very difficult to cure. Also all the types of Daha become incurable when patients body becomes cold (with sewer sensation of burning internally)

8. Prognosis : Sadhyasadyatva

Incurable types- Asadhya

1. Raktapurnakoshthaja Daha.
2. Dhatukshayaja Daha.
3. Marmabhighataja Daha.

9. Dietary and behavioral regimen

9.1 Pathya : wholesome regimen

1. Intake of light, liquid, easy to digest type of food.
2. Intake of sweet fruit juices.
3. Intake of thin gruel made up of old rice etc.
4. Intake of milk.

9.2 Apathya : unwholesome regimen

1. Intake of hard to digest, spicy, pungent, sharp type of food.
2. Physical exertion.
3. Acceptance of direct heat in any form.
4. Sexual intercourse.

1. Introduction

Electrolytes play a vital role in maintaining homeostasis within the body. They help to regulate heart and neurological function, fluid balance, oxygen delivery, acid-base balance and much more. Electrolyte imbalances can develop by the following mechanisms: excessive ingestion; diminished elimination of an electrolyte; diminished ingestion or excessive elimination of an electrolyte. The most common cause of electrolyte disturbances is kidney failure.

The most serious electrolyte disturbances involve abnormalities in the levels of sodium, potassium, and/or calcium. Other electrolyte imbalances are less common, and often occur in conjunction with major electrolyte changes. Chronic laxative abuse or severe diarrhea or vomiting (gastroenteritis) can lead to electrolyte disturbances along with dehydration. People suffering from bulimia or anorexia nervosa are

at especially high risk for an electrolyte imbalance.

2. Functions of Electrolytes

1. Electrolytes are importantly used by nerves, heart and muscle cells to maintain voltages across their cell membranes and to carry electrical impulses like nerve impulses, muscle contractions etc. across themselves and to other cells.
2. Kidneys work to keep the electrolyte concentrations in blood constant despite changes in the body. For example, during heavy exercise, electrolytes are lost in sweat, particularly in form of sodium and potassium. These electrolytes must be replaced to keep the electrolyte concentrations of the body fluids constant.
3. Acidosis
4. Alkalosis
5. Dehydration
6. Malnutrition

• • •

1. Definition

The channelled system which deals with formation, processing and expulsion of urine and related waste products and thereto deals with health of all the body systems by eliminating poisonous wastes is called as Mutravaha srotasa. Organs related to urinary system are included under Mutravaha srotasa.

2. Origin of Mutravaha srotasa: Moolasthan

मूत्र वहानां स्रोतसां बस्तीमूलं वंक्षणौ च। C.S.VI. 5/8.

मूत्रवहे द्वे तयोर्मूलं बस्तिमेद्रं च। S.S.Sh.9/12.

1. Mutravaha srotasa originates from urinary bladder- Basti and Kidneys- Vankshana(u).
2. Mutravaha srotasa are two in number and they originate from urinary bladder- Basti and penis- Medhra.

3. Causes for vitiation of Mutravaha srotasa

मूत्रितोदकं भक्ष्यं स्त्रीसेवनात्-मूत्रनिग्रहात्।
मूत्रवाहिनीं दुष्यन्ति क्षीणस्याभिश्चतस्य च।

C.S.VI.
5/20.

1. Drinking water or eating with severe urge to micturate: When a person drinks especially cold water in large volumes or eats his meal when he strongly feels to pass urine then Mutravaha srotasa gets affected.
2. Having sex with a strong urge to micturate: When a person enjoys sex with

a severe desire to micturate, Mutravaha srotasa is affected.

3. Suppression of urge to urinate: When a person does hold back the desire to micturate, the stress caused to urinary bladder produces vitiation of Mutravaha srotasa.
4. Debility or trauma to urinary system: When urinary system becomes weak or injured due to external or internal cause, the total Mutravaha srotasa becomes disturbed and vitiated.

4. Symptoms of Mutravaha srotasa Vitiation

प्रदुष्टानां तु खल्वेषामिदं विशेषविज्ञानीयं भवति; तद्यथा--
अतिसृष्ट्यमतिवर्द्धं कुपितमल्लालंमभीक्ष्णं वा बहलं सशूलं
मूत्रयन्तं दृष्ट्वा मूत्रवहान्यस्य स्रोतांसि प्रदुष्टानिति विद्यात्।
C.S.VI. 5/20.

1. Excessive urination.
2. Obstruction of urination.
3. Painful urination.
4. Dribbling urination with less quantity of urine.
5. Passing of excessive urination with pain.

5. Symptoms of injured Mutravaha srotasa

तत्रविद्धस्थानद्वयस्तिता मूत्रनिरोधः स्तब्धमेद्रता च।।

S.S.Sh. 9/11.

Mutravaha srotasa on getting injured displays following symptoms:

1. Stiffness in urinary bladder.
2. Obstructed urination.
3. Stiffness or loss of sensation at penis.

• • •

Chapter 161 MUTRAKRICHHRA

Disease at a glance

- Nature of Disease: Chronic and Acute
- Major Involving Dosha- Vata, Pitta, Kapha
- Major Involving Dushya- Rasa, Rakta, Shukra, Mala- Mutra
- Site of Manifestation: Basti- Mutrashaya- urinary bladder.
- Srotas: Mutravaha Srotas
- Types- Eight
- Cardinal Feature: Painful micturation.

Prognosis

- Difficult to cure.

Diseases for differential diagnosis

1. Mutraghata
2. Mutra Ashman
3. Mutrasanga
4. Vatskundalika
5. Mutrabasti
6. Mutrajathara

Reference reading

- Madhvanidana- Mutrakrichhra Chapter 30
- Chherak Samhita Chikitsasthan, Chapter 25
- Sushruta Samhita Uttaratantra Chapter 59
- Sanskrit - English Dictionary - Apte Shabdakosha

1. Introduction

Sanskrit word 'कृच्छ' means difficult or strenuous. The disease Mutrakrichhra indicates symptoms of difficult and painful passing of urine. Ayurveda explains it as a disease of urinary system having chronic nature and hence difficult to treat due to recurrence. Further detailed pathogenesis is described as Nidana Panchaka of Mutrakrichhra in this chapter.

2. Definition : Paribhasha

मूत्रवतिह कृच्छात्। C.S.Ch.26/33.

The disease in which process of urination becomes painfully strenuous is called as Mutrakrichhra.

3. Route of development : Marg

Madhyama- Affliction of the disease involves vital points of body (Basti-Urinary bladder). It is a serious and chronic natured disease.

4. Predisposing factors: Nidana

व्यायमनीक्षौपचरुदमघसंनित्यद्रुतपयानात्
-आनुपमंसाव्यशनादजीर्णात्सुमूत्रकृच्छाणि नृणां तथाऽप्ये।।

C.S.Ch.26/32.

1. Excessive physical exertion.
2. Intake of sharp natured, acidic food or medicines.
3. Consumptions of wines having extra dry quality.
4. Excessive sexual practice.
5. Long distance journey on fast vehicles or by riding animals [riding the horse].
6. Intake of meat of animals residing at damp, watery areas.
7. Excessive eating.
8. Indigestion.

5. Premonitory features : Purvaroop

1. Pain at umbilicus, urinary bladder and genital organs on passing of urine.
2. Change in the colour of urine.

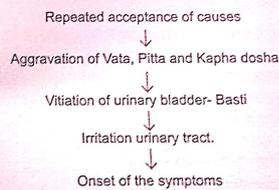
6. Clinical Features : Roopa

1. Strenuous, painful and dribbling urination.
2. Pain at umbilicus, urinary bladder and genital organs on passing of urine.
3. Nausca.
4. Abdominal distension.

7. Pathogenesis : Samprapti

पृथङ्मलाः स्वैः कृपिता निदानैः सर्वेऽथवा कोपसुपेत्व वन्ती। मूत्रस्य मार्गं परिषीडयन्ति यदा तदा मूत्रवतिह कृच्छात्।। C.S.Ch.26/33
पववाशये कुर्यतिचेदपानः।
सोतांस्यधोपानि वलि स रुद्ध्या।।
करोति विष्णारुतमूत्रमूर्द्धं। क्रमादुदावर्तमतः सघोरम्।।
रुध्वस्तिहृक्कुक्षुदेस्यपीथं। समुच्छपाश्चैवतिदारुणास्यात्।।
आप्यानहल्लासविकर्तिकाश्च।
तोदोऽविवाकाश्च वस्तिशोथः।। C.S.Ch.26/5-6.

Flow chart of Samprapti



Components of pathogenesis: Samprapti ghataka

- Dosha: Vata, Pitta, Kapha.
- Dushya: Rasa, Rakta, Shukra.
- Mala: Mutra.
- Srotas: Mutravahavaha srotasa.
- Adhithana: Basti- Mutravaha srotasa
- Srotodushiti: Sanga.
- Swabhava: Ashukari and Chirakari
- Agni dushiti: Agnimandya.

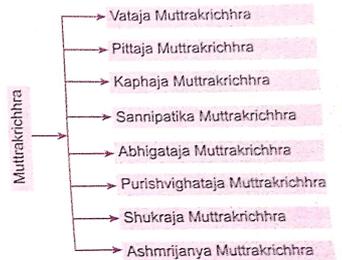
8. Types : Prakara

Total eight types of Mutrakrichhra are explained.

वातेन पितेन कौहेन सर्वैः।
सदाऽभिचयतेः शकृदशमीच्यात्।।
तथाऽपरः शक्रेत्या मुकटो।
मूत्रोपघातः कथिऽश्मत्नु।।

S.S.Ur. 59/3.

Eight types of Mutrakrichhra are explained.



8.1 Vataja Mutrakrichhra

तीव्रं रुजो वंक्षगवस्त्रोमेद्रे
स्वल्पं मुहुमूत्रयतीह वातात्।। C.S.Ch.26/34-35.

It is caused due to aggravation of Vata dosha and repeated acceptance of related causes.

Symptoms

1. Frequent Strenuous urination.
2. Severe pain in the abdomen, groin, bladder and penis.

8.2 Pittaja Mutrakrichhra

पीतं सरक्तं सरुजं सदाहं
कृच्छं मुहुमूत्रयतीह पित्तात्।। C.S.Ch.26/34-35.

It is caused due to aggravation of Pitta dosha and repeated acceptance of related causes.

Symptoms

1. Yellow reddish colored urination.

2. Process of urination is painful with burning sensation.

8.3 Kaphaja Mutrakrichhra

बलेः सलिङ्गस्य गुरुत्वशोचौ।
मूत्रं मसिच्यं कफमूत्रकृच्छ्रे।
C.S.Ch.26/34-35.

It is caused due to aggravation of Kapha dosha and repeated acceptance of related causes.

Symptoms

1. Dull aching pain and heaviness in urinary bladder.
2. Edema on lower abdomen and genitals.
3. Scanty urination, appearance of urine is cloudy.

8.4 Sannipatika Mutrakrichhra

सर्वाणि रुपाणि तु सन्निपाता
भवन्ति तत् कृच्छ्रतमं हि कृच्छ्रम्॥ C.S.Ch.26/34-35.

All the symptoms explained for single dosha dominant types are collectively observed in Sannipatika Mutrakrichhra. It is a serious incurable condition.

8.5 Abhigataja Mutrakrichhra

This type forms as a result of traumatic wound formed due to external causes such as physical blow or internal causes such as wounding of urinary system due to calculus or foreign body.

Symptoms

1. Hematuria.
2. Severe pain in abdomen.

8.6 Purishaja Mutrakrichhra

शकृतस्तु प्रतीघाताद्वासुविगुणतां गतः।
आघ्नानं च मशूलं च मूत्रसङ्गं करोति हि॥ S.S.Ur. 59/9.

Chronic constipation and accumulation of dried fecal material in the rectum produces pressure on the urinary system resulting in formation of Purishaja Mutrakrichhra.

Symptoms

1. Stasis of urine and stool.
2. Severe abdominal distention and pain.

8.7 Shukraja Mutrakrichhra

शुक्रं मलाश्लेषं पृथक् पृथक्। मूत्राशयस्थाः प्रतिवारयन्ति।
तद्व्याहृतं मेहनबन्धिशूलं मूत्रं सशुक्रं कुरुते विबद्धम्।
स्त्वथ शूनो मूत्रवेदनाश्च। तुयेत बन्धित्वेषु च तस्य।
C.S.Ch.26/42.

शकृतस्तु प्रतीघाताद्वासुविगुणतां गतः।
आघ्नानं च मशूलं च मूत्रसङ्गं करोति हि॥ S.S.Ur. 59/9.

Action of aggravated dosha causes obstruction in the urinary pathway to produce difficulty in the passage of semen as well as urine to cause Shukraja Mutrakrichhra.

Symptoms

1. Strenuous passing of urine.
2. Spermaturia – mixture of sperm in urine.
3. Pain at urinary bladder and penis.

8.8 Sharkaraja Mutrakrichhra

अशुभो शर्करा चैव तुल्यसंभवलक्षणे
विशेषेण शर्करायाः क्षुण्ण कीर्तयतो मम।
पच्यमानाऽशुभो पित्ताच्छोष्यमाणां च वायुना।
विमुक्तकफसंधाना क्षरन्ती शर्करा मला।
हृत्पीडा वेपथुः शूलं कुलावन्निश्च दुर्बलः।
तया भवति मूर्च्छा च मूत्रकृच्छ्रं च दारुणम्।
मूत्रवेगानिरस्तामिः प्रशमं याति वेदना।
यावदस्याः पुनर्नैति गुडिका स्रोतसो मुखम्।
S.S.Ur. 59/11-14.

कदम्बपुष्पाकृतिरश्मनुल्या।
शल्लभा त्रिपुट्ययथवाऽपि मृद्धी।
मूत्रस्य चेन्मार्गमुपैति रुद्धा। मूत्रं रुजं तस्य करोति बलौ।
ससेवनीमेहनबन्धिशूलं विसीर्णधारं च करोति मूत्रम्।
मृदनाति मेढ्रं स तु वेदनातौ। मुहुः शकृतस्यति मेहेते च।
C.S.Ch.26/37-38.

A hyper mature urinary calculus breaks into minute crystalline form due to action of aggravated Vata and Pitta dosha. Dried Kapha dosha gets fragmented to form minute

crystalline particles called as Sharkara. This can be considered as pre stage of formation of urinary calculus i.e. Mutra Ashmari. When these particles are carried and passed out through the route of urinary system they create intense pain at various sites of the body including chest, loin, groin, bladder and genital organs. These fine crystals take their course from kidneys to uraters and bladder and expelled out through urethra and urinary meatus. While the crystals are passing through these sites intense pain is felt in the lower bloodvessels. This type is called as Ashmarjanya Mutrakrichhra. Pain subsides on complete passing and clearing out of these crystals but can reform again along with the formation of new crystals in the urinary system. Thus the condition is of recurrent nature.

Other symptoms are;

1. Pain in the chest and loin.
2. Body tremors.
3. Fainting.
4. Difficult, obstructed and painful micturition.
5. Loathing of food.
6. Pain in temporal region.
7. The flow of urine bifurcates into two streams.

8. Severe pain at the genitals [tip of the penis].
9. Urination is immediately followed by defecation.

8.9 Abhigataja Mutrakrichhra

This type of Mutrakrichhra is caused as a result of external trauma to the bladder. Dosha aggravation takes place and causes difficulty in urination to form Abhigataja Mutrakrichhra.

9. Complications: Upadrava

1. Insomnia.
2. Pain (in abdomen).
3. General body edema.

10. Dietary and behavioral regimen

10.1 Pathya

wholesome regimen:

1. Intake of light, easy to digest type of food.
2. Intake of liquid type of food.

10.2 Apathya

unwholesome regimen:

1. Intake of hard to digest, hot, sharp type of food- especially gram- split red gram, split black gram, split Bengal gram etc.

Diseases for differential diagnosis

1. Mutrakrichra.
2. Mutra ashma.
3. Prameha.
4. All the types of Mutraghata could be considered for differentiating between them for the diagnosis.

1. Introduction

The Sanskrit word 'घातः' means to stop or to obstruct. Disease Mutraghata explains about medical condition where two concepts are involved, 'मूत्रं प्रतिरुच्यते - severe obstruction in expulsion of urine and 'मूत्रं जीव्यते - urine getting dried up or loss of formation of urine in the system. This is how Mutraghata is differentiated from Mutrakrichra. Further detailed elaboration of various types of Mutraghata is discussed in this chapter.

2. Definition

The condition in which action of aggravated Vata dosha becomes responsible for;

- a. Loss of formation of urine.
- b. Formation of reduced amount of urine
- c. Creating obstruction in expulsion of urine from the urinary system is called as Mutraghata.

It is important to remember that severely painful and strenuous urination is the cardinal feature of Mutrakrichra whereas only strenuous passing of urine with or without sensation of pain is the cardinal feature of Mutraghata.

3. Types : Prakara

Mutraghata is explained with total twelve types by Sushruta Samhita. These types are individual disease conditions in themselves. Therefore types of Mutraghata are explained separately in this chapter.

वातकुण्डलिकाऽऽतीला वातवस्तीस्तथैव च ।
मूत्रातीतः सजटौ मूत्रोत्सङ्गः क्षयस्तथा ॥
मूत्रग्रन्थिर्मूत्रशुक्रमुष्णवातस्तथैव च ।
मूत्रौकसादौ द्वौ चापि रोगा द्वादश कीर्तिताः ॥ S.S.Utt. 58/3-4.

1. Vatakundalika.
2. Vata Ashthila.
3. Vatabasti.
4. Mutrateeta.

Reference reading

- Madhaviidana Mutraghata Chapter- 31.
- Sushrut Samhita Uttarantra Chapter 58.
- Charaka Samhita Siddhithana Chapter 9.
- Sanskrit English Dictionary - Apte Shabdakosha.



5. Mutrajahara.
6. Mutrotanga.
7. Mutrakashaya.
8. Mutragranthi.
9. Mutrashukra.
10. Ushnavata.
- 11-12. Mutrasada (Kaphaja Mutrasada and Pittaja Mutrasada).

3.1 Vatakundalika

Definition : Paribhasha

गैश्यादिपविधानाद्वा वायुस्तन्माश्रितः ।
मूत्रं चरति मग्नस्य विगुणः कुण्डलोकृतः ॥
मुत्रेद्यालम्बयथा मरुजत्के शनेः शनेः ।
वातकुण्डलिकां नं तु व्याधिं विद्यात् सुदारुणम् ॥

S.S.Utt.58/5-6.

गतिमश्रुदुदायुतः स मूत्रस्थानमार्गयोः ।
मूत्रस्य विगुणो वायुर्मानय्याविरुद्धकुण्डली ।
मूत्रं विहन्ति संलम्बमङ्गौगवेष्टनेः ।
तीव्ररुद्धमूत्रविद्यङ्गैर्वीतकुण्डलिकेति सा ॥

C.S. Si. 9/39-40.

The condition in which aggravated Vata dosha takes seat at urinary bladder and revolves inside it to create obstruction in flow of urine. This condition is called as Vatakundalika. Pain at urinary bladder, strenuous dribbling type of urination are associated features.

3.2 Vata Ashthila

Definition : Paribhasha

शक्रुन्मार्गस्य बलेश्च वायुस्तन्माश्रितः ।
अष्टौलावद् घनं ग्रन्थिं करोत्यचलमुन्नतम् ॥
विषमूत्रानिलसङ्गश्च तत्राथानञ्ज जायते ।
वेदना च परा बस्तौ वाताश्लीलेति तां विदुः ॥

The disease in which aggravated Vata dosha takes its seat at urinary bladder. Further it produces severe constriction at bladder as well as at anus. A stony hard movable growth forms at the mouth of urinary bladder as a

result of Vata dosha aggravation. This growth is called as Mutra ashthila.

Route of development : Marga

Madhyama- Affliction of the disease involves vital points of the body (Basti-Urinary bladder).

Clinical features : Roopa

1. Severe pain at urinary bladder.
2. Stasis of urine.
3. Abdominal distention.

3.3 Vata Basti

Definition : Paribhasha

वेगं विधारयेद्यत् मूत्रस्याकुण्डलितो नरः ।
निरुणद्धिं मुखं तस्य बलेर्बलिनितोऽनिलः ।
मूत्रमङ्गो फक्तेन बलिकुक्षिनिर्पिहितः ।
वातबलिः स विज्ञेयो व्याधिः कुट्टप्रसाधनः ।

S.S.Utt.58/9-10.

मूत्रं धारयतो बस्तौ वायुः कुण्ड्रो विधारणात् ।
मूत्रोर्थात् कण्ठुपिर्वातबलिः स उच्यते ॥ C.S. Si. 9/37.

The disease condition in which aggravated Vata dosha takes its seat at urinary bladder. Mouth of urinary bladder becomes constricted due to action of aggravated Vata dosha. This results in complete stasis of urine. This unvoided urine collects in the bladder and causes pain in lower abdomen. It is a critical disease for management- (Madhyama margashrita vikara).

3.4 Mutrateeta

Definition : Paribhasha

वेगं संधार्य मूत्रस्य यो भूयः स्तदुमुच्छति ।
तस्य नाशयेति यदि वा कथञ्चित्संभवति ।
प्रवाहतो मन्दरुजं मल्पमल्पं पुनः पुनः ।
मूत्रातीतं तु तं विद्यान्मूत्रवेगविधातजम् ॥ S.S.Utt.58/11-12.

When urine is retained for prolonged time inside the bladder, the voiding of urine

thereafter becomes very slow and strenuous. Urine passes out in dribbling fashion. This condition is called as Mutrateet. Constant dull pain in the abdomen is the symptom. Prolonged retention of urine is the main cause for Mutrateeta.

3.5 Mutra Jathara

Definition : Paribhasha

मूत्रस्य विहने वेगे तदुदावर्तित्वेन।
अपानः कुपितो वायुरुदरं पूर्येद् भृशम्॥
नाभेरसलायधानं जनयेत्तीव्रवेदनम्।
तं मूत्रजठरं विद्यादघः स्रोतोनिरोधनम्॥ S.S.Utt.58/13-14.

Suppression of urge to urinate and prolonged retention of urine in urinary bladder causes aggravation of Apana Vayu to produce complete stasis of urine. This condition is called as Mutra Jathara. The pressure of unvoided urine causes distension of urinary bladder with severe pain below umbilicus.

3.6 Mutrotsanga

Definition : Paribhasha

वन्तो वाऽप्यत्वा नाते मणौ वा यस्य देहिनः।
मूत्रं प्रवृत्तं मञ्जेत सखनं वा प्रवाहतः॥
नयेच्छनैरल्पमत्वं सरुजं वाऽथ नीरुजम्।
दिगुचानिलजो व्याधिः समूत्रोत्सङ्गसङ्घितः॥

S.S.Utt.58/15-16.

The disease in which flow of urine gets obstructed at urethra and passing of urine becomes strenuous and dribbling due to action of aggravated Vata dosha is called as Mutrotsanga. The nature of urine becomes scanty and blood mixed. Pain in abdomen is the associated feature.

Predisposing factors : Nidana

Common causes responsible for vitiation of Mutravaha srotasa are considered as causes of

Mutravritta vata.

1. To drink water, eat, perform sexual intercourse over full bladder condition for prolonged time.
2. Severe emaciation of body.
3. As an effect of trauma to urinary system.

3.7 Mutra Kshaya

Definition : Paribhasha

रुक्षस्य वलान्तदेहस्य वस्तियौ पित्तमारुतौ।
मूत्रक्षयं सरुग्दाहं जनयेताम् तदाह्वयम्॥ S.S.Utt.58/17.

Predisposing factors : Nidana

1. Intake of dry type of food.
2. Dryness of body due to emaciation of body elements.
3. Excessive physical exertion.
4. Severe fatigue (due to inadequate intake of food).

Acceptance of relevant predisposing factors causes aggravation of Vata dosha which completely dries up the urine. This condition is called as Mutra kshaya.

Clinical features : Roopa

1. Sensation of burning inside the body.
2. Pain in the body.

3.8 Mutra Granthi

Definition : Paribhasha

अभ्यन्तरे वस्तिमुखे वृत्तोऽल्पः स्थिर एव च।
वेदनावानति सदा मूत्रमार्गनिरोधनः॥
जायते सहसा यस्य ग्रन्थारश्मलक्षणः।
स मूत्रग्रन्थिरित्येवमुच्यते वेदनाऽऽदिभिः॥

S.S.Utt. 58/18-19.

Aggravated Vata dosha causes formation of stony hard growth at the opening of urinary bladder. It is called as Mutra granthi. The growth is rounded and not very painful.

nature. Formation of this growth causes obstruction in flow of urine and dribbling micturation.

3.9 Mutrashukra

Definition : Paribhasha

मूत्रितस्य स्त्रियं यातो वायुना शुक्रमुद्धतम्।
स्थानस्थुनं मूत्रयतः प्राक् पश्चाद्वा प्रवर्तते।
भस्मोदकप्रतीकाशं मूत्रशुक्रं तदुच्यते॥

Ma.Ni. Mutraghata- Chapter 31/14.

When a person indulges in sexual intercourse by suppressing the urge to urinate, Vata dosha aggravates and forcibly deviates Shukra dhatu- semen from its normal course. The semen thus mixes with the urine which appears smoky resembling ash mixed water. This condition is termed as Mutrashukra.

3.10 Ushnavata

Definition : Paribhasha

व्यायामाध्वातपैः पित्तं बलितं प्रायानिलान्वितम्।
बलितं भेद्गुं चैव प्रदेहस्तावेदधः।
मूत्रं हार्द्रिमधवा सरक्तं रक्तमेव वा।
कुच्छरुनः पुनर्जनोरुग्णवातं ब्रुवन्ति तम्।

S.S.Utt. 58/22-23.

बलितं प्राय बस्त्यादिकं प्रदेहन् मूत्रमधः स्रावयेत् कीदृशं हार्द्रिं अथवा सरक्तमीषद्रक्तं, अथवा केवलं रक्तमेव।

Ma.Ni. Mutraghata- Chapter 31.

The disease in which process of urination becomes very painful with severe sensation of burning is called as Ushnavata.

Severe sensation of burning and pain is felt while passing the urine is called as Ushnavata.

3.11-12 Mutrasada- Pittaja And Kaphaja

Definition : Paribhasha

विशदं पीतकं मूत्रं सदाहं बहलं तथा।
शुष्कं भवति यच्चापि रोचनाचूर्णसन्निभम्।
मूत्रोक्तसादं तं विद्याद्रोगं पित्तकृतं बुधः।

पित्तिलं संहतं शैतं तथा पित्तकृतं कुच्छप्रवर्तनम्।
शुष्कं भवति यच्चापि शङ्खचूर्णप्रमाणदुग्मम्।
मूत्रोक्तसादौ तं विद्यादामयं द्वादशं कफात्।

S.S.Utt. 58/24-26.

पित्तं कफो ह्यवपि वा संहन्येतेऽनिलेन चेत्।
कुच्छामूत्रं तदा पीतं शैतं रक्तं घनं मुजेत्।
सदाहं रोचनाशङ्खचूर्णवर्णं भवेत्तु तत्।
शुष्कं समस्तवर्णं वा मूत्रसादं वदन्ति तम्।

M.Ni. Mutraghata- Chapter 31.

The condition in which aggravated Kapha and Pitta dosha singly or unitedly combine with aggravated Vata dosha to form highly viscus, scanty urine, is called as Mutrasada. Process of urination becomes slow and troublesome. Density of urine increases and hence expulsion of urine becomes difficult, slow and painful. Abdominal pain and sensation of burning are the associated features.

Clinical features : Roopa

Symptoms on dominance of Pitta dosha

1. Reddish yellow coloured urine.
2. Dried urine produces yellowish powdery stains resembling to Gorochana (cow bile).

Symptoms on dominance of Kapha dosha

1. Colour of urine is white and nature of urine is thick.
2. Dried urine produces whitish powdery stains resembling to stains Shankha bhasma (ash of white Conch) .

Symptoms on dominance of all the three dosha (Sannipata- according to Madhavnidana)

1. Observance of various colour shades in urine.
2. Painful urination.

3. Sensation of burning during passing the urine.

4. Excessively viscous urine.

Complications : Upadrava

1. Body edema.

4. Upadrava : Complications of Mutraghata

1. Pricking type of pain in lower abdomen.

2. General body oedema.

3. Udara roga- ascites

5. Dietary and behavioral regimen

5.1 Pathya

wholesome regimen:

1. Intake of light, easy to digest type of food.
2. Intake of liquid type of food.

5.2 Apathya

unwholesome regimen:

1. Intake of hard to digest, hot, sharp type of food- especially gram- spilt red gram, split black gram, split Bengal gram etc.

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1. Definition

A urinary tract infection (UTI) also known as acute cystitis or bladder infection is an infection that affects part of the urinary tract. When it affects the lower urinary tract it is known as a simple cystitis -a bladder infection and when it affects the upper urinary tract it is known as pyelonephritis -a kidney infection. Urinary tract infections occur more commonly in women than men, with half of women having at least one infection at some point in their lives. Recurrences are common. Risk factors include female anatomy, sexual intercourse and family history. Pyelonephritis, if it occurs, usually follows a bladder infection but may also result from a blood-borne infection.

Symptoms from a lower urinary tract include painful urination and either frequent urination or urge to urinate (or both); while the symptoms of pyelonephritis include fever and flank pain in addition to the symptoms of a lower UTI. In some cases, a painful burning sensation in the urethra may be present even when not urinating. In the elderly and the very young, symptoms may be vague or non-specific. The main causal agent of both types is *Escherichia coli*, though other bacteria, viruses or fungi may rarely be the cause.

Diagnosis in young healthy women can be based on symptoms alone. In those with vague symptoms, diagnosis can be difficult because bacteria may be present without there being an infection. In complicated cases or if treatment has failed, a urine culture may be useful.

2. Symptoms

1. Burning urination
2. Frequent urge to urinate
3. Pain above the pubic bone or in the lower back or flank.
4. Fever
5. Vomiting
6. Urine may appear bloody or contain visible pus.
7. Increased white blood cell count
8. Vaginal discharge
9. Nausea
10. Infants may feed poorly, vomit, sleep more, or show signs of jaundice. In older children, with new onset urinary incontinence (loss of bladder control) is seen.

3. Causes

1. Bacterial infection e.g.- *E. Coli* , *Staphylococcus saprophyticus*, *Staphylococcus aureus*
2. Viral infections
3. Fungal infections-*Candida albicans*, *Pseudomonas*.
4. Female gender : Because, in females, the urethra is much shorter and closer to the anus. Also, As a woman's estrogen levels decrease with menopause, her risk of urinary tract infections increases due to the loss of protective vaginal flora. Additionally, vaginal atrophy that can sometimes occur after menopause is associated with recurrent urinary tract infections.while chronic prostatitis may cause recurrent urinary tract infections in males.
5. Prolonged Urinary catheterization
6. Male scuba divers utilizing condom catheters or the female divers utilizing

external catching device for their dry suits are also susceptible to urinary tract infections.[22]

7. History of diseases like- diabetes, spinal cord injury, vesicoureteral reflux -an abnormal movement of urine from the bladder into ureters or kidneys constipation.

4. Pathogenesis

The bacteria that cause urinary tract infections typically enter the bladder via the urethra. However, infection may also occur via the blood or lymph. It is believed that the bacteria are usually transmitted to the urethra from the bowel, with females at greater risk due to their anatomy. After gaining entry to the bladder, *E. Coli* are able to attach to the bladder wall and form a biofilm that resists the body's immune response.

Multiple bacilli (rod-shaped bacteria, here shown as black and bean-shaped) shown between white blood cells in urinary microscopy. These changes are indicative of a urinary tract infection.

5. Diagnosis

In non complicated cases, diagnosis is made by clinical symptoms alone without further laboratory confirmation.

In complicated or questionable cases, it may be useful to confirm the diagnosis via

1. Urinalysis and urine microscopy-looking for the presence of urinary nitrites, white blood cells (leukocytes), or leukocyte esterase and presence of red blood cells, white blood cells, or bacteria.
2. Urine culture is done if it shows a bacterial colony count of greater than or equal to 10.
3. Antibiotic sensitivity can also be tested with these cultures.
4. Real time α -rays in children.

6. Classification

1. A urinary tract infection involving only the lower urinary tract-bladder infection.
2. A urinary tract infection involving upper urinary tract- pyelonephritis.

7. Differential diagnosis

In women with cervicitis, vaginitis, Hemorrhagic cystitis, radiation therapy, underlying cancer, medications and toxins.

In men with UTI symptoms, a Chlamydia trachomatis, Neisseria gonorrhoea, Prostatitis Hemorrhagic cystitis, radiation therapy, underlying cancer, medications and toxins.

8. Preventive majors

1. Personal hygiene.
2. Regular bathing or showers.
3. Usage of clean, dry under garments.
4. Appropriate care of the catheter if catheterized.

9. Pyelonephritis

Pyelonephritis is treated more aggressively than a simple bladder infection using either a longer course of oral antibiotics or intravenous antibiotics. Seven days of the oral fluoroquinolone ciprofloxacin is typically used in areas where the resistance rate is less than 10%. If the local resistance rates are greater than 10%, a dose of intravenous ceftriaxone is often prescribed. Trimethoprim/sulfamethoxazole or amoxicillin/clavulanate orally for 14 days is another reasonable option. In those who exhibit more severe symptoms, admission to a hospital for ongoing antibiotics may be needed.[Complications such as urinary obstruction from a kidney stone may be considered if symptoms do not improve following two or three days of treatment.

1. Definition

Renal failure (also kidney failure or renal insufficiency) is a medical condition in which the kidneys fail to adequately filter waste products from the blood. Renal failure is mainly determined by a decrease in glomerular filtration rate, the rate at which blood is filtered in the glomeruli of the kidney. This is detected by a decrease or absence of urine in production and output or determination of percentage of creatinine or urea in the blood. Or associated features like, hematuria(blood loss in the urine) and proteinuria (protein loss in the urine)

In renal failure, there may be problems with increased fluid in the body leading to oedema, increased acid levels, raised levels of potassium, decreased levels of calcium, increased levels of phosphate, and in later stages anemia. Bone health may also be affected. Long-term kidney problems are associated with an increased risk of cardiovascular disease.

2. Classification: Renal failure can be divided into three categories

1. Acute kidney injury-AKI
2. Chronic kidney disease-CKD
3. Acute-on-chronic renal failure-AoCRF

The type of renal failure is differentiated by the trend in the serum creatinine; other factors that may help differentiate acute kidney injury from chronic kidney disease include anemia and the kidney size on sonography as chronic kidney disease generally leads to anemia and small kidney size.

1. Acute kidney injury (AKI), previously called acute renal failure (ARF), is a rapidly progressive loss of renal function, by oliguria (decreased urine production, quantified as less than 400 mL per day in adults, less than 0.5 mL/kg/h in children or less than 1 mL/kg/h in infants); and fluid and electrolyte imbalance. AKI can result from a variety of causes. The underlying cause must be identified and treated to arrest the progress, and dialysis may be necessary to bridge the time gap required for treating these fundamental causes.

Classification of AKI

- a. Prerenal AKI
- b. Intrinsic AKI
- c. Postrenal AKI.

Causes of AKI- Acute kidney injury (previously known as acute renal failure) - usually occurs when the blood supply to the kidneys is suddenly interrupted or when the kidneys become overloaded with toxins.

Causes of acute kidney injury

- a. Accidents- crush syndrome, when large amounts of toxins are suddenly released in the blood circulation after a long compressed limb is suddenly relieved from the pressure obstructing the blood flow through its tissues, causing ischemia .Resulting overload can lead to the clogging and the destruction of the kidneys.
- b. Injuries or complications from surgeries in which the kidneys are deprived of

- normal blood flow for extended periods of time. e.g. Heart-bypass surgery.
- c. Drug overdoses : Accidental or from chemical overloads of drugs such as antibiotics or chemotherapy, may also cause the onset of acute kidney injury.
2. Chronic kidney disease (CKD) - It can develop slowly and, initially, show few symptoms. CKD can be the long term consequence of irreversible acute disease or part of a disease progression. Chronic kidney failure is measured in five stages, which are calculated using a patient's GFR, or glomerular filtration rate. Stage 1 CKD is mildly diminished renal function, with few overt symptoms. Stages 2 and 3 need increasing levels of supportive care from their medical providers to slow and treat their renal dysfunction. Patients in stages 4 and 5 usually require preparation of the patient towards active treatment in order to survive. Stage 5 CKD is considered a severe illness and requires some form of renal replacement therapy (dialysis) or kidney transplant whenever feasible.

Causes of chronic kidney disease- CKD

- Diabetes mellitus
- Hypertension
- Polycystic kidney disease : In people with family history of polycystic kidney disease
- Other genetic illnesses affect kidney function.
- Overuse of common drugs such as aspirin, ibuprofen, and acetaminophen (paracetamol) can also cause chronic kidney damage.
- Viral infections like, hantavirus, can attack the kidneys, causing kidney failure.

3. Acute-renal failure - Acute kidney injuries can be present on top of chronic kidney disease, a condition called acute-on-chronic renal failure (AoCRF). The acute part of AoCRF may be reversible, and the goal of treatment, as with AKI, is to return the patient to baseline renal function, typically measured by serum creatinine. Like AKI, (AoCRF) can be difficult to distinguish from chronic kidney disease if the patient has not been monitored by a physician and no baseline (i.e., past) blood work is available for comparison.

3. Symptoms

Symptoms may vary from person to person. Someone in early stage person may not feel sick or notice the symptoms as they occur. When kidneys fail to filter properly, waste accumulates in the blood this condition is called azotemia. Very low levels of azotaemia may not produce symptoms. If the disease progresses, symptoms become noticeable. Renal failure accompanied by noticeable symptoms is termed uraemia.

Symptoms of kidney failure include the following:

- High levels of urea in the blood, which can result in:
 - Vomiting and/or diarrhea, which may lead to dehydration
 - Nausea
 - Weight loss
 - Nocturnal urination
- More frequent urination, or in greater amounts than usual, with pale urine
- Less frequent urination, or in smaller amounts than usual, with dark coloured urine
- Blood in the urine

- Pressure, or difficulty in urinating
 - Unusual amounts of urination, usually in large quantities
- A build up of phosphates in the blood that diseased kidneys cannot filter out may cause:
 - Itching
 - Bone damage
 - Non union in broken bones
 - Muscle cramps (caused by low levels of calcium which can be associated with hyperphosphatemia)
 - A buildup of potassium in the blood that diseased kidneys cannot filter out (called hyperkalemia) may cause:
 - Abnormal heart rhythms
 - Muscle paralysis
 - Failure of kidneys to remove excess fluid may cause:
 - Swelling of the legs, ankles, feet, face and/or hands
 - Shortness of breath due to extra fluid on the lungs (may also be caused by anemia)
 - Polycystic kidney disease, which causes large, fluid-filled cysts on the kidneys and sometimes the liver, can cause:
 - Pain in the back or side
 - Healthy kidneys produce the hormone erythropoietin that stimulates the bone marrow to make oxygen-carrying red blood cells. As the kidneys fail, they produce less erythropoietin, resulting in decreased production of red blood cells to replace the natural breakdown of old red blood cells. As a result, the blood carries less hemoglobin, a condition known as anemia. This can result in:
 - Feeling tired and/or weak
 - Memory problems
 - Difficulty concentrating
 - Dizziness
 - Low blood pressure
 - Normally, proteins are too large to pass through the kidneys, however, they are able to pass through when the glomeruli are damaged. This does not cause symptoms until extensive kidney damage has occurred, after which symptoms include:
 - Foamy or bubbly urine
 - Swelling in the hands, feet, abdomen, or face
 - Other symptoms include:
 - Appetite loss, a bad taste in the mouth
 - Difficulty sleeping
 - Darkening of the skin
 - Excess protein in the blood
 - With high dose penicillin, renal failure patients may experience seizures

1. Definition

The word Urolithiasis is derived from Greek words *outron* meaning "urine", + *lithos* meaning "stone", + *-iasis*. It is defined as the formation of urinary calculi (urinary stones), which are calculi formed or located anywhere in the urinary system.

A kidney stone, also known as a renal calculus is a solid concretion or crystal aggregation formed in the kidneys from dietary minerals in the urine. Kidney stones typically leave the body by passage in the urine stream, and many stones are formed and passed without causing symptoms. If stones grow to sufficient size (usually at least 3 millimeters) they can cause obstruction of the ureter. Ureteral obstruction causes postrenal azotemia and hydronephrosis (distension and dilation of the renal pelvis and calyces), as well as spasm of the ureter. This leads to pain, most commonly felt in the flank (the area between the ribs and hip), lower abdomen, and groin (a condition called renal colic). Renal colic can be associated with nausea, vomiting, fever, blood in the urine, pus in the urine, and painful urination. Renal colic typically comes in waves lasting 20 to 60 minutes, beginning in the flank or lower back and often radiating to the groin or genitals. The diagnosis of kidney stones is made on the basis of information obtained from the history, physical examination, urinalysis, and radiographic studies. Ultrasound examination and blood tests may also aid in the diagnosis.

2. Causes

1. Decreased urine volume
2. Increased excretion of stone-forming components
3. Inadequate urine drainage, which may lead to stasis
4. Decrease in urinary citrate levels leading to deposition of calcium
5. Deficiency of vitamins A or C : These conditions can also lead to the "hyper triad": hyperparathyroidism, hypercalcaemia, and hyperuricosuria.

It comprises (the), and (the).[2]

3. Classification

Urinary stones are typically classified by their location or by their chemical composition.

4. Classification by location

1. Nephrolithiasis : Formation of stones in the kidney
2. Ureterolithiasis : Formation of ureters
3. Cystolithiasis : Formation of stones in the urinary bladder

5. Classification by chemical composition:

1. Calcium
2. Struvite
3. Uric acid
4. Calcium oxalate.

6. Symptoms

1. Pain:
 - a. In the kidney : Fixed renal pain (flank pain) is common.
 - b. In the ureter pain is according to localisation of stone:

- i. If in the upper one third of the ureter pain radiates to the perineum
 - ii. If at the pelvic brim, pain radiates to the inner aspect of the thigh
 - iii. If present in the middle one third of ureter, pain radiates to the iliac fossa.
 - iv. If the stone is localised in the bladder neck or urethra, pain may present as tip of penis pain.
2. Frequency of urination
 3. Oliguria
 4. Dribbling of urine
 5. Hematuria

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Chapter 166 BASTI SHOOLA

1. Definition : Paribhasha

संरोधात् कुपितो वायुर्वस्तिमावृत्य तिष्ठति।
वस्तिवैक्षण्यनाभिसु वतः शूलोऽस्य जायते।
विष्णुव्यातसंरोधात् वस्तीशूलः स मारुतात्॥

S.S.Utt.42/133-134.

Due to suppression of urge to urinate and defecate, Vata dosha aggravates and occludes

Basti- urinary bladder and creates pain at the site of urinary bladder, umbilicus and groin. This condition is called as Basti shoola. It is a curable condition when onset is recent. Complications: Upadrava: Fever, restlessness, fatigue, mutkrichhra.

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CHAPTER 167 BASTYABHIGHATA

1. Definition : Paribhasha

वस्ती तु वातमूत्रवचोनिग्रह वंक्षण्य मेहन वस्तीशूलकुंडलोदावतं
गुल्म ब्रध्ननिलाष्टीतोपस्तभनभिकुबीगुदश्रोणिग्रहादयः।

C.S. Si. 9/6.

कुण्डलं वस्तौ कुण्डलरुपां वेदना उपस्तम्भाः वस्तावेव।

The condition in which urinary bladder becomes abnormal due to the effect of external or internal causes and results in formation of various symptoms related to Mutravaha srotasa is called as Bastyabhighata.

Some of the symptoms forming due to bastyabhighata are diseases of Mutravaha srotasa.

2. Marga-Pathway

Madhyama- Affliction of the disease involves vital points of the body (Basti-Urinary bladder).

3. Clinical features : Roopa

1. Abdominal distension.
2. Stasis of Urine.
3. Constipation.
4. Muscular stiffness and pain at lower abdomen, penis, urinary bladder.
5. Vatakundala : Saturation of Urine in Urinary Bladder due to slackness of Musculature of urinary bladder.
6. Udavarta: Abnormal progression of Vata.
7. Gulma : Fibroid.
8. Bradhna : Inflammation of groin.
9. Ashthila : Prostatatic enlargement.
10. Bastistambha : Rigidity at urinary bladder.
11. Nabhigraha : Stiffness at umbilicus.
12. Kukshigraha : Stiffness at flanks.
13. Gudagraha : Stiffness at anus.
14. Shronigraha : Stiffness at pelvis.

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Chapter 168 MUTRA SHOOLA

1. Definition : Paribhasha

नाभ्यां वद्वक्षण्यपार्थेषु कुक्षैः मेद्वाङ्गमर्दकः।
मुत्रमावृत्य गृह्णाति मूत्रशूलः स मारुतात्॥

S.S.Utt. 42/135.

Aggravated Vata dosha morbidly occludes

the urine formed in urinary bladder and also creates abnormality in all the organs involved in urinary system. This causes stasis of urine and pain at the site of abdomen, loin, intestines, umbilicus, buttocks and genitals. This condition is called as Mutrashoola.

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CHAPTER 169 VIDVIGHATA

1. Definition : Paribhasha

The disease in which dried faecal material layers up inside the urinary pathway and results in mixing of urine with faecal material is called as Vidvighata. The main symptom

is painful urination with urine discharging faecal smell. This condition mainly occurs in patients with very thin, emaciated body. Marga-Pathway : Madhyama-Affliction of the disease involves vital organs of the body (Basti-Urinary bladder)

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Comparison of Ashmari and Hematuria

1. In the disease of Ashmari, calculus can be compared as stones to differentiate with each other.
2. Hematuria.

1. Introduction

Name of the disease is derived from Sanskrit word 'Ashm' - a stone and 'Ari' - formation of urine. The condition which results due to drying up of urine and formation of smaller or bigger calculi. Hence in the word Ashmari is in regard of formation of calculi in the urinary system. Further detailed pathogenesis is described as Nidana Panchaka of Ashmari in this chapter.

2. Definition : Paribhasa & Types : Prakara

कल्कोऽश्मरौ भवन्ति श्लेष्मण्डितयानाः ।
कृच्छ्रा-अश्रमण, शयने, सिनेन, सुक्रिण चिति ॥

The disease in which calculi are formed in the urinary system is called as Ashmari. Disease Ashmari is classified into four types namely:

1. Kapahaja Ashmari
2. Vataja Ashmari
3. Pittaja Ashmari
4. Shukraja Ashmari

3. Predisposing factors : Nidana / Pathogenesis Samprapti

नत्रांतशोधनशीलस्यारघ्यकारिणः शकुरिणः ।

श्लेष्मा मूत्रमृक्तोऽनुश्रवण्य वसिन्ममने जनयति ॥ S.S.Ni. 3/ 7.

Manifestation of Ashmari is observed particularly in those persons who accept causes as:

1. Avoiding administration of regular and required body purification therapies- Panchakarma.
2. Intake of unhealthy food.
3. Practice of irregular behaviour.

In such person aggravated Kapha along with Vata dosha enters the urinary bladder to form urinary calculi.

4. Premonitory features : Purvaroopo

नामं पूर्वनामि- वसिरीडागोषकौ मूत्रकृच्छ्रं वसिरीगो-
मुष्कशंखानां वेदना ज्वरः कृच्छ्रावसादी बलगतमित्तं
मूत्रक्येति । पयास्ववेदनादर्गं दुष्टं चाश्रमवाचितम् । पूर्वमेऽश्र-
मनः कृच्छ्रात्पूर्वं सूचति नामः ॥ S.S.Ni. 3/ 5-6.

1. Pain at urinary bladder.
2. Insipid mouth.
3. Dysuria.
4. Pain at head of the bladder. Scrotum and penis.
5. Fever.
6. Severe malaise.
7. Smell of the urine resembles to smell of a goat.
8. Colour and symptoms appear as per the dominance of the dosha in the pathogenesis.
9. Nature of urine becomes abnormal, thick and turbid. Urination becomes difficulty.

5. Clinical features : Roopa

अयं जातासु नाभिवलित्तेवनीमेहनेष्वन्यतस्मिन् महती वेदना
मूत्रधारसङ्कशरथिमूत्रता मूत्रविकिरणं गोमेदकप्रकाशमत्या-
विलं ससिकर्तं विसृजति । धावनं लङ्घनं लवनपृष्ठयानोष्णाब्ध-
गमनैश्चास्य वेदना भवन्ति ॥ S.S.Ni. 3/ 7.

1. Pain at umbilicus, urinary bladder, perineum and penis and surrounding area while passing the urine.
2. Interrupted flow of urine.
3. Haematuria.
4. Flow of the urine is scattered.
5. Colour of the urine is yellowish red- resembles to dolomite stone.
6. Nature of urine is turbid and mixed with crystals.
7. Onset of pain while running, jumping, swimming, riding vehicles or exposure to sunlight, excessive walking.

6. Types : Prakara

6.1 Kapahaja Ashmari

नत्र, श्लेष्माश्रमो श्लेष्मतामग्रमन्धहरोऽन्वयंनुत्तिप्यायः
परिच्छिन्नाय वसिमुष्कमिच्छाय श्लेथो निरुगच्छि, तस्य
मूत्रमतिघाताहात्यते भिद्यते नितुद्वत इव च वसिमुष्कः
शोणश्च भवति । अश्रमो चात्र श्लेथा श्लिष्या महति
कुच्छुटाण्डप्रतीकाशा मयूकपुष्पवर्णा वा भवति; तां
श्लेष्मिकामिति विद्यात् ॥ S.S.Ni. 3/ 8.

Excessive intake of Kapha aggravating causes leads to exacerbation of Kapha dosha to cause a layer or coating at the bottom of the urinary bladder. Further it reaches to the orifice of the urinary bladder to cause Kapahaja Ashmari.

Clinical features

1. Feeling of pain like pricking, or getting punctured.
2. Feeling of heaviness and coldness at urinary bladder.
3. Nature of calculus is whitish yellow (resembles to Madhuca flower), smooth, unctuous, big sized resembling an egg of a hen.

6.2 Vataja Ashmari

वातयुतस्तु श्लेष्मा सहातमुपगम्य यथोक्तां परिच्छिन्नाय
वसिमुष्कमिच्छाय श्लेथो निरुगच्छि, तस्य मूत्रप्रतीघातात्त्रा
भवति, तथाऽत्यर्थं पीडयमानो दन्तान् खादति नाभिं
पीडयति मेहं मृदनाति पायुं सुश्रयति विशयति विदहति
वातमूत्रपुरिषाणि कृच्छ्रेण चास्य मेहतो निःसृजति । अश्रमो
चात्र श्यावा परुषा विषमा खपा कदम्बपुष्पवल्कलप्रकाशिता
भवति; तां वातिकामिति विद्यात् ॥ S.S.Ni. 3/ 10.

Aggravated Vata along with Kapha dosha produces stony hard structures which grows bigger in size to manifest Vataja Ashmari.

Clinical features

1. Severe pain.
2. Patient grinds teeth, presses umbilicus, squeezes the penis, frequently touches

Reference reading

- Madhava Nidana Mutraghata Chapter- 31.
- Sushruta Samhita Uttarantara Chapter 42.
- Sushruta Samhita Nidana Sthana Chapter 3.
- Dieraka Samhita Sohni Sthana Chapter 5.
- Sanskrit English Dictionary - Apte Dhatukoshha.

- the anus and produces sounds through it due to unbearable pain.
- Sensation of burning at urinary bladder.
 - Strenuous passing of flatus, urine and stool.
 - Nature of the calculus is bluish coloured, coarse, irregularly shaped, hard and covered with spikes and resembles to Kadamba flower.

6.3 Pittaja Ashmari

पित्तयुक्तस्तु श्लेष्मा सञ्जातमुपगम्य यथोक्तं परीवृद्धिं प्राप्य वल्लिमुखमथिष्ठाय स्रोतो निरुणद्धि, तस्य मूत्रप्रतीघातादूच्यते चूच्यते दस्यते पच्यत इव वस्तिरुष्णवाश्च भवति। अश्मरी चात्र सक्त्या पीतावमाला कृष्णा भल्लातकास्थिप्रतिमा मधुवर्णाना भवति; तां वैतिकीमिति विद्यात्।। S.S.Ni. 3/9.

Aggravated Kapha along with Pitta dosha produces hard masses at urinary bladder which grow in size and obstruct the urinary orifice to manifest Pittaja Ashmari.

Clinical features

- Feeling of warmth, onset of sucking type of pain at urinary bladder.
- Sensation of burning and formation of ulcers at urinary bladder.
- Onset of Ushnavata.
- The nature of the stone is reddish, yellowish or blackish coloured resemble to seed of marking nut (Bhallataka). The colour also resembles to honey.

6.4 Shukraja Ashmari

मैथुनाभिघातादतिमैथुनाद्वा शुक्रं चलितयमनिर्गच्छद्विमार्गम नादनिलोऽभितः सङ्गुल्य मेढ्रकृष्णयोस्तरे संहरति, संहृत्य चोपरशोष्यति। सा मूत्रमार्गमावृणोति, मूत्रकृच्छ्रं वस्तिवेदनां वृषणयोश्च शयसुमापादयति, पीडितमात्रे च तस्मिन्नेव प्रदेशे प्रविलयमापद्यते; तां शुकाश्मरीमिति विद्यात्।।

S.S.Ni. 3/12.

Manifestation of Shukraja Ashmari generally occurs in elderly age group. It is caused

mainly due to interrupted coitus, or too much indulgence in sex. Semen gets dislodged from its normal place and further gets obstructed from ejaculation. Aggravated Vata dosha holds back the semen between penis and testicles and dries it up to block the urinary orifice to manifest Shukraja Ashmari.

Clinical features

- Strenuous passing of urine.
- Pain and oedema at urinary bladder and testicles.
- Breaking of Ashmari into small pieces when penis is squeezed by the hand.

7. Complications : Upadrava

शर्करा सिकता मेहो भस्माख्योऽश्मरिविकृतम्।

S.S.Ni. 3/13.

Onset of Sharkara- crystals, Sikata Meha- a type of Prameha and Bhasmakhya - are secondary pathologies of Ashmari.

8. Cause and process of development of Ashmari in children

प्रायेणैतास्त्रिलोऽश्मर्यो दिवास्वप्नसमशनाध्यशनशीतस्त्रिय- मधुराहारप्रियत्वाद्दिशेषेण बालानां भवन्ति। तेषामेवास्त्रिलि- कायत्वादनुपचितमासत्वाच्च वस्ते : मुखग्रहणाहरणा भवन्ति।

S.S.Ni. 3/11.

In younger age group urinary calculi are formed due to general behavioural practices of childhood such as;

- Enjoying daytime sleep.
- Repeated and excessive intake of healthy as well as unhealthy food contents. Desire for food which is hard to digest, unctuous and sweet quality.
- Due to tenderness of urinary bladder and developing state of musculature (Mamsa dhatu) holding and removal of calculus by pulling it out becomes easy.

9. Dietary and behavioural regimen

9.1 Pathya

Wholesome regimen:

- Intake of light, easy to digest type of food e.g. barley, old red variety of rice, eggs of desert residing birds, fruits and leaves of *Kushmanda* (*Benincasa hispida*), leaves of *Varuna* (*Cretaeva nurvala*).
- Adequate intake of water and other liquids.
- Rest.

9.2 Apathya

unwholesome regimen:

- Intake of hard to digest, hot, sharp type of food.
- Intake of citrus, sticky, constipating type of food contents.
- Suppression of urge to urinate or seminal ejaculation.

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CHAPTER 171 SWEDAVAHA SROTAS

1. Definition

The channelled system which deals with carrying and thereto deals with expulsion of sweat from the body is called as Swedavaha srotasa. Organs related to removal of sweat are included under Swedavaha srotasa.

2. Origin of Swedavaha srotasa: Moolasthan

स्वेदवहानां स्रोतसां मेदो मूलं लोम कूपश्च। C.S.Vi. 5/8.

- Swedavaha srotasa originates from heart- Hridaya and dasha dhamani- (ten) vessels carrying rasa dhatu.
- Swedavaha srotasa are two in number and they originate from heart- Hridaya and lymphatic ducts- Rasavahini dhamani.

3. Causes of vitiation of Swedavaha srotas

व्यायामदतिसंतापच्छीतोष्णाक्रमसेवनात्।
स्वेदवाहिनो दुष्यन्ति क्रोध शोक भयैस्तथा।। C.S.Vi. 5/22.

Causes responsible for vitiation of Swedavaha srotasa:

- Excessive physical exertion.
- Excessive exposure to direct heat in any form
- Simultaneous acceptance of cold and heat.
- Overpowering of emotions like anger, fear or grief.

4. Symptoms of Swedavaha srotas vitiation

श्रुद्यानां तु खल्वेषामिदं विशेष विज्ञानं भवति; तद्यथा अस्वेदमतिस्वेदनं पारुष्यमति श्लक्ष्णतामङ्गुल्य परिदाहं लोमहरं च। वृष्ट्वा स्वेदवाहिन्यश्च स्रोतांसि श्रुद्यानिति विद्यात्।।

C.S.Vi. 5/8.

- Absence of perspiration.
- Excessive roughness of the skin.
- Excessive abnormal smoothness of the skin.
- Sensation of burning in the body.
- Horripilation.

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1. Introduction

The term Khalitya is derived from Sanskrit word - खलितः meaning- a bald headed person. Condition of bald scalp is termed as Khalitya. Premature loss of hair and thus formation of baldness partial or complete is the presenting feature. Although many methods of treatment are described for baldness, practically it is observed as an incurable condition. Hereditary factor is main prevailing cause behind the onset of Khalitya.

2. Definition : Paribhasha

रोमकूपानुपं पित्तं वातेन सह भूर्च्छितम्।
प्रच्यावयति रोमाणि ततः श्लेष्मा सशोणितः॥

रुणद्धि रोमकूपान् ततोऽन्येषामसंभवः।
तदिन्द्रलुप्तं खालित्यं रुह्येति च विभाव्यते॥

S.S.Ni. 13/33-34.

1. Aggravated Pitta dosha taking seat at hair roots to cause falling off of the hair and subsequent hair loss is called as Indarlupta.
2. Further, aggravated Kapha dosha in association with Rakta dhatu shuts the hair root apertures permanently to cause permanent bald patch at the site.
3. Synonym for this condition- Khalitya.

CHAPTER 173

PALITA

1. Introduction

The term Palita is derived from Sanskrit word पलितः meaning - gray haired or old aged person. In terms of Ayurveda, Palita is described as a non painful, condition of bodily hair especially of scalp to become gray. It becomes a point of worry when graying is premature. In today's life factors like pollution, contamination and adulteration in all the factors required for living are becoming prime causes responsible for premature graying of hair in younger generations. It is a type of incurable disease

2. Definition : Paribhasha

क्रोधशोकश्रमकृतः शरीरोष्णशिरोगतः।
पित्तं च केशान् पचति प्रमितं तेन जायते॥ S.S.Ni. 13/37.

1. Premature or early graying of hair due to affliction of emotions like excessive anger, grief or due to performing excessive physical exertion.
2. Increased body heat along with aggravated Pitta dosha reaches the scalp to make hair prematurely gray.
3. This condition is very critical to manage.

1. Definition

The channelled system which deals with mental activities of the body and thereto deals with functions related to provision of mental stimuli to the body is called as Manovaha srotas. Organs related to mental functioning are included under Manovaha.

2. Origin of Manovaha srotasa: Moolasthanam

स्रोतांसि मनोवहानीति हृदयाश्रिता दश धमन्यः।

M.Ni.20/5.

स्रोतांसि मनोवहानीत्येतेन हृदय देश सम्बन्धि धमन्यो
विशेषेण मनोवहा दर्शयति ॥ C.S.Ch. 9/3.

1. Manovaha srotasa originates from ten vessels- dasha dhamani, arising from the heart- Hridaya and carry mental stimuli all over the body via them.

3. Causes of vitiation of Manovaha srotasa

विरुद्धं दुष्टाशुचि भोजनानि प्रघर्षणं देवगुरु द्विजानाम्।
उन्मादहेतुर्भयहर्षपूर्वो मनोऽभिघातो विषमाश्च चेष्टाः॥

C.S.Ch. 9/3.

Causes responsible for vitiation of Manovaha srotasa:

1. Intake of food which is incompatible, adulterated or unclean.

2. Participation in sinful or evil activities by insulting the God, mentors or intellectuals.
3. Predisposing factors responsible to manifest Unmada may also be considered as causative factors for vitiation of Manovaha srotasa.
4. Overpowering emotions like fear or elation.
5. Mental distress.
6. Abnormal erratic behaviour.

4. Symptoms of Manovaha srotas vitiation

तैरल्पसत्वस्य मत्ताः प्रदुष्टा। बुद्धेर्निवासं हृदयं प्रदुष्य ॥
स्रोतास्विच्छिद्य मनोवहानि। प्रमोहयन्त्याशु नरस्य चेतः॥

C.S.Ch. 9/5.

उन्मादं पुनर्मनोबुद्धिसंज्ञानसृष्टिमतिभक्तिशीलचेष्टाचार-
विभ्रमं विद्यात्।

C.S.Ni.7/5.

1. Due to acceptance of relevant causes, mental or physical dosha aggravate and enter into the heart of the person with low mental strength to create obstruction in the channels of Manovaha srotasa to cause various psychological diseases.
2. The disease condition in which mind, intellect, perception, knowledge, memory, desire, conduct and etiquettes become abnormal and distorted is called as Unmada.

Disease at a glance

- Nature of Disease: Chronic.
- Major Involving Dosha – Vata, Pitta.
- Major Involving Dushya – Rasa.
- Site of Manifestation Mind, vital powers (Indriya)- brain
- Srotas: Manovaha Srotas, Rasavaha srotasa.
- Types – Four.
- Cardinal Feature: Momentary loss of memory.

Prognosis

- Difficult to cure- in early stages. Incurable - on getting chronic.

Diseases for differential diagnosis

1. Unimada.
2. Atavaabhinivesh.
3. Murchha.
4. Sanyasa.
5. Mada.
6. Madatyaya.

Reference reading

- Madhavi Vidana – Apasmara- Chapter 21.
- Charak Samhita Nidanasthan. Chapter 8.
- Charak Samhita Chikitsasthan. Chapter 10.
- Sushruta Samhita Uttaratantra. Chapter 61.
- Ashtanga Hridaya Uttarsthana. Chapter 10.
- Harita Samhita.
- Sanskrit- English dictionary - Apte Shabdakosha.

1. Introduction

The word 'Apasmara' is derived from Sanskrit word 'अपस्मृ' – to depart or to go away. In this condition, memory departs from the person for a short period of time hence the name is Apasmara. It is a chronic natured disease requiring continual medical treatment and attention. Hereditary factor plays significant role for transfer of the disease to further generations. Further detailed pathogenesis is described as Nidana Panchaka of Apasmara in this chapter.

2. Definition : Paribhasha

स्मृतिभूतार्थविज्ञानमपश्च परिवर्जनि ।
अपस्मर इति प्रोक्तस्ततोऽयं व्याधिरन्तकृत् ॥

S.S.Ur.61/3.

The disease in which memory is lost for a short period of time is called as Apasmara. The appropriate knowledge about the qualities of surrounding things also is lost in this disease. This is said to be a fatal type of disease condition.

सूतेरपामं ग्राह्यस्मरं निषण्णिविदः ।

तमः प्रवेशं बीभत्सचेष्टं धीसत्वसंस्तवात् ॥

C.S.Ch. 10/3.

अपस्मरं पुनः स्मृतिबुद्धिसत्वसंस्तवाद्धीभत्सचेष्टमावस्थिकम् तमः प्रवेश-
माचक्षते ॥

C.S.Ni.8/5.

Apasmara is defined as a condition with transient loss of consciousness performing abnormal body movents due to derangement of intellect and mind.

3. Route of development : Marga

Madhyama- Affliction of the disease involves vital organs of the body (Brain and nervous system).

4. Predisposing factors : Nidana

मिथ्याऽतियोगैर्द्वियार्थकर्मणामभिसेवनात् ॥

विरुद्धमलिनहारविहारकुपितैर्मतेः ॥

वेगनिग्रहशीलानामहितशूचिभोजिनाम् ॥

रजस्तमोभीभूतानां गच्छताम् च रजस्वलाम् ॥



तथा कामभयोद्देगक्रोधशोकादिभिर्भृशम् ॥
चेतस्यभिहते पूर्णाऽपसारोभिजायते ॥ S.S.Ur.61/4-6
विग्रान्तवहृदोपागामहितशूचिभोजनान् ।
रजस्तमोभ्यां विहते यत्चे दोषावृते हृदि ॥
चिन्ताकामभयक्रोधशोकोद्वेयादिभिसया ।
मनस्यभिहते नृणामपसारः प्रवर्तते ॥ C.S.Ch. 10/4-5.

Perversion of mind is caused due to acceptance of causes such as;

1. Derangement in the functioning of Indriya and improper correlation of sense organs with their objects.(as Hina yoga, Mithya yoga Ati yoga)
2. Aggravation of dosha due to intake of unclean, incompatible or unwholesome food.
3. Suppression of natural urges.
4. Infliction of Manasika dosha i.e. Raja and Tama.
5. Having sexual intercourse with menstruating woman.
6. Abnormality of the mind due to overpowering emotions like anxiety, fear, passion, anger, grief, agitation etc.
7. Occlusion of the heart due to aggravated dosha.

त एवं विद्यानां प्राणभृतां क्षिप्रमभिनियतवर्तने; तद्यथा रजस्तमो-
भ्यामुपहतचेतसा मुदुप्रान्तविषमबहुदोषाणां समलविकृतोप-
हितान्यशुचीन्यव्यवहारराजालानि वैषम्ययुक्तेनोपयोगोविधि-
नोपयुञ्जानानां तत्रप्रयोगमपि च विषममाचरतामन्याश्च
शरीरचेष्टा विषमाः समाचरतामस्तुक्षयाद्वा दोषाः प्रकुपिता
रजस्तमोभ्यामुपहतचेतसा-मन्तरालनः श्रेष्ठतममायतं
हृदयमुपसृत्योपरि तिष्ठन्ते, तथेन्द्रियायतनानि च। तत्र
चावस्थिताः सन्तो यदा हृदयमिन्द्रियायतनानि चेरिताः,
कामक्रोधभयलोभहर्ष-शोकचिन्तोद्वेगादिभिः सहसाऽ-
भिपूरयन्ति, तदा जन्तुस्परति ॥ C.S.Ni.8/4.

Apasmara is caused especially to those individuals whose;

- a. Mind is overpowered by Raja and Tama qualities

- b. Who have a large and scattered quantity of aggravated dosha in their body.
- c. Who do not follow rules of dietic regimen or tantrik rituals.
- d. Who tend to keep the body in abnormal postures.

In such individuals dosha get aggravated and take abnormal seat at heart, sense organs and reside there dominantly. When such person is excited due to emotions like anger, fear, greed, confusion, exhilaration, grief, anger, agitation etc. aggravated dosha fill up the Hridaya- heart and seats of sense organs. As a result that individual suffers from attacks of Apasmara.

5. Pathogenesis : Samprapti

पित्तं मरुच्च श्लेष्मा च उदानः कुपितो भृशं ।

प्राणः शिरसी संकृद्धो कुण्ठते नष्टचेष्टता ॥

कण्ठं च घुसुरावेत फेन्मुद्गीर्यतेऽथवा ।

कंभेते हस्तपादौ रक्तव्यावर्तितोचनं ॥ Harita Samhita.

Aggravated Pitta, Vata - Udara vayu - and Kapha take seat at the head to cause Apasmara. Symptoms like stupor, tremors at hands and legs, groaning sound at throat, redened and anteverted eyes, froathing of mouth are observed.

संज्ञावहेषु स्रोतःसु दोषव्याप्तेषु मानवः ।

रजस्तमः परितेषु मूढो प्रान्तेन चेतसा ॥

विक्षिपन् हस्तपादं च विजित्स्त्रुविलोचनः ।

दन्तान् खादन् वमन् फेनं विवृताक्षः पतेत् शितौ ॥

अलोकालान्तरापरि पुनः संज्ञां लभेत् सः ।

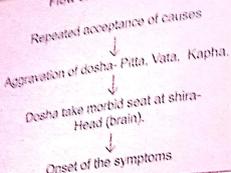
सोऽपस्मार इति श्रोक्तः ॥ S.S.Ur.61/8-9.

घमनिभिः श्रिता दोषा हृदयं पीडयन्ति हि ।

संपीड्यमानो व्यथते मूढो प्रान्तेन चेतसा ॥ C.S.Ch. 10/6.

Due to continual acceptance of predisposing factors, dosha (Nija and Manas- bodily and mental) aggravate and take seat at Sangyavaha srotasa via channels- Dhamani- to cause Apasmara.

Flow chart of Samprapti

Components of pathogenesis:
Samprapti ghataka

- Dosha: Pitta, Vata, Kapha.
- Dushya: Rasa.
- Srotas: Manovaha srotas.
- Adhishthana: Shira
- Srotodushhi: Sanga, Vimarmagamana.
- Swabhava: Chirakari.
- Agni dushhi: Jatharagni- Agnimandya.

6. Premonitory features : Purvaroopo

रूपमूलत्समानेऽस्मिन् हल्कमः शून्याता भ्रमः ।
तमसो दर्शनं ध्यानं भ्रूवदासोऽक्षिविकृतम् ॥
अशब्दभ्रवणं स्वदे लालासिद्ध्याणकलुषितः ।
अचिप्राकोऽरुचिर्मुखा कुस्यटोपन्मरः बलक्षयः ॥
निद्रानाशोऽङ्गदर्दलुद स्वने गानं सनर्तनम् ।
यानं तैलस्य मद्यस्य तयोरेव च भेहनम् ॥ A.H.U. 10/6-8.
हल्कमः शून्याता स्वयो ध्यानं मूर्च्छां प्रभूढता ।
निद्रानाशश्च तस्मिन् भविष्यति भवन्त्यय ॥ S.S.Ut.61/7.
तस्येमानि पूर्वरूपाणि भवन्ति ; तद्यथा- भ्रुच्युदासः सततमशुभो-
वेकृतमशब्दभ्रवणं लालसिद्ध्याणस्रवणमनज्ञाभिषणमरोचका-
विप्राकौ हृदयग्रहः कुक्षेगटोषो दौर्बल्यमस्त्रिभेदोऽङ्गमर्दो
मोहस्तमसो दर्शनं मूर्च्छां भ्रमश्चाभीक्ष्णं स्वने च मदनर्तन-
व्यधनव्ययनवेपनपतनादिनीति ॥ C.S.Ni.8/ 6.

1. Tremors at heart.
2. Feeling of hollowness in the head and heart.
3. Sweating.
4. Fatigue.
5. Bouts of black out, stupor.

6. State of rumination.
7. Insomnia.
8. Constriction of eyebrows and abnormality in shape of the eyes.
9. Hearing unproduced sounds.
10. Hyper salivation, increased nasal discharge.
11. Anorexia
12. Insipid mouth.
13. Indigestion.
14. Fainting.
15. Abdominal distension.
16. Loss of physical strength.
17. Body ache.
18. Abnormal thirst.
19. Dreaming about singing, drinking liquor or oil and urinating the same or tearing, falling down, stabbing.
20. Breaking type of pain in bones.
21. Stiffness at heart.

7. Clinical features : Roopo

हते सत्वे हृदि व्यापे संज्ञावाहिषु खेषु च ।
तमो विशन् भ्रूवमतिर्वीभत्साः कुरुते क्रियाः ॥
दन्तान् खड्गान् वमन्फेनं हस्ताविटिपन् पादो च विक्षिपन् ।
पश्यन्नसन्तिरुपाणि प्रखलन् पतति क्षिती ॥
विजिह्वक्षिभ्रुवो दोषवेगेऽतीते विबुध्यते ।
कालान्तरेण सपुनश्चैवमेव वि चेष्टते ॥ A.H.U. 10/24.

The person afflicted by Apasmara displays symptoms like;

1. Stupor.
2. Abnormalities in mental functioning.
3. Violent abnormal movements of arms, legs, eyebrows and eyes.
4. Grinding of teeth.
5. Froathing of mouth.
6. Vision of non existing things.
7. Hyper salivation.
8. Falling unconscious on the ground with open eyes.

9. Consciousness is regained after convulsive movements of the body and as if woke up from sleep.

When aggravated dosha take seat at deranged mind by occluding Sangyavaha srotasa to display symptoms as follows;

1. Inability to grasp the surrounding.
2. Bouts of blackouts.
3. Morbid physical movements.
4. Grinding of teeth.
5. Froathing of mouth.
6. Violent movents of arms and legs.
7. Vision of unrealistic events while fainting.
8. Sudden bout of unconsciousness and falling down.
9. Abnormal shape of eyes and eyebrows.
10. Bout of fits remains as per strength of dosha aggravtion and patient ragains consciousness as if woke up from sleep.
11. Recurrent attacks of Apsmara remain continued.

पक्षाद्वा द्वादशाहाद्वा मासाद्वा कुपितां किंचिदयान्तरम् ॥
अपस्माराय कुर्वन्ति वेगं किंचिदयान्तरम् ॥ C.S.Ch. 10/13.

According to Charaka, bouts of Apasmara arise after every twelve days, fifteen days and one months' time which may differ as per state of aggravation of dosha.

प्रलाप कूजनं क्लेशः प्रत्येकं तु भवेदिह ॥ S.S.Ut.61/16.

According to Sushruta, three symptoms as-

1. Irrelevant talk.
2. Whinnying or whizzing sound.
3. Pain- physical and mental discomfort.

These are commonly observed symptoms in all the types of Apasmara.

8. Types: Prakara

इह खलु चत्वारोऽपस्मारा भवन्ति वातपित्तकफसन्निपात-
निमित्ताः ॥ C.S.Ni.8/3.

In all 4 Types of Apasmara are described;

1. Vataja Apasmara.
2. Pittaja Apasmara.
3. Kaphaja Apasmara.
4. Sannipatika Apasmara.



8.1 Vataja Apasmara

तत्रवातात् स्फुरत्यस्थिः प्रततः च मुहुर्मुहुः ।
अपस्मरति संज्ञा च लभते विस्वरं रुदन् ॥
उत्तिण्डिताद्वा : श्रसिति फेनं वमति कन्ते ।
आविध्यति शिरो दन्तान् दशत्याघातकन्धः ॥
परितो विक्षिपत्यङ्गु विपमं विनयताङ्गुलिः ।
रुक्षश्यावारुणाश्लिथङ्गुनास्यः कृष्णमीष्वते ॥
चपलं परुषं रूपं विरुषं विकृताननम् ॥ A.H.U. 10/ 9-11.
वेपमानो दशनं दन्तान् धसन् फेनं वमन्पि ।
यो ब्रूयादिकृतं सत्वं कृष्णं मामनुधावति ॥
ततो मे चित्तनाशः स्यात्तोऽपस्मरोऽनिलालकः ॥

S.S.Ut.61/11-12.

तत्रेदमपस्मरविशेषविज्ञानं भवति; तद्यथा- अमोक्षमपस्मरन्तं, क्षणेन संज्ञां प्रतिलभमानम्, उत्तिण्डिताङ्गम्, अस्मान्ना विलपन्तम्, उद्धमन्तं फेनम्, अतीवाघातशोषम्, अविच्छिन्नरक्तं, विषविनताङ्गु गुल्मि, अनवस्थितचपल परुषरुक्षरुपदर्शिनम्, वातलानुपशयं, विपरितोपशयं च वातेनापस्मरन्तं विद्यात् ॥ C.S.Ni.8/8.

1. Tremor at thighs.
2. Repeated bouts of convulsions lasting for very short period of time.
3. Patient cries desperately, whines, talks morbidly.
4. Eyeballs get protruded.
5. Dyspnoea.
6. Froathing of mouth.
7. Body tremors causing banging of head.
8. Grinding of teeth.
9. Swelling (heaviness) at throat and neck.

10. Convulsions.
11. Fingers get twisted.
12. Dryness and grayish discoloration at nails, eyes and skin.
13. Patient views irregular, abnormal, morbid natured visions before getting fainted.
14. Head turns abnormally to one side.
15. Symptoms aggravate by acceptance of Vata provoking regimen and subsequently subside by acceptance of Vata alivating regimens.
16. Patient complains that some object of blackish color is chasing him and ultimately loses his mind- chitta nasha.

8.2 Pittaja Apasmara

अपस्मरति पित्तेन मूढः संज्ञां च विदन्ति ।
पीतकेनाशिवक्त्रत्वगास्फालयति मेदिनीम् ॥
भैवादीत्तहृषितरुदशीं तृषान्तिः । A.H.U. 10/12-13.
अभीक्ष्णमपस्मरन्, क्षणेन संज्ञां प्रतिलभमानम्, अवकूजन्तम्,
आस्फालयन्तं भूमिं, हातिहास्त्रिताम्रखनयनवदनत्वचं,
हृषियोक्षितोग्रभैरवादिक्त्रपितरुदशीं, पित्तलानुपशयं च
चित्तेनापस्मरन्तं विद्यात् ॥ C.S.Ni.8/8.

तृटतापस्वेदमूर्च्छां धुन्वन्नङ्गानि विह्वलः ।
यो ब्रूयाद्विकृतं सत्त्वं पीतं मामनुधावति ।
ततो मे चित्तनाशः स्यात्स पित्तभव उच्यते ॥ S.S.Utt.61/15.

1. Patients regains consciousness immediately after a bout of convulsion.
2. Frothing of mouth is yellowish coloured.
3. Yellowish discoloration at nails, eyes and skin.
4. Patient bangs his hands and legs on the ground.
5. Patient views fierce, vibrant and agitated natured visions before getting fainted.
6. Patient suffers from severe thirst.
7. Symptoms aggravate by acceptance of Pitta provoking regimen and subsequently subside by acceptance of Pitta alivating regimens.

8. Patient complains that some object of yellowish color is chasing him and ultimately loses his mind- chitta nasha.

8.3 Kaphaja Apasmara

चिरादपस्मरन्, चिराच्च संज्ञां प्रतिलभमानं, पतन्तम्, अन्ति-
विकृतचेष्टं लालामुद्गमन्तं, शुक्लनखनयनवदनत्वचं,
शुक्लपुगुलिगन्धरुदशीं, श्लेष्मलानुपशयं, विपरितोपशयं च
श्लेष्मणाऽपस्मरन्तं विद्यात् ॥ C.S.Ni.8/8-11

शीतहृल्लासनिद्रार्त्तः पतन् भूमौ वमन् कफम् ।
यो ब्रूयाद्विकृतं सत्त्वं शुक्लं मामनुधावति ॥
ततो मे चित्तनाशः स्यात्सोऽपस्मरः कफालकः ॥

S.S.Utt.61/14-15.

1. Patients takes long times to regain consciousness after a bout of convulsion and also it can reoccur after a long gap of time.
2. Abnormal movements are less observed as compared to other types.
3. Hyper salivation. Dribbling of saliva.
4. Whitish discoloration at nails and eyes.
5. Patient views white, solid and smooth natured visions before getting fainted.
6. Symptoms aggravate by acceptance of Kapha provoking regimen and subsequently subside by acceptance of Kapha alivating regimens.
7. Patient suffers from cold, nausea, excessive sleep, vomits sticky sputum.
8. Patient complains that some object of whitish color is chasing him and ultimately loses his mind- chitta nasha.

8.4 Sannipatika Apasmara

समवेतसर्वलिङ्गमपस्मारं सान्निपातिककं विद्यात् तमसा-
ध्यमाचक्षते ॥ C.S.Ni.8/8.

Appearance of all the signs and symptoms of all three dosha dominance are observed in Sannipatika Apasmara.

9. Prognosis : Sadhyasadyatva

अपस्मारः स चासाध्यो यः क्षीणस्थानवश्च यः ।
पक्षाद्वा द्वादशशाब्दाद्वा मासाद्वा कुपिता मत्ताः ।
अपस्माराय कुर्वन्ति वेगं किंचिदयान्ताम् ॥

C.S.Ch.10/12-13.

Incurable : when Apasmara is caused to severely emaciated, weak persons, which has persisted for a long period of time it becomes asadhya- incurable.

According to Charaka, bouts of Apasmara arise after every twelve days, fifteen days and one months' time which may differ as per state of aggravation of dosha.

10. Complications : Upadrava Unmada

11. After effects : Udarka

1. Permanent loss of memory.
2. Weakened mental strength.
3. Deranged physical features.

12. Dietary and behavioral regimen

12.1 Pathya

wholesome regimen:

1. Tikshna Nasya therapy- nasal therapy with strong medicines.
2. Dhupana-Application of smoke therapy.
3. Intake of seasoned medicated ghee.
4. Rest.

12.2 Apathhya

unwholesome regimen:

1. Intake of sharp, spicy acidic, hard to digest type of food.

...

Doshas at a glance

- Nature of Dosha: Chassa and Ansa
- Major Involved Dosha: Kasa, Kapka
- Major Involved Dosha: Aasa
- Site of Manifestation: Heart & Mind
- Srotas: Manovaha Srotas, Manovaha Srotas
- Types: Charak Samhita- 43
Sushrut Samhita- 42
- Cardinal Features: Unstable intellect, irregular mind

Prognosis

- Difficult to cure.

Diseases for differential diagnosis

1. Moha.
2. Madatyaya.
3. Apasmara.
4. Atavasahinvesh.

Reference reading

- Madhavidana - Unmada- Chapter 20.
- Charak Samhita Nidanshan. Chapter 7.
- Charak Samhita Chikitsasthan. Chapter 9.
- Sushruta Samhita Uttaratantra. Chapter 62.
- Ashtanga Hridaya Uttaratantra. Chapter 6.
- Sanskrit- English Dictionary - Apte Shabdakosha.

1. Introduction

The term Unmada is derived from Sanskrit word 'उन्मद्' meaning - to become insane, the condition in which a person suffers from insanity is Unmada. It is very critical disease condition with less scope of getting completely cured. Hereditary factor also plays major role in transfer of the disease to further generation. Complete derangement in mental structure is the prime factor. Further detailed pathogenesis is described as Nidana Panchaka of Unmada in this chapter.

2. Definition : Paribhasha

उन्मादं पुनर्मनोबुद्धिसंज्ञानस्मृतिभक्तिशीलचेष्टाचारविग्रमं विद्यात्।

C.S.Ch.7/5.

The disease condition in which mind, intellect, perception, knowledge, memory, desire, conduct and etiquettes become abnormal and distorted is called as Unmada.

3. Predisposing factors : Nidana

एभिर्हि हीनसत्वस्य हृदि दोषाः प्रदुषिताः।
यियो विधाय कालुष्यं हत्वा मार्गान् मनोवहान्॥
उन्मादं कुर्वते, तेन धीविज्ञानस्मृतिप्रमात्॥
देहो दुःख सुखप्रद्यो प्रष्टसारिवद्वयः।
भ्रमत्यचित्तितारम्भः।

A. H. U. 6/4-5.

The person who has congenitally poor mental strength, accepts causes explained as Nidana of Unmada, dosha aggravate and take seat at heart which is natural seat of intellect- Budhhi-. Channels of Manovaha srotasa get obstructed due to dosha aggravation ultimately to cause Unmada. Vagbhata compares this condition with example such as; a person's body and mind become as out of control like a vehicle without a driver.

शरीर मानसैर्दुष्टैरहितादन्नपानतः।
विकृतासत्त्वसमलाद्विषमादुपयोगतः॥
विषण्णस्याल्पसत्वस्य व्याधिवेगसमुद्गमात्।
क्षीणस्य चेष्टावैषम्यात् पूज्यपूजाव्यतिक्रमात्।
आधिभिक्षित्तविग्रंशाद् विषेणोपविषेण च॥

A. H. U. 6/2-3.

A. A person;

- Who has consumed unwholesome, unclean, unhygienic, incompatible type of food.
- Who's body is emaciated due to affliction of other serious diseases.
- Who has become very frail, weak and tired.

B. When such person practices causes like;

- Sudden irregular movements of the body.
- Insult to deities and preceptors.
- Erroneous chanting of mantra and other tantric practices.
- Unstable mind due to affliction of emotions like sexual desire, anger etc.
- Intake of poisons.

When such factors are practiced by a person mentioned in point -A, dosha get aggravated to cause imbalance in his mind to result in Unmada.

तत्र दोषनिमित्ताश्रयः पुरुषाणामेवंविद्यानां क्षिप्रमभिनियवन्ते; तद्यथा-भीरुणामुपक्लिष्टसत्वानामुत्सन्नदोषाणां समलविकृतापहितान्यनुयुजिताभ्याहारजातानि वैषम्युक्तन्योपयोगविधिनो-पयुञ्जानानां तन्व्यप्रयोगमपिविषममाचरतामन्याश्च शरीरचेष्टा विषमाः समाचरतामत्युपक्षीणदेहानां व्याधिवेगसमुद्भितानामुपहतमनसां वा कामक्रोधलोभहर्षभयामोहायासशोकचिन्तोद्वेगादिभिर्मूयोऽभिघाताभ्याहतानां वा मनस्युपहते बुद्धौ च प्रचलितायामभ्युदीणां दोषाः प्रकुपिताः हृदयमुपसृज्य मनोवहानि स्रोतस्यावृत्य जनयन्नुन्मादम्॥ C.S.Ni.7/14.

विरुद्धदुष्टाशुभुचिभोजनानि प्रघर्षणम् देवगुरुद्विजानाम्।
उनदमादहेतुभयहर्षपूर्वो मनोऽभिघातो विषमाश्च चेष्टा॥

C.S.Ch.9/4.

Four types of Unmada are caused due to aggravation of dosha.

Dosha aggravation results into Unmada immediately in a person explained as under;

- The one who is apprehensive.
- Who has got dominantly aggravated

- Raja and Tama (Manasika dosha) and also aggravation of three dosha in him.
- Who consumes unwholesome, unclean and rotten type of food and does not follow dietary regimen.
- Who practices wrong or improper application of tantric rituals.
- Who tends to keep his body in abnormal postures.
- Who is suffering from serious diseases and has undergone severe emaciation of the body.
- Who's mind is occupied by emotions like sexual desire, anger, greed, excitement, fear, affection, anxiety and anguish etc.
- Who has caused insult to deities, respectable entities or mentors.

4. Route of development : Marga

Abhyantara- Madhayma- affliction of the disease involve vital organs (brain and nervous system).

5. Pathogenesis : Samprapti

तैत्पसत्वस्य मलाः प्रदुष्टाः।
बुद्धेर्निवासं हृदयं प्रदुष्य॥
स्रोतांस्यधिष्ठाय मनोवहानि।
प्रमोहयन्त्याशु नरस्य चेतः॥

C.S.Ch.9/5.

In the Person having weaker mind set and mental strength, acceptance of predisposing factors leads to dosha aggravation and further to take abnormal seat at the site of intellect- normally situated at heart- and causing abnormality to it. Manovaha srotasa gets vitiated and his mind becomes delirious and imbalanced leading to cause Unmada.

शिरस्ताल्वन्तरात् सर्वेन्द्रियपरं मनः।
उच्छ्वप्रकुपिताः दोषाः शिरस्ताल्वन्तरे स्थिताः॥
मनः संदूष्ययत्याशु ततः चित्तं विषयते।
चित्ते व्यापादमापन्ने बुद्धिर्नाशं नियच्छति॥

तवसु बुद्धिव्यपत्तौ कार्यकार्यं न बुद्धयते।
एवं भवति व्याधिः उन्मादो नाम दारुणः॥

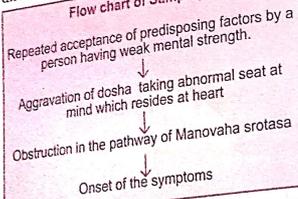
Rhela Samhita- Chapter- Unmada.

Unmada is explained as Shriogata Vyadhi- disease of the head. Mind is said to be situated at Mastishka- meaning at brain. Imbalance of mind is caused due to progression of aggravated dosha to brain and to the mind situated in it to cause Unmada. All the functions of intellect and mind are deranged in this condition.

मदयन्तुद्वारा दोषा यस्मादुन्मार्गमाश्रिताः।
मनसोऽपगतौ व्याधिरुन्माद इति किरितः। S.S.Utt. 62/3.

Severely aggravated dosha get situated in channels progressing towards upper part of the body (head or brain) to cause damage to the mind and instability to the intellect resulting in formation of Unmada. It is a disease of Manovaha srotasa.

Flow chart of Samprapti



Components of pathogenesis: Samprapti ghataka

- Dosha: Vata, Pitta, Kapha.
- Dushya: Rasa.
- Srotas: Majjavaha srotasa, Manovaha srotasa.
- Adhithana: Hridaya- Mana- Heart- Mind
- Srotodushti: Atipravriti, Sanga, Vimarmagamana.
- Swabhava: Chirakari-Ashukari
- Agni dushti: Jatharagni, Dhatvagni Agnimandya.

6. Premonitory features : Purvaroop

तस्मानि पूर्वरूपाणि। तद्यथा-- शिरसः शून्यता, चक्षुषोरकुलता, स्वनः कर्णयोः, उच्छ्वाससाधिव्ययम्, आस्यसंस्ववण, अनन्नाभिलाष-रोचकाविपाकाः, हृद् ग्रहः ध्यानयाससंमोहोद्वेगाश्चास्थाने सततं लोमहर्षः, ज्वर-भिक्षणम्, उन्मत्तचित्तत्वम्, उद्वेदितत्वम्, अर्दिताकृतिकाणां च व्याधेः स्वने चाभीक्ष्णं दर्शनं भ्रान्तचलितनावस्थितानां रुपाणामपशस्तानां च तिलपिडकचक्राधिरोगं वात कुण्डलिकाभिश्चोन्मथनं निमज्जनं च कलुषाणामभ्यामावतं चक्षुषोश्चापसर्पणमिति दोषनिमित्ताना-मुन्मादानां पूर्वरूपाणि भवन्ति॥ C.S.Ch. Ni.7/6.

मोहोद्वेगौ स्वनः श्रोत्रे गात्राणामपकर्षणम्।
अत्युत्साहोऽरुचिश्चान्ने स्वने कलुषभोजनम्॥
वायुनोन्मथनञ्चापि भ्रमश्चक्रगतस्य वा।
यस्य स्यादचिरेणैव उन्मादं सोऽधिगच्छति॥

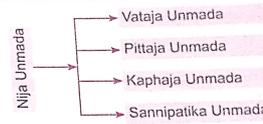
S.S.Utt. 62/6-7.

1. Feeling of emptiness in the head (mind).
2. Abnormal look of anticipation in eyes.
3. Ringing of ears.
4. Increased rate of inspiration (disturbed breathing).
5. Hyper salivation.
6. Loathing of food.
7. Insipid mouth.
8. Indigestion.
9. Stiffness of heart.
10. Self engrossment, preoccupied mind.
11. Exhaustion.
12. State of incomprehension.
13. Excitement at inapplicable situations.
14. Continual horripilation.
15. Frequent fever or feverish feeling.
16. Erratic state of mind.
17. Urticaria.
18. Twisting of mouth as if afflicted by facial palsy-Ardita.
19. Dreaming about ominous objects such as wandering, moving or unstable things, riding on wheel of oil press, getting swirled in a tornado, sinking in dirty turbid waters.

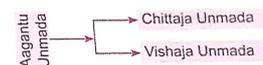
20. Abnormal deviation of eyes.
21. State of delusion and anguish.
22. Ringing of ears.
23. Weakness of body parts with emotional disturbance.
24. Abnormal hyper elation.
25. Loathing of food.
26. Dreaming about eating dirty, unclean food.
27. Twisting type of pain in the body and giddiness as if getting swirled on a wheel.

originating due to affliction of external causative factors.

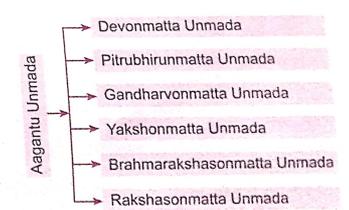
8. Types : Prakara



Types of Aagantu Unmada According To Vagbhata:



Types of Aagantu Unmada According To Charaka Samhita:



7. General Clinical features : Roopa

धी विप्रमः सत्वपरिलवध।
पर्यकुला दृष्टीरथिता च॥
अबद्धवाक्त्वं हृदयं च शून्यं।
सामान्यमुन्मादगदस्य लिङ्गम्॥
स मूढचेता न सुखं न दुःखं।
नाचारधर्मो कुत एव शान्तिम्॥
विन्दत्यपास्तस्मृतिबुद्धिसंज्ञौ।
भ्रमं चेत इतरस्तथ॥

C.S.Ch. 9/7.

C.S.Ch. 9/7.

1. Derranged intellect.
2. Erratic mind.
3. Unsteady vision.
4. Blocked, incoherent speech.
5. Feeling of emptiness at heart.
6. Inability in experiencing pleasure or sorrow of any moment.
7. Loss of responsibilities towards ethics, rules and religion.
8. Complete loss of peace of mind and patient becomes devoid of memory, intellect and recognition.
9. Patient aimlessly wanders everywhere.

समुद्भ्रमं बुद्धिमनःस्मृतीनामुन्मादभागन्तुनित्यमाहुः।
तस्योद्भवं पञ्चविधं पृथक् तु वक्ष्यामि लिङ्गानि यिकलितं च॥ C.S.Ch. 9/8.

Unmada indicates distortion of mind and memory. It is classified as Nija- originating from aggravation of dosha and Agantu-

इह खलु पञ्चोन्मादा भवन्ति, तद्यथा-- वातपित्तकफसन्नि-
पातागन्तुनित्ताः। C.S.Ch. 7/3.

उन्मादाः षट् पृथग्दोषनिचयाधिविधोद्भवाः। A.H.U. 6/1.

एकैकशः समस्तैश्च दोषैस्त्वर्थमूर्च्छितैः।

मानसेन च दुःखेन स पञ्चविध उच्यते।

विषाद्वदति षष्ठश्च यथासं तत्र भेषजम्।

स चाप्रवृद्धस्तरुणो मदसंज्ञां विभर्ति च॥ S.S.Utt. 62/4-5.

1. Unmada is classified into five types by Charaka as : Varaja Unmada, Pittaja, Unmada, Kaphaja Unmada, Sannipatika Unmada, Aagantuja Unmada.

2. Unmada is classified into six types by Vagbhata as - Varaja Unmada, Pittaja Unmada, Kaphaja Unmada, Sannipatika Unmada, Dukkhaja Unmada and Vishaja Unmada.
3. Unmada is classified into six types by Sushruta as - Varaja Unmada, Pittaja Unmada, Kaphaja Unmada, Sannipatika Unmada, Manasaja Unmada and Vishaja Unmada.

8.1 Varaja Unmada

तत्र वाताकुशाङ्गता ।।
अस्थानेनैवनाक्रोशहसितस्मितनर्तनम् ।
गीतवादितागङ्गविशेषास्रोतनानि च ।।
असात्रा वेद्युवीणादिशब्दानुकरणं मुहुः ।
आस्थानेनागमोऽजम्भटनं च बहुभाषिता ।।
अलङ्कारोऽनलङ्कारैरयानेर्मनोवचमः ।
गुह्यप्रथवहार्येषु तल्लाभे चावमानता ।।
उत्तिष्ठितारुणाक्षित्वं जीर्णं चात्रे गदोद्भवः ।।

A. H. U. 6/6-9.

परिसरणमजम्, अक्षिभुवोष्ठांसहचग्रहस्तपादाङ्गविक्षेपण
म-कस्मात्, अक्षिभुवोष्ठांसहचग्रहस्तपातांगविक्षेपणमकस्मा

त् । अनियतानां च सततं गिराजस्त्रं, फेनागमनस्यात्, अपीक्ष्यं स्मितसितनृत्यगीतवादिवसंप्रयोगाश्चास्थाने, वीणावंशशङ्खश्याताल शब्दानुकरणमसाम्ना, यानमयाने, अलङ्कारणमनलङ्कारिकैर्द्रव्यैः, लोभश्चाभ्यवहार्येष्वलब्धेषु, लब्धेषु चावमानस्तीव्रमात्सर्यं च, काशर्यं, पारुष्यम्, उत्तिष्ठितारुणाक्षता, वातोशयविपर्ययादनुपशयता च ; इति वातोन्मादलिङ्गानि भवन्ति ।। C.S.Ch.7/1.

रुक्षच्छविः परुषवाग् धमनीततो वा शीतातुः कृशतनुः स्फुरिताङ्गसन्धिः । अस्फोटयत्यटति गायति नृत्यशीलो विक्रोशति भ्रमति चाप्यनितम्बकोपात् ।। S.S.Utt. 6/2/8.

1. Weight loss.
2. Patient displays illogical and unreasonable actions like crying, shouting, laughing aloud or smiling, dancing, singing, playing musical instruments, abnormal movements of body, cracking of knuckles, creating arrhythmic sound

like musical instruments like plucked string musical instrument-veena- or flute etc.

3. Frothing of mouth.
4. Constant aimless wandering at places.
5. Continual irrelevant talking.
6. Decorating the self with objects never used conventionally as ornaments.
7. Trying to ride the types of objects or vehicles which could never be ridden.
8. Loathing of food items in spite of having the desire to eat them.
9. Reddening and bulging out of eyes.
10. Increase in symptoms over digestion of food.

8.2 Pittaja Unmada

पित्तात्सन्तर्जनं क्रोधो मुहिलोद्योगध्रुवः ।
शीतच्छायोदकाकाङ्क्षा नमनत्वं पीतवर्णता ।।
असत्यज्वलनज्वालातारकादीपदर्शनम् ।। A. H. U. 6/10-11.
अमर्षः क्रोधः संस्मस्वास्थाने, तसलोद्भूतशाकाद्युद्भिः
भिरभिहननं स्वेषां परेषां वा, अभिद्रवणं, प्रच्छयशोतेन
त्राभिलाषः संतापश्चातिवेलं, ताग्रहसिंहारिद्रिसंख्याकला,
पित्तोपशयविपर्ययादनुपशयता च ; इति पित्तोन्मादलिङ्गानि
भवन्ति ।। C.S.Ch.7/2-2.

तूटस्वेददाहबहुलो बहुभुविनिद्रश्यायाहिमानितजलान-
विहारसेवी । तीक्ष्णो हिमाशुनिचयेऽपि स बहिर्भङ्गि पित्तादिना
नभसि पश्यति तारकाश्च ।। S.S.Utt. 6/2/6.

1. Mental irritation.
2. Hyper hostility.
3. Irrelevant display of exhilaration.
4. Attempting physical injury to self or to others with weapons, bricks, whips, wooden sticks, fists. Trying to chase people to hit them.
5. Desire for shaded area, cold water and cold food stuff.
6. Excessive desire to remain naked or bare bodied.
7. Yellowish green tinge of the skin and eyes.

8. False observance of fire or flames (even in water). False observation of starts of lamps (during daylight) false observance of lamps.
9. Aggravation of symptoms on accepting Pitta provoking factors.
10. Thirst.
11. Excessive sweating.
12. Sensation of burning.
13. Excessive eating.
14. Tendency to keep near the water reservoirs.
15. Violent, aggressive behaviour.

8.3 Kaphaj Unmada

कफादरोचकश्छर्दिरेलेहावाक्यता ।
सौकामता रहःश्रीतिलालविड्याणसत्तुतिः ।।
वैभस्वं शोचविद्वेषो निद्रा थययुरानने ।
उन्मादो बलवान् राज्ञो पुक्तमात्रे च जायते ।।

A. H. U. 6/12-13.

स्थानभेकदेशे, तूष्णीभावः, अल्पशश्चङ्क्रमणं, लाला-
शिङ्खणकस्रवणम्, अनन्नाभिलाषः, रहस्कापता, बीभत्सत्वं,
शोचद्वेषः, स्वनिस्त्यता, थययुरानने, शुक्लस्तिमित-
मलोपदिद्याक्षत्वं, श्लेष्मोपशयविपर्ययादनुपशयता च ; इति
श्लेष्मोन्मादलिङ्गानि भवन्ति ।। C.S.Ch.7/7-3.

1. Inspid mouth.
2. Vomiting.
3. Tendency to avoid eating.
4. Tendency to avoid speaking.
5. Abnormal sexual attraction towards ladies (opposite sex)
6. Tendency to remain recluse or to avoid people.
7. Hyper salivation and excessive production of nasal secretions.
8. Tendency to remain dirty- hatred towards body cleansing.
9. Excessive sleep.
10. Facial oedema.
11. Symptoms aggravate at night and after eating food.
12. Tendency to stand at one place.

13. Abnormally white, frightened eyes with adhered ophthalmic discharge.
14. Desire for warmth.

8.4 Sannipatika Unmada

सर्वयतनसंस्थानं सन्निपाते तदालकं । वा.उ.६-१४.
त्रिदोषलिङ्गासन्निपाते तु सन्निपातिकं विद्यात् ; तमसाध्य-
माचक्षते कुशलाः ।। C.S.Ch.7/7.
सर्वायतनस्थानसन्निपाते तदालकम् ।
उन्मादं दारुणं विद्यात् भिषक्वर्जित्येत् ।। A. H. U. 6/14.
सर्वात्मके पित्तकफा यदात्वं संहर्यता इव च लिङ्गमुदीरयन्ति ।।
Su.Utt. 62/11.

1. Sannipatika Unmada presents all the signs and symptoms of all the three dosha are observed equally and combined as if overpowering each other. This is an incurable type of Unmada.

8.5 Aagantuja Unmada

Vagbhata classifies Aagantuja Unmada further into;

1. CHITTAJA UNMADA

घनकान्तादिनाशेन दुःसहेनाभिषङ्गवान् ।
पाण्डूदीनोर्मुहुर्मुह्यन् हहिति परिदेवते ।।
रोदित्यकसहाम्प्रियते तदुगान् बहु मन्यते ।
शोकाकिल्लमना ध्यायन् जागरुको विचेष्टते ।।

A. H. U. 6/15-16.

चोरेनीन्द्रपुष्पैरिभिल्लथाऽन्यैर्विनाशितस्य घनवांघवसंश-
यादात् ।।
गाढं क्षते मनसि च प्रियया रिंसो जयित चोक्तटनमो मनसो
विकारः ।।
चित्तं भ्रविति च मनाऽनुगतं विसंज्ञोगायत्यथो हसति
रोदितिचापि मूढः ।। Ma. Ni. Chapter- 20/182-183.

Due to sudden loss of wealth or wife (Spouse) causes unbearable pain to a person to cause Aagantuja Unmada. This type of Unmada is caused due to influence of bad spirit on the soul of a person. Patient becomes pale and miserable, faints frequently, whines and yells loudly and dies suddenly. The patient tends to

pride about the lost object (wealth or person), worries continuously, keeps high awake in the bed and wrenches his body.

2. VISHAJA UNMADA

विषेण स्वावदने नष्टशायवलेन्द्रियः।
वेगलोऽपि चक्रानो रक्ताससं विवर्जयेत् ॥A.H.U.6/17
विषेणोन्मदे स्वावदनः स्यात्। तं वजयेत्--नोपक्रमेत्।

1. This type of Unmada occurs due to intake of poison.
2. Patient's face (body) becomes blackened.
3. Loss of glory, strength and vital power.
4. Physician should not treat the one whose eyes have reddened and who talks incoherently.

9. Aagantuja Unmada as per Charaka Samhita-chapter 9

देवादिपुरुषाणां च पराका-पितृमनामभिघर्षणानि।
अपान्तुर्गुरुनिद्रनादि निव्यकृतं कर्म च पूर्वदेहे ॥

C.S.Ch.9/16.

Aagantu Unmada is caused due to evil intelligence when a person tends to insult or disregard the God, the learned, the predecessor, the Gandharva and Yaksha- good spirits of heaven- Rakshasa- demons- and Pishacha- evil spirits- and respected entities. Aagantuja Unmada is caused by the person's own abnormal and nasty behaviour and due to disobeying general rules and laws of living. It is also assumed that Aagantuja unmada is caused as a punishment to sins done in previous birth.

9.1 Special premonitory features of Aagantuja Unmada

तत्र देवादिपुरुषोपमितेनापान्तुकोमानेन पुरस्कृत-
स्येमानि, पूर्वेषु भवन्ति तस्याः देवगोब्राह्मणतपस्विनां
हिंसाश्चित्तं कोपनत्वं नृशंसाभिप्रायता. अरतिः,
ओजोवर्षणच्छायाबलवपुषा-मुपतपतिः स्वप्ने च
देवादिभौतभिर्भर्त्सनं प्रवर्तनं चेति; ततोऽनन्त-
रुन्मायाभिनिवृत्तिः ॥C.S.Ch.7/11.

1. Desire to attack - the god, cows, respectable entities and saints.
2. Hyper hostile nature.
3. Contentment in brutal activities.
4. Restlessness.
5. Destruction of Oja, glory, body strength.
6. Dreaming about getting abused by the gods which is followed by affliction of Aagantuja Unmada.

9.2 Clinical features : Roopa : (Ref. C.S.Ch.9/20.)

1. Appearance of supernatural strength, energy, masculinity, enthusiasm, normal and artistic power to speak and understand.
2. Attacks of Unmada is in attacks.

Sub classification:

1. **Devonmatta Unmada** : Unmada caused due to curse of God. Symptoms; calm look and non-violent nature, lowered expulsion of sweat, urine, stool flatus, emission of propitious odour from the body and appearance of face resembles to blossomed lotus flower.
2. **Guruvridhhadi shapajanya Unmada**: Unmada caused due to curse of sages or elderly people. The person displaying similar symptoms matching to the curse placed upon him by the respectable, elders or proficient people, shall be diagnosed as suffering from Guruvridhhadi shapajanya Unmada.
3. **Pitruunmatta Unmada** : Unmada caused due to curse of forefathers. Symptoms are: unhappy look, loss of vision, excessive sleep, broken speech, loathing of food, loss of appetite and indigestion.

4. **Gandharvonmatta Unmada** : Unmada caused due to curse of Gandharva- Singing angels- Symptoms are; uncontrolled violent acts, undue acts of bravery, abnormal sharpness, serious attitude, abnormal liking towards imitating sounds of musical instruments by mouth, dancing, eating, drinking, bathing, garlanding and wearing perfumes, red coloured apparels, offerings, abnormally fun loving, curious natured.

5. **Yakshonmatta Unmada** : Unmada caused due to curse of Yaksha-Angels- Symptoms : Frequent onset of sleep, bouts of crying and laughing, liking to dance, to play music- vocal or instrumental, recitation of sacred scripts, telling stories, liking towards eating, drinking, bathing, garlanding and wearing perfumes, reddened and agitated eyes, hatred towards Brahmin -A type of cast- and Vaidya-physicians, desires to expose secrets of other people.

6. **Rakshasonmatta Unmada** : Unmada caused due to blight of a monster. Symptoms : Insomnia, loathing to food and drink, abnormally excessive strength in spite of consuming very little quantity of food or after total fasting, liking towards weapons, blood, meat, red garlands, becoming brutal natured.

7. **Brahmarakshsonmatta Unmada** : Unmada caused due to curse of Brahmarakshasa- gigantic monster. Symptoms : Tendency for undue loud laughing, dancing, expressions of hatred and disregarding the god.

Brahmin -A type of cast- and Vaidya-physicians, citation of Veda, Mantra and other spiritual scripts, self harming by wooden stick etc.

8. **Pishachonmatta Unmada**: Unmada caused due to curse of evil spirits. Symptoms : Irritated mind, unable to achieve mental piece anywhere, keeps himself occupied in dancing, singing and laughing and speaks incoherently, liking towards climbing garbage, roaming on shabby lanes, cloth, grass, stones, wood flakes, with shaky - broken voice, tends to remain bare bodied, runs aimlessly, complains to others about his grief and suffers from loss of memory.

10. Prognosis : Sadhyasadyatva

सर्वेष्वपि तु खल्वेषु यो हस्तादुद्यम्य रोषसंस्मान्निशङ्कमन्वे-
ष्वाल्मनि वा निपातयेत् स स्वसाध्यो ज्ञेयः तथा यः साशुनेत्रो
मेद्व्रपवृत्तस्वतः क्षतजिह्वः प्रसुतनासिकश्छिद्यमानचर्मोऽप्रति-
हन्यमान वाणिः सततं विकृजन् दुर्वर्णस्तृषार्तः पूतिगन्धश्च स
हिंसादिनिमत्तो ज्ञेयः, तं परित्यजेत्। C.S.Ch.9/22.
अवाञ्छी वाऽऽप्युदञ्छी वा क्षीणमांसवती नरः।
जागरुक्को हसं देहमुन्मादेन विनश्यति ॥

M. Ni. Unmada-Chapter- 20/16.

स्थूलाक्षो द्रुतमदनः स फेनलेहि।
निद्रालुः पतति च कम्पते च यो हि।
यश्चात्रि-द्विद- नगादिविच्युतः स्यात्।
सोऽसाध्यो भवति तथा त्रयोदशाब्दे ॥

M. Ni. Unmada- Chapter- 20/26.

1. For all the types of Unmada; when a person tends to cause injury to others or to himself without any hesitation by raising his hand (fist) in the air is considered as incurable. The person who has tearful eyes, bleeding from penis, wounded tongue, running nose, bruised skin, uninterrupted-continuous speech which is incoherent,

1. Discoloured complexion, intense thirst, foul smelling body shall be considered the patient of Unmada caused due to getting possessed by vicious evil spirits and shall be rejected for treatment.
2. The person whose physical strength has diminished and body is emaciated, the one who is lying constantly either in head down or head bent position, who has severe insomnia, such patient of Unmada is incurable.
3. The patient whose eyes have become protruded, who walks very fast, tends to lick his own frothy saliva, drowsy, fall down and suffers from convulsions. The one who has gone insane after falling down from a hill (height) or from elephant or a tree etc. also the condition of insanity has grown old for over thirteen years, is considered as incurable.

11. Dietary and behavioral regimen

11.1 Pancha

1. Administration of body cleaning Panchakarma procedures- Snehana, Vamana, Virechana, Nasya, Basti, blood letting, fomentation etc.
2. Intentional frightening or beating to the patient.
3. Administration of bathing, allowing him to smoke.
4. Consoling and comforting the patient.
5. Intake of pure ghee, wheat etc.

11.2 Apathya

unwholesome regimen:

1. Intake of hard to digest, unctuous food.
2. Intake of acidic, sharp type of food.

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Chapter

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ATATVABHINIVESHA

Diseases for differential diagnosis

1. Unmada.
2. Moha.
3. Madatyaya.
4. Apasmara.
5. Sanyasa.

1. Introduction

The name- Atatvaabhinivesha is derived from two Sanskrit words- 'अतव' meaning unrealistic and 'अभिनविश' meaning to settle into or to enter into. This condition forces the patient to think and behave in a manner which is completely unrealistic and larger than life. It is a serious incurable type of disease. Further detailed pathogenesis is described as Nidana Panchaka of Atatvaabhinivesha in this chapter.

2. Definition : Paribhasha

मलिनान्नाहारशीलस्य वेगान् प्राणाविरुद्धतः ।
 शीतोष्णानिश्चक्राद्यैर्हेतुभिश्चातिभेदितैः ॥
 हृदयं समुपाश्रित्य मनोबुद्धीवहाः सिराः ।
 दोषाः संद्रव्य निष्टान्ति रजोमोहावृत्तात्मनः ॥
 रजस्वमोष्यां वृद्धाभ्यां बुद्धौ मनसि चावृत्ते ।
 हृदये व्याकुले दोषैश्च मूढोऽल्पचेतनः ॥
 विषमां कुरुते बुद्धिं नित्यानित्ये हितहिते ।
 अतत्त्वाभिनिवेशं तमाहुराना महागदम् ॥
 स्नेहस्वेदोषघ्नं तं संशोध्य वमनादिभिः ॥

C.S.Ch.10/60-61.

The disease condition in which a person forgets about his real self, and starts thinking larger than life about himself is called as Atatvaabhinivesha. Here Tarva means the reality and Atatva means something which is far fetched or unreal. To live and behave in the delusion about the self is the prime feature of Atatvaabhinivesha.

3. Predisposing factors : Nidana

1. Intake of unwholesome, unclean or incompatible type of food.
2. Intake of cold, hot, unctuous, dry type of food.

Pathogenesis : Samprapti

Due to repeated acceptance of relevant causes, dosha aggravate and take seat at Head to vitiate Manovaha and Sangyavaha srotasa and also, aggravate Raja and Tama qualities of mind to result into Atatvaabhinivesha. A

Reference reading

- Charaka Samhita -Chapter 10.
- Sanskrit- English dictionary - Apte Shabdakosha.

condition in which a person starts believing in unrealistic or fantastic disposition about himself. This unrealistic assumption about the self—e.g. to think that he is the King, or the God or a very powerful spirit, a superhero etc.—so firmly that it becomes very difficult for a physician to treat.

4. Clinical features : Roopa

1. Occlusion of mind by Raja and Tama qualities.
2. Loss of ability to think and decide.
3. Derangement of mental strength.

4. Inability to grasp the appropriate knowledge about the self and the surrounding

5. Dietary and behavioral regimen

5.1. Pathya

Wholesome regimen:

Management of such patient shall be done with therapies like oleation and fomentation followed by body cleansing procedures such as Vamana etc.- Panchkarmaprocedures- and Sansarjana karma. Ch.Chi.10/57-60.

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Chapter 178 MADA

1. Definition : Paribhasha

The condition in which delirium-loss of orientation of the surrounding is the main feature, is called as Mada.

यदा तु रक्तवाहिनी रससंज्ञावहानि च।

पृथक् पृथक् समस्ता वा स्रोतांसि कुपिता मलाः ॥

C.S.Su. 24/25.

Vitiating of Raktavaha, Rasavaha and Sangyavaha srotasa occurs collectively or individually to cause Mada.

2. Route of development : Marga

Madhyama- Affliction of the disease is internal and involves most important vital structures such as brain and nervous system.

3. Predisposing factors : Nidana

मलिनाहारश्रीलस्य रजोमोहावृत्तात्मनः ।

प्रतिहत्याश्च तिष्ठन्ते जायन्ते व्याधयस्तदा ॥ C.S.Su. 24/26.

1. Intake of unwholesome, unclean type of food.
2. Affliction and overpowering of Raja quality on the mind.

4. Pathogenesis : Samprapti

यदा तु रक्तवाहिनी रससंज्ञावहानि च।

पृथक् पृथक् समस्ता वा स्रोतांसि कुपिता मलाः ॥

मदमूर्च्छांयसंन्यासात्तेषां विद्याद्विचक्षणः ।

यथोत्तरं वलाधिक्यं हेतुलिङ्गोपशान्तिषु ॥

दुर्बलं चेतसः स्थानं यदा वायुः प्रपद्यते ।

मनो विक्रोमयन्तन्तोः संज्ञां संमोहयेत्तदा ॥

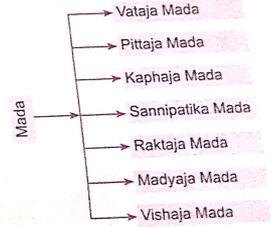
पित्तमेवं कफश्चैवं मनाविक्रोभयनृणाम् ।

संज्ञां नयत्याकुलतां विशेषश्चात्र वक्ष्यते ॥

C.S.Su. 24/25-27.

Aggravated (Vata etc.) dosha occlude already vitiating Rasavaha, Raktavaha and Sangyavaha

srotasa to strike the Mastishka- Brain to cause Mada. As per the increasing severity of acceptance of predisposing factors as well as pathogenesis, stage of Mada gets further transformed to Murchha- fainting and finally to Sanyasa- Coma. Already weakened mind gets irritated by aggravated Vata etc. dosha and consciousness and awareness of the person is deranged partially to cause Mada. Temporary loss of consciousness is called as Murchha and permanent stage of deep unconsciousness along with impaired body functions is called as Sanyasa.



5. Types : Prakara

भेदोऽत्र दोषैः सर्वेषु रक्तमद्यविषेति ॥ A.H.Ni.6/26.

Total seven types of Mada are described.

6. Clinical features : Roopa

सक्तानलस्यद्रुताभ्याषं चलस्खलितचेष्टितम् ।

विद्याद्घातनदाविष्टं रुक्षध्यावारुणकृतिम् ॥

सक्रोधपरुषाभाषं संग्रहारकलिभिरियम् ।

विद्यात् पित्तमदाविष्टं रक्तपीतासिताकृतिम् ॥

स्वप्नासंबद्धचयनं तन्द्रालस्यसमन्वितम् ।

विद्यात् कफमदाविष्टं पाण्डु प्रध्यानतत्परम् ॥

सर्वाभ्येतानि रुपाणि सन्निपातकृते मदे ।

जायते शाम्यति क्षिप्रं मदे महमदाकृतिः ॥

C.S.Su. 24/30-33.

बल मयुक्तः शक्तो विषजो रौधिरश्च यः।
सर्व एते स्या नर्त वातचित्तकफत्रयात्। C.S. Su. 24/34.
ललात्स्रग्नाङ्गुष्ठिका।
मौन विकृतेहासपङ्कता।
विषे क्रमोऽतिनिद्रा च सर्वभ्योऽप्यधिकरु वः ॥
A.H.Ni.6/28-29.

Clinical features are explained according to dominance of dosha in the pathogenesis.

- 1. Vataja Mada:** Obstructed, irrelevant, excessive, rapid talking, interrupted rapid movements of the body, dryness of body, grayish copper discoloration at nails.
- 2. Pittaja Mada:** Hyper hostile nature, tendency to talk harsh words, tendency to inflict others liking toward quarrelling, yellowish, reddish or blackish discoloration at skin.

- 3. Kaphaja Mada:** Obstructed speech, tendency to avoid speaking, stupor, lethargy, abnormal meditation, paleness at skin etc.
- 4. Sannipatika Mada:** Combination of all the symptoms of single dosha dominance is observed in Sannipatika Mada.
- 5. Madyaja Mada:** Caused due to excessive consumption of liquor. Symptoms like, abnormality in body movements, thinking capacity and voice quality are observed.
- 6. Raktaja Mada:** Caused due to observing blood in real. Body and eyes become frigid and motionless. Other symptoms are like Pittaja Mada.
- 7. Vishaja Mada:** Caused due to intake of poison. Body tremors, hyper somnia, it is a serious type of Mada.

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Chapter 179 MURCHHA

Diseases for differential diagnosis

1. Moha.
2. Madalyaya.
3. Apasmara.
4. Sanyasa.

1. Introduction

The word Murchha is derived from Sanskrit word 'मूर्च्छन्' - to produce insensibility or stupor. This is an acute condition in which sudden loss of consciousness as a result of physical or mental distress. Stupor can be a minor or major symptom in various diseases. Ayurveda explains Murchha as a separate disease condition. Further detailed a separa is described as Nidana Panchaka of Murchha in this chapter.

2. Definition : Paribhasha

क्षीणस्य बहुदोषस्य विरुद्धाहारसेविनः।
वेगाघातादभिघातादहीनसत्वस्य वा पुनः॥
करणागतनेपुत्रा वात्येष्वाभ्यन्तरेषु च।
निविशन्तेयदा दोषास्तदा मूर्च्छन्ति मानवाः॥
सुखदुःख व्यपोहाच्च नरः पतति काञ्चवत्।
मोहो मूर्च्छति तामाहुः षड्विधा सा प्रकीर्तिः॥ S.S.Utt. 46/3-6.

The condition in which the person loses his consciousness completely and falls on the ground like a wooden log, with inability to experience feeling of happiness or sorrow, is called as Murchha. It is an acute disease condition. Onset is sudden and manifestation of symptoms is temporary.

Synonyms

1. Sangyopaghata.
2. Murchhaya.
3. Murchhana.
4. Kashmala.
5. Pralaya.
6. Moha.

3. Route of development : Marga

Madhyama- Affliction of the disease is internal involving important vital points- Brain, of the body.

4. Predisposing factors : Nidana

क्षीणस्य बहुदोषस्य विरुद्धाहारसेविनः।
वेगाघातादभिघाताहीनसत्वस्य वा पुनः॥

Reference reading

- Madhavnidana -Murchha -Chapter 17.
- Sushruta Samhita Uttaratantra. Chapter 46.
- Sanskrit- English dictionary - Apte Shabdakosha.

कृष्णाननेभ्यः वायुव्याभ्यन्तेषु च।
निविशन्ते यदा दोषालया मूर्च्छन्ति मानवाः॥
मंतावतानु सावीषु महितालानिलादिभिः।
ननेऽपहयन्ति सहसा दुःखदुःखव्योहकृतं॥
कुवुदुःखं च्चोहाच्य नरः प्रतति काष्ठवत्।
मोहो मूर्च्छन्ति तामहः पृथिव्या सा प्रकृतितः॥
वातादिभिः शोणितेन मधेन च विषेण च।
श्दस्वपेणतु पित्तं तु प्रमुत्सेनावतिष्ठते॥ S.S.Utt. 46/6-8.

If a person who has become emaciated and dosha are in severely aggravated state in his body, accepts causes like;

1. Intake of incompatible food.
2. Suppression of natural urges.
3. Physical injury.
4. Feeble physical or mental health.

5. Samprapti : Pathogenesis

Vitiated dosha dominated by aggravated Pitta dosha occupy the external senses and the mind. Sava and Raja qualities of the mind deplete with the increase in Tama quality to cause stage of unconsciousness which is called as Murchha.

6. Premonitory features : Purvaroopo

हृत्पीडा जुम्गन् न्मानिः संज्ञा दीर्घव्ययेव च।
सर्वान् पूर्वन्नाभिः, यथास्व ता विभावयेत्॥ S.S.Utt. 46/5.

1. Pain in the chest.
2. Excessive yawning.
3. Dizziness.
4. Lack of the knowledge of the surrounding.

7. Types : Prakara

7.1 Vataja Murchha

नीलं वा यदि वा कृष्णमाकाशमयवाऽरुणम्।
पश्यन्तमः प्रविश्यन्ति शीघ्रं च प्रतिबुध्यते॥
वेपथुश्चाङ्गमदक्ष प्रपीडा हृदयस्य च।
कार्श्यं श्यावाऽरुणा च्छया मूर्च्छयि वातसंभवे॥

M.Ni.Murchha-chapter17/7-8.

Sudden vision of bluish black colors in front of the eyes with loss of consciousness.

1. The phase of unconsciousness is short.
2. Body tremors.
3. Body ache.
4. Pain in chest (heart).
5. Weight loss and emaciation of the body.
6. Blackish discoloration of the skin.

7.2 Pittaja Murchha

रक्तं हरितवर्णं वा वियत्पीपमयापि वा।
पश्यन्तमः प्रविश्यति सखेदश्च प्रबुध्यते॥
संभिन्नवर्चाः पीताभो मूर्च्छयि पित्तसंभवे॥

M.Ni.Murchha-chapter17/ 9-10.

1. Sudden vision of red or yellow color in front of eyes with loss of consciousness.
2. Sweating.
3. Thirst.
4. Body warmth.
5. Sensation of burning.
6. Reddening of eyes.
7. Loose, unformed motions.
8. Yellowish blue discoloration of skin.

7.3 Kaphaja Murchha

मेघ संकाशमाकाशमावृत्तं वा तमोयनैः।
पश्यन्तमः प्रविश्यन्ति चिराच्च प्रतिबुध्यते॥
गुरुभिः प्रवृत्तैरङ्गैर्यथाऽङ्गैः चर्मणा।
सप्रसेकः सहल्लासो मूर्च्छयि कफसंभवे॥

M.Ni.Murchha-chapter17/ 11-12.

1. Feeling of cloudyness in the surrounding with suffocation and sudden loss of consciousness.
2. The phase of unconsciousness is prolonged.
3. Heaviness of body.
4. Feeling as if body is draped in wet leather (cloth).
5. Nausea with hypersalivation.

7.4 Sannipatika Murchha

सर्वाकृतिः सन्निपातादपस्मार इवागतः।
स जन्तुं पातयत्याशु विना बीभत्सचेष्टितैः॥

M.Ni.Murchha-chapter17/13.



1. All the symptoms of single dosha dominant types are collectively observed.
2. Sudden loss of consciousness without any preintimation

7.5 Raktaja Murchha

पृथिव्यापस्तभोरं खतगन्धस्तदन्धयः।
तस्माद्रक्तस्य गन्धेन मूर्च्छन्ति भूवि मानवः।
द्रव्यस्वभाव इत्येके दृष्ट्वा यदभिमुद्यति॥

S.S.Utt. 46/9-10.

लब्ध्याङ्गदृष्टिर्भवति ग्लोच्छ्यासलथैव च।
दर्शनादसुजलज्वाद्रन्ध्याच्चैव प्रमुद्यति॥

M.Ni.Murchha-chapter17/ 15-17.

Tama quality of mind is dominated by Prithvi mahabhuta- The earth element and Jala mahabhuta- the water element both of which are dominance in Rakta dhatu- the blood in it. , that is why Rakta or the blood and its smell has dominance of Tama, therefore mere observance or smelling of blood can cause fainting and unconsciousness to the patient which is called as Raktaja Murchha.

8. Clinical features : Roopa

1. It is sudden loss of consciousness due to viewing the blood or due to the smell of the blood.
2. Frigid or motionless condition of the body and the eyes.
3. Deep respiration.

9. Madyaja Murchha:Vishaja Murchha

गुणास्तीव्रतरत्नेन स्थितास्तु विषमद्ययोः।
त एव तस्मात्ताभ्यां तु मोहो स्यातां ययोरितौ॥

S.S.Utt. 46/11.

मधेन विलपन् शोते नष्टविभदरतं मानसः।
गान्नाणि विशिपन् भूमौ जरां यावन्न गच्छति॥

M.Ni.Murchha-chapter17/ 17.

वेपथुः स्वन् नृणां स्तुलमश्च विपमूर्च्छिते।
वेदिनव्य तोन्नरं यथास्व विपलक्षणेः॥ S.S.Utt. 46/13.

1. Ten qualities of Visha are equally present in liquor and in poison. Presence of these ten qualities (laghu- light, ruksha- dry, aashu- rapid, vishada- clear, vyavayec- self moulding, vikashi- spreading, tikshna- sharp, ushna- hot and sookshma- minute) is described as moderate in alcohol or liquor and highest in poison. Acceptance of liquor or poison causes dominance of these ten harmful qualities which are totally opposite to the qualities of Oja, making it weak. As a result of which person suffers from Madyaja or Vishaja Murchha.

2. In Madyaja Murchha, the patient lies down continuously blabbering, his physical and mental strength gets impaired, he falls on the ground in a state of convulsions, symptoms continue till the liquor remains effect in the body.
3. In Vishaja Murchha, symptoms like body tremors, drowsiness, intense thirst and unconsciousness are observed. Although, more serious (life threatening) symptoms may also arise depending upon the nature of poison consumed.

10. Prognosis : Sadhyasadyatva

1. Curable types of Murchha- Vataja Murchha, Kaphaja Murchha, Raktaja Murchha, Madyaja Murchha.
2. Difficult to cure or incurable types of Murchha- Pittaja Murchha, sannipatika Murchha and Vishaja Murchha.

11. Complications: Upadrava

1. Physical injury due to sudden fall.

Diseases for differential diagnosis

1. Moha.
2. Madatyaya
3. Apasmara.
4. Murchha.

1. Definition : Paribhasha

वापेहृत्तमयां चेतुर्मात्रिष्यानिवन्ता यन्ता : 1
संन्यस्तन्त्यवन् जन्तुं प्राणायत्नार्थायता : 11
स ना संन्याससंन्यस्तः काण्डीपुत्री मुनीपपः 1
प्राणैर्विमुच्यते शीघ्रं मुक्त्वा यदा क्त्वां क्रियापु 11

C.S.No. 2403A ii

Severely aggravated dosha take seat at the vital points and centres of the body, creating impairment to the functions such as speech, simultaneously paralysing the body and mind of the person. This condition is called as Sanyasa. The patient undergoes comatose condition and becomes completely powerless. He falls deeply unconscious and lies senseless like a wooden log and appears as if dead. The patient is likely to die if majors of reviving his life are not taken immediately.

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Reference reading

- Charaka Samhita Sutrasthana, Chapter 24.
- Sanskrit-English dictionary
- Apte Shabdakosha

1. Definition

It is defined as a disorder of the brain characterized by an enduring predisposition to generate epileptic seizures and by the neuro biologic, cognitive, psychological, and social consequences of this condition. The definition of epilepsy requires the occurrence of at least one epileptic seizure.

Epilepsy is a group of neurological diseases characterized by epileptic seizures. Epileptic seizures are episodes that can vary from brief and nearly undetectable to long periods of vigorous shaking. These episodes can result in physical injuries including occasionally broken bones. In epilepsy, seizures tend to recur, and have no immediate underlying cause. Isolated seizures that are provoked by a specific cause such as poisoning are not deemed to represent epilepsy. People with epilepsy in some areas of the world experience stigma due to the condition. Epilepsy is characterized by a long-term risk of recurrent seizures. These seizures may present in several ways depending on the part of the brain involved and the person's age. Epilepsy is a disorder of the brain defined by any of the following conditions:

At least two unprovoked (or reflex) seizures occurring greater than 24 hours apart

1. One unprovoked (or reflex) seizure and a probability of further seizures similar to the general recurrence risk (at least 60%) after two unprovoked seizures, occurring over the next 10 years
2. Diagnosis of an epilepsy syndrome

2. Causes

The cause of most cases of epilepsy is unknown, although some people develop epilepsy as the result of brain injury, stroke, brain tumors, infections of the brain, and birth defects. Known genetic mutations are directly linked to a small proportion of cases. Epileptic seizures are the result of excessive and abnormal nerve cell activity in the cortex of the brain. The diagnosis involves ruling out other conditions that might cause similar symptoms such as fainting and determining if another cause of seizures is present such as alcohol withdrawal or electrolyte problems. This may be partly done by imaging the brain and performing blood tests. Epilepsy can often be confirmed with an electroencephalogram (EEG), but a normal test does not rule out the condition. Epilepsy that occurs as a result of other issues can be prevented. Seizures are controllable with medication in about 70% of cases. Inexpensive options are often available. In those whose seizures do not respond to medication, then surgery, neuro stimulation, or dietary changes may be considered. Not all cases of epilepsy are life long, and many people improve to the point that treatment is no longer needed. Epilepsies caused by genetic, congenital, or developmental conditions are more common among younger people, while brain tumors and strokes are more likely in older people. Seizures may also occur as a consequence of other health problems; if they occur right around a specific cause, such as a stroke, head injury, toxic ingestion

or metabolic problem, they are known as acute symptomatic seizures and are in the broader classification of seizure-related disorders rather than epilepsy itself.

2.1 Genetic causes

It is believed to be involved in the majority of cases, either directly or indirectly. Some epilepsies are due to a single gene defect (1–2%); most are due to the interaction of multiple genes and environmental factors. Each of the single gene defects is rare, with more than 200 in all described. Most genes involved affect ion channels, either directly or indirectly. These include genes for ion channels themselves, enzymes, GABA, and G protein-coupled receptors. In identical twins, if one is affected there is a 50–60% chance that the other will also be affected. In non-identical twins the risk is 15%. These risks are greater in those with generalized rather than partial seizures. If both twins are affected, most of the time they have the same epileptic syndrome (70–90%). Other close relatives of a person with epilepsy have a risk five times that of the general population. Between 1 and 10% of those with Down syndrome and 90% of those with Angelman syndrome have epilepsy.

2.2 Acquired causes

Epilepsy may occur as a result of a number of other conditions including tumors, strokes, head trauma, previous infections of the central nervous system, genetic abnormalities, and as a result of brain damage around the time of birth. Of those with brain tumors, almost 30% have epilepsy, making them the cause of about 4% of cases. The risk is greatest for tumors in the temporal lobe and those that grow slowly. Other mass lesions such as cerebral

cavernous malformations and arteriovenous malformations have risks as high as 40–60%. Of those who have had a stroke, 2–4% develop epilepsy. In the United Kingdom strokes account for 15% of cases and it is believed to be the cause in 30% of the elderly. Between 6 and 20% of epilepsy is believed to be due to head trauma. Mild brain injury increases the risk about two-fold while severe brain injury increases the risk seven-fold. In those who have experienced a high-powered gunshot wound to the head, the risk is about 50%.

3. Epileptic seizure

The most common type (60%) of seizures are convulsive. Of these, one-third begin as generalized seizures from the start, affecting both hemispheres of the brain. Two-thirds begin as partial seizures (which affect one hemisphere of the brain) which may then progress to generalized seizures. The remaining 40% of seizures are non-convulsive. An example of this type is the absence seizure, which presents as a decreased level of consciousness and usually lasts about 10 seconds.

Partial seizures are often preceded by certain experiences, known as auras. They include sensory (visual, hearing, or smell), psychic, autonomic, and motor phenomena. Jerking activity may start in a specific muscle group and spread to surrounding muscle groups in which case it is known as a Jacksonian march. Automatisms may occur, which are non-consciously-generated activities and mostly simple repetitive movements like smacking of the lips or more complex activities such as attempts to pick up something.

There are six main types of generalized seizures: They all involve loss of consciousness

and typically happen without warning. About 6% of those with epilepsy have seizures that are often triggered by specific events and are known as reflex seizures. Those with reflex epilepsy have seizures that are only triggered by specific stimuli. Common triggers include flashing lights and sudden noises. In certain types of epilepsy, seizures happen more often during sleep, and in other types they occur almost only when sleeping.

1. **Tonic-Clonic seizures** : Tonic-clonic seizures occur with a contraction of the limbs followed by their extension along with arching of the back which lasts 10–30 seconds (the tonic phase). A cry may be heard due to contraction of the chest muscles, followed by a shaking of the limbs in unison (clonic phase). Tonic seizures produce constant contractions of the muscles. A person often turns blue as breathing is stopped.

2. **Tonic seizures**:

3. **Clonic seizures**: In clonic seizures there is shaking of the limbs in unison. After the shaking has stopped it may take 10–30 minutes for the person to return to normal; this period is called the "postictal state" or "postictal phase." Loss of bowel or bladder control may occur during a seizure. The tongue may be bitten at either the tip or on the sides during a seizure. In tonic-clonic seizure, bites to the sides are more common. Tongue bites are also relatively common in psychogenic non-epileptic seizures.

4. **Myoclonic seizures**: Myoclonic seizures involve spasms of muscles in either a few areas or all over. Absence seizures can be subtle with only a slight turn of the head or eye blinking. The person does not fall over and returns to normal right after

it ends. Atonic seizures involve the loss of muscle activity for greater than one second. This typically occurs on both sides of the body.

5. **Absence seizures**:

6. **Atonic Seizures**:

4. Postictal Seizures

After the active portion of a seizure, there is typically a period of confusion referred to as the postictal period before a normal level of consciousness returns. It usually lasts 3 to 15 minutes but may last for hours. Other common symptoms include feeling tired, headache, difficulty speaking, and abnormal behavior. Psychosis after a seizure is relatively common, occurring in 6–10% of people. Often people do not remember what happened during this time. Localized weakness, known as Todd's paralysis, may also occur after a partial seizure. When it occurs it typically lasts for seconds to minutes but may rarely last for a day or two.

5. Psychosocial Seizures

Epilepsy can have adverse effects on social and psychological well-being. These effects may include social isolation, stigmatization, or disability. They may result in lower educational achievement and worse employment outcomes. Learning disabilities are common in those with the condition, and especially among children with epilepsy. The stigma of epilepsy can also affect the families of those with the disorder.

Certain disorders occur more often in people with epilepsy, depending partly on the epilepsy syndrome present. These include depression, anxiety, obsessive-compulsive disorder (OCD), and migraine. Attention deficit hyperactivity disorder affects

three to five times more children with epilepsy than children without the condition. ADHD and epilepsy have significant consequences on a child's behavioral, learning, and social development. Epilepsy is also more common in children with autism.

6. Epilepsy

The exact mechanism of epilepsy itself is unknown. A little, however, is known about both the cellular and network mechanisms of epilepsy. However, it is unknown under which circumstances the brain shifts into the activity of a seizure with its excessive synchronization. In epilepsy, the resistance of excitatory neurons to fire during this period is decreased. This may occur due to changes in ion channels or inhibitory neurons not functioning properly. This then results in a specific area from which seizures may develop, known as a "seizure focus". Another mechanism of epilepsy may be the up-regulation of excitatory circuits or down-regulation of inhibitory circuits following an injury to the brain. These secondary epilepsies occur through processes known as epileptogenesis. Failure of the blood-brain barrier may also be a causal mechanism as it would allow substances in the blood to enter the brain.

7. Seizures

There is evidence that epileptic seizures are usually not a random event. Seizures are often brought on by factors such as stress, alcohol abuse, flickering light, or a lack of sleep, among others. The term seizure threshold is used to describe the amount of stimulus necessary to trigger a seizure. Seizure threshold is lower in epileptic seizures.

In epileptic seizures a group of neurons

begin firing in an abnormal, excessive, and synchronized manner. This results in a wave of depolarization known as a paroxysmal excitatory neuron fires it becomes more resistant to the effect of inhibitory neurons, electrical changes within the excitatory neuron, and the negative effects of adenosine.

Partial seizures begin in one hemisphere of the brain while generalized seizures begin in both hemispheres. Some types of seizures may change brain structure, while others appear to have little effect. Gliosis, neuronal loss, and atrophy of specific areas of the brain are linked to epilepsy but it is unclear if epilepsy causes these changes or if these changes result in epilepsy.

8. Diagnosis

1. EEG - Electroencephalogram: An electroencephalogram (EEG) can assist in showing brain activity suggestive of an increased risk of seizures. It is only recommended for those who are likely to have had an epileptic seizure on the basis of symptoms. In the diagnosis of epilepsy, electroencephalography may help distinguish the type of seizure or syndrome present. In children it is typically only needed after a second seizure. It cannot be used to rule out the diagnosis, and may be falsely positive in those without the disease. In certain situations it may be useful to perform the EEG while the affected individual is sleeping or sleep deprived.

2. Neuro imaging: CT scan and MRI: Diagnostic imaging by CT scan and MRI is recommended after a first non-febrile seizure to detect

structural problems in and around the brain. MRI is generally a better imaging test except when bleeding is suspected, for which CT is more sensitive and more easily available. If someone attends the emergency room with a seizure but returns to normal quickly, imaging tests may be done at a later point. If a person has a previous diagnosis of epilepsy with previous imaging, repeating the imaging is usually not needed even if there are subsequent seizures.

3. Other tests: For adults, the testing of electrolyte, blood glucose and calcium levels is important to rule out problems with these as causes. An electrocardiogram can rule out problems with the rhythm of the heart. A lumbar puncture may be useful to diagnose a central nervous system infection but is not routinely needed. In children additional tests may be required such as urine biochemistry and blood testing looking for metabolic disorders. A high blood prolactin level within the first 20 minutes following a seizure may be useful to help confirm an epileptic seizure as opposed to psychogenic non-epileptic seizure.

9. Classification

1. Unknown cause (mostly genetic or presumed genetic origin).
 - a. Pure epilepsies due to single gene disorders.
 - b. Pure epilepsies with complex inheritance.
2. Symptomatic (associated with gross anatomic or pathologic abnormalities)
 - a. Mostly genetic or developmental causation.

- i. Childhood epilepsy syndromes.
 - ii. Progressive myoclonic epilepsies.
 - iii. Neurocutaneous syndromes.
 - iv. Other neurologic single gene disorders.
 - v. Disorders of chromosome function.
 - vi. Developmental anomalies of cerebral structure.
- b. Mostly acquired causes :
- i. Hippocampal sclerosis.
 - ii. Perinatal and infantile causes.
 - iii. Cerebral trauma, tumor or infection.
 - iv. Cerebrovascular disorders.
 - v. Cerebral immunologic disorders.
 - vi. Degenerative and other neurologic conditions.
4. Provoked (a specific systemic or environmental factor is the predominant cause of the seizures).
- a. Provoking factors.
 - b. Reflex epilepsies.
5. Cryptogenic (presumed symptomatic nature in which the cause has not been identified).

10. Differential diagnosis

Diagnosis of epilepsy can be difficult. A number of other conditions may present very similar signs and symptoms to seizures, including syncope, hyperventilation, migraines, narcolepsy, panic attacks and psychogenic non-epileptic seizures (PNES).^{[81][82]} In particular a syncope can be accompanied by a short episode of convulsions.^[83] Nocturnal frontal lobe epilepsy, often misdiagnosed as nightmares, was considered to be a parasomnia but

later identified to be an epilepsy syndrome.¹²⁶ Attacks of the movement disorder paroxysmal dyskinesia may be taken for epileptic seizures.¹²⁷ The cause of a drop attack can be, among many others, an atonic seizure.

Children may have behaviors that are easily mistaken for epileptic seizures but are not. These include breath-holding spells, bed wetting, night terrors, tics and shudder attacks. Gastroesophageal reflux may cause arching of the back and twisting of the head to the side in infants, which may be mistaken for tonic-clonic seizures. Misdiagnosis is frequent (occurring in about 5 to 30% of cases).

11. Prevention

While many cases are not preventable, efforts to reduce head injuries, provide good care around the time of birth, and reduce environmental parasites such as the pork tapeworm may be effective. Efforts in one part of Central America to decrease rates of pork

tapeworm resulted in a 50% decrease in new cases of epilepsy.

12. Management

Epilepsy is usually treated with daily medication once a second seizure has occurred, but for those at high risk, medication may be started after the first seizure. In some cases, a special diet, the implantation of a neurostimulator, or neurosurgery may be required.

13. First aid

Rolling a person with an active tonic-clonic seizure onto their side and into the recovery position helps prevent fluids from getting into the lungs. Putting fingers, a bite block or tongue depressor in the mouth is not recommended as it might make the person vomit or result in the rescuer being bitten. Efforts should be taken to prevent further self-injury. Spinal precautions are generally not needed.

...

1. Definition

Depression is a state of low mood and aversion to activity that can affect a person's thoughts, behavior, feelings and sense of well-being. People with a depressed mood can feel sad, anxious, empty, hopeless, helpless, worthless, guilty, irritable, ashamed or restless. They may lose interest in activities that were once pleasurable, experience loss of appetite or overeating, have problems concentrating, remembering details or making decisions, and may contemplate, attempt or commit suicide. Insomnia, excessive sleeping, fatigue, aches, pains, digestive problems or reduced energy may also be present. Depressed mood is a feature of some psychiatric syndromes such as major depressive disorder, but it may also be a normal reaction to life events such as bereavement, a symptom of some bodily ailments or a side effect of some drugs and medical treatments.

2. Causes

2.1 Life events

Adversity in childhood, such as bereavement, neglect, mental abuse, and unequal parental treatment of siblings can contribute to depression in adulthood. Childhood physical or sexual abuse in particular significantly increases the likelihood of experiencing depression over the life course. [Life events and changes that may precipitate depressed mood include childbirth, menopause, financial difficulties, job problems, a medical diagnosis (cancer, HIV, etc.), bullying, loss of a loved one, natural disasters, social isolation,

relationship troubles, jealousy, separation, and catastrophic injury. Adolescents may be especially prone to experiencing depressed mood following social rejection.

2.2 Medical treatments

Certain medications are known to cause depressed mood in a significant number of patients. These include medications for hepatitis C (such as interferon), anxiety and sleep (such as benzodiazepines like alprazolam, clonazepam, lorazepam and diazepam), high blood pressure (such as beta-blockers, methyldopa, reserpine), and hormonal treatments (such as corticosteroids, contraceptives).

2.3 Drug abuse

Several drugs of abuse can cause or exacerbate depression, whether in intoxication, withdrawal, and from chronic use. These include alcohol, sedatives (including prescription benzodiazepines), opioids (including prescription pain killers and illicit drugs like heroin), stimulants (such as cocaine and amphetamines), hallucinogens, and inhalants. While many often report self-medicating depression with these substances, improvements in depression from drugs are usually short-lived (with worsening of depression in the long-term, sometimes as soon as the drug effects wear off) and tend to be exaggerated (e.g., "many people report euphoria after the fact with alcohol intoxication, even though at the time of intoxication they were tearful and agitated").

2.4 Non-psychiatric illnesses

Depressed mood can be the result of a number of infectious diseases, nutritional deficiencies, neurological conditions and physiological problems, including hypoandrogenism (in men), Addison's disease, Cushing's syndrome, hypothyroidism, Lyme disease, multiple sclerosis, Parkinson's Disease, chronic pain, stroke, diabetes, and cancer.

2.5 Psychiatric syndromes

Depressive mood disorders, a loss of interest or pleasure in nearly all activities; and dysthymia, a state of chronic depressed mood, the symptoms of which do not meet the severity of a major depressive episode. Another mood disorder, bipolar disorder, features one or more episodes of abnormally elevated mood, cognition and energy levels, but may also involve one or more

episodes of depression. When the course of depressive episodes follows a seasonal pattern, the disorder (major depressive disorder, bipolar disorder, etc.) may be described as a seasonal affective disorder. Outside of mood disorders, borderline personality disorder often features an extremely intense depressed mood; adjustment disorder with depressed mood is a mood disturbance appearing as a psychological response to an identifiable event or stressor, in which the resulting emotional or behavioral symptoms are significant but do not meet the criteria for a major depressive episode; and posttraumatic stress disorder, an anxiety disorder that sometimes follows trauma, is commonly accompanied by depressed mood. Depression is sometimes associated with substance use disorder. Both legal and illegal drugs can cause substance use disorder.

...

1. Definition

Anxiety is an emotion characterized by an unpleasant state of mind, often accompanied by nervous behaviour, such as pacing back and forth, somatic complaints, and rumination.

Anxiety is not the same as fear, which is a response to a real or perceived immediate threat, whereas anxiety is the expectation of future threat. Anxiety is a worry about future events and fear is a reaction to current events. Anxiety is a feeling of fear, uneasiness, and worry, usually generalized and unfocused as an overreaction to a situation that is only subjectively seen as menacing. It is often accompanied by muscular tension, restlessness, fatigue and problems in concentration. Anxiety can be appropriate, but when experienced regularly the individual may suffer from an anxiety disorder.

Anxiety disorders are a group of mental disorders characterized by feelings of anxiety and fear. These feelings may cause physical symptoms, such as a racing heart and shakiness. There are various forms of anxiety disorders, including generalized anxiety disorder, phobic disorder, and panic disorder. While each has its own characteristics and symptoms, they all include symptoms of anxiety. Anxiety disorders are partly genetic but may also be due to drug use, including alcohol, caffeine, and benzodiazepines (which are often prescribed to treat anxiety), as well as withdrawal from drugs of abuse. They often occur with other mental disorders, particularly bipolar disorder, eating disorders, major depressive disorder, or certain personality

disorders. The term anxiety covers four aspects of experiences that an individual may have: mental apprehension, physical tension, physical symptoms and dissociative anxiety. The emotions present in anxiety disorders range from simple nervousness to bouts of terror. There are other psychiatric and medical problems that may mimic the symptoms of an anxiety disorder, such as hyperthyroidism.

Psychodynamic theory says that anxiety is often the result of opposing unconscious wishes or fears that manifest via maladaptive defence mechanisms (such as suppression, repression, anticipation, regression, somatization, passive aggression, dissociation) that develop to adapt to problems with early objects (e.g., caregivers) and empathic failures in childhood. For example, persistent parental discouragement of anger may result in repression/suppression of angry feelings which manifests as gastrointestinal distress (somatization) when provoked by another while the anger remains unconscious and outside the individual's awareness. Such conflicts can be targets for successful treatment with psychodynamic therapy.

Common treatment options include lifestyle changes, medication, and therapy.

2. Common causes

- 1. Biological vulnerabilities :** Neural circuitry involving the amygdala (which regulates emotions like anxiety and fear, stimulating the HPA Axis and sympathetic nervous system) and hippocampus (which is implicated in emotional memory along with the amygdala).

2. **Due to medical conditions:** Anxiety can be a symptom of underlying health problems such as asthma or chronic obstructive pulmonary disease (COPD), heart disease (heart attack, heart failure, arrhythmia), sleep apnea, chronic pain, parkinson's disease, multiple sclerosis, cancer, diabetes, and stroke etc. While medical causes of anxiety accompanied by physical symptoms often should be ruled out by a physician before diagnosing a primary anxiety disorder, often people with panic attacks or illness anxiety disorder have excessive worries about having a medical condition despite multiple medical workups being negative for another cause. It is important that both healthcare professionals and patients recognize that physical symptoms are common manifestations of anxiety and not necessarily indicative of a serious medical condition.
3. **Substance-induced:** Several drugs of abuse can cause or exacerbate anxiety, whether in intoxication, withdrawal, and from chronic use. These include alcohol, tobacco, cannabis, sedatives (including prescription benzodiazepines), opioids (including prescription pain killers and illicit drugs like heroin), stimulants (such as caffeine, cocaine and amphetamines), hallucinogens, and inhalants.
4. **Psychological:** Poor coping skills (e.g., rigidity/inflexible problem solving, denial, avoidance, impulsivity, extreme self-expectation, affective instability, and inability to focus on problems) are associated with anxiety. Anxiety is also linked and perpetuated by the person's own pessimistic outcome expectancy and how they cope with feedback negativity.

Temperament (e.g., neuroticism) and attitudes (e.g., pessimism) have been found to be risk factors for anxiety.

5. **Cognitive distortions:** such as overgeneralizing, catastrophizing, mind-reading, emotional reasoning, binocular trick, and mental filter can result in anxiety. For example, an overgeneralized belief that something bad "always" happens may lead someone to have excessive fears of even minimally risky situations and to avoid benign social situations due to anticipatory anxiety of embarrassment. Such unhealthy thoughts can be targets for successful treatment with cognitive therapy.
6. **Social:** Social risk factors for anxiety include a history of trauma (e.g., physical sexual or emotional abuse or assault), early life experiences and parenting factors (e.g., rejection, lack of warmth, high hostility, harsh discipline, high maternal negative effect, anxious child rearing, modelling of dysfunctional and drug-abusing behaviour, discouragement of emotions, poor socialization, poor attachment, and child abuse and neglect), cultural factors (e.g., stoic families, persecuted minorities including the disabled), and socioeconomic (e.g., uneducated, unemployed, impoverished people)
7. **Gender socialization:** Contextual factors that are thought to contribute to anxiety include gender socialization and learning experiences. In particular, learning mastery (the degree to which people perceive their lives to be under their own control) and instrumentality, which includes such traits as self-confidence, independence, and competitiveness

mediate the relation between gender and anxiety. That is, though gender differences in anxiety exist, with higher levels of anxiety in women compared to men, gender socialization and learning mastery explain these gender differences. Research has demonstrated the ways in which facial prominence in photographic

images differs between men and women. More specifically, in official online photographs of politicians around the world, women's faces are less prominent than men's. Interestingly enough, the difference in these images actually tended to be greater in cultures with greater institutional gender equality.

CHAPTER 184

SHIROBHIGHATA

1. Definition : Paribhasha

शिरस्यभिहते मय्यात्मार्दितचक्षुर्विभ्रममोहोद्वेष्टन चेदानाश-
कासंधास हनुग्रह भूकगद्वदत्वाक्षिनीनीलनगंडसंदनजुंभण
लालास्रावस्वहानिवदनजिक्त्वादीनि। C.S. Sh.9/6.

The manifestation of symptoms due to external trauma to the head is called as Shirobhighata. Although Shirobhighata can also occur as a result aggravation of dosha due to acceptance of causes.

2. Clinical features : Roopa

1. Cervical stiffness.
2. Facial palsy.
3. Loss of limb movements.
4. Mandible joint stiffness.
5. Cough with strenuous breathing.
6. Loss of speaking ability with slurry speech.
7. Yawning.
8. Hyper salivation.

CHAPTER 185

KLAMA

1. Definition : Paribhasha

योऽनायासः श्रमो देहे प्रवृद्धः वासवर्जितः।
क्लमः स इति विज्ञेय इन्द्रियार्थप्रवाघकः।। S.S.Sh.4/51.

The disease condition in which person feels

extremely tired without performing any real physical activity to exertion is called as Klama. Dyspnoea is not observed in this condition but working capacity of the vital powers is lowered down.

Chapter 186 BHRAMA

1. Definition : Paribhasha

चक्रवत् भ्रमते यात्रं भूमौ पतति सर्वदा।
प्ररोपे इति ज्ञेयो रजः पित्तानिलात्मकः ॥

M.Ni.Murchha-chapter17/19.

The disease condition in which aggravated

Vata and Pitta dosha get aggravated along with Raja dosha of the mind to cause severe vertigo as if getting rolled over a spinning wheel with imbalance of the body. Ultimately the patient falls down on the ground. This condition is called as Bhrama.

CHAPTER 187 TANDRA

1. Definition : Paribhasha

इन्द्रियार्थेष्वसंज्ञातिः गौरवं जृम्भणं क्लमः।
निद्रार्थस्यैव यद्येहा तस्य तन्द्रा विनिर्दिशेत् ॥ S.S.Sh.4/49.

The disease condition in which symptoms

like non perception of the matter, heaviness of the body, lethargy are manifested in the body is called as Tandra. Patient feels exhausted without performing physical exertion and appears drowsy.

CHAPTER 188 GLANEE

1. Definition : Paribhasha

वक्त्रे मधुरता तन्द्रा हृदयोच्छ्वेदनं भ्रमः।
न चात्रभीषकाङ्केन स्नानिस्तस्य विनिर्दिशेत् ॥ S.S.Sh.4/54.

The disease condition in which all the

symptoms of Tandra along with symptoms like morbid sweet taste of mouth, stiffness of chest, loss of desire to eat and vertigo are observed, such condition is called as Glanee.

Chapter 189 ROMANTIKA

Disease at a glance

- Nature of Disease: Ashukari -Acute.
- Major Involving Dosha- Vata, Pitta, Kapha
- Major Involving Dushya- Rakta
- Site of Manifestation: Twacha- Skin
- Srotas: Raktavaha Srotas
- Types- Three
- Cardinal Feature: skin rash at hair root with fever.
- Cure Chances- Curable

1. Introduction

The word Romantika is derived from two Sanskrit words, 'रोमः' - body hair and 'अंतक' - at the end. Skin rash is formed at the base of hair root of skin. It is an infectious type of disease. Further detailed pathogenesis is described as Nidana Panchaka of Romantika in this chapter.

2. Definition : Paribhasha

रोमकूपेन तिसमा रणिण्य कफचित्तजाः।

कासा रोचकसंयुक्ता रोमान्त्यो ज्वरपूर्वकाः ॥ M.Ni.- Masurika- 54/3-4.

शुभ्रप्रमाणाः पिडकाः शरीरे सर्वाङ्गानाः सञ्चदाहरतुण्डाः।

कण्ड्युताः सारुचिरश्लेका रोमान्तिकाः पित्तकफात् प्रदिष्टाः ॥

C.S.Ch.12/92.

The disease Romantika is defined as a type of Masurika by Madhava Nidana commentators. But the nature of skin rash is different from Masurika.

Furuncles form due to aggravation of Kapha and Vata dosha (as per Madhav Nidana) and due to aggravation of Pitta and Kapha dosha (as per Charaka Samhita) Formation of Romantika is at the base of hair root (hence the name Romantika), they are very small in size (Kshudra pramana- resembling to the size of small grass grain), adjacent to skin surface, are of reddish colour and devoid of secretions. Formation is all over the body but dominant at face, back and abdomen.

Disease is easily curable by nature. Symptoms like diarrhoea, fever, cough, percheial haemorrhage, dyspnoea, fainting sometimes may arise. Some texts describe Aantarvegi Romantika - internally manifested and Bahirvegi Romantika - externally manifested as types of the disease.

Other clinical features

1. Cough
2. Insipid mouth.

Diseases for differential diagnosis

1. Masurika.
2. Sannipatika jwara.
3. Visphot.

Reference reading

- Charak Samhita Chikitsasthan. Chapter-12
- Madhav Nidana- Masurika Chapter-54.
- Sanskrit English Dictionary -Apte Shabdakosha.

3. Fever.
4. Sensation of burning.
5. Thirst.

3. Complications : Upadrava

1. Cough.
2. Vata-Kapha dosha dominant fever.
3. Diarrhoea.
4. Nasal bleeding.
5. Dyspnoea.
6. Stupor.

4. Dietary and behavioral regimen

4.1 Pathya

wholesome regimen:

1. Langhana- fasting, Intake of light, easy to digest type of food.
2. Intake of shadangodaka.
3. Isolation and rest.

4.2 Apathya

unwholesome regimen:

1. Intake of hard to digest, unctuous food.
2. Contact with other individuals.

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Chapter 190 MASURIKA

Disease at a glance

- **Nature of Disease:** - Acute.
- **Major Involving Dosha:** - Vata Dosha, Pitta Dosha, Kapha Dosha.
- **Major Involving Dushya:** - Rakta.
- **Upadhatu:** - Skin.
- **Site of Manifestation:** - Skin
- **Srotas:** - Raktavaha Srotas
- **Types-Five:** - Based Upon Dosha Involvement
- **Seven:** - Based Upon Dhātu Involvement.
- **Cardinal Feature:** - Formation of boils of size of a lentil.

Prognosis

- Curable when disease is in its initial condition.

Diseases for differential diagnosis

1. Sheetalā.
2. Visphot.
3. Sannipatika jwara .

Reference reading

- Madhavidan – Masurika Chapter 54.
- Yogaratnakara- Masurika.
- Sushruta Samhita Nidana sthana-13.
- Sanskrit- English dictionary - Apte Shabdakosha.

1. Introduction

Name of the disease is derived from Sanskrit word 'मसूरक' : meaning a grain of lentil. Boils of a size of a lentil – red gram- are formed all over the body. This condition can turn into very serious type of disease which has the tendency to reach deeper planes of the body and can create fatally serious condition. It is a very severe type of infectitious disease. Further detailed pathogenesis is described as Nidana Panchaka of **Masurika** in this chapter.

2. Definition : Paribhasha

मसूरकृति संस्थानाः पिडकासुः मसूरिकाः ।। M.Ni.- Masurika- 54/1-3.
The disease in which boils resembling to that of the shape of a lentil seed (red gram), are formed on the body is called as Masurika. Nature of the disease is very serious [Daruna vyadhi]

3. Route of development : Marga

Bahya- Abhyantara: The disease afflicts the body externally as well as internally.

4. Predisposing factors : Nidana

कट्वम्ललवणक्षारविरुद्धाध्यशनाशनैः ।
दुष्टनिष्ठावशाकाद्यैः प्रदुष्टपवनौदकैः ।।
कूयहेक्षणाच्चापि देशेदोषाः समुद्धताः ।।
जनयन्ति शरीरेऽस्मिन् दुष्टरक्तेन संगताः ।।
मसूरकृति संस्थानाः पिडकासुः मसूरिकाः ।। M.Ni.- Masurika- 54/1-3.

1. Excessive intake of pungent, sour and salty food.
2. Intake of food items of incompatible nature.
3. Over eating.
4. Intake of soiled or dirty food.
5. Excessive intake of decaying peas or green, leafy vegetables.
6. Exposure to polluted air and water.
7. Due to effect of specific ill spirits (such as Bhuta Graha etc.)

8. As a communicable spread in a particular part of earth (country or land). Formation of Masurika occurs due to involvement of vitiated Rakta dhatu in the pathogenesis.

5. Pathogenesis : Samprapti

पित्तं शोणितमंगुष्ठं यदा दूषयति त्वचम् ।
तदा करोति पिडकाः सर्वगत्रेषु देहिनाम् ॥
मसूरुद्रमाषाणां तुल्याः कोलोपमा अपि ॥
मसूरिकास्तु ता ज्ञेयाः पित्तक्तायिका बुधैः इति ॥

M.Ni.- Madhukosha commentary -3.

Dosha vitiated due to intake of predisposing factors with dominance of Pitta dosha further vitiate Rakta dhatu to produce multiple boils all over the body. These boils resemble the size of a lentil, green gram, black gram or sometimes of a size of jujube or Indian berry.

Flow chart of Samprapti

Repeated acceptance of predisposing factors
↓
Aggravation of Pitta dosha further vitiates Rakta dhatu
↓
Formation of boils all over the body resembling generally to the size of a horse gram
↓
Onset of the symptoms

Components of pathogenesis: Samprapti ghataka

- Doshya: Vata dosha, Pitta dosha, Kapha dosha.
- Dushya: Rakta.
- Srotas: Raktavaha srotas.
- Adhithana: Skin- Twacha.
- Srotodushti: Sanga, Vimarmagamana.
- Swabhava: Ashukari.
- Agni dushti: Jatharagni, Rasa agni and Rakta agni.- Agnimandya.

6. Premonitory features : Purvaroop

तासां पूर्वं ज्वरः कण्डूपात्रभङ्गोऽतिर्ग्रमः ।
त्वचि शोथः सवैवर्ण्यो नेत्ररामश्च जायते ॥

M.Ni.- Masurika- 54/3-4.

1. Fever.
2. Body ache.
3. Itching sensation.
4. Restlessness.
5. Giddiness.
6. Slight edema and discoloration of the skin.
7. Reddening of eyes.

7. Clinical features : Roopa

दाहज्वररुजावन्तस्ताप्रा स्फोटाः सपितकाः ।
गत्रेषु वदने चान्तर्विज्ञेयास्ता मसूरिकाः ॥

S.Ni.- 13/37.

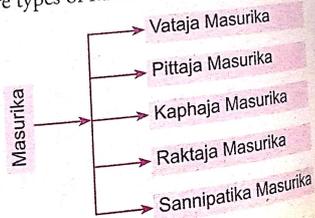
After the onset of fever for three to seven days there is the occurrence of small boils on all over the body and finally on the face. Boils are of reddish yellow in colour. Soon these boils get filled up with purulent secretions.

Other symptoms are;

1. Severe burning sensation.
2. Fever.
3. Pain.
4. Itching.
5. Restlessness.

8. Types : Prakara

Five types of Masurika are described.



8.1 Vataja Masurika

स्फोटाः श्यावारुणा रुक्षस्तीव्रवेदनयाऽन्विताः ।
कठिनाश्चिरपाकाश्च भवत्यनिलसंभवः ॥

सन्ध्यस्तिपर्वणां भेदः कासः कम्पोऽरतिः क्लमः ।
शोषस्ताल्टवोच्छिजिद्वानां तृष्णा चालचि संयुता ॥

M.Ni.- Masurika- 54/4-6.

1. Boils are grayish black in colour.
2. Severe pain.
3. Boils are hard to touch and pus formation is less.
4. Severe type of pain in the joints, spine and lumber region is observed.
5. Coughing.
6. Tremor.
7. Restlessness.
8. Fatigue.
9. Dryness of lips, tongue and soft palate.
10. Thirst.
11. Insipid mouth.

8.2 Pittaja Masurika

रक्तः पीतासिताः स्फोटः सदाहास्तीव्र वेदनाः ।
भवन्त्यचिरपाकाश्च पित्तकोपसमुद्भवाः ॥
विड्भेदश्चांगनर्दश्च दाहस्तृष्णारुचिस्तथा ।
मुखपाकोऽक्षिरागश्च ज्वरस्तीव्रः सुदारुणः ॥

M.Ni.- Masurika- 54/6-8.

1. Boils are reddish yellow in colour.
2. Severe pain.
3. Early formation of purulent secretions in the boils.
4. Loose motions.
5. Body ache.
6. Burning sensation.
7. Thirst.
8. Insipid mouth.
9. Formation of mouth ulcers.
10. Redness of eyes.
11. High grade fever.

8.3 Raktaja Masurika

रक्तजायां भवन्त्येते विकाराः पित्तलक्षणः ।

M.Ni.- Masurika- 54/8.

1. All symptoms are same as Pittaja Masurika.

8.4 Kaphaja Masurika

कफप्रसेकः स्तेमित्यशिरोग्ग्रात्रगौत्वम् ।
हृत्लासः सारुचिर्निद्रा तन्द्रालस्यसमन्विताः ॥
थेताः स्नेया भृशं स्थूताः कण्डू मन्दवेदनाः ।
मसूरिका कफोद्व्याश्च चिरपाकाः प्रकिर्तितः ॥

M.Ni.- Masurika- 54/9-10.

1. Boils are whitish in colour.
2. Comparatively bigger in size and soft to touch.
3. Itching sensation.
4. Slobbering- hypersalivation.
5. Chills.
6. Heaviness in body.
7. Headache.
8. Nausea.
9. Insipid mouth.
10. Drowsiness.
11. Dizziness.
12. Lassitude.

8.5 Sannipatika Masurika

नीलश्चिपिटविस्तीर्णा मध्ये निम्ना महारुजाः ।
चिरपाकाः पृथिव्यावाः प्रभृताः सर्वदोषजाः ॥
कण्डोरोधारुचिस्तम्भ प्रलापारतिसंयुताः ।
दुश्चिकित्स्याः समुदिष्टाः पिडकाश्चर्मसंज्ञिताः ॥

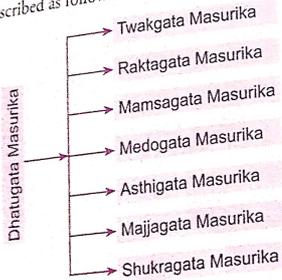
M.Ni.- Masurika- 54/11-12.

1. Large sized, flattened boils of greyish colour with central depression.
2. Severe unbearable pain.
3. Delayed Pus formation with foul smelling discharge.
4. Obstruction in the throat.
5. Insipid mouth.
6. Stiffening of body.
7. Irrelevant speech.
8. Fainting.
9. Fever.

All these symptoms are seen very prominently and severely. This type of Masurika produces very morbid signs on the body, it is a very serious and difficult type to treat. Synonym- Charma pidaka.

9. Symptoms of disease Masurika reaching to deeper dhatu-Dhatu-gatava of Masurika.

Few diseases display advance symptoms as they reach various deeper levels of different body elements (Dhatu), these further serious stages are called as **Dhatugata avastha** of that particular disease. Masurika is one of these diseases which show severe symptoms of Dhatu involvement as the disease advances. As the further plane of the dhatu is acquired, the disease is supposed to become more serious and difficult to treat. Dhatugata is described as follows.



9.1 Twakgata Masurika

तोयबुद् बुद् संकाशास्वगतास्तु मसूरिकाः।
स्वल्पदोषाः प्रजायन्ते भिन्नास्तोयं स्रवन्ति च॥
मा.नि.मसूरिका ५४/.

When pathogenesis of Masurika is limited up to the superficial fascia of the skin. Dosha vitiation is also less. Boils appear as if filled with water.

9.2 Raktagata Masurika

रक्तस्था लोहिताकारः शीघ्रपाकस्तमुल्बचा।
साध्या नात्यर्थं दुष्टाश्च भिन्ना रक्तं स्रवन्ति च॥
मा.नि.मसूरिका ५४/.

When pathogenesis of Masurika is limited up to the superficial fascia of the skin and blood.

The boils are red in colour and produce reddish secretions on eruption.

9.3 Mamsagata Masurika

मांसस्थाः कठिनाः स्निग्धधापाका घनस्वचः।
गात्रशूकतुषाकं दूज्वररति समन्विताः॥
मा.नि.मसूरिका ५४/.

When pathogenesis of Masurika reaches up to 'mamsa' dhatu. The boils are hard in nature but soft to touch, suppuration is very late. Associated symptoms are body ache, itching, fever, thirst, restlessness.

9.4 Medagata Masurika

भेदोजामण्डलाकारा मृदवः किचिदुन्नताः।
घोरज्वरपरीताश्च स्थूलाः स्निग्धाः सवेदनाः॥
संमोहारतिसन्तापाः कश्चिदाभ्यो विनिस्ततेत्।
मा.नि.मसूरिका ५४/.

When pathogenesis of Masurika reaches up to 'meda' dhatu. The boils are large, rounded, soft to touch, slightly elevated and painful.

9.5-6 Asthigata Masurika : Majjagata Masurika

क्षुद्रा गात्रसमा रुक्षाश्चिपिटाः किचिदुन्नताः॥
मज्जोत्था भृशसंमोहवेदनारतिसंयुताः।
छिन्दन्ति मर्मधामानि प्रणानाशु हरन्ति हि॥
प्रमरेणेव विद्वानि कुर्वन्त्यस्थिनि सर्वतः।
मा.नि.मसूरिका ५४/.

When pathogenesis of Masurika reaches up to 'asthi' dhatu. The boils are slightly elevated, flat surfaced, small in size, rough in nature. Associated symptoms are severe pain in the body, drilling type of pain in the bones, dizziness and restlessness is severe.

When pathogenesis of Masurika reaches up to 'majja' dhatu. All the other symptoms are same as asthigata type.

9.7 Shukragata Masurika

पक्वाभाः पीडकाः स्निग्धाः सूक्ष्माश्चात्यर्थं वेदनाः॥

स्तैमित्यारतिसंमोहदाहोनादसमन्विताः।
शूकजायां मसूर्या तु लक्षणानि भवन्ति हि॥
निर्दिष्टं केवलं चिह्नं दृश्यते न तु जीवितम्।
मा.नि.मसूरिका ५४/.

The disease Masurika is advanced up to the final dhatu i.e. 'shukra' dhatu. The boils are small in size, clay coloured and appear as purulent when there is no actual suppuration. Associated symptoms are severe unbearable body ache, chills restlessness, mental irritations, confusion, severe burning sensation in the whole body. Patient becomes very serious after reaching this stage and dies almost immediately.

दोषभिश्चास्तु सप्तैता द्रष्टव्या दोषलक्षणैः॥
क्षुद्रा इत्यादिना अस्थिमज्जगतयोः समानं
लिङ्गं अस्थिमज्जस्थितत्वात् न मज्जः। मा.नि.मसूरिका ५४/.

In all the seven types of Masurika, symptoms of various combinations of dosha are observed.

10. Complications : Upadrava

कासो हिक्का प्रमोहश्च ज्वरस्तीव्रः सुदारुणः।
प्रलापश्चातिमूर्च्छा तृष्णा दाहोऽतिपूर्णता॥
मुखेन प्रसवेद्रक्तं तथा प्राणेन सक्षुषा।
कण्ठे घुर्गुके कृत्वा शसित्यत्यर्थवेदनम्॥
मसूरिकाभिभूतस्य यस्यैतानि भिषग्भैः।
लक्षणानि च दृश्यन्ते न दद्यादत्र भेषजम्॥
M.Ni.- Masurika- 54/27-29.

1. Coughing.
2. Hiccup.
3. Dizziness.
4. High grade fever.
5. Irrelevant speech.
6. Stupor.
7. Thirst.
8. Burning sensation.
9. Constant uneasy movements of hands and feet.
10. Bleeding from nose, mouth and eyes.
11. Difficult, painful breathing with severe wheezing.

11. After effects : Udarka

1. Permanent deformity to body organs.
2. Blindness and other type of sensory deformities.

12. Prognosis : Sadhyasadyatva

त्वग्गता रक्तजाश्चैव पित्तजाः श्लेष्मजास्तथा।
श्लेष्मपित्तकृताश्चैव सुखसाध्या मसूरिकाः॥
वातजा वापित्तोत्थाः श्लेष्मवातकृताश्च याः।
कृच्छ्रसाध्यतमास्तसाधलादेता उपाचरेत्॥
असाध्यः सन्निपातोत्वस्तासां वक्ष्यामि लक्षणम्।
प्रवालसदृशाः काश्चित् काश्चिज्जम्बूफलोपमाः॥
लोहजालसमाः काश्चिदतसीफलसन्निपाः।
आसां बहुविधा वर्णा जायन्ते दोषभेदतः॥
M.Ni.- Masurika- 54/23-26.

1. Pitta doshaja, Kapha doshaja, Kapha dosha-Pitta doshaja, Twakgata And Raktagata Masurika are curable- Vata doshaja, Vata dosha-Pitta Sadhya doshaja, Vata dosha-Kapha doshaja and Mamsagata Masurika are critical to cure- Kshatasadhya.

2. Sannipatika, Masurika involving dhatu like Meda, Asthi, Majja and Shukra (Medo-Asthi-Majja and Shukragata Masurika) are incurable- Asadhya.
3. When colour of Masurika resembles that of the colour of coral, iron or Jamun fruit - Indian berry- are always -Asadhya.

13. Fatal symptoms : Arishta lakshana

मसूरिकाभिभूतो यो भृशं प्राणेन निःश्सेत्।
स भृशं त्यजति प्राणान् तृषातोवायुदूषितः।
मसूरिकान्ते शोथः स्यात् कूपरी मणिबन्धके॥
तयाऽसफलके चापि दिद्विकित्सा सुदारुणः॥
M.Ni.- Masurika- 54/30.

1. Rapid (inspiration) breathing.
2. Intense thirst.
3. Edema at elbow, wrist and shoulder joints.

Other features

4. Dizziness.
 5. High grade fever.
- Observation of these symptoms suggests for certain death of the patient.

14 Dietary and behavioral regimen**14.1 Pathya**

- wholesome regimen:
1. Langhana- Intake of light, easy to digest type of food.
 2. Rest.
 3. Isolation.

14.2 Apathya

- unwholesome regimen:
1. Intake of hard to digest, sharp, hot, acidic food.
 2. Physical exertion.
 3. Acceptance of direct heat in any form.

15 Kodrava

कफवातादि संभूतः कोद्रवो नामतो गदः ।
लोके वदन्ति कक्षाकः स पाके न गच्छति ॥ वंगसेन ।
कफमारुतसंभूतः कोद्रवो नामतो गदः ।
अपाकः कोद्रवाकारः सूचिनिलोदकारकः ॥
जलशूकइवाङ्गेशु विद्यतिव विशेषतः ।
सप्ताहाद्वा दशाहाद्वा शन्तिं याति मिनोपधैः ।

Yogaratanakara.

Vangasena has described a similar disease manifestation called as Kodrava. The disease occurs due to Kapha dosha and Vata dosha dominance. This is a self limiting type of disease. Boils are produced with pricking type of pain but secretions are not observed. This condition cures on its own without medication. Many a times it is assumed as one of the seven types of Sheetala disease. Synonym is Kakshaka.

Chapter**191****UPADAMSHA****Disease at a glance**

- Nature of Disease: Chirakari- Chronic.
- Major Involving Dosha- Kapha, Pitta
- Major Involving Dushya- Rakta
- Site of Manifestation: penis (genital organs).
- Srotas: Raktavaha Srotas
- Types- Five.
- Cardinal Feature: formation of boils at genital organs.

Prognosis

- Incurable if disease becomes chronic and treatment is not done.

Diseases for differential diagnosis

1. Mahakushtha.
2. Visphota.
3. Sannipataja Jwara.
4. Shuka dosha

Reference reading

- Madhavidan Nidansthan Upadamsha Chapter 47
- Bhavprakash Madhyama Khand. Chapter 51.
- Sushruta Samhita Nidansthana. Chapter 12.
- Sanskrit English Dictionary - Apte Shabdakosha

1. Introduction

Upadamsha is a type of medical condition described in Ayurveda which is caused due to practice of external predisposing factors. Manifestation of the disease is localised. Further detailed pathogenesis is described as Nidana Panchaka of Upadamsha in this chapter.

2. Definition : Paribhasha

उपदंश संज्ञाय दंशनापधिमंतरेणापि रूढा बोद्धव्या ।

M.Ni.- Upadamsha-47/1.

हस्ताभिघातादन्नखदन्तघातादघावनादत्युपसेवनाद्वा ।

योनिप्रदोषाच्च भवन्ति शिश्ने पञ्चोपदंशा विविधापचरैः ॥ BPM-51/1.

The meaning of 'Upadamsha' is to bite or to gnaw. Formation of a typical type of boil without or due to biting (or injury) at the genitals is traditionally called as Upadamsha.

3. Route of development : Marga

Bahya – Affliction of the disease reflects on the exterior of the body.

4. Predisposing factors : Nidana

तत्रातिमैथुनादतिब्रह्मचर्याद्या तथातिब्रह्मचारिणीं चिरोत्सृष्टां रजस्वलां दीर्घरोमां निगूढरोमाल्पद्वारां महाद्वारामभ्रियामकामचोक्षसलिलप्रक्षालित-थोनिं योनिं रोमोपसृष्टां स्वभावतो वा दुष्टाद्योनिं वियोनिं वा नारीमत्स्यर्यमुप-सेवमानस्य तथा करजदशनविषशूकनिपातनाद्वन्धनाध्वस्ताभिघाताच्च-तुष्यदीगमनादचोक्षसलिल प्रक्षालनादवपीडनाच्छुक्रवेगविघारान्मैथुनान्ते वा ऽप्रक्षालनादिभिर्मैद्रमागम्य प्रकुपिता दोषाः क्षतेऽक्षते वा श्रयद्युमुपजनयन्ति, तस्युपदंशमित्याचक्षते ॥

S.S.Ni. 12/7.

Upadamsha occurs due to having sexual intercourse with a female with specific abnormalities or conditions as following;

A woman;

1. Who has not undergone sexual activity for prolonged time.
2. The one who is a spinster

3. The one with very narrow and rough vaginal opening. [suchi mukhi yoni]
 4. The one who is having menstruation period.
 5. The one whose downy hair is very coarse, thick and long.
 6. The one having vaginal disease-yoni roga- named 'Maha yoni'
 7. The one who is not aroused properly for having sex.
 8. The one who has used dirty water to wash her vagina.
 9. The one who is suffering from various diseases related to vagina.
- Performing sex with such type of women is responsible to cause Upadamsha.
- Other causes are;
10. Biting the penis (genital organs) or hurting it by nails.
 11. Poisonous insect bite at genitals.
 12. Masturbation.
 13. Sexual intercourse with animals.
 14. Loss of hygiene maintenance after performing sexual intercourse.
 15. Sexual intercourse performed without love.
 16. Sexual intercourse made without full erection of the penis.

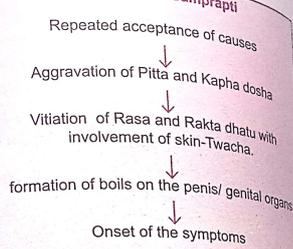
5. Pathogenesis : Samprapti

Due to acceptance of predisposing factors, Kapha and Pitta dosha mainly aggravate and further combine morbidly with Twak, Rasa and Rakta dhatu to form small boils over the genitals. Origin of the disease is in the Rasa and Rakta, onset is through the skin and spread is throughout the body.

According to some critics like Gayadasa, Upadamsha is totally male gender prevailing disease, but it is not observed in practice. The

disease affects similarly to males and females. In males the affection site is the penis while in females the affection site is vagina.

Flow chart of Samprapti



Components of pathogenesis: Samprapti ghataka

- Dosh: Pitta, Kapha.
- Dushya: Rasa, Rakta.
- Srotas: Raktavaha srotas.
- Adhsthana: penis- Medhra.
- Srotodushti: Rasavaha, Raktavaha, Shukravaha srotas
- Swabhava: Ashukari and Chirakari.
- Agni dushti: Jatharagni, Rasa agni and Rakta agni- Agnimandya

6. Premonitory features : Purvaroop

1. Formation of ulcers at the genitals.
2. Burning sensation at the affected site.
3. Itching.

7. Clinical features : Roopa

मेढ्रसंध्यौ ब्रणाः केचित् केचित् सर्वाश्रयाः सूतः ।
कुलत्याकृतयः केचित् केचिन्मुद्गलोपमाः ॥
रूजा दाहपरीताश्च तृष्णामोहसमाचिताः ।
शीघ्रं केचिद्विसर्पन्ति शनैः केचित्तयाऽपरे ॥
स्त्रीणां पुसां च जायन्ते उपदंशाः सुदारुणाः ॥

सतौदभेदस्फुरणैः सकृष्णैः स्फोटव्यवस्थेयवर्णोपदंशम् ।
पीतेर्बहुक्लेदयुतः सदाहैः पित्तेन रक्तैः पिशितावभासैः ॥

स्फोटैः सकृष्णै रूधिरं सवन्तं रक्तात्मकं पित्तसमानलिङ्गम् ॥
सकण्डुरैः शोथयुतैर्गह्वरैः शुक्लैर्धनेः स्रावयुतैः कफेन ।
नानाविधस्रावरुजोपपन्नसाध्यमाहुस्त्रिमलोपदंशम् ॥

BPM-51/2-3.

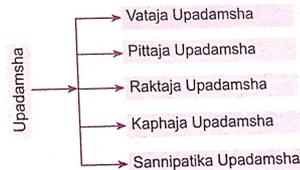
1. Formation of the boils at the genital organs. Boils are of size of green gram or horse gram. Soft to touch.
2. Swelling at the site.
3. Pain.
4. Burning sensation.
5. Thirst.
6. Delirium.
7. The spread is either slow or fast.
8. Both the genders (male and female) are equally susceptible to this disease.

8. Types : Prakara

पंचोपदंशाः विविधापचारैः ।
यद्यपिघातक्षते मेहने उपदंश आगन्तुः षष्ठः संपाद्यते
तथाऽपि तस्य दोषलिङ्गयुक्ततया दोषज एवांतर्भावः ॥

M.Ni.chapter 47.

Total five types of Upadamsha are explained. Madhav Nidana explains sixth type as Aagantu Upadamsha.



8.1 Vataja Upadamsha

तत्र वातिके पारुष्यं त्वक्परिस्फुटनं साध्य मेढ्रता परुष शोफवा
विविधाश्च वातवेदनाः ; सर्वजे सर्वलिङ्गदर्शनमवदरणं च
शोफसः कृमिप्रादुर्भावी मरणंवेति ॥ S.S.Ni. 12/9

1. Feel of the boils is rough.
2. Skin becomes lacerated.
3. Black discoloration and swelling.

4. Penis becomes permanently hard.
5. Boils are painful with various types of Vata dosha prevailing type of pain.

8.2 Pittaja Upadamsha

पैतिकेचरः श्वययुः पक्वोदुंबरसंकाशस्तौब्रदाहः क्षिप्रपाकः
पित्तवेदनाश्च ॥ S.S.Ni. 12/9

1. Fever.
2. Oedema.
3. Boils resemble to ripped fruit of 'Udumbara'. (Ficus racemosa)
4. Severe sensation of burning.
5. Early pus formation.
6. Boils are painful with various types of Pitta dosha prevailing type of pain.

8.3 Kaphaja Upadamsha

श्लेष्मिके श्वययुः कण्डूमान् कठिनः स्निग्धः
श्लेष्मवेदनाश्च ॥ S.S.Ni. 12/9

1. Boils are hard in nature, soft to touch and with less pain. Secretions are scanty.

8.4 Raktaja Upadamsha

रक्तजे कृष्णस्फोट प्रादुर्भावऽत्यर्थमशुक्लवृत्तिः पित्तलिङ्गा-
न्यत्यर्थ-ज्वरदाहोशोषश्च, यायश्चैव कदाचित् ॥ S.S.Ni. 12/9

1. Black coloured boils with blood mixed secretions.
2. Severe burning sensation in the body and fever.

8.5 Sannipatika Upadamsha

सर्वजे सर्वलिङ्गदर्शनमवदरणं च शोफसः
कृमिप्रादुर्भावी मरणंवेति ॥ S.S.Ni. 12/9

1. Presentation of all the symptoms of all the types in mixed form.
2. Lacerations of the penis, maggot formation.
3. Death.

9. Complications : Upadrava and After effects : Udarka

प्रशीर्णमासं कृमिभिः प्रज्वं मुष्कावशेषं परिवर्जनीयम्।
संजातमात्रे न करोति मूढः क्रियां नरो यो विषये प्रसक्तः।
कालेन शोयक्रीदाहपाकैर्विशिर्णशिश्रौ प्रियते स तेन।।
Ma.Ni- commentary- Upadamsha-5.

The unwise person who does not follow proper regimen of treatment on getting afflicted by the disease due to abnormal passion for sex, falls pray to the symptoms like;

1. Laceration of the flesh of genital organs.
2. Maggot formation. Maggots soon start eating the penis leaving behind only remnants of scrotum.
3. Swelling at genital organs with further growth in maggot formation.
4. Decaying of the flesh around the penis followed by destruction of the organ.
5. Death.

10 Prognosis : Sadhyasadyatva

विशीर्णमासं कृमिभिः प्रज्वं मुष्कावशेषे परिवर्जयेच्च।।
Ma.Ni- commentary- Upadamsha-47/4.

Upadamsha with decaying of the flesh and destruction of penis only leaving behind

remnants of scrotum, maggot formation at the wound becomes incurable- Asadhya.

11. Dietary and behavioral regimen

11.1 Pathya

wholesome regimen:

1. Administration of body purification procedures such as Vamana, Virechana, Blood letting etc.
2. Intake of grains like barley etc., soup of green gram, meat of birds and wild animals.
3. Food of bitter or pungent taste.
4. Intake of honey and water from well.
5. Following healthy and hygienic life style.
6. Avoiding multiple sex partners and unprotected sex.

11.2 Apathhya

unwholesome regimen:

1. Intake of hard to digest, acidic, sour type of food.
2. Daytime sleep.
3. Suppression of urine flow.
4. Sexual intercourse.
5. Physical exertion.

Disease at a glance

- Nature of Disease: Chirakani -Chronic.
- Major Involving Dosha- Vata, Pitta, Kapha
- Major Involving Dushya- Rakta.
- Site of Manifestation: Skin- Twak.
- Srotas: Raktavaha Srotas
- Types- Three
- Cardinal Feature: formation of pustules at contact site.

Prognosis

- Bahya Firanga -curable- Sadhya.
- Abhyantara Firanga -critical to cure- ashta sadhya.

Diseases for differential diagnosis

1. Mahakushtha.
2. Visphota.
3. Sannipataja Jwara.

Reference reading

- Bhavprakash Madhyama Khanda Chapter-59.
- Sanskrit English Dictionary- Prin.V.S.Apte

1. Introduction

The name of the disease is derived from Sanskrit word 'फिरङ्ग' meaning 'of foreign origin'. Ayurveda very precisely explains the foreign roots of the disease and its transfer to India. It is a type of venereal disease. Further detailed pathogenesis is described as Nidana Panchaka of Firanga in this chapter.

2. Definition : Paribhasha

फिरंग संज्ञके देशे बहुल्येनैव यद्भवेत्।
तस्मात्किंरंग इत्युक्तो व्याधिर्व्याधि विशारदैः।। BPM- 59/1.
गंधोरगः फिरंगोऽयं जायन्ते देहिनां ध्रुवम्।
फिरंगिणोऽडसंसर्गकिरंगिण्यां प्रसंगतः।।
व्याधिरागंतुजो ह्येष दोषाणामत्र संक्रमः।
भवेत्लक्षयेद्यां लक्षणैर्भिषजां वारः।। BPM- 59/2.

The disease is called as Firanga roga especially because it is mainly found and transported through foreign countries - 'Firanga desha' to India. This term may be related to European countries because, this disease is supposed to have transported from these countries to India. Manifestation of this disease is only and only possible due to acceptance of external causes i. e. **agantu hetu**.

The basic cause for this disease to occur is the physical contact with the person already ailing with the same disease.

3. Route of development : Marga

Bahya- Abhyantara-Affliction of the disease is external as well as internal.

4. Predisposing factors : Nidana

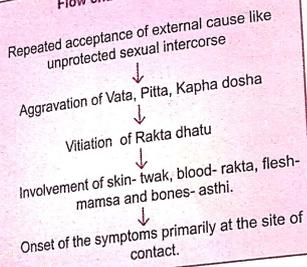
- Sexual intercourse with person infested with same disease.
- Skin contact- Touching- with disease affected area. In this case Firanga roga happens to the particular site of contact of the body e.g. fingers, lips, breasts etc.

5. Pathogenesis : Samprapti

व्याधिगन्तुजो ह्येष दोषाणामत्रसंज्ञ क्रमः
पुर्वतं लक्ष्यतेषां लक्षणैर्भिषजां वरः ॥ BPM-59/3.

This disease is caused predominantly with the acceptance of external causes via sexual contact. After acceptance of such cause, all the three dosha are aggravated with Kapha dosha dominance. Aggravated dosha further vitiate Rakta to form 'Sphotas' i.e. boils or pustules. These pustules are generally formed at the contact site. The disease originates in the Rakta vaha srotas and its spread is in the whole body including the skin- Twak, blood- Rakta, flesh- Mamsa and bones- Asthi.

Flow chart of Samprapti



Components of pathogenesis: Samprapti ghataka

- Dosha: Vata, Pitta, Kapha
- Dushya: Rakta.
- Srotas: Raktavaha Srotas.
- Adhithana: First At Skin and Blood, In Later Stages- Flesh And Bones.
- Srotodushti: Due to acceptance of External Cause.
- Swabhava: Chirakari- Chronic .
- Agni Dushti: Jatharagni, Rasa Agni And Rakta Agni- Agnimandya.

6. Types : Prakara

फिरङ्गद्विविधो ज्ञेयो बाह्य आभ्यन्तरसाध्या ।
बहिरन्तर्भवद्वापि तेषां लिङ्गानि च बुधे ॥ BPM-59/4.

तत्र बाह्यः फिरङ्गः स्यादविस्फोटसदृशो लम्बकः ।
स्फुटितो व्रणनद्वेष्टः सुखसाध्योऽपि स स्तः ॥

सन्धिष्वाभ्यन्तरः स स्यादापवात इव व्यथाम् ।
शोथश्च जनयेदेष कष्टसाध्यो बुधैः स्तः ॥ BPM-59/5-6.

Types of Firanga roga are mentioned according to the spread of the disease.

6.1 Bahya Firangaroga

1. Pustules appear on the skin
2. Slight pain.
3. If untreated this type converts into further types.
4. Severe joints pain resembling to Amavata.

6.2 Bahya- Abhyantara Firanga roga

1. Skin shows symptoms like Kushtha.
2. All the symptoms explained in bahya type.

6.3 Abhyantara Firanga roga

1. Abortions and miscarriages due to Shukra dushti.
2. Still births.
3. Infertility.
4. Impotency.

7. Complications : Upadrava

काश्यं बलक्षयो नासाभंगो वन्देऽप्य मंदला ।
अस्थिशोषोऽस्थिवक्रत्वं फिरंगोपद्रवा अमि ॥ BPM-59/7.

Complications are produced due to 'Dhatugatatva' i.e. deeper inclusion of the disease into the Dhatu.

1. Blackish discoloration of the skin.
2. Body ache.
3. Joint pain.
4. Weak ness.
5. Rupture of nasal cartilage.

6. Easy fractures of the bones.
7. Curvatures in the long bones.

8. Prognosis : Sadhyasadyatva

- बहिर्भवा भवेत्साध्यो नवीनो निरुपद्रवः ।
आभ्यन्तरस्तु कटेन साध्यः स्यादयमापवः ॥
बहिरन्तर्भवो जीर्णो क्षीणस्योपद्रवैर्युतः ।
व्याप्तोव्याधिसाध्योऽयमित्यहर्मुनयः पुरा ॥ BPM-59/8-9.
3. Bahya Firanga roga with very new onset and without complications is curable- Sadhya.
 4. Abhyantara Firanga roga is critical to cure- Kashta sadhya.

5. Firanga roga with many complications and long duration is incurable-Asadhy.

9. Dietary and behavioral regimen

9.1 Pathya

wholesome regimen:

1. Following healthy and hygienic life style.
2. Avoiding multiple sex partners and unprotected sex.

9.2 Apathya

unwholesome regimen:

1. Intake of hard to digest, acidic type of food.

•••

Disease at a glance

- Nature of Disease: Ashukari - Acute.
- Major Involving Dosha- Vata, Pitta, Kasha
- Major Involving Dushya- Rakta
- Site of Manifestation: skin.
- Srotas: Raktavaha Srotas
- Types- seven.
- Cardinal Feature: formation of skin eruptions with fever.

Prognosis

- Generally Curable condition.

Diseases for differential diagnosis

1. Masurika.
2. Sannipatika Jwara.
3. Vispota.

Reference reading

- Bhavaprakash-Madhyama Khanda- Chapter- 60
- Yogaratnakara.
- Sanskrit English Dictionary - Apte Shabdakosha

1. Introduction

The name of the disease is derived from name of a deity Goddess Sheetala. The wrath of whom is said to be responsible to cause the onset of the disease. It is highly infectious condition commonly found in young age group. One time affliction produces antibodies and thus relapse of the disease generally does not occur. Further detailed pathogenesis is described as Nidana Panchaka of Sheetala in this chapter.

2. Definition : Paribhasha

देव्या शीतलया क्रान्ता मासूर्यः शितला बहिः ।
ज्वरयेच्चर्यथा भूताधिष्ठितो विषमज्वरः ।
सा च सप्तविधा ख्याता तासां भेदान् प्रचक्षते ।

BPM-60/55-56.

The disease which occurs due to the anger and curse received from the Goddess 'Sheetala' is called as Sheetala. The onset of this condition is assumed due to bad effect of anger of the deity Sheetala to the patient of Masurika due to ignoring the deity. The condition is always associated with fever.

The disease is mild and self limiting in nature. Cure is generally on its own without any specific medication. The disease is dominant over infant and children group.

3. Route of development : Marga

Bahya- Abhyantara: Affliction of the disease is external as well as internal.

4. Predisposing factors : Nidana

It is assumed that the disease happens due to lack of performing the holy rituals to the Goddess Sheetala and therefore curse received from the goddess.

5. Pathogenesis

Samprapti: Not specifically explained.

6. Clinical features : Roopa

Boils of various size are formed on the skin, especially on back, face and abdominal region. They are with watery secretions and severe itching sensation. Fever is also observed in some cases.

7. Types : Prakara

सा च सप्तविधा ख्याता तासां भेदान् प्रचक्षते ।

BPM-60/55-56.

Seven types of Sheetala are described by Bhavaprakash.

7.1 Bruhati

ज्वरपूर्वा बृहत्कोटेः शीतला बृहती भवेत् ।।
सप्ताहाभिसरत्येव सप्ताहात्पूर्णां व्रजेत् ।
तत्स्मृतये सप्ताहे शुष्कति खलति स्वयम् ।।
तासां मध्ये यदा काचित्पाकं गत्वा स्फुटेत् स्रवेत् ।।

BPM-60/55-58.

The skin eruptions are bigger in size and with plenty of watery secretions and fever. These boils get dried and cured at the end of the third week of the onset of the disease. Pus formation in the boils is rare.

7.2 Kodrava

This type relates 'Kodrava' disease described in chapter 'Masurika'.

7.3 Panisaha

उष्णपातूष्णजारूपा सकण्डूः सर्शनप्रिया ।।
नाम्ना पागिसहाख्याता सप्ताहाच्छुष्यति स्वयम् ।।

BPM-60/86.

1. Occurs due to exposure to extreme heat.
2. The size of boil resembles the size of mustard grain.
3. Severe sensation of itching.
4. Gets cured within seven days.

7.4 Sarshapika

चतुर्थी सर्षपाकार पीतसर्षपवर्णिनी ।।
नाम्ना सर्षपिका ज्ञेयाऽभ्यङ्गत्र विवर्जयेत् ।।

BPM-60/87.

1. The boils resemble to white mustard grain. Other features are similar to other types.

7.5 Rajika

किंचिदूर्ण निमित्तेन जायते राजिकाकृतिः ।।
एषां भवति बालानां मुखे शुष्यति च स्वयम् ।।

BPM-60/88.

1. This type especially occurs on the face.
2. Boils resemble to red mustard grain.
3. Boils are devoid of secretions and easily get cured.

7.6 Kotha

कोष्ठवत् जायते षष्ठी लोहितोन्नत मंडला ।

ज्वरपूर्वा व्यथायुक्ता ज्वरस्तिष्ठेत्तद्दिनत्रयम् ।।

BPM-60/89.

Sixth type has no specific name. It appears as somewhat raised boil on skin surface and it is bigger in size. It is reddish in colour with fever and pain. It generally subsides after three days without any treatment.

7.7 Charnaja

स्फोटानां मेलनादेषा बहु स्फोटापि वृष्यते ।
एकस्फोटे च कृष्णा च बोद्धव्या चर्मजाभिया ।।

BPM-60/90.

In this type many smaller boils collectively form a bigger boil on the skin surface. The boils are blackish in colour.

8. Complications: Upadrava

1. Jwara
2. Trishna
3. General weakness.

9. After effects

Udarka: No after effect of the disease. Rarely permanent blackish marks form on the skin.

10. Prognosis : Sadhyasadhyatva

काश्चिद्विनाऽपि यत्नेन सुखं सिष्यन्ति शीतला ।
दुःखः कष्टतराः काश्चिक्वाश्चित्सिष्यन्ति वा नवा ।।

10.1 Curable : Sukha sadhya

1. The disease is self limiting and completely curable.
2. In some conditions it does not cure on its own and requires treatment, whereas in some types it does not get cured after administration of treatment (although it is observed in most rare cases in practice)

11. Dietary and behavioral regimen

11.1 Pathya

wholesome regimen:

1. Langhana- fasting, Intake of light, easy to digest type of food.
2. Intake of shadangodaka.

11.2 Apathya

unwholesome regimen:

1. Intake of hard to digest, unctuous food.
2. Overeating.

• • •

1. Definition

Measles, also known as morbilli, rubeola, or red measles, is a highly contagious infection caused by the measles virus. Measles affects about 20 million people a year.

2. Causes

Measles is caused by the measles virus, a single-stranded, negative-sense, enveloped RNA virus of the genus Morbillivirus within the family Paramyxo-viridae. Humans are the only natural hosts of the virus, and no other animal reservoirs are known to exist. This highly contagious virus is spread by coughing and sneezing via close personal contact or direct contact with secretions. Risk factors for measles virus infection include immunodeficiency caused by HIV or AIDS.

3. Mode of infection

Measles is an airborne disease which spreads easily through the coughs and sneezes of those infected. It may also be spread through contact with saliva or nasal secretions. Nine out of ten people who are not immune and share living space with an infected person will catch it. People are infectious to others from four days before to four days after the start of the rash. People usually do not get the disease more than once. Overall, the disease from infection with the measles virus usually resolves after about three weeks of onset.

4. Classical Signs and symptoms

Symptoms usually develop 10–12 days after exposure to an infected person and last 7–10 days.

1. 4 D's- Four day fever.
2. 3 C's- cough, coryza, conjunctivitis.

5. Early Signs and symptoms

1. Fever- often greater than 40 °C (104.0 °F).
2. Cough.
3. Common cold.
4. conjunctivitis

6. Late Signs and symptoms

Two or three days after the start of symptoms.

1. Small white spots may form inside the mouth, known as Koplik's spots.
2. A red, flat rash which usually starts on the face and then spreads to the rest of the body typically begins three to five days after the start of symptoms. The characteristic measles rash is classically described as a generalized red maculopapular rash that begins several days after the fever starts. It starts on the back of the ears and, after a few hours, spreads to the head and neck before spreading to cover most of the body, often causing itching. The measles rash appears two to four days after the initial symptoms and lasts for up to eight days. The rash is said to "stain", changing color from red to dark brown, before disappearing.

7. Diagnosis

Clinical- History of fever : The fever remains for at least three days, with at least one of the three C's (cough, coryza, conjunctivitis). Observation of Koplik's spots is also diagnostic of measles.

Laboratory- IgM antibody testing.

8. Complications

1. Diarrhea
2. Viral pneumonia
3. bronchitis
4. subacute sclerosing panencephalitis
5. corneal ulceration
6. otitis media
7. Acute brain inflammation

9. Prevention

Three part MMR vaccine- measles, mumps, rubella. In developed countries, children are immunized against measles at 12 months of age. The measles vaccine is effective at preventing the disease.

Initial signs and symptoms typically include. Complications occur in about 30% and may include diarrhea, blindness, inflammation of the brain, and pneumonia among others. Rubella (German measles) and roseola are different diseases.

• • •

1. Introduction

Chickenpox, also known as varicella, is a highly contagious disease caused by the initial infection with varicella zoster virus (VZV). The disease results in a characteristic skin rash that forms small, itchy blisters, which eventually scab over. It usually starts on the chest, back, and face then spreads to the rest of the body. Other symptoms may include fever, feeling tired, and headaches. Symptoms usually last five to ten days. Complications may occasionally include pneumonia, inflammation of the brain, or bacterial infections of the skin among others. The disease is often more severe in adults than children. Symptoms begin ten to twenty one days after exposure to the virus.

Chickenpox is an airborne disease which spreads easily through the coughs and sneezes of an infected person. It may be spread from one to two days before the rash appears until all lesions have crusted over. It may also spread through contact with the blisters. Those with shingles may spread chickenpox to those who are not immune through contact with the blisters. The disease can usually be diagnosed based on the presenting symptom; however, in unusual cases may be confirmed by polymerase chain reaction (PCR) testing of the blister fluid or scabs. Testing for antibodies may be done to determine if a person is or is not immune. People usually only get the disease once.

The varicella vaccine has resulted in a decrease in the number of cases and complications

from the disease. It protects about 70 to 90 percent of people from disease with a greater benefit for severe disease. Routine immunization of children is recommended in many countries. Immunization within three days of exposure may improve outcomes in children. Treatment of those infected may include calamine lotion to help with itching, keeping the fingernails short to decrease injury from scratching, and the use of paracetamol (acetaminophen) to help with fevers. For those at increased risk of complications antiviral medication such as aciclovir are recommended. Chickenpox occurs in all parts of the world. Before routine immunization the number of cases occurring each year was similar to the number of people born.

The early (prodromal) symptoms in adolescents and adults are nausea, loss of appetite, aching muscles, and headache. This is followed by the characteristic rash or oral sores, malaise, and a low-grade fever that signal the presence of the disease. Oral manifestations of the disease (enanthem) not uncommonly may precede the external rash (exanthem). In children the illness is not usually preceded by prodromal symptoms, and the first sign is the rash or the spots in the oral cavity. The rash begins as small red dots on the face, scalp, torso, upper arms and legs; progressing over 10–12 hours to small bumps, blisters and pustules; followed by umbilication and the formation of scabs.

At the blister stage, intense itching is usually present. Blisters may also occur on the palms,

soles, and genital area. Commonly, visible evidence of the disease develops in the oral cavity and tonsil areas in the form of small ulcers which can be painful or itchy or both; this exanthem (internal rash) can precede the exanthem (external rash) by 1 to 3 days or can be concurrent. These symptoms of chickenpox appear 10 to 21 days after exposure to a contagious person. Adults may have a more widespread rash and longer fever, and they are more likely to experience complications, such as varicella pneumonia.

Because watery nasal discharge containing live virus usually precedes both exanthem (external rash) and enanthem (oral ulcers) by 1 to 2 days, the infected person actually becomes contagious one to two days before recognition of the disease. Contagiousness persists until all vesicular lesions have become dry crusts (scabs), which usually entails four or five days, by which time nasal shedding of live virus ceases.

The condition usually resolves by itself within a couple of weeks. The rash may, however, last for up to one month, although the infectious stage does not last longer than a week or two. Chickenpox is rarely fatal, although it is generally more severe in adult men than in women or children. Non-immune pregnant women and those with a suppressed immune system are at highest risk of serious complications. Arterial ischemic stroke (AIS) associated with chickenpox in the previous year accounts for nearly one third of childhood AIS. The most common late complication of chickenpox is shingles (herpes zoster), caused by reactivation of the varicella zoster virus decades after the initial, often childhood, chickenpox infection.

2. Pregnancy and neonates

During pregnancy the dangers to the fetus associated with a primary VZV infection are greater in the first six months. In the third trimester, the mother is more likely to have severe symptoms. For pregnant women, antibodies produced as a result of immunization or previous infection are transferred via the placenta to the fetus. Women who are immune to chickenpox cannot become infected and do not need to be concerned about it for themselves or their infant during pregnancy. Varicella infection in pregnant women could lead to spread via the placenta and infection of the fetus. If infection occurs during the first 28 weeks of gestation, this can lead to fetal varicella syndrome (also known as congenital varicella syndrome). Effects on the fetus can range in severity from underdeveloped toes and fingers to severe anal and bladder malformation.

3. Possible problems include

1. Damage to brain: Encephalitis, microcephaly, hydrocephaly, aplasia of brain
2. Damage to the eye : Optic stalk, optic cup, and lens vesicles, microphthalmia, cataracts, chorioretinitis, optic atrophy
3. Other neurological disorder: Damage to cervical and lumbosacral spinal cord, motor/sensory deficits, absent deep tendon reflexes, anisocoria/Horner's syndrome
4. Damage to body: Hypoplasia of upper/lower extremities, anal and bladder sphincter dysfunction
5. Skin disorders : (cicatrical) skin lesions, hypopigmentation

Infection late in gestation or immediately following birth is referred to as "neonatal

varicella". Maternal infection is associated with premature delivery. The risk of the baby developing the disease is greatest following exposure to infection in the period 7 days before delivery and up to 8 days following the birth. The baby may also be exposed to the virus via infectious siblings or other contacts, but this is of less concern if the mother is immune. Newborns who develop symptoms are at a high risk of pneumonia and other serious complications of the disease.

The diagnosis of chickenpox is primarily based on the signs and symptom, with typical early symptoms followed by a characteristic rash. Confirmation of the diagnosis is by examination of the fluid within the vesicles of the rash, or by testing blood for evidence of an acute immunologic response.

Vesicular fluid can be examined with a Tzanck smear, or better by testing for direct fluorescent antibody. The fluid can also be "cultured", whereby attempts are made to grow the virus from a fluid sample. Blood tests can be used to identify a response to acute infection (IgM) or previous infection and subsequent immunity (IgG).

Prenatal diagnosis of fetal varicella infection can be performed using ultrasound, though a delay of 5 weeks following primary maternal infection is advised. A PCR (DNA) test of the mother's amniotic fluid can also be performed, though the risk of spontaneous abortion due to the amniocentesis procedure is higher than the risk of the baby's developing fetal varicella syndrome.

4. Prevention

Hygiene measures: The spread of chickenpox can be prevented by isolating affected individuals. Contagion is by exposure to respiratory droplets, or direct contact with lesions, within a period lasting from three days before the onset of the rash, to four days after the onset of the rash. The chickenpox virus is susceptible to disinfectants, notably chlorine bleach (i.e., sodium hypochlorite). Like all enveloped viruses, it is sensitive to desiccation, heat and detergents.

5. Vaccination

The varicella vaccine is recommended in many countries. Some countries require the varicella vaccination or an exemption before entering elementary school. A second dose is recommended five years after the initial immunization. A vaccinated person is likely to have a milder case of chickenpox if they become infected. Immunization within three days of exposure may improve outcomes in children.

It is part of the routine immunization schedule in the US. Some European countries include it as part of universal vaccinations in children, but not all countries provide the vaccine due to its cost. In the UK as of 2014, the vaccine is only recommended in people who are particularly vulnerable to chickenpox.

Humans are the only known animal that the disease affects naturally. However, chickenpox has been caused in other primates, including chimpanzees and gorillas.

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1. Introduction

Leprosy has affected humankind for thousands of years. Leprosy is also known as Hansen's disease (HD). The disease remains asymptomatic from 5-20 years. Leprosy occurs more commonly in poor people. It is not a highly contagious disease. Two main types are derived from presence of number of bacteria.

- a. Paucibacillary - Less number of bacteria.
- b. Multibacillary - More number of bacteria.

Leprosy is a curable disease with treatment known as multi drug therapy.

**2. Causative agent :
Mycobacterium leprae****3. Morphology**

Gram positive, weak acid fast, slightly curved rods of 0.8-1 micron length. Very difficult to grow with any culture media.

4. Leprosy

It is the granulomatous disease of chronic nature. It involves the skin, the nasal mucosa, the skin and peripheral nerves. As the disease progresses it also affects the deeper tissues and organs. The disease highly depends upon the person's immunity to take either serious turn or to get subsided. During the course the disease deviates from serious to non serious condition as per the deviation in the immune power. It is also known as Hansen's Disease- HD as it is first invented by G.H. Armauer Hansen in Norway in 1873

5. Mode of infection

1. By prolonged skin to skin contact.
2. Rarely via droplet infection.

6. Incubation period

Leprosy has the highest incubation period of all the infectitious diseases. It may vary from one month to forty years. It totally depends upon the person's immunity.

7. Classification

1. Tuberculoid leprosy.
2. Diamorphous [Borderline] leprosy.
3. Indeterminate leprosy.
4. Lepromatous leprosy.

All these groups have two polar extremities i.e. Lepromatous leprosy and Tuberculoid leprosy as per the resistance of the patient.

7.1 Tuberculoid leprosy

This type is observed in the patients with comparatively high grade of the immune power. The skin lesions are few, with sharply demarked margins. Loss of sense towards touch and heat is present. The surface of the patch is rough, dry and hypo pigmented. Peripheral nerves are affected early. Prognosis in this type is good.

7.2 Diamorphous [Borderline] leprosy

In this type the skin lesions show symptoms of both the major types i.e. Lepromatous leprosy and Tuberculoid leprosy. Lesions are moist with ill defined margins. They are of variable size and shape.

7.3 Indeterminate leprosy

This type shows no particular of either Tuberculoid or Lepromatous leprosy. This is an early unstable reaction. In some cases the lesions undergo self healing while in others either the types of the leprosy is formed.

7.4 Lepromatous leprosy

Most infectious type of all the four. It develops in the patients with very low immune power. Typical anesthetic lesions are seen in this type. In early stages there is the thickening of the nasal mucosa and as the condition advances, particular changes in the face are observed like ear lobe enlargement etc. In this type large numbers of bacteria are present in the nose, mouth and upper respiratory tract. They are continuously discharged via oral or nasal secretions. In the progressive stages of the disease, eyes, nose, bones and joints are involved and damaged. Physical deformity is the end point of the etiology. All the big nerves undergo thickening and are felt like chords. Skin lesions are smooth with very heavy purulent discharge. Maggot formation is early. These lesions are called as lepromata.

8. Pathogenesis

after contact for prolonged time, bacteria gain entry inside the body and affect mainly the nasal mucosa. They produce no significant toxins. In spite of carrying lots of bacteria, nasal secretions are not infectious. Inside the body bacteria are bound together in a lipid

like structure. These masses are called as 'Globi' or 'Lepra cells' or 'foamy cells'. They circulate via the blood stream and produce skin lesions. These lesions are less or more serious depending upon the immune power of the person.

9. Clinical features**Early**

1. Tingling sensation, burning sensation of the skin. Over sweating.
2. Early wounding by slight trauma.

Late

1. Loss of sensation to touch and heat.
2. Loss of sweating at the affected site.
3. Thickening of nerves.

Reddish, shining and swollen face.

10. Laboratory diagnosis

1. Gram staining.
2. Acid fast staining.

Lepromin test is done to detect the presence of the disease in the body. It is done with Dharmendra antigen. Severity of the disease is measured by the number of the bacteria present per field of the microscope.

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1. Introduction

Pulmonary Tuberculosis is an infectious disease caused by the bacterium - *Mycobacterium tuberculosis*. Pulmonary Tuberculosis is a type of disease Tuberculosis which affects the lungs. Active infection is likely to occur to those who are affected with diseases like AIDS/HIV or those who smoke. One third of the world is thought to be affected by Tuberculosis.

2. Family**Mycobacteria**

Mycos - fungus - Growth of the bacteria is observed like fungal growth.

A.F.B., slender rods, always present single. These bacteria are non sporing, non capsulated, non motile, conspiring.

3. Mode of infection

1. By inhalation-cough spray i.e. droplet method.
2. Occasionally by ingestion
3. Rarely by inoculation, in the skin.

Incubation period between the infection and actual onset of the disease, is variable, varies from few months to several years. And it depends upon the dose of the bacteria. Their virulence, mode of infection as well as the age, strength and resistance of the host.

Insanitation, low hygiene, malnutrition and poverty are the basic predisposing factors to the disease. In infected dust bacteria remain viable for two weeks period.

4. Pulmonary tuberculosis

The name tuberculosis arises from the

essential pathology of the disease which consists of the production of the tubercles (granules or nodules) in the affected organs or system.

5. Pathogenesis

By the major mode of infection that is inhalation of cough spray, dust etc. The bacteria enter the respiratory system and invade the lungs; there they produce the characteristic feature of the disease, i.e. Tubercles in a very large scale. The bacteria secrete neither exotoxin nor endotoxin, exact mode of the pathogenesis is not clearly known. Tubercle is an avascular granuloma composed of giant epithelial cells, surrounded by lymphocytes and fibroblasts. The bacteria get lodged in pulmonary alveoli where they are promptly phagocytosed by alveolar macrophages, but instead of getting killed, the bacilli multiply intracellularly and eventually disrupt the cell. Here phagocytes with engulfed bacteria act as carriers. Intracellular multiplication can only be stopped by the immunization. [B.C.G.] This primary infection if untreated may lead to haematogenous spread of the disease producing other types of tuberculosis like millary tuberculosis, tuberculosis of bones, joints, kidneys, genital organs etc.

6. Clinical features

The symptomatology can be classified into two groups-

1. Constitutional symptoms-symptoms displayed on the whole body, as
 - a. Easy fatigability.
 - b. Lassitude.

- c. Constant loss of weight.
- d. Low grade fever.
- f. Anorexia.
- g. Lack of concentration.
- h. Flatulence.
- i. Night sweats.

Out of these, main symptom is pyrexia [fever].

It can be of varying degrees i.e. first of low grade and with increasing temperature as the disease progresses. Pulse rate is proportionately high.

- B. Local symptoms
 - a. cough.
 - b. Haemoptysis.
 - c. Dyspnoea.
 - d. Chest pain is the symptoms due to local pathology in the lungs.

Coughing is the first presenting symptom. Any person having cough more than two weeks and not responding to normal treatment should be suspected for tuberculosis. The cough is productive; sputum is small and mucoid in nature. The coughing is followed further by haemoptysis - clinically important feature of pulmonary tuberculosis. Chest pain is primarily due to involvement of pleura. Thus if the chest pain is present it is characteristically similar like pleuritis i.e. pain on deep breathing.

7. Complications

1. Pleurisy.
2. Tuberculosis of other major organs like brain, bone, bladder, intestine.
3. Meningitis.

8. Laboratory investigations

1. Sputum test for A.F.B.
2. Zeihl-Neelson hot staining method.
3. E.S.R.
4. Haemogram.
5. X-ray chest. [P.A. View]
6. Sputum culture. Gradation for severity is according to the presence of bacteria in sputum smear. 2] +2= 10 or more bacilli per entire smear 3] +3= 10 or more bacilli per most of the oil immersion field

Tuberculin Test: Important test in young age group.

After six to eight weeks of the entry of the bacteria the body tissue becomes hyper allergic to the bacterial proteins. This is revealed by tuberculin test.

P.P.D. [Purified protein derivative] is inoculated subcutaneously on the forearm and reaction is observed in 72 hours period. The induration of 12 mm. or more indicates the positive result.

As the hypersensitivity remains for the life time of the person this can not differentiate between sub clinical infection and clinical disease. So it has no value in adults but some significance in children. This test is called as Mantoux Test.

9. Vaccination

B.C.G. [Bacillus Calmet and Gurrine] is given in the first month of life, subcutaneous on the upper part of the arm. This immunization produces the resistance for the life time.

1. ICD nomenclature

ICD-10, B20 – B24

2. Definition : Introduction

Human immunodeficiency virus infection and acquired immune deficiency syndrome (HIV/AIDS) is a spectrum of conditions caused by infection with the human immunodeficiency virus (HIV). Following initial infection, a person may not notice any symptoms or may experience a brief period of influenza-like illness. Typically, this is followed by a prolonged period with no symptoms. As the infection progresses, it interferes more with the immune system, increasing the risk of common infections like tuberculosis, as well as other opportunistic infections, and tumors that rarely affect people who have working immune systems. These late symptoms of infection are referred to as AIDS. This stage is often also associated with weight loss.

HIV is spread primarily by unprotected sex (including anal and oral sex), contaminated blood transfusions, hypodermic needles, and from mother to child during pregnancy, delivery, or breastfeeding.^[1] Some bodily fluids, such as saliva and tears, do not transmit HIV. Methods of prevention include safe sex, needle-exchange programs, treating those who are infected, and male circumcision. Disease in a baby can often be prevented by giving both the mother and child antiretroviral medication. There is no cure or vaccine; however, antiretroviral treatment can slow the course of the disease and may lead to

a near-normal life expectancy. Treatment is recommended as soon as the diagnosis is made. Without treatment, the average survival time after infection is 11 years. ICD classification of AIDS is B20- B24.

3. Stages

There are three main stages of HIV infection:

1. Acute Infection : The initial period following the contraction of HIV is called acute HIV, primary HIV or acute retroviral syndrome. Many individuals develop an influenza-like illness or a mononucleosis-like illness 2–4 weeks post exposure while others have no significant symptoms. Symptoms occur in 40–90% of cases and most commonly include fever, large tender lymph nodes, throat inflammation, a rash, headache, and/or sores of the mouth and genitals. The rash, which occurs in 20–50% of cases, presents itself on the trunk and is maculopapular, classically. Some people also develop opportunistic infections at this stage. Gastrointestinal symptoms such as nausea, vomiting or diarrhea may occur, as may neurological symptoms of peripheral neuropathy or Guillain-Barre syndrome. The duration of the symptoms varies, but is usually one or two weeks. Due to their nonspecific character, these symptoms are not often recognized as signs of HIV infection. Even cases that do get seen by a family doctor or a hospital are often misdiagnosed as one of the many common infectious diseases with overlapping symptoms. Thus, it is

recommended that HIV be considered in people presenting an unexplained fever who may have risk factors for the infection.

2. Clinical Latency : The initial symptoms are followed by a stage called clinical latency, asymptomatic HIV, or chronic HIV. Without treatment, this second stage of the natural history of HIV infection can last from about three years to over 20 years (on average, about eight years). While typically there are few or no symptoms at first, near the end of this stage many people experience fever, weight loss, gastrointestinal problems and muscle pains. Between 50 and 70% of people also develop persistent generalized lymphadenopathy, characterized by unexplained, non-painful enlargement of more than one group of lymph nodes (other than in the groin) for over three to six months. Although most HIV-1 infected individuals have a detectable viral load and in the absence of treatment will eventually progress to AIDS, a small proportion (about 5%) retain high levels of CD4+ T cells. (T helper cells) without antiretroviral therapy for more than 5 years. These individuals are classified as HIV controllers or long-term nonprogressors (LTNP). Another group consists of those who maintain a low or undetectable viral load without anti-retroviral treatment, known as “elite controllers” or “elite suppressors”. They represent approximately 1 in 300 infected persons.

3. AIDS : Acquired immunodeficiency syndrome (AIDS) is defined in terms of either a CD4+ T cell count below 200 cells per μL or the occurrence of

specific diseases in association with an HIV infection. In the absence of specific treatment, around half of people infected with HIV develop AIDS within ten years. The most common initial conditions that alert to the presence of AIDS are pneumocystis pneumonia (40%), cachexia in the form of HIV wasting syndrome (20%), and esophageal candidiasis. Other common signs include recurring respiratory tract infections. Opportunistic infections may be caused by bacteria, viruses, fungi, and parasites that are normally controlled by the immune system. Which infections occur depends partly on what organisms are common in the person's environment. These infections may affect nearly every organ system. People with AIDS have an increased risk of developing various viral-induced cancers, including Kaposi's sarcoma, Burkitt's lymphoma, primary central nervous system lymphoma, and cervical cancer. Kaposi's sarcoma is the most common cancer occurring in 10 to 20% of people with HIV. The second most common cancer is lymphoma, which is the cause of death of nearly 16% of people with AIDS and is the initial sign of AIDS in 3 to 4%. Both these cancers are associated with human herpesvirus 8. Cervical cancer occurs more frequently in those with AIDS because of its association with human papillomavirus (HPV). Conjunctival cancer (of the layer that lines the inner part of eyelids and the white part of the eye) is also more common in those with HIV. Additionally, people with AIDS frequently have systemic symptoms such as prolonged fevers, sweats (particularly

at night), swollen lymph nodes, chills, weakness, and unintended weight loss. Diarrhea is another common symptom, present in about 90% of people with AIDS. They can also be affected by diverse psychiatric and neurological symptoms independent of opportunistic infections and cancers.

4. Diagnosis

Diagnosis of primary HIV before seroconversion is done by measuring HIV-RNA or p24 antigen.[25] Positive results obtained by antibody or PCR testing are confirmed either by a different antibody or by PCR.[23]

5. Classifications

1. Primary HIV infection: May be either asymptomatic or associated with acute retroviral syndrome.
2. Stage I: HIV infection is asymptomatic with a CD4+ T cell count (also known as CD4 count) greater than 500 per microlitre (μ l or cubic mm) of blood. May include generalized lymph node enlargement.
3. Stage II: Mild symptoms which may include minor mucocutaneous manifestations and recurrent upper respiratory tract infections. A CD4 count of less than 500/ μ l.
4. Stage III: Advanced symptoms which may include unexplained chronic diarrhea for longer than a month, severe bacterial infections including tuberculosis of the lung, and a CD4 count of less than 350/ μ l.

5. Stage IV or AIDS: severe symptoms which include toxoplasmosis of the brain, candidiasis of the esophagus, trachea, bronchi or lungs and Kaposi's sarcoma. A CD4 count of less than 200/ μ l.

The United States Center for Disease Control and Prevention also created a classification system for HIV, and updated it in 2008 and 2014.[100][101] This system classifies HIV infections based on CD4 count and clinical symptoms, and describes the infection in five groups.[101] In those greater than six years of age it is:[101]

1. Stage 0: the time between a negative or indeterminate HIV test followed less than 180 days by a positive test
2. Stage 1: CD4 count \geq 500 cells/ μ l and no AIDS defining conditions
3. Stage 2: CD4 count 200 to 500 cells/ μ l and no AIDS defining conditions
4. Stage 3: CD4 count \leq 200 cells/ μ l or AIDS defining conditions
5. Unknown: if insufficient information is available to make any of the above classifications

6. Treatment

There is currently no cure or effective HIV vaccine. Treatment consists of highly active antiretroviral therapy (HAART) which slows progression of the disease. As of 2010 more than 6.6 million people were taking them in low and middle income countries. Treatment also includes preventive and active treatment of opportunistic infections.

Diseases for differential diagnosis

1. Pandu.
2. Arsha.
3. Shoola.
4. Chhardi.
5. Amplapitta.
6. Aadhmana.
7. Arochaka.
8. Chhardi.
9. Alisara.

1. Introduction

Sanskrit word 'क्रिमी' describes about worm. Ayurveda explains worm manifestation under title 'Krimi' which are external as well as internal. Beauty of science in explanation such as 'invisible, coloured and 'Sahaja' that is non harmful commensals & 'Vaikarika' as Pathogens. Thousands of years ago and devoid of any technical & machinery facilities such visionary explanations were made only with clinical observations.

2. Definition : Paribhasha

क्रिमयाश्च द्विधा श्रेयता बाह्याभ्यन्तरमेततः ।
बहिर्मतकफासुकविड् जनभेष्यतुर्विधाः ॥
नामतो विशतिविधा-- ॥ A.H.Ni.14/42-43.

The disease in which small visible or non visible worms or parasites are formed in various body systems is called as Krimi roga. The krimi formed in the Annava srotas are called as Kaphaja krimi.

3. Route of development : Marga

Bahya-Abhyantara : Affliction of the disease is external as well as internal.

4. Predisposing factors : Nidana

कुष्ठैकहेतवोऽन्तर्जाः श्लेष्मजातेषु चाधिकम् ।
मधुराजगुडकीरदधिसक्तुनवोदनैः ॥
अजीर्णाद्यशनासात्यविरुद्धमतिनाशनैः ।
अव्यायामादिवास्वप्नगुर्वीतिस्निग्धशितलैः ॥
माषपिष्टान्नविदलविसशालूकसेरुकेः ।
पर्णशाकसुराशुक्तदधिकीरुडेक्षुभिः ।
स्वाद्वस्त्रद्रव्यपानैश्च श्लेष्मा पित्तं च कुयति ।
कृमीन् बहुविधाकारान् करोति विविधाश्रयान् ॥
केषांचित् कृमीणां सामान्यं हेतुमाह ॥

A.H.Ni.14/ 45-46.

S.S.Utt.54/3-5.

1. Predisposing factors responsible to cause Kushtha are equally responsible to cause Kaphaja Krimi.
2. Intake of sweet food items, jaggery, milk and milk products, curd, porridge, new grains.

Reference reading

- Ashtanga Hridaya Nidanasthana Chapter-14.
- Sushrut Samhita Uttartantra Chapter-54.
- Sanskrit English Dictionary - Apte Shabda-kosha.

3. Intake of food on full stomach overeating.
4. Intake of food items of unknown variety.
5. Intake of mixed food items of incompatible nature.
6. Intake of food items which are nuclear, dirty, stale or decaying.
7. Habit of eating soil.
8. Enjoying day time sleep.
9. Intake of food items which are cold, unctuous in nature and heavy to digest.
10. Intake of items made up of black gram, of various types of vegetables, Jaggery or sesame seeds (Sesamum indicum).
11. Intake of food items made up of milk and milk products.
12. Intake of fermented food items [wines and liquors].
13. Intake of meat of animal from marshy lands.
14. Intake of liquid food items of sweet and sour nature.

5. Predominance of predisposing factors in specific types of krimi

माष-पिष्टान्त- लवण-गुडं शकैः पुरिषिजाः ।
मांस- मत्स्य- गुड- क्षीर- दधि- शुक्तेः कफोद्भवाः ॥
विरुद्धाजीर्ण- शाकाद्यैः शोणितोत्था भवन्ति हि ॥

S.S.Utt.54/17.

1. Purishaja krimi: Excessive intake of black gram, starchy, sour, salty type of food contents, intake of jaggery, leafy vegetables.
2. Kaphaja krimi: Excessive intake of meat, fish, jaggery, milk, curds, fermented sugarcane juice.
3. Raktaja krimi: Excessive intake of incompatible food, indigestion, leafy vegetables.

5. Pathogenesis : Samprapti

Due to the intake of predisposing factors,

Kapha and Pitta aggravate and become Sanna-dham to form various types of worms at the site of Annavaha srotas. These worms are called as Kaphaja krimi. They originate at Annavaha srotas and travel throughout the body to produce various symptoms.

7. Clinical features : Roopa

ज्वरोक्तिर्भवा गुलं हृद्रोषः यदनं प्रमः ।
यक्तोद्वेगेषोऽनिवार्य यत्राक्रिमिलक्षणम् ॥

S.S.Utt.54/38

1. Onset of fever.
2. Blackish yellow discoloration of the skin.
3. Stomach ache.
4. Sensation of nausea and vomiting.
5. Chest pain.
6. Fatigue.
7. Giddiness.
8. Anorexia.
9. Loose unformed stools.

8. Types : Prakara

क्रिमयाश्च द्विधा प्रोक्ता वाय्याप्यन्तरभेदतः ।
वह्निर्मलकफासुकम्बिड् जन्मभोच्चतुर्विधाः ॥
नामतो विंशतिविधा- ॥
विंशतेः कृमिजातीनां त्रिविधः सम्भवः स्मृतः ।
पुरिषिकफरक्तानि तासां वक्ष्यामि विस्तरम् ॥

A.H.Su.14/62-63

S.S.Utt.54/34-36

Basically worms- Krimi are classified into two main groups i.e. **Sahaja**- meaning non-harming commensal type of krimi and **vaikarika**- meaning harmful or pathogenic krimi.

The vaikarika type is further classified in to

1. Bahya - external krimi.
2. Abhyantara - internal krimi.

8.1 Bahya krimi

----- बाह्यास्तत्र मलोद्भवाः ।



निलप्रमाणं संस्थानं वर्णः केयाश्चतस्रः ॥
वदुपादाय मूल्याश्च कृषा लिखाश्च सप्ततः ।
द्विधा ते कोटं पिष्टका-कण्टू- गण्डान् प्रकुर्वन् ॥

A.H.Ni.14/43-45.

External Krimi are two types;

1. Yuka.
2. Liksha.

These krimi resemble to sesame seed (Sesamum indicum) in shape, color and features. They reside on the garments and in the hair. They have multiple legs and are very minute in size. Infliction of these krimi cause symptoms like formation of vesicles, pustules, uricarial patches and sensation of itching.

8.2 Abhyantara Krimi

The internal type of worms is sub classified as per the site of formation of the krimi into;

- A. Kaphaja krimi : Forming at the site of Annavaha srotas
- B. Raktaja krimi : Forming at the site of Raktavaha srotas
- C. Purishaja krimi : Forming at the site of Purishvaha srotas
- a. Bahya krimi : Residing at clothing and hair.

In all krimi are of twenty types.

1. KAPHAJA KRIMI

Description about Kaphaja krimi

कफादाभाशये जाता वृद्धाः सर्पन्ति सर्वतः ।
पृथुन्नध्न निभाः केचित् केचिद्वृष्वोपमाः ॥
रुद्धान्याड्कुराकारस्तनुदीर्घास्तथाऽणवः ।
थेतास्ताप्रावभासाश्च नामतः सप्तधा तु ते ।
अन्नादा उदरावेष्टा हृदयादा महापुदाः ।
सुखो दर्भकुसुमाः सुगन्धास्ते च कुर्वन्ते ॥
मूर्च्छा- छर्दि- ज्वरानाह- काश्य- क्षवसु- पीनसान् ॥

A.H.Ni.14/47-50.

Kaphaja krimi are formed in Amashaya and circulate all over the body. They are of various

shapes and sizes. They are flat like a flake of flesh, resemble to an intertwined rope or to an earthworm, some look like a sprouted grain with curvature at the mouth, some are tender, elongated or very minute. They are of whitish or reddish in colour.

There is a difference in the names of the krimis explained by various texts.

1. Names of Kaphaja krimi according to Ashtanga Hridaya

Ashtanga Hridaya has explained seven types of Kaphaja krimi:

अन्नादा उदरावेष्टा हृदयादा महापुदाः ।
सुखो दर्भकुसुमाः सुगन्धास्ते च कुर्वन्ते ॥

A.H.Ni.14/49.

1. Aantrada.
2. Udaraveshta.
3. Hridayada.
4. Mahaguda.
5. Churu.
6. Darbhakusuma.
7. Saugandha.

2. Names of Kaphaja krimi according to Charaka Samhita

Charaka has explained seven types of Kaphaja krimi:

1. Aantrada.
2. Udarada [udaraveshta]
3. Hridayada [hridayachra]
4. Darbhapushpa.
5. Churava.
6. Saugandhika.
7. Mahaguda.

3. Names of Kaphaja krimi according to Sushruta Samhita

Sushruta has explained six types of krimi:

1. Mahapushpa.

2. Darbhpushpa.
3. Praloon.
4. Chipita.
5. Pipilika.
6. Daruna.

As per Sushruta Samhita, worms have hair on their body, some of them also have tails and black circles on the body.

These worms reside at Amashya as the first site of onset and as the manifestation enhances they tend to travel towards both the extremities of the body i.e. towards the mouth and towards the anus. They produce symptoms like nausea, hyper salivation, anorexia, fever, itching sensation, giddiness, vomiting, yawning, sneezing, flatulence, abdominal distension, body ache, weight loss and roughness to the skin.

Hareeta samhita has explained 'Suchi krimi' and 'Dhanyankura krimi' as different types of krimi. Suchikrimi krimi causes pricking type of pain in the stomach, hematemesis and bleeding through stools. Other symptoms are: body ache, indigestion, tremor, thirst, hunger and fever.

Dhanyankura krimi causes various types of abscesses in the body which eventually rupture inside the system to form severe symptoms like weight loss, chest pain, body pain etc. the stool is unformed in nature.

4. Clinical features : Roopa

मूर्च्छा- चर्दि- ज्वरनाह- काश्य- क्षवदु- पीनसान् ॥

A.H.Ni.14/ 50.

1. Stupor.
2. Vomiting.
3. Fever.
4. Abdominal distension.
5. Weight loss.
6. Excessive production of sputum.
7. Chronic sinusitis.

5. Complications : Upadrava

1. Jwara- Fever
2. Atisara-Diarrhoea.
3. Body pain.
4. Pandu-Anaemia.
5. Vidradhi-Abscess formation.
6. Udara roga-Ascetis.
7. Yakrit vridhhi-Hepatomegaly.

6. Prognosis : Sadhyasadhyatva

The chronic krimi manifestation with severe pain in the stomach, which look like sprouted grain with curvature at mouth (antrada) and which gives rise to cardiac ailments is incurable- asadhya. Antrada type of krimi manifestation incurable- Asadhya. Other types of krimi are difficult to cure- kashya sadhya.

7. Dietary and behavioural regimen

1. Pathhya

Wholesome regimen:

1. Application of surasadi gana drugs.
2. Intake of Bitter, pungent type of food.
3. Drinking Mixture of yakakshara with ash of horse gram.

2. Apathhya

Unwholesome regimen:

1. Intake of milk and milk products, meat, ghee preparations, green leafy vegetables, in short intake of all food contents of sweet or sour taste shall be avoided when one wishes to get rid of krimi.

2. RAKATAJA KRIMI

1. Definition : Paribhasha

क्वन्वाहिसिरास्थानरक्ताजा जन्तवोऽणवः ।
अपादा वृत्त- ताप्राश्च सौक्ष्म्यात् केचिददर्शनाः ॥
केशादारोमविच्छिन्ना रोमद्विधा उदुम्बराः ।
षट् ते कुष्ठैककर्मणः सहसौरसमातरः ॥

A.H.Ni. 14/3-5



Krimi (germs, parasites) residing with Rakta dhatu at Raktavaha Srotas which are responsible to create various serious symptoms on the body are called as Raktaja Krimi. They reside inside the blood vessels, are very minute in size and invisible to naked eyes. They are told as rounded in shape and red in colour.

2. Predisposing factors : Nidana

अजीर्णोपशान्तनासाभ्यपिच्छद्विनाशनेः ।
अव्यायानादिशाम्बन्धुर्नीतिनिष्पिण्डैः ॥
वायुपिष्टाप्रविदलविगमनकुशेरुकेः ।
पर्णशाकसुगन्धकदपिष्टोरुदेहृषिः ॥
स्वादन्मददुदुर्वचनेषु श्लेष्मा पित्तं च कुप्यति ।
कुर्मोन् वार्धविधाकागन् करोति विविधाभयान् ॥
केपाचिन् कुर्मोणा सामान्य हेतुसाह ॥ ३३.३.३४/३-५

1. Intake of food on full stomach. Over eating.
2. Intake of food items of unknown variety.
3. Intake of mixed food items of incompatible nature.
4. Intake of food items which are unclean, dirty, stale or decaying.
5. Habit of eating soil.
6. Enjoying day time sleep.
7. Intake of food items which are cold, unctuous in nature and hard to digest.
8. Intake of items made up of black gram, of various types of vegetables, jaggery or sesame seeds (Sesamum Indicum).
9. Food items made up of milk and milk products.
10. Intake of fermented food items (wines and liquors).
11. Intake of meat of animals from marshy lands.
12. Intake of liquid food items of sweet and sour nature.

विरुजाजीर्णशाकरोः शोभितोरवा भयति हि ।

३३.३.३४/३-५

1. Intake of mixture of incompatible food items.
2. Intake of stale, decaying, dirty food.
3. Repeated eating, without digestion of previously eaten food.
4. Excessive eating of green leafy vegetables.

3. Names of Raktaja Krimi According to Ashtanga Hridaya

1. Keshada.
2. Romavidvansa.
3. Romadwipa.
4. Udumbara.
5. Saurasa.
6. Matara.

*Saurasa and Matara exist in union, hence combinedly called as 'Sahasaurasamatara' and are responsible for manifestation of Kusta (leprosy).

4. Names of Raktaja Krimi According to Sushruta Samhita

1. Keshada.
2. Romada.
3. Nakhada.
4. Dantada.
5. Kikwaha.
6. Kushthaja.
7. Patsarpa.

5. Names of Raktaja Krimi According to Charaka Samhita

1. Keshada.
2. Lemada.
3. Lomadwipa.
4. Saurasa.
5. Asadumbara.
6. Jantumatara.

Arundatta has explained 'Sahaja and Rasa matara' in his commentary to replace Saurasa and Jantumatara.

6. Clinical features : Roopa

With the indulgence of the above explained causes, Raktaja Krimi form in the Rasavaha and Raktavaha strotas.

1. Falling off the bodily hair like hair of scalp, beard, mustache, pubic hair etc.
2. When Krimi are formed in the wound they produce, itching, pricking sensation to the wound. The wound also become chronic and non healing.
3. When manifestation of these Krimi become very chronic they eat up the cartilages or soft bones, muscles, flesh and tendons of the body.
4. They are also responsible to produce various other diseases of Rakatava strotas.

7. Dietary and behavioral regimens are like Kaphaja krimi

3. PURISHAJA KRIMI

1. Definition : Pribhasha

पक्वशये पुरीषोऽथा जायतेऽथोविसर्षिणः ।
 प्रवृद्धाः सुभविषुश्च ते यदाऽमाशयोन्मुखाः ॥
 तदा ऽस्योन्नतिश्चासा विड्यन्त्यनुविधायिनः ।
 पुषुवृत्तदुशूलाः श्यावपीतितसिताः ॥
 ते पञ्चानामा क्रिमयः ककरोकमकरुकाः ।
 सौरुदाः सशुलाख्या लेलिहा जनयन्ति हि ॥
 विड्भेदशूलविष्टभ्रमकारमपारुष्यण्डुताः ।
 रोमरर्षणान्निवदनं गुदकण्डुविमर्षणाः ॥

Purishaja krimi originate in the large intestines and tend to circulate in downward portion of the body on getting matured. When they increase in number, they tend to progress towards Amashaya- stomach and small intestines and render smell of faecal material to belch and breath of the patient. Purishaja krimi are flattened, wire like, rounded, elongated, resemble to woollen thread or sometimes very small in size. They are of white, gray, green, yellow, blue colour.

A.H.Ni.14/53-56.

2. Predisposing factors : Nidana

माष-पिष्टान्न- लवण-गुंडंशके-गुरिपत्राः । S.S.Ur.54/7.
 अजीर्णप्राशनसात्सर्वविड्भ्रमलिनाथानैः ।
 अत्रायामादिवायव्यनगुर्वीतोस्मिन्मथितलेः ॥
 माषपिष्टान्नदिल्वलिविशशाक्यकरोक्केः ।
 पणशाक्यगुरुशुक्त्वदधिशीरुडेभुषिः ॥
 स्वाद्वल्द्वस्वपानैश्च श्लेष्मा पित्तं च कुयति ।
 कृमीन् बहुविधाकारान् करोति विविधाश्चयान् ॥
 कैश्चित् कृतीणां सामान्यं हेतुमाह ॥ S.S.Ur.54/3,6

15. Intake of black gram, starchy, sour, salty type of food contents, jaggery, leafy vegetables.

Other causes responsible to create Kaphaja krimi also are responsible to cause Purishaja krimi.

16. Intake of food on full stomach.
17. Intake of food items of unknown variety.
18. Intake of mixed food items of incompatible nature.
19. Intake of food items which are unclean, dirty, and stale or decaying.
20. Habit of eating soil.
21. Having day time sleep.
22. Intake of food items which are cold, unctuous in nature and heavy to digest.
23. Intake of items made up of black gram, of various types of vegetables, jaggery or sesame.
24. Food items of milk and milk products.
25. Intake of fermented food items (wines and liquors).
26. Intake of animal meat from marshy lands.
27. Intake of liquid food items of sweet and sour nature.

3. Names of Purishaja krimi

they are total five in number:
 ते पञ्चानामा क्रिमयः ककरोकमकरुकाः ।
 सौरुदाः सशुलाख्या लेलिहा जनयन्ति हि ॥

A.H.Ni. 14/55

1. Kakeruka.
2. Makeruka.
3. Sausarada.
4. Sashula.
5. Leliha.

4. Clinical features : Roopa

विड्भेदशूलविष्टभ्रमकारमपारुष्यण्डुताः ।
 रोमरर्षणान्निवदनं गुदकण्डुविमर्षणाः ॥

A.H.Ni.14/56.

1. Loose, unformed stool.
2. Pain in abdomen.
3. Constipation.
4. Weight loss.
5. Roughness of skin.
6. Paleness of skin.
7. Horripilations.
8. Reduction in power of digestive fire.

9. Itching at anus.
10. They tend to migrate towards nearer organs and produce further problems.

5. Complications : Upadrava

1. Pandu - Anemia.
2. Udlara Roga - Ascites.
3. Hepatomegaly.
4. Hydrogra - Heart Disease.
5. Jwara - Fever.
6. Anasara - Diarrhoea.
7. Shosha - Weight Loss.
8. Shotha - Oedema.

6. Prognosis : Sadhyasadhyaatva

Disease is curable in early stages.

7. Dietary and behavioral regimens are like Kaphaja krimi

1. Definition : Paribhasha

अयन्नवृद्ध्यादिनिमित्तो यदा सेवेत दुष्टं बहुशो जतं ना।
 ग्राह्यासु दोषः कुपितो विमर्षवल्दोयं नदा तस्य विद्याय भिच्छा॥
 मोक्ष स्यात् तर्कते तत्र नूनं संज्ञोव्याधौ श्वेततन्मसं नु।
 वृत्तं जीवं मोविद्व्यादः वाहृश्च त्वैरं चैवं निःसोत् स क्षताच्च॥
 कुयेच्छेद्यन्निः गुते तत्र गान्निः शाश्वत् स्थानेऽन्त्र तस्यैरमोर्जी।
 एवम् सायुको नाम रोपः ख्यातो बीरसोदिना च क्रियाऽत्र॥
 नुटयते वाय्वर्यदि जंयोर्वा प्रमादतो यस्य नस्य जातु।
 तदा नु संक्षोचसौ करोति खंज्वमद्धा क्रमतीऽपि तस्य॥ B.P.M. 57/1-4.

Dosha aggravated due to acceptance of related causes like residing at land having heavy rain and take abnormal seat at the extremities (i.e., at legs-especially at ankles) and create severe swelling which is followed by ulceration and wound formation at that site. Flesh- Mamsa dhatu dries up due to increased warmth of the affected part and turns up into a thread like structure.

The wound can aggravate if it gets cut into the middle. Swelling generally subsides only after removal of the worms from the wound. After a period of time same manifestation (relapse) may occur at different site. Ayurveda explains this condition as Snayuka. Line of treatment is suggested similar to treatment of Visarpa. Thread worms developed into the wound can be evacuated by applying paste of corn flour prepared in butter milk.

Diseases for differential diagnosis

1. Snayuka
2. Shushka
3. Visha vikara.

Reference reading

Bhavyprakash madhyama khanda Chapter 57.

1. Introduction

यः मन्त्रो ब्रह्मणो भूगर्भः शोको युगो सारणो अक्षयः।
 तस्मिन् स्नायु कारुण्येऽभिजातोऽनामोऽभिसिदिशुः॥
 शीलेपदं च स्नायुः ॥ M.S. Shleepada, chapter 194.
 शुभोऽभिसिदिशुः मर्तुषु च शीलेषाः॥
 ये देवास्तु जायन्ते स्नायुनि विधिभिः॥ S.S.No. 1817.

Shleepada is a name of a disease which explains about a pathology developing especially at the site of leg/s and which makes the leg as immovable and heavy as a rock-sheela. An infectious diaveler as per modern medicine. Shleepada is considered under category of medical condition with dosha dushya vitiation by Ayurveda.

2. Definition : Paribhasha

The disease in which slow progressing imperetrable oedema occurs on either of both the legs is called as Shleepada.

The term Shleepada is derived from word 'sheela' which means rock or stone.

In Shleepada severe swelling develops which gives rock like heaviness to the affected leg.

Dense, non pitting swelling of the affected site is the main symptom of this disease.

Generally the disease affects the legs but occasionally hands, eyes, nose, genitals and ears also are involved. Nature of the disease is extremely chronic and slow progressing.

3. Route of development : Marga

Bahya affliction of the disease is external.

4. Predisposing factors : Nidana

वायिराश्या वाक् विनाशकपास कः।
 शिरोऽभ्युत्थानं वा हेतुः स्त्रीपराय च॥
 सुमोक्षपुत्रिकाः मर्तुषु च शीलेषाः।
 ये देवास्तु जायन्ते स्नायुनि विधिभिः॥

Disease at a glance

- Nature of Disease: Chronic-chronic
- Major Involving Dosha- Kapha
- Associated dosha- Vata, Pitta
- Major Involving Dushya- Rasa Rakta, Mamsa, Meda
- Site of Manifestation: leg, Occasionally hands, eyes, nose, ears and genitals.
- Srotas: Raktavaha Srotas
- Types- Thru
- Cardinal Features: stony hard, imperetrable oedema at affected part of the body (leg)
- Difficult to cure

Prognosis

- Difficult to cure

Diseases for differential diagnosis

1. Ekanga shotha
2. Urushambha
3. Kaphaja shotha.

Reference reading

Madhavnidana Shleepada Chapter-38
 Sushrut Sambhita Nidanasarana Chapter 12
 AshNanga Hridaya Uttarabhaga 29
 Sanskrit English Dictionary
 - Apte Shabdakoasha

The disease is common in the people living at places surrounded by swampy, marshy land in which water remains stagnated for longer times. In such areas there is cold atmosphere during all the seasons. This coldness and damp, humid surrounding provokes Kapha dosha to aggravate and to produce Shleespada. Involvement of the Kapha dosha is the prime feature of the samprapti. Common Kapha aggravating causes like intake of fatty food, avoiding physical exercise etc. also contribute towards the pathogenesis of the disease.

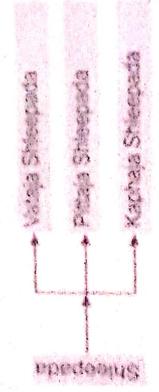
संज्ञकः श्लेष्मदीयः, श्लेष्मदीयः, श्लेष्मदीयः
संज्ञकः श्लेष्मदीयः, श्लेष्मदीयः, श्लेष्मदीयः

Water of rivers from mountain Mahendra (mountain from north range of western ghata.) is considered as responsible for affliction of Shleespada as well as Udara roga. Also, water of river from Himalaya - Himavaprabhava is considered as responsible for affliction of diseases like, Hidroga, Shotha, Shiroroga, Shleespada And Galaganda.

5. Types

Three types are mentioned as per the involvement of specific dosha.

1. Vata dominant Shleespada.
2. Pitta dominant Shleespada.
3. Kapha dominant Shleespada.



In all the three types dominance of Kapha dosha is seen in the samprapti of Shleespada. Other dosha always play secondary role to Kapha dominance.

6. Pathogenesis : Samprapti

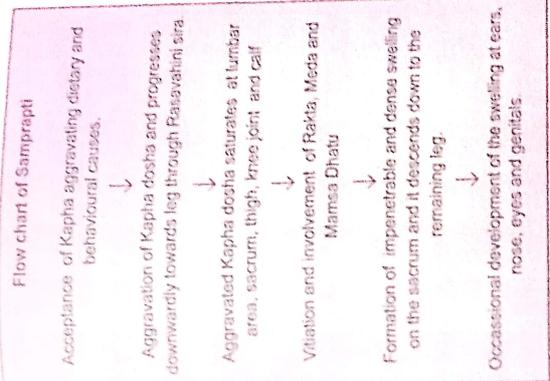
प्रथितो वसतोर्वादिषु काय कफोष्णः ।
 दोषो नासाय पादो कालेनाधिक्यं कुर्वन्ने ।
 शनैः शनैः एन शोकं श्लेष्मदीं तपश्चते ॥

जगत्सु श्लेष्मदीयदोषात् ॥
 स्वाच्छ्लेष्मदीं मासककार्यदोषात् ॥
 यः सन्धरो वलगतो भृगतिः शोथो गुणं पादात् क्रमेण ।
 तद्विषदं स्यात् कश्चिन्नेत्रिश्लेष्मदीयदोषात् ॥
 केचिदाहुः ॥
 श्लेष्मदीयानि जानीयात् श्लेष्मदीयानि कफोष्णत् ॥
 मुठत्वं च महत्वं च यस्मान्नास्ति कश्चिन्दिना ॥
 पट्टी मेहिनी नाम त्रीशिरसाणा, श्रवणस्यदुर्गन्ताः ।
 गतस्यद्विष्टाना ॥

Due to acceptance of Kapha aggravating dietary and behavioral causes, Kapha dosha aggravates and progresses downwards through channels carrying Rasa dhātu- (Rasavaha sira) and saturates in the lumbar area, sacrum, thigh, knee joint and calf respectively. Rakta, Meda and Mamsa also get vitiated and contribute to form the pathogenesis of Shleespada. The swelling is impenetrable and dense. Onset of the swelling is on the sacrum and it descends down to the remaining part of the leg. Occasionally the swelling develops at ears, nose, eyes and genitals and is called as Shleespada of that particular organ. Origin of the disease is in the Rasavaha srotas and descends on the leg/s. Kapha dosha is the prominent factor responsible to cause Shleespada. Sixth layer of skin called as Rohini, which is equal to thickness of a rice grain, which is the seat responsible to cause Shleespada. Granthi-Apachi-Arbuda, Shleespada And Galaganda.

7. Premonitory features : Purvarupa

1. Heaviness at sacrum.
2. Dull pain in the legs.



Components of pathogenesis:

- Samprapti bhataka
- Dosh: Kapha.
- Dushya: Rakta, Mamsa, Meda.
- Srotas: Rasavaha and Rakavaha srotas.
- Adhishthana: leg- Rasavahini sira- Lymphatic system.
- Srotodusti: Vnamagamana.
- Swabhava: Chikhan.
- Agni dushti: Jatharagni, Rasa agni and Rakta agni-Agrimandya

8. Clinical features : Roopa

1. Pain in the legs.
2. Severe swelling of one or both the legs. The quality of the swelling is very dense.

Dense oedema remains the salient feature of the disease.

3. Fever.

9. Special features as per Dosha involvement.

- 9.1 Vataja Shleespada**
- नय, वायवं खां कृम्य परानिनिविरुक्तं शिरुकुटीने च बुद्ध्याः ॥ S.S.N.12/14
- वायवं खां कृम्यायं च सुकृतिं तीव्रवेदनम् ।
 श्लेष्मदीयं नय बुद्ध्यां खां च ॥
1. Black discoloration of affected part.
 2. Rough feel of the affected part.
 3. Pain -especially at legs. Onset of the pain is abrupt.
 4. Scaling of the skin at affected part.
 5. Fever.

9.2 Pittaja Shleespada

- रित्तं नु पीतायभासंयुद्धुन्मदाशयं च ॥ S.S.N.12/14
1. Yellowish discoloration of affected part.
 2. Burning sensation.
 3. Fever.
 4. Swelling is less severe as compared to the other types.

9.3 Kaphaja Shleespada

- श्लेष्मत्तं तु श्लेष्मिणावभासं नदवेदनं मांसिकं महामांसिकं कटकेत्यसिं च ॥ S.S.N.12/14
1. Whitish, pale discoloration of affected part.
 2. Severe painless.
 3. Smooth feel of the swollen part.
 4. Painless.
 5. Very dense swelling, with small fleshy thorny elongations.

10. Complications : Upadrava

Inability to walk.

13. Fatal symptoms :

Asadhya laxanani of Shleepada

वलिकमिव संजातं कण्टकैरुपचीयते ।
अब्दालकं महत्त्व वजनीयं विशेषतः ॥

M.Ni.- Shleepada- chapter- 39/4

Shleepada is called as incurable- Asadhya when following symptoms are seen.

8. When it becomes a chronic disease with more than one year of onset.
9. Huge swelling of the affected site with formation of warts.
10. Swollen part resembles to the ant hill.
11. Severe itching.
12. Copious secretions.

14. Dietary and behavioral regimen

14.1 Pathya

wholesome regimen:

1. Intake of light, easy to digest type of food.
2. Administration of body cleansing procedures like virechana, blood letting application of external medicines in form of paste- lepana.
3. Usage of cow urine, garlic, brinjal etc.
4. Restricted diet.

14.2 Apathya

unwholesome regimen:

1. Intake of hard to digest, unctuous food.
2. Milk and milk products.
3. Meat of animals living in marshy lands.
4. Overeating.

•••

11. After effects : Udarka

- Permanent weakness of the legs.
- Pain.

12. Prognosis :

Sadhya-Asadhya laxanana

वलिकमिव संजातं कण्टकैरुपचीयते ।

अब्दालकं महत्त्व वजनीयं विशेषतः ॥

M.Ni.- Shleepada- chapter- 39/4.

यच्छ्लेष्मलाहारविहाजातं पुंसुः प्रकृत्याऽपि कफालकस्य ।
सास्त्रावमृत्युगतवर्लिंगं सकण्ठुं श्लेष्मयुतं विवर्ज्यम् ॥

M.Ni.- Shleepada- chapter- 39/7.

सत्रं संवस्रातीतमितिमहद्वलीकजातं प्रसृतमिति
वजनीयानि ॥

S.S.Ni.12/15.

Shleepada is said to be incurable- asadhya when following symptoms are seen.

1. A chronic disease with more than one year of onset.
2. Huge swelling of the affected site with formation of warts.
3. Huge swelling. Swollen part resembles to an ant hill.
4. Severe itching.
5. Shleepada with Copious secretions.
6. Shleepada developed in person having Kapha dominant basic constitution- (prakriti) and who is also prone to accept Kapha aggravating dietary contents.
7. Shleepada displaying all the symptoms with severity.

Chapter

202

INTRODUCTION TO FILARIASIS

1. Definition

Filariasis or philariasis is a parasitic disease caused by an infection with roundworms of the Filarioidea type. These are spread by blood-feeding black flies and mosquitoes. This disease belongs to the group of diseases called helminthiasis.

Eight known filarial nematodes use humans as their definitive hosts. These are divided into three groups according to the niche within the body they occupy:

- Lymphatic filariasis is caused by the worms Wuchereria bancrofti, Brugia malayi, and Brugia timori. These worms occupy the lymphatic system, including the lymph nodes; in chronic cases, these worms lead to the disease elephantiasis.
- Subcutaneous filariasis is caused by Loa loa (the eye worm), Mansonella streptocera, and Onchocerca volvulus. These worms occupy the subcutaneous layer of the skin, in the fat layer. L. loa causes Loa loafilariasis, while O. volvulus causes river blindness.
- Serous cavity filariasis is caused by the worms Mansonella perstans and Mansonella ozzardi, which occupy the serous cavity of the abdomen.

2. Causes

Human filarial nematode worms have complicated lifecycles, which primarily consists of five stages. After the male and female worms mate, the female gives birth to live microfilariae by the thousands. The microfilariae are taken up by the vector insect

(intermediate host) during a blood meal. In the intermediate host, the microfilariae molt and develop into third-stage (infective) larvae. Upon taking another blood meal, the vector insect injects the infectious larvae into the dermis layer of the skin. After about one year, the larvae molt through two more stages, maturing into the adult worms.

3. Symptom

The most spectacular symptom of lymphatic filariasis is elephantiasis—edema with thickening of the skin and underlying tissues—which was the first disease discovered to be transmitted by mosquito bites. Elephantiasis results when the parasites lodge in the lymphatic system. Elephantiasis affects mainly the lower extremities. Different species of filarial worms tend to affect different parts of the body; Wuchereria bancrofti can affect the legs, arms, vulva, breasts, and scrotum (causing hydrocele formation), while Brugia timori rarely affects the genitals. Those who develop the chronic stages of elephantiasis are usually anurofilariemic, and often have adverse immunological reactions to the microfilariae, as well as the adult worms.

The subcutaneous worms present with rashes, urticarial papules, and arthritis, as well as hyper- and hypopigmentation macules. Onchocerca volvulus manifests itself in the eyes, causing "river blindness" (onchocerciasis), one of the leading causes of blindness in the world. [Serous cavity filariasis presents with symptoms similar to subcutaneous filariasis, in addition to

reflect the feeding activities of the vector insects. Examples are *W. bancrofti*, whose vector is a mosquito; night is the preferred time for blood collection. *Loa loa's* vector is the deer fly; daytime collection is preferred. This method of diagnosis is only relevant to microfilariae that use the blood as transport from the lungs to the skin. Some filarial worms, such as *M. streptocerca* and *O. volvulus*, produce microfilariae that do not use the blood; they reside in the skin only. For these worms, diagnosis relies upon skin snips, and can be carried out at any time.

4. Diagnosis

Filariasis is usually diagnosed by identifying microfilariae on Giemsa stained, thin and thick blood film smears, using the "gold standard" known as the finger prick test. The finger prick test draws blood from the capillaries of the finger tip; larger veins can be used for blood extraction, but strict windows of the time of day must be observed. Blood must be drawn at appropriate times, which

Chapter 202

INTRODUCTION TO GENERAL CONCEPT OF PARASITOLOGY

1. Classification of medical parasitology

Medical Parasitology is generally classified into:

1. Medical Protozoology - Deals with the study of medically important protozoa.
2. Medical Helminthology - Deals with the study of helminthes (worms) that affect man.
3. Medical Entomology - Deals with the study of arthropods which cause or transmit disease to man.

2. Basic concepts in medical parasitology

In medical parasitology, each of the medically important parasites are discussed under the standard subheadings as described below;

1. Morphology - includes size, shape, color and position of different organelles in different parasites at various stages of their development. This is especially important in laboratory diagnosis which helps to identify the different stages of development and differentiate between pathogenic and commensal organisms. For e.g. *Entamoeba histolytica* and *Entamoeba coli*.
2. Geographical distribution - Even though revolutionary advances in transportation has made geographical isolation no longer a protection against many of the parasitic diseases, many of them are still found in abundance in the tropics. Distribution of parasites depends upon: a. The presence and food

habits of a suitable host, For e.g. Host specificity, for example, *Ancylostoma duodenale* requires man as a host where *Ancylostoma caninum* requires a dog. Food habits, for e.g. consumption of raw or undercooked meat or vegetables predisposes to *Taeniasis*.

3. Easy escape of the parasite from the host - the different developmental stages of a parasite which are released from the body along with faeces and urine are widely distributed in many parts of the world as compared to those parasites which require a vector or direct body fluid contact for transmission.
4. Environmental conditions favoring survival outside the body of the host, i.e. temperature, the presence of water, humidity etc.
5. The presence of an appropriate vector or intermediate host - parasites that do not require an intermediate host (vector) for transmission are more widely distributed than those that do require vectors.

3. Different kinds of parasites

1. **Ectoparasite** - a parasitic organism that lives on the outer surface of its host, e.g. lice, ticks, mites etc.
2. **Endoparasites** - parasites that live inside the body of their host, e.g. *Entamoeba histolytica*.
3. **Obligate Parasite** - This parasite is completely dependent on the host during a segment or all of its life cycle, e.g. *Plasmodium* spp.
4. **Facultative parasite** - an organism that

exhibits both parasitic and non-parasitic modes of living and hence does not absolutely depend on the parasitic way of life, but is capable of adapting to it if placed on a host. E.g. *Naegleria fowleri*.

5. Accidental parasite – when a parasite attacks an unnatural host and survives. E.g. *Hymenolepis diminuta* (rat tapeworm).

6. Erratic parasite – is one that wanders in to an organ in which it is not usually found. E.g. *Entamoeba histolytica* in the liver or lung of humans. Most of the parasites which live in/on the body of the host do not cause disease (non-pathogenic parasites).

4. Different kinds of hosts

1. **Definitive host** – a host that harbours a parasite in the adult stage or where the parasite undergoes a sexual method of reproduction.
2. **Intermediate host** – harbours the larval stages of the parasite or an asexual cycle of development takes place. In some cases, larval development is completed in two different intermediate hosts, referred to as first and second intermediate hosts.
3. **Paratenic host** – a host that serves as a temporary refuge and vehicle for reaching an obligatory host, usually the definitive host, i.e. it is not necessary for the completion of the parasites life cycle.
4. **Reservoir host** – a host that makes the parasite available for the transmission to another host and is usually not affected by the infection.
5. **Natural host** – a host that is naturally infected with certain species of parasite.
6. **Accidental host** – a host that is under normal circumstances not infected

with the parasite. There is a dynamic equilibrium which exists in the interaction of organisms. Any organism that spends a portion or all of its life cycle intimately associated with another organism of a different species is considered as Symbiont (symbiotic) and this relationship is called symbiosis (symbiotic relationships).

5. The following are the three common symbiotic relationships between two organisms

1. **Mutualism** – it is an association in which both partners are metabolically dependent upon each other and one cannot live without the help of the other; however, none of the partners suffer any harm from the association. For e.g. relationship between certain species of flagellated protozoa living in the gut of termites. The protozoa, which depend entirely on a carbohydrate diet, acquire their nutrients from termites. In return they are capable of synthesizing and secreting cellulases; the cellulose digesting enzymes, which are utilized by termites in their digestion.
2. **Commensalism** – it is an association in which the commensal takes the benefit without causing injury to the host. For e.g. Most of the normal floras of the humans' body.
3. **Parasitism** – it is an association where one of the partners is harmed and the other lives at the expense of the other. For e.g. Worms like *Ascaris lumbricoides* reside in the gastrointestinal tract of man and feed on important items of intestinal food causing various illnesses.

lower resistance of the host or a higher pathogenicity of the parasite.

- c. **Parasite destruction** – occurs when the host takes the upper hand.

7. Laboratory diagnosis

depending on the nature of the parasitic infections, the following specimens are selected for laboratory diagnosis:

- a. **Blood** – in those parasitic infections where the parasite itself in any stage of its development circulates in the blood stream, examination of blood film forms one of the main procedures for specific diagnosis. For example, in malaria the parasites are found inside the red blood cells. In Bancroftian and Malayan filariasis, microfilariae are found in the blood plasma.
- b. **Stool** – examination of the stool forms an important part in the diagnosis of intestinal parasitic infections and also for those helminthic parasites that localize in the biliary tract and discharge their eggs into the intestine. In protozoan infections, either trophozoites or cystic forms may be detected; the former during the active phase and the latter during the chronic phase. Example, Amoebiasis, Giardiasis, etc. In the case of helminthic infections, the adult worms, their eggs, or larvae are found in the stool.
- c. **Urine** – when the parasite localizes in the urinary tract, examination of the urine will be of help in establishing the parasitological diagnosis. For example in urinary Schistosomiasis, eggs of *Schistosoma haematobium* are found in the urine. In cases of chyluria caused by *Wuchereria bancrofti*, microfilariae are found in the urine.

6. Effect of parasites on the host is classified in two types

- A. **Direct effects of the parasite on the host.**
 1. **Mechanical injury** - may be inflicted by a parasite by means of pressure as it grows larger, e.g. Hydatid cyst causes blockage of ducts such as blood vessels producing infarction.
 2. **Deleterious effect of toxic substances** - in *Plasmodium falciparum* production of toxic substances may cause rigors and other symptoms.
 3. **Deprivation of nutrients, fluids and metabolites** - parasite may produce disease by competing with the host for nutrients.
- B) **Indirect effects of the parasite on the host:**
 1. **Immunological reaction:** Tissue damage may be caused by immunological response of the host, for e.g. nephritic syndrome following *Plasmodium* infections.
 2. **Host parasite relationship** - infection is the result of entry and development within the body of any injurious organism regardless of its size. Once the infecting organism is introduced into the body of the host, it reacts in different ways and this could result in:
 - a. **Carrier state** - a perfect host parasite relationship where tissue destruction by a parasite is balanced with the host's tissue repair. At this point the parasite and the host live harmoniously, i.e. they are at equilibrium.
 - b. **Disease state** - this is due to an imperfect host parasite relationship where the parasite dominates the upper hand. It can result either from

Animalia: Animalia include multicellular, macroscopic worms for e.g. helminthes.

11. Classification of medically important parasites protozoa metazoa (helminths)

Sarcodina (Amoebae): Platyhelminthes; (a) Genus, Entameba: Trematodea: E.g. Entameba histolytica (a) Genus Schistosoma (b) Genus Endolimax E.g. S. mansoni E.g. Endolimax nana (b) Genus Fasciola (c) Genus Iodameba E.g. F. hepatica E.g. Iodameba butchlii Cestoda: (d) Genus Dientameba (a) Genus Diphylobothrium E.g. Dientameba fragilis E.g. D. latum Mastigophora (Flagellates): (b) Genus Taenia (a) Genus Giardia E.g. T. saginata E.g. G. lamblia (c) Genus Echinococcus (b) Genus Trichomonas E.g. E. granulosus E.g. T. vaginalis (d) Genus Hymenolepis (c) Genus Trypanosoma E.g. H. nana E.g. T. brucei Nematelminthes: (d) Genus Leishmania (a) Intestinal Nematodes E.g. L. donovani E.g. A. lumbricoides Sporozoa (b) Somatic Nematodes (1) Genus Plasmodium E.g. W. bancrofti E.g. P. falciparum (2) Genus Toxoplasma E.g. T. gondi (3) Genus Cryptosporidium E.g. C. parvum (4) Genus Isospora E.g. I. belli Ciliates E.g. Balantidium coli Parasitology

12. General characteristics of medically important parasites

Medically important protozoa, helminthes, and arthropods, which are identified as causes and propagators of disease have the following general features. These features also differ among parasites in a specific category. PROTOZOA Protozoan parasites consist of a single "cell-like unit" which is morphologically

and functionally complete and can perform all functions of life. They are made up of a mass of protoplasm differentiated into cytoplasm and nucleoplasm. The cytoplasm consists of an outer layer of hyaline ectoplasm and an inner voluminous granular endoplasm. The ectoplasm functions in protection, locomotion, and ingestion of food, excretion, and respiration. In the cytoplasm there are different vacuoles responsible for storage of food, digestion and excretion of waste products. The nucleus also functions in reproduction and maintaining life. The protozoal parasite possesses the property of being transformed from an active (trophozoite) to an inactive stage, losing its power of motility and enclosing itself within a tough wall. The protoplasmic body thus formed is known as a cyst. At this stage the parasite loses its power to grow and multiply. The cyst is the resistant stage of the parasite and is also infective to the human host. Reproduction is by:

Sexual reproduction: (a) Conjugation – in this process, a temporary union of two individuals occurs during which time interchange of nuclear material takes place. Later on, the two individuals separate. (b) Syngamy – in this process, sexually differentiated cells, called gametes, unite permanently and a complete fusion of the nuclear material takes place. The resulting product is then known as a zygote. Protozoa are divided into four types:

1. Amoebas
2. Ciliates
3. Flagellates
4. Sporozoans.

13. Classification of the pathogenic protozoa

1. Rhizopoda Pseudopodia Entamoeba histolytica (Amoeba)
2. Mastigophora Flagella Trypanosomes (Flagellates) Leishmania Trichomonas Giardia
3. Sporozoa None, exhibit a slight Plasmodium-Spp Amoeboid movement
4. Ciliates Cilia Balantidium coli.

Helminths: The helminthic parasites are multicellular, bilaterally symmetrical animals having three germ layers. The helminthes of importance to human beings are divided into three main groups with the peculiarities of the different categories described as under;

S.No.	Helminthes	Cestode	Trematode	Nematode
Shape	Tape like	segmented Leaf like	Unsegmented	Elongated, Cylindrical
Sex	Not separate	Not separate	Separate	Separate
Head	End Suckers	with hooks	Suckers and hooks	no hooks No suckers

Arthropods : Arthropods form the largest group of species in the animal kingdom. They are characterized by having a bilaterally symmetrical and segmented body with joined appendages. They have a hard exoskeleton, which helps enclose and protect the muscles and other organs. An open circulatory system, with or without a dorsally situated heart

8. Treatment

medicinal treatment. chemotherapy.

9. Preventive measures

1. Reduction of the source of infection
2. Sanitary control of drinking water and food.
3. Proper waste disposal
4. The use of insecticides and other chemicals used to control the vector population.
5. Protective clothing that would prevent vectors from resting in the surface of the body and inoculate pathogens during their blood meal.
6. Good personal hygiene.
7. Avoidance of unprotected sexual practices.

10. Classification of Medical Parasitology

Parasites of medical importance come under two major categories;

Protista: Protista include the microscopic single-celled eukaryotes known as protozoa.

and functionally complete and can perform all functions of life. They are made up of a mass of protoplasm differentiated into cytoplasm and nucleoplasm. The cytoplasm consists of an outer layer of hyaline ectoplasm and an inner voluminous granular endoplasm. The ectoplasm functions in protection, locomotion, and ingestion of food, excretion, and respiration. In the cytoplasm there are different vacuoles responsible for storage of food, digestion and excretion of waste products. The nucleus also functions in reproduction and maintaining life. The protozoal parasite possesses the property of being transformed from an active (trophozoite) to an inactive stage, losing its power of motility and enclosing itself within a tough wall. The protoplasmic body thus formed is known as a cyst. At this stage the parasite loses its power to grow and multiply. The cyst is the resistant stage of the parasite and is also infective to the human host. Reproduction is by:

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14. Summary

A parasite is an organism which lives in/on the body of a host. A host is that which harbors the parasite. There is usually some association such as mutualism, commensalism, or parasitism between the parasite and the host. This association may produce a variety of effects and the host usually tends to react to it. Understanding the various structural and behavioral components of parasites assists classification. In general, the protozoa, helminthes and arthropods are the most commonly studied and the most important parasites in medical parasitology. They are further sub classified considering many parameters.

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