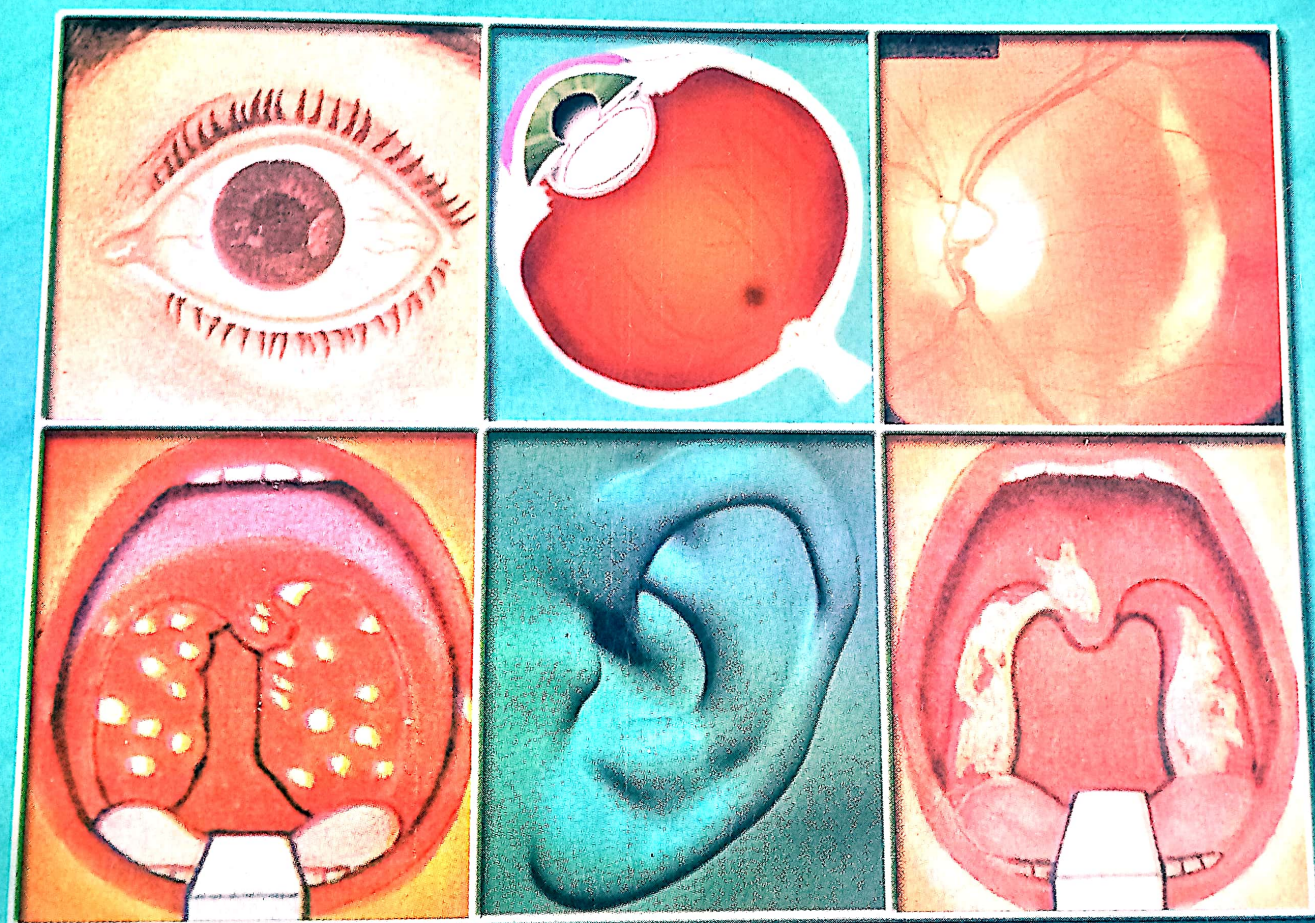


The Shalakya Tantra

DISEASES OF EYE, HEAD & E.N.T.



Dr. Dingari Lakshmana Chary

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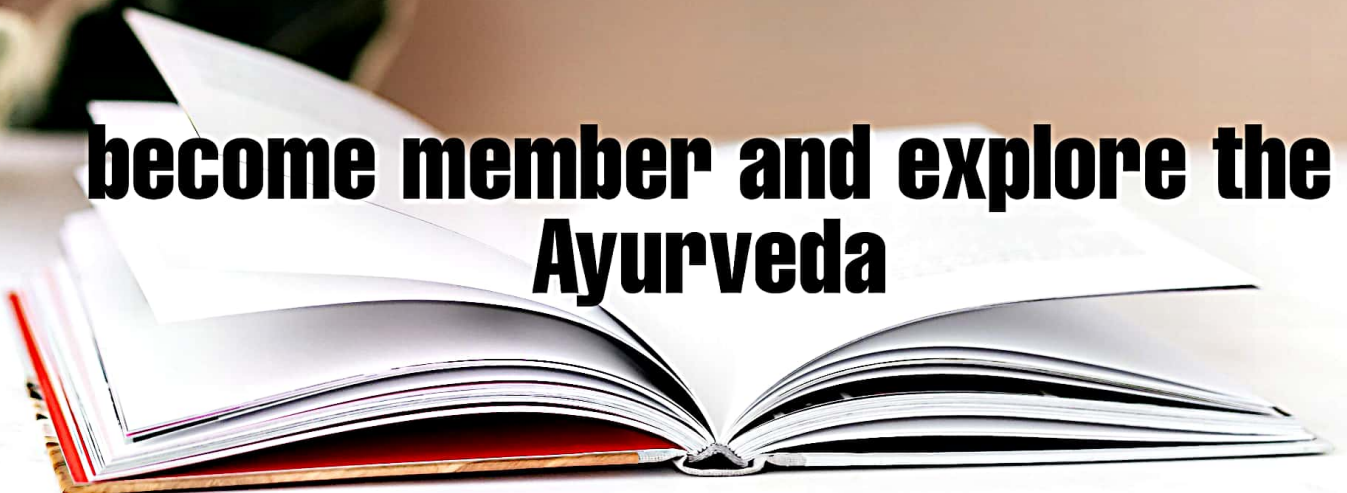
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Late Shri Dingari Venkata Charyulu
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FORE WORD

The Shalakya Tantra is an important Branch of Ayurveda dealing with the diseases of E.N.T. and eye, written by Dr. D. Lakshmana Chary. B.A. M.S; M.D; (Ph.D) Shalakya, in English language is based on the syllabus contents of B.A.M.S. degree course. This book is helpful not only to the students of Ayurveda but also to the teachers of Shalakya Tantra.

The work of Dr. Chary is really appreciable. He has taken great pains to compile and collect the various scholarly commentaries and tried to compare and contrast them to elucidate the real interpretation for better understanding of the subject. His work is the need of the hour, particularly for the students of south where the books in English Language are very few. This work fulfills the long felt need of the students.

I welcome this publication on "Shalakya Tantra" subject and congratulate the young author for this onerous task which he completed energetically and patiently. I wish him all success and hope that he will continue to write many more books on various subjects in future with this experience, I feel honoured to write this foreword for the book brought out by Dr. Chary who was my student. I wish him success in all his future endeavour.

With love and blessings

Prof. Dr. V.S. PATIL

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बाल आंजनेय स्वामि (शेषु) प्रसन्न

गणेश स्तुति

शुक्लाम्बरधरं विष्णुं शशिवर्णम् चतुर्भुजम्
प्रसन्न वदनम् ध्येयतसर्वं विघ्नोपशान्तये

धन्वंतरि प्रार्थन

नमामि धन्वंतरि मादिदेवम्
सुरा सुरैर्वन्दित पाद पद्मम्
लोके जारा रुग्भय मृत्युनाशम्
दातार मीशं विविधौशधीनाम्

रागादि रोगाः सहजाः समूला
येनाशु सर्वे जगातोप्यपास्तः
तमेक वैद्यं शिरसा नमामि
वैद्याग मञ्जारिचां पितामहादीन

SHIRO ROGA DISEASES OF HEAD

शिरोरोग

प्राणाः प्राणभृतां यत्र श्रिताः सर्वेन्द्रियाणि च ।
यदुत्तमाङ्गमङ्गानां शिरस्तदधिधीयते ॥

(च. सू. अ. 17)

शिरो रुजति मर्त्यानां वातापित्तकफैस्त्रिभिः ॥

(सु. उ. अ. 25)

हृदये मूर्ध्नि वस्तौ च नृणां प्राणाः प्रतिष्ठिताः ।
तस्मात्तेषां सदा यत्नं कुर्वीत परिपालने ॥
आवाधवर्जनं नित्यं स्वस्थवृत्तानुवर्तनम् ।
उत्पन्नार्तिविघातश्च मर्मणां परिपालनम् ॥

(च. सि. अ. 9)

सुश्रुत के मत से शिरोरोग

शिरो रुजति मर्त्यानां वातापित्तकफैस्त्रिभिः
सन्निपातेन रक्तेन क्षयेन क्रिमिभिस्तथा ॥
सूर्यावर्तानन्तवातार्धावभेदकशङ्खकैः ।
एकादशप्रकारस्य लक्षणं सम्प्रवक्ष्यते ॥

शिरोरोग के कारण

धूमातपतुषाराम्बुक्रोडातिस्वप्नजागरैः ।
उत्स्वेदाधिपुरोवातवाष्पनिग्रहरोदनैः ॥
अत्यम्बुमद्यपानेन कृमिभिर्वेगधारणैः ।
उपधानमृजाभ्यङ्गद्वेषाधःप्रततेक्षणैः ॥
असात्यगन्धदुष्टामभाष्याद्यैश्च शिरोगाताः ।
जनयन्त्यामयान् दोषाः

(अ. ह. उ. अ. 23)

1. वातिक शिरोरोग लक्षण

यस्यानिमित्तं शिरसो रुजश्च भवन्ति तीव्रा निशि चातिमात्रम् ।
वन्धोपतापैश्च भवेद्विशेषः शिरसोभितापः स समीरणेन ॥

(सु. उ. अ. 25/5)

तत्रमारुतकोपतः ॥
निस्तुद्येते भृशं शंखौ घाटा सम्भिद्यते तथा ।
भुवोर्मध्यं ललाटं च पततीवातिवेदनम् ॥
वाध्येते स्वनतः श्रोत्रे निष्कृष्येते इवाक्षिणी ।
घूर्णतीव शिरः सर्वं सनिधय इव मुच्यते ॥
स्फुरत्यति सिराजालं कन्धराहनुसाग्रहः ।
प्रकाशासहता घ्राणस्त्रावोकस्माद् व्याथाशमौ ॥
मार्दवं मर्दनस्नेहस्वेदबन्धैश्च जायते ।
शिरस्तापोयम्

(अ. ह. उ. अ. २३)

2. पैनिक शिरोरोग

यस्योष्णमङ्गारचितं यथैव दह्येत धूप्येत शिरोक्षिनासम् ।
शीतेन रात्रौ च भवैद् विशेषः शिरोभितापः सतु पित्तकोपात् ॥

(सु. उ. अ. 25/6)

शिरोभितापे पित्तोत्थे शिरोधूमायनं ज्वरः ।
स्वेदोदिहनं मूर्च्छां निशि शीतैश्च मार्दवम् ॥

(अ. ह. उ. अ. २३)

3. कफज शिरोरोग

शिरोगलं यस्य कफोपदिग्धं गुरुप्रतिष्ठब्धमथो हिमं च ।
शूनाक्षिकूटं वदनं च यस्य शिरोभितापः स कफप्रकोपात् ॥

(सु. उ. अ. 25/7)

4. रक्तज शिरोरोग

रक्तात्मकः पित्तसमानलिङ्गः स्पर्शासहत्वं शिरसो भवेच्च ॥

(सु. उ. अ. 25/8)

5. त्रिदोषज शिरोरोग

शिरोभितापे त्रितयप्रवृत्ते सर्वणि लिङ्गानि समुद्भवन्ति ॥

(सु. उ. अ. 25/8)

6. क्षयज शिरोरोग

बसाबलासक्षतसम्भवानां शिरोगतानामिह संक्षयेण ।
क्षयप्रवृत्तः शिरसोभितापः कष्टो भवेदुग्ररुजोतिमात्रम् ॥
संस्वेदनच्छर्दनधूमनस्येस्सुग्विमोक्षैश्च विवृद्धिमेति ।

(सु. उ. अ. 25/9)

7. कृमिज शिरोरोग

निस्तुद्यते यस्य शिरोतिमात्रं संभक्ष्यमाणं स्फुदतीव चान्तः ।
घ्राणाच्च गच्छेत् सलिलं सरक्तं शिरोभितापः कृमिभिः स घोरः ।
संकीर्णैर्भोजनैर्मूर्ध्नि क्लेदिते रुधिरामिषे ।
कोपिते सन्निपाते च जयन्ते मूर्ध्नि जन्तवः ॥
शिरसस्ते पिबन्तोऽसं घोराः कुर्वन्ति वेदनाः ।
चित्तविभ्रंशजननीज्वरः कासो बलक्षयः ॥
रौक्ष्यशोफव्यधच्छेददाहस्फुरणपूतिताः ।
कपाते तालुशिरसोः कण्डूः शोफः प्रमीलकः ॥
ताम्राच्छसिङ्गाणकता कर्णनादश्च जन्तुजे ।

(अ. ह. उ. अ. २३)

8. सूर्यावर्त

सूर्योदयं या प्रतिमन्दमन्दमाक्षभुवं रुक् समुपैति गाढम् ॥
विवर्धते चांशुमता सहैव सूर्यापवृत्तो विनिवर्तते च ।
शीतेन शान्तिं लभते कदाचिदुष्णं जन्तुः सुखमाप्नुयाच्च ॥
तं भास्करावर्तमुदाहरन्ति सर्वात्मकं कष्टमं विकारम् ।

चरक का मत से सूर्यावर्त-निदान और समप्राप्ति

सन्धारणादजीर्णाद्यैर्मिस्तष्कं रक्तारुतौ ।
दुष्टौ दूषयतस्तच्च दुष्टं ताभ्यां विमूर्च्छितम् ।
सूर्योदयेऽंशुमंतापाद्रवम विष्यन्दते शनैः ।
ततो दिने शिरःशूलं दिनवृद्ध्या विवर्धते ॥
दिनक्षय ततः स्थाने मस्तिष्के संप्रशाम्यति ।
सूर्यावर्तः स तत्र स्यात्

(च. सि. अ. ९)

विदेहमत में सूर्यावर्त-विपर्यय

तत्र वातानुगं पित्तं चिते शिरसि तिष्ठति ।
मध्याह्ने तेजसार्कस्य तद् विवृद्धं शिरोरुजम् ॥
करोति पैत्तिकीं घोरां सम्प्रशाम्यति दिनक्षये ।
अस्तं गते प्रभाहोने सूर्ये वायुर्विवर्धते ॥
पित्तं शान्तिमवाप्नोति ततः शाम्यति वेदना ।
एष पित्तानिलकृतः सूर्यावर्त-विपर्ययः ॥

वाग्भट के मत से सूर्यावर्त

पित्तानुबद्धः शंखास्थिभ्रूललाटेषु मारुतः ।
रुजं सस्पन्दनां कुर्यादनुसूर्योदयोदयाम् ॥
आमध्याह्नं विवाधिष्णुः क्षुद्रतः सा विशेषतः ।
अव्यवस्थितशीतोष्णसुखा शाम्यत्यतः परम् ॥
सूर्यावर्तः स इत्युक्ता दश रोगा शिरोगताः ।

(अ. ह. उ. अ. २३)

9. अनन्तवात

दोषस्तु दुष्टास्त्रय एव मन्यां संपीड्य घाटासु रुजां सुतीव्राम् ॥
कुर्वन्ति साक्षिभ्युवि शंखदेशे स्थितिं करोत्याशु विशेषतस्तु ।
गण्डस्य पार्श्वे तु करोति कम्पं हनुग्रहं लोचनाजांश्च रोगान् ॥
अनन्तवातं तमुदाहरन्ति दोषत्रयोत्थं शिरसो विकारम्

(सु. उ. अ. 25/13,14)

(उपवासातिशोकातिरूक्षशीताल्पभोजनैः)

दुष्टा दोषास्त्रयोमन्यापश्चाद्घाटासु वेदनाम् ॥
तीव्रान् कुर्वन्ति सा चाक्षिभ्युशंखेष्ववतिष्ठते ।
स्पन्दनं गण्डपार्श्वस्य नेत्ररोगं हनुग्रहम् ॥
सोनन्दवातस्तं हन्यात्

(च. सि. अ. ९)

10. अर्धावभेदक या अर्धभेद

यस्योत्तमाङ्गार्धमतीव जन्तोः संभेदतोदभ्रमशूलजुष्टम् ॥
पक्षाहशाहार्धवाप्यकस्मात्तस्यार्धभेदं त्रितयाद् व्यवस्थेत् ।

(सु. उ. अ. 25/15)

पक्षात् कुप्यति मासाद् वा स्वयमेव च शाम्यति ।
अतिवृद्धस्तु नयनं श्रवणं वा विनाशयेत् ॥

(अ. ह. उ. अ. २३)

11. शङ्खरोग

शंखाश्रितो वायुरुदीर्णवेगः कृतानुचात्रः कफपित्तकैः ॥
रुजः सुतीव्राः प्रतनोति मूर्ध्नि विशेषतश्चापि हि शंखयोस्तु ।
सुकष्टमेनं खलु शंखकाष्ठं महर्षयो वेदविदः पुराणाः ॥
व्याधिं वदन्त्युदगतमृत्युकल्पं भिषक्सहस्रैरपि दुर्निवारम् ।

(सु. उ. अ. 25/16,17)

चरकः

रक्तपित्तानिला दुष्टाः शंखदेशे विमूर्छिताः ।
तीव्ररुग्दाहराणं हि शोफं कुर्वन्ति दारुणम् ॥
स शिरो विषवद्वेगी निरुध्याशु गलं तथा ।
त्रिरात्राजीवितं हन्ति शंखको नाम नामतः ॥
परं त्र्यहाजीवति चेत् प्रत्याख्यायाचरेत् क्रियाम् ।

(च. सि. अ. ९)

DISEASES OF HEAD (SHIRO ROGAS.)

Synonyms of Shiras :- Mastaka 2) Urdwa Kaya 3) Urdwanga 4) utthamanga 5) Munda 6) Sheersha 7) urdwa Hrudaya 9) Urdwa Kaphaashaya 9) Urdwajathru 10) Deva kosha 11) Manomaya kosha 12) Shiro hrudaya.

Importance of Shiras :-

Shiras (head) is known as utthamanga for Existing vital organs like prana, Indria, Prana vaha srotas, sadyo pranahara marma, pranavata, sadaka pitta, Alochaka pitta, Tarpaka sleshma and it is the seat for all gyanavah (sensory) Chestavah (motor) prayatna etc.

REFERENCES EXPLAINING THE IMPORTANCE OF SHIRAS :-

- 1) It is the seat of prana and all indrias (prana = Agni + soma + Vayu + Satwaguna + Rajoguna + Tamoguna + Indrias + Pancha maha bhootha) (Charak Sutra Sthana.)
- 2) Description of purusha sooktha starts with shiras.
- 3) In "Atharvana veda" shiras is explained as "Devakosha".
- 4) In "Thilithareya upanishad" shiras is explained as "Manomaya Kosha".
- 5) "Shakthyopanishad" explained the importance of the Bhru of Shiras.
- 6) In yoga shastra, shiras is explained as the seat of "Sahasrara Chakra"
- 7) In "Amarakosha" for shiras synonyms like "Utthamanga, Sheersha, shira" are given.
- 8) According to the Bhela samhitha shiras is named as "Shiro Hrudaya".
- 9) Shiras is the seat for pranavata, sadaka pitta, Alochaka pitta and Tarpaka Sleshma.
- 10) Shiras is the controlling Centre for

Prana ,

3 Shareera dosha, - 3 Mano dosha

Ekaadasha Indria, - Pancha maha bhuta

11) While explaining the importance of Shiras, Vagbhata described the body as Urdwa moola (Shiras), Adah shaaka (Limbs Trunk), If root is destructed plant also destructed like wise. If head is injured the Death proceeds. So only it is advised to protect the head from diseases and injuries.

12) In general while praying the God, Respecting the Teachers elders etc. the head is bended sincerely to thank them, even for extreme punishments Shiromundana was implemented (Removing the hair from the head) and when defeated used to present their shiro vestana, These incidents also proves the utmost importance of Shiras.

Definition of Shiro Roga:-

"Shiro roga shabdena shirogath shoola rupa ruja abhideeyatha"

The diseases in which head ache (shirah shoola) is the prime symptom Those are named as shiro roga. The name is given not according to the site of the disease, like other, so only sushruta not mentioned 9 Kapala rogas in Shiro Roga for not existing Shirah shoola But Vagbhata explained these 9 diseases in shiro roga as Kapala roga.

Classification of Shiro Roga :-

According to Sushruta, 11 diseases, they are

- | | |
|----------------------|-----------------------|
| 1) Vataja Shiro Roga | 2) Pittaja Shiro Roga |
| 3) Kaphaja " | 4) Raktaja " |
| 5) Sannipataja " | 6) Krimija " |
| 7) Kshayaja " | 8) Suryaavartha " |
| 9) Anantha Vata " | 10) Arthavabhedak. |
| 11) Shankhaka | |

2) According to Vagbhat 19 diseases, 10 Shiro roga + 9 Kaphala roga.

a) 10 Shiro Rogas :- among 11 diseases of sushruta. Vagbhata not explained the Kshayaja Shira shoola and Anantha Vata (so 11-2=9) And added Shiro Kampa as 10th disease.

b) 9 Kapala rogas :- These are not explained by Sushruta in Shiro roga they are

- | | |
|------------------|-----------------|
| 1) Upa Sheershak | 2) Aroomshika |
| 3) Darunaka | 4) Indraluptha |
| 5) Khalithya | 6) Phalitha |
| 7) Shiro grandhi | 8) Shiro Arbuda |
| 9) Shiro vidradi | |

3) According to Charak, 5 diseases, they are :

- | | |
|--------------------------|----------------------------|
| 1) Vataja Shira shoola | 2) Pittaja Shira shoola |
| 3) Kaphaja Shira shoola | 4) Tridoshaja Shira shoola |
| 5) Krimija Shira shoola. | |

Note: Charaka explained suryavartha, Anantha Vata, Arthaava bhedak, shankhark etc., diseases in charak siddhistana.

4) According to some other authors shiro Rogas are 10 only From sushruta's classification they have omitted "Ananthavata" for having similarity with Anyatho vata of sarvagath netra roga.

NIDANA - SAMPRAPTHI OF SHIRO ROGAS.

Sl. No.	Lakshanas	Description	Vitiation
1)	Dhooma paana	smoking or exposure to smoke	Pitta Raktha and allergic disorders
2)	Rajo sevan	Exposing to dust	-do-
3)	Aatapa Sevan	Exposing to sun light	-do-
4)	Atisweda	Excessive sudation	-do-
5)	Jala Kreedha	Swimming or diving or staying in water for long time	Kapha vitiation head injury.
6)	Tushaara Sevan	Exposing to snow Or Moisture	-do-
7)	Diwa Swapna	Sleeping in day time	-do-
8)	Poorva Vata Sevan	Exposure to Air coming from east	-do-
9)	Nishi Jaagara	night arousal	Vata Vitiation.
10)	Bhashpa Nigraha	Suppression of tears	-do-
11)	Ati rodan	Excessive weeping	-do-
12)	Vegadharan	Suppression of natural urges	-do-
13)	Pralapa	prolonged irrelevant talking	-do-
14)	Ucchiir bhashana	Loud talking	-do-
15)	Urdwa-Adah Pratekshanihi	Looking Upwards Or down wards for a long time.	-do-
16)	Ati Vyayama	Excessive exercise	Shukra, Ojo Kshaya
17)	Ati Vyavaya (Miithuna)	Indulging more sex	Tridosha vitiation.
18)	Abhighata	Head injury	Vata vitiation, death
19)	Atyambu paana	Excessive Fluids in take	Malnutrition
20)	Atimadya paana	Excessive intake of alcoholic drinks	Dhathu, Ojo kshaya
21)	Aama	Indigested infected food	Obstruction of tissue channels.
22)	Krimi	Worm infestation	Infection.

23.	Asatmya gandha sevan	Inhaling bad or unsuitable smell	Nasal allergy
24.	Abhyanga dwesha	Rejecting head massage	Neuralgias
25.	Dusta pratishyaya	nasal paranasal Chronic infections.	a) Meningeal
26.	Atiyoga Or Ayoga of Nasya	Excess Or Inadequate Nasya	b) Non Meningeal
27.	Karna Vikar	Middle, and internal ear complication.	c) Neurological
28.	Vatanadi Vikar	Cranial neuralgias	d) Vascular.
29.	Raktha Vikar	Vascular problems.	Complications arises
30.	Not wearing shirastrana	Not wearing cap to the head.	Head injury
31.	By not conducting Shirah shodhan	Rejecting shodhan karma	Tridosha vitiation.
32.	Mano Klesha	mental worries	Vitiation of mano dosha
33.	Bhaya, Krodha	Fear and anger	Stress strain aggravates pitta.
34.	Other diseases	Eye problems, Crainal, Nasal etc., Disorders.	Tridosha vitiation

Due to above causes vatadi doshas vitiate, reaches the shiras and produces different types of diseases in the Shiras.

SHIRO ROGA SAMANYA CHIKITSA

Common treatment Principles of Shiro Rogas:-

- 1) Nidana Parivarjan (Avoiding the causative factors)
Exposure to dust smoke moisture causes allergic disorders - so care should be taken to prevent the diseases.
- 2) Wearing of Shiro strana (helmet Or Cap) is needed to protect the head from injuries especially in open air, cool places. early mornings and while travelling etc.
- 3) Regular practice of Shiro Abhyanga (head massage with Oils) can prevent the diseases of head, Eye, Nose, hair etc.,
- 4) Care should be taken about Nasal paranasal infections, allergic conditions, stress strain, ophthalmic problems etc those cause shiro rogas.

- 5) To prevent the seasonal doshic variations, shira shodhan (Nasya) should practice, regularly.
- 6) Nasya karma is having utmost importance in the preservation of health. Or treating the Shiro rogas why because Nose is the only gate way to eliminate the doshas outside from the shiras.
- 7) Nose is the major source for the infection to enter in to the Shiras, so care should be taken against dust cold smoke etc., allergic factors.
- 8) Vitiated Dosha should be identified for giving treatment primarily. Ex. Vataja Kaphaj disorders get relief by hot therapy and pittaja Rakthaja disorders get relief by cool therapy.
- 9) Treatment principle.

Sneha (bahya, Abhyantar) sweda, Lepa, nasya, dhooma pana, vaman, Virechan, Vasti, gandoosha, Kavalagrah and Rakthamokshan.

10) Some common external Applications (Lepa)

- a) **Gunjadi Lepam**:- Gunja, Karanja, Brungaraj Maricha + Water, should be grinded and applied to the shiras.
- b) **Marichadi Lepam** - Krishna Maricha, rakta Maricha + Snuhiksheera - Should be grinded and applied to the shiras.
- c) **Muchakunda pushpa** should grind with water and applied to the shiras.
- d) **Pathaadi Lepam** :- Patha, Patola Patra, shunti, Erenda moola, Shigrubeeja, Chakramarda beeja, and Kusta.
- e) **Agaru**, neelotphala, swetha chandan, Kusta + Ghriitha.
- f) **Prapoundareeka**, suradaaru, Kusta, Yastimadu Ela. Rakta Kamala, Neelakamala + ghriitha.
- g) **Navasagar** + Water.

II) Some important common Nasya Yoga.

Fine powders of a) 250 mg. Yastimadu + 250 mg Vatasanaabhi, should be used for pradaman nasya. **b)** Navasagar + sudha Churna + water-should inhale. **c)** Nasya with Karanja, shigrubeeja, Patri, Twak, and swetha sarshapa. **d)** Guda, ardraka, pippali, saindhava lavan + water, for nasya. **e)** Kumkuma fry in ghriitha, add sugar and used for nasya. **f)** Guda + Shunthi, for nasya. **g)** The medicated oil prepared with Neela uthphala, pippali, Yastimadu, chandana, pundareeka, Amalaki, tila taila - is used for nasya. **h)** Karpasabeeja, Dalchini, Musta, Jathi patra and pushpa Avapeedan Nasya. **i)** Aparajitha moola, phala swa rasa nasya. **j)** Shunti 3 Grams, Milk 192 grams - Bhavana and then Nasya. **k)** Artha naareeshwara rasa dissolved in water and used for Nasya. **l)** Spatica churna + Karpoora as Nasya.

Ghritha and Taila:-

- 1) Shat bindu taila for nasya
- 2) Doshamoola taila (Tila taila Ajaksheera each 1kgs, Brungaraj swaras 4 kg, kalka drugs total 250 gram, (Erenda mola, tagara, shata pushpi, Jeevanthi, Rasna, Lavana, dalchini, vidanga - Yastimadu shunthi) for abhyanga and Nasya- (Sarshapa taila 2 kg, Dashamoola quatha 8 kg cow milk 8 kg, dashamoola Kalka 1/2 kg - oil should prepare according to taila paka vidhi)
- 3) **Dathura taila** for abhyanga (Sarshapa taila 2kg, Dathura quath 8 kg, dathura Kalka 1/2 Kg and oil should prepare according to Taila paka vidhi)
- 4) **Gunja taila** for a bhyanga and Nasya (Tila taila, Kanji, Brungaraj swarasa each 375 grams, gunja kalka 95 grams - oil should prepare according to Taila paka vidhi)
- 5) **Himamshu taila**
- 6) **Kumari taila**
- 7) **Kanak Taila**
- 8) **Rudra taila**
- 9) **Brungaraj taila**
- 10) **Mayuradya ghritha**
- 11) **Maha Mayaradya ghritha** etc. are used for abhyanga and Nasya

12) Kwatha.

Pathya Shadanga Kwata.

Hareetaki, Vibheetaki, Amalaki, Kiratatikta, Nimba, Amruta - 8 times water added and is boiled and reduced to half, Then it is used for oral administration.

13) Rasa Aushada - Vati - Capsules and churna :-

- 1) Shira shooladri vajra ras
- 2) Maha Lakshmi Vilas ras
- 3) Lagu suthasekara ras,
- 4) Swana sutha sekara ras
- 5) Chandra Kantha ras,
- 6) Chandanadi vati,
- 7) Siddhamruta ras,
- 8) Suryavarthi ras,
- 9) Triphala guggulu,
- 10) Kanchanara guggulu

Churnas :-

- | | |
|-------------------------|---------------------------|
| 1. Ashwagandhadi churna | 7. Triphala Churna |
| 2. Shatavaryadi Churnam | 8. Trikatu Churna |
| 3. Talisadi Churnam | 9. Shunti Churna |
| 4. Sitophaladi churna | 10. Haridra Khanda |
| 5. Chopachenyadi Churna | 11. Nimbadi Churna |
| 6. Yastimadhu Churna | 12. Vyshwanar churna etc. |

Pathya :- Shiro abhyanga, shiro vestana, sheetajala shira snana, sweda, nasya, Dhoomapana, Virechan, Lepa, Seka, Upavasa, Shiro Vasti, Raktamokshan, Agnikarma, Upanaha, puranaghriitha, shalidhaanya, Shastika dhaanya, Yusha, Ksheera, Jangala Mamsa, patola, Shigru, Drakasha, Vastuka, Kaaravellak, Godanthi, Amra phala, Amalaki, Trikatu, Dadima Phala, Mathulunga, Haridra, Yastimadu, Tulasi, Vasa, Dathura, Taila, Takra, Kaanji, Narikela, hareetaki, Kusta, Brungaraj, Dashamoola., Kumari, Musta, usheera, Chandana, Karpoora, Chandrakiran, Hingu, Navasagar etc.,

Apathya :- Abhyanga-dwesha, shiro abhigata, Shiro abhitapa Vegavarodha (Supressing natural urges), Viruddha bhojana (eating the incompatible food), Jala Kreeda (Swimming Or Exposure to water), Diwa Swapna (Daytime sleeping), Nishi jagara (Night arousal), Ajeerna (Indigestion), Exposure to dust, smoke etc., neglecting the Nasal, ear, teeth and eye diseases etc.,

1) VATAJ SHIRA SHOOLA (NEURALGIC HEAD ACHE)

Aetiology By Charak:-

Suppressing the natural urges, talking Loudly, Night arousal, indulging moresex, exposure to cold, alcoholism, head injury, fasting, weeping, wait lifting, fear, anxiety, Atigoya of shodhan Karma etc., Causes the vitiation of Vata dosha, that propogates towards the head and causes vataj shiro Roga.

Description :-

The Vitiated vata dosha causes head ache without obvious cause, the pain becomes more at nights and reduces by Oleation (Sneha Karma), sudation (Sweda Karma), mardana (Gentle compression), Abhyanga (Oil massage), Bandana (floing the cloth Or rope around the head), Hot therapy (ushnopachar) and with other Vata hara treatment principles.

Vagbhata:-

In addition to above description, he explained the affecting site and nature of the head ache in detail as follows.

Severe pricking pain, is experienced at temporal region, back of the neck, Frontal region and at the root of the nose, Associated symptoms are otalgia (Kama shoola), Tinnitus (karna Nada), Pain in the eye ball, vertigo, pulsation of the vessels, neck rigidity, Lock jaw, Photophobia, dislocation of joints, Rhinorrhoea and discomfort in the body.

Treatment of Vataj Shira shoola.

1) Shiro abhyanga (Head massage) 2) Sneha pana (Oral intake of Oleous substances). 3) Upanaha sweda (hot applications to head) 4) Seka (pouring the medicine on the head) 5) Lepa (medicated applications to head) 6) Shiro Vasti (keeping of Sneha drugs on the head by special procedure) 7) Vastli (Anuvasan Vasti) 8) Snehika Dhooma pana 9) Snehika Nasya 10) Vata hara Aahara and Vihara.

1. Charak suggested sneha - Sweda and nasya.
2. Sushruta and Vagbhata suggested - Vata Vyadhi chikitsa and Snehan Nasya.
3. Chakradatta suggested - Shiro vasti.

1) Abhyanga - (Massage)

With Narayan tail, mashadi taila, prasarini taila, Trivruth taila, Bala taila etc.,

2) **Sneha paana** (Oral administration of Sneha dravyas). Chathur sneha (sarpi, Taila, vasa and Majja), Varunadi ghritha Or taila, Kakolyadi ghritha Or taila, Mayuradya ghritha, Maha Mayuradya ghritha, Bala taila, Trivruth taila, cow milk and ghee should be given at nights.

3) **Upanaha sweda** (Application of Medicated paste in hot condition)

1) Agaru, should be fried in Oil and applied. 2) Application of Jeevak, Rushabhak, Meda, Maha Meda, Kakoli, Ksheera Kakoli, mashaparni, mudga parni, Jeevanthi, Yastimadu etc. 3) Fried flesh of fish (Matsya mamsa) 4) Payasa Krushara and saindhava lavana 5) Other vata hara dravya.

4) Lepa (External applications)

1) **Kustadi lepam** (Kusta, erenda moola grinded with Kanji Or takra). 2) **Muchakunda pushpa kalka** (Paste) 3) Kusta, erenda moola shunthi + takra. 4) **Devadarvyadi Lepa** (Devadaru, Tagara, Kusta, jatamamsi, Shunthi + Kanji Or Ghee). 5) **Chandanadi Lepa** (Chandan, Kamala, Kusta, Pippali + water) 6) Erenda beeja, Chakra marda beeja + Kanji.

5) Nasya Yogas.

1) Snehan Or Brumhana nasya. 2) Anu taila, 3) Shatbindu taila, 4) Swaskutar rasa + water. 5) Rasnadi Taila. 6) Mayur- Maha Mayura Ghritha 7) Bruhat pancha moola Ksheera 8) Varunadi Ksheera sarpi 9) Karpasabeeja, lavanga, Musta, Jathipatra + Hot water 10) The medicated oil prepared with yastimadu madhuksar, vidari, chandana Neelothphala, jeevak, rushabhak, Draksha, Ksheera, Mamsa, Sharkara, Taila.

6) Dhooma Pana - Snehika dhooma pana.

7) **Shiro Vasti** and **anuvasan vasti** with vata hara taila Or ghritha.

8) **Seka** :- With Bhadrardharvyadi Ksheera

9) **Oral remedies** Like Rasnadiguggulu Triphala guggulu vata vidwamsini, Neurotics like bala, Ashwagandha, shatavari, Erenda, Nigundi, Rasna, Devadaru shigru, Yastimadu, Dashamoola, Masha, Rasona, Sariba, Tila Brahmi etc., are beneficial

10) **Vata hara Aahara And Vihara** should be given

2) PITTAJA SHIRAH SHOOLA.

A person who takes katu Amla kshara food excessively, and have the anger and fear, exposure to over heat etc. causes the pitta dosha vitiation and manifest severe burning pain in the head eyes nose and throat " Dhoomayan Agnidagdha Vath Peeda". The patient feels comfort by cool therapy (Sheetopachar) and at nights.

Additional points of Vabhata-Burning pain, Fever, Vertigo, Sweating and Finally causes unconsciousness.

Treatment :-

Note:- Pittaja and Raktaja shirah shoola contain similar treatment principles.

- 1) Rakta and pitta dosha hara Chikitsa .
- 2) Panchakarma except Vamana.
- 3) **Seka:-** with ghee Or Milk Or sugar cane juice Or Honey Or sugarwater Or Kanji Or decoctions of Sheetha Veerya Aushada Like uthphaladi, Kakolyadi drugs.

4) Lepa :- (External application of the medicine)

- a) Amalakyadi Lepa. b) With the paste of Nala, Vetasa, Uthphala, musta Swetha chandan, Padmaka, Vamshi, Doorva, Yastimadu, Kamala + Water + Ghee. c) With the paste of Chandana Yastimadu, Bala, VYaghranakhee, usheera, Kamala + Water + Milk. d) With the paste of Shatavari, Kusta, Krishna tila, yastimadu, Anjan, muktha, gyrica + Water. f) with the paste of Kusta, Tagara, uthphala, chandana, + Ghrita.

- 5) Aastapana Vasti Or Niruha Vasti, with the Milk prepared with uthphaladi drugs.
- 6) Anuvasan Vasti Or sneha Vasti. a) with Ksheera sarpi b) Kakolyadi Ghrita

7) Mrudu Virchan :-

By the oral administration of Ghee prepared with Draksha, Triphala, Ikshurasa and Milk.

- 8) **Shiro Abhyanga.** With Himamshu taila, Himasagar taila and Shatadhoutha Ghrita.

- 9) **Shiro Vasti:-** With Ghee Or milk. (Plain or medicated)

10) Panaka (Drinks)

- a) Kesara, Mishree, Ghee and Milk. b) Parpataka 6 grams, dhaniya 6 grams. draksha 6 grams, mishree 48 grams, water 120 grams. and 12 grams Gulab arka. c) Shadanga Paneeya + Sugar. d) Sheeta Kashaya of Draksha Or Kharjura and Sugar.

11) Nasya Yogas.

- 1) Ksheeri Sarpi. 2) Kakolyadi Ghrita Or taila. 3) Uthphaladi ghrita Or taila. 4) medicated ghee prepared with Vasa of Jangala Animals. 5) Yastimadu Chandan Sariba ksheera Ghrita. 6) Yastimadu Ksheera sarpi., 7) Yastimadu, Draksha, Mishree and Ghee. 8) Shaman Nasya with Brumhana, Sheeta Veerya drugs.

12) Oral Remedies.

- 1) Swarna Malini Vasant ras. 2) Chandra Kala ras. 3) muktabhasma. 4) Shunthi bhasma. 6) Makshika bhasma 7) Varata bhasma. 8) The medicated ghee prepared with Sharkara, Kumkum, ghrita etc. 9). Sheetha kashaya prepared with Chandana Or useera Or Draksha etc. 10). Triphala Guggulu 11) Amrutadi Guggulu. 12) Nimbadi guggulu. 13) Lagusuthasekararas. 14) Chandanadi Vati. 15) Yastimadu churna, Aamalaki churna, Triphala Churna, Pancha Valkala Churna, Truna Panchamoola, Vasa, Nimba, Usheera, musta, amrutha, Chandan, Nagakshara Draksha Parpataka, Padmak, uthphala etc. drugs can be used according to the necessity.

3) KAPHAJ SHIRAH SHOOLA.

(Headache due to Cold and Sinusitis.)

Excessive sleeping, sitting, intake of heavy bulk oily food etc. causes the Kapha dosha vitiation. The Vitiated Kapha dosha causes headache, heavyness, rigidity, coldness of hands and body, Oedema of Face and eye ball. The head and throat appears as lined with thick sputum.

The disease (headache) is severe at nights and minimum at day time . it is controlled by Hot therapy (ushnopachar) and by kapha hara treatment principles.

Charak added - Tandra - Alasya and Aruchi

Vagbhat added - Mandaraja, karnaKandooyan and Vaman.

Treatment Principles :-

- 1) Ghrita pana 2) Upavasa, 3) Ruksha Ushna Sweda, 4) Vaman with Katu Dravya. 5) Pradaman nasya 6) Teekshna Gandoosha 7) Teekshna dhooma pana. 8) Anjan, 9) Lepa, 10) Rakthamokshan 11) Daha Karma, 12) Kapha hara Aahara Vihar (Trikatu, Yava, Yavakshara, Patola, yoosha, Kulutta, Mudga, Purana Ghrita, honey, intake of light non-oleus and hot food, intake of katu Tikta Kashayarasa, doing exercise, avoiding of diva swapna, IceCreams, fridge items, sweets and curd etc. 13) Teekshna Vasti.

I) External applications (Lepa)

- 1) Saraladi Lepam (sarala Kusta, Devadaru, lata karanja, rohisha truna, Apamarga, Lavan should be grinded with water). 2) Pathyadi, Lepam (Hareetaki shunthi, musta, yastimadu, shatapushpi, neelkamal + water). 3) Devadarvyadi lepam (Devadaru, Tagara, Kusta, jatamamsi, shunthi + Taila Or Kanji). 4) Shunthyadi Lepam (Shunthi, Kusta, Devadaru, Chakramarada beeja + mahisha Mootra). 5) Krushnadi Lepam (Pippali, Shunthi, musta, Yastimadu shatapushpa, Neelkamal , Kusta + Water). 6) Harenu, Tagara, shilajith, Musta, Agaru, Ela, Devadaru, jatamamsi, Rasna, Erenda Moola.

II) Nasya Yoga :- Or pradaman Nasya (Teekshna Rechan Nasya) with madhuk sar, churna 2), Ingudi Twacha churna 3) Katphala churna, 4) Mesha Srungi Churna, 5) Arkadi Churna, 6) Trikatu Churna, 7) Vidanga Churna.

III) Dhooma Pana:- with the varthi prepared from 1) Ingudee 2) Meshashrunji 3) Erenda moola Agaru, guggulu, chandan, Jatamamsi and kshouma Vastra.

IV) Gandoosha :- with teekshna ushna kaphahara decoctions like Trikatu Kashaya. **V) Daha Karma:-** In vataj and Kaphaj disorders daha Karma is suggested at Bhru Shankha and Lalata.

IV) Anjan:- Teekshna Anjan Or Lekhana anjan Like Chandrodya varthi is used.

In Brief :-

1) Purana ghritha pana, 2) Ruksha Sweda, 3) Vamana, 4) Teekshna nasya, 5) Teekshna vasti, 6) Teekshna Gandoosha, 7) Dhooma pana 8) Anjan, 9) Daha karma 10) Local applications.

Common Remedies :-

1) Kanchanara guggulu 2) Nimbadi guggulu 3) Triphala guugulu 4) vidangadi guggulu 5) Khadhiradi Vati, 6) Trijathakadi Vati, 7) Eladivati, 8) Ekangaveer Ras, 9) Maha lakshmi vilas ras 10) Sutasekar ras, 11) Godanthi Bhasma + Spatica bhasma. 12) Talisadi Churna 13) Shrunyadi Bhasma 14) Tanka bhasma 15) Arka Lavan, 16) Seetamshu ras, 17) Anand bhiiravi ras, 18) Mruthyumjaya ras, 19) Tribhuvan Keerti ras, 20) Kaphahara Kshara- Lavana - Bhasma etc.,

4) RAKTAJ SHIRAH SHOOLA

(Headache due to acute alcoholism and Hypertension.)

The Vitiata raktha dosha causes the terrific head ache. The signs symptoms and treatment is similar to pittaja shirah shoola. The severity of the symptoms is more than pittaja shirah shoola (Severe burning pain in the head eyes nose and throat) the additional symptom is tenderness of the head (Sparshasahishnutha) and occasionally epistaxis also occurs. The patient feels comfort by cool therapy and at nights.

Treatment :-

A) External applications :- 1) Like Pittaja shirah shoola. 2) Ksheeri sarpi. 3) Shigru patra swarasa + Maricha Churna, 4) Pippali, Shunthi, Yastimadu, Shatavari, Musta, Uthphala, Kuruveru + water. 5) Kantakari Phala swarasa 6) Amalaki, Dhava, Khaskhas, Sariba, Kamala, Draksha + Gulabjal.

B) Nasya :- 1) Pippali saindhavalavan + Ghee. 2) Ksheeri sarpi 3) Yastyadi Ghritha Or taila 4) Shatbindu taila 5) Yastimadu, Aamalaki swarasa + Honey 6) Shunthi + Milk 7) Dadima Pushpa Swarasa + Doorva Swarasa 8) Karpooora - milk and Honey 9) Uthphaladi ghritha. 10) Vidarigandhadi Ghritha. 11) Doorvadi ghritha.

C) Oral remedies :-

1) Udumbara Phala ghritha + Ela + Pippali + Maricha + Sita, 2) nimbadi guggulu 3) Amrutadi gugulu 4) Triphala guggulu 5) uthphaladi ghritha 6) Vidari gandhadi ghritha. 7) Doorvadi ghritha. 8) Vasadi ghritha. 9) Patoladya ghritha. 10) Triphala ghritha 11) Purana ghritha 12) ksheeri Sarpi 13) Lagusutha sekara ras. 14) Chandanadi Vati 15) Chandanasav 16) usheerasav 17) Muktha, Pravala, shankha, Kaphardak, makshiika, Vykranth. bhasma and pisti. 18) Tandulodak + Mishri 19) Draksha, chandan, usheera, yastimadu, kamala, Uthphala pundareeka, Vasa, parpataka, dhanyaka, ghritha, mishri etc., 20) Sheeta veerya, Brumhana, Raktha stambana and shaman drugs should be give.

5) SANNIPATHAJ SHIRAH SHOOLA.

All the mixed signs and symptoms of Tridosha present.

Chikitsa :-

1) Tridosha hara Chikitsa 2) Oral intake of purana ghritha Or Triphala Ghritha.

3) Nasya yoga.

1) Hot milk + Shunthi 2) Jeevakadi - Shatahvadi Taila 3) Madan Phala, shigru beeja, Kusta, Tila, jatamamsi, Tutta etc., drugs 4) Karanja, Shunthi, Shigrubeeja, vacha, milk and sugar.

4) Lepa (Luke warm applications) with,

1) Swetha chandana, karpooora, sariba, priyang, haridra, shunthi and Old rice. 2) Priyang, Ananthmool, Nishotha, Shunthi, Chandan. 3) Kusta, shunthi, Yastimadu, Shatapushpi, kamal, Pippali.

6) KSHAYAJA S̄HIRO ROGA (SHIRAH SHOOLA)

The Kapha dosha, Raktha dosha and Vasa get reduced (kshayam), head is injured and produces a terrific complicated headache known as Kshayaja shirah shoola.

The disease aggravates by sweda (Sudation), Vaman (Emesis), Nasya, Rakthamokshan (Blood letting process) and Dhoompana (medicated smoking) why because all these are shodhan karma cause depletion of dosha and dhathu, already there is dhathu kshaya in this disease, so only all the above pancha karma therapies are contra indicated.

According to Charak :-

Vata pitta kapha doshas are depleted and cause derangement of the normal functions of Shiras, so only produces terrific headache.

The common symptoms are, headache, body pains, vertigo, lightness in the head and body, general debility and unconsciousness.

Treatment :-

- 1) Brumhana Chikitsa. 2) Oral intake of ghee and milk. 3) Oral administration of Ashwagandadi ghrita, vasaghritha, Pancha tikta Ghrita, Brahmi ghrita, Ghee + Guda or sharkara.
- 4) Brumhana or shamana Nasya with Ksheeri Sarpi, Vidarigandhadi, uthphaladi, Kakolyadi ghrita.
- 5) Kshayaja Kasa - kshaya (raja yakshma) treatment should be give.

6) Oral remedies :-

Muktha bhasma, pravala bhasma, Vajra bhasma, Vykranth bhasma, Makshika bhasma, Godanthi bhasma, Abraka bhasma, Vasanth Malathi ras, Vasantha Kusumakar ras, Ekangaveeras, Swarna and maha Lakshmi Vilas ras, shilajith, Arogyavardiniras and other Rasayan yogas should be give.

Churna -Ghritha - Avalehya Aasava Arista etc :-

Ashwagandha Churna, shatavari Churna, Vidarikand Churna, Chopacheenyadi Churna, Amrutha Satwa, Kapikacchu Churna, Yastimadu Churna Triphala Churna etc. Neurotic drugs; Vasavalehya Ashagandhava lehya, Herakaprash, chyavanaprash Avalehya; Draksha Khajura etc., mantha; Vasa Patola Ashwagandhadi etc ghrithas; usheera Chandana Dhanyaka etc. Sheeta kashaya; Ashwagandharista, Balarista, Rasnadi guath etc. will correct the debilitating factors and promote immunity to the body.

7) KRIMIJA SHIRO ROGA

A person who is habitated to take the food which is incompatible, indigested undigested, excessive, un hygienic, sweetly, sticky, like Tila Guda dadhi Oleus substances etc, causes tridosha vitiation. The vitiated Tridosha produce Krimi in the shiras and causes terrific headache by eroding the soft tissue flesh and blood of shiras.

Sushrutha :- A person experiences pricking and cutting type of pain in the head and also experiences that Krimi is eroding or eating the brain tissue. The associated symptoms are nasal blood stained discharge and discomfort.

Vagbhata :- Tridosha vitiate and produces the krimi in the shiras that destructs the flesh, soft tissue and blood and causes terrific pain in the head. The associated symptoms are Manovibrama (confusion state) Fever, cough, general debility, Oedema, roughness of body, cutting pricking throbbing burning type of pain, itching sensation at head palate and the scalp, Tinnitus, Foul smel and blood stained nasal discharge etc.

Treatment :-

- 1) Krimi hara chikitsa 2) Nasya with blood, the Krimi get unconscious and come out through nose, by special techniques Krimi should be removed. 3) Rechan Nasya with a) Vidangadi Taila (Vidanga, Sarjara, Danthi, Hing, gomutra and tila Taila). b) with vidanga, maricha, shigru beeja, Apamarga beeja + Go mutra. c) with Trikatu, shigru, Tulsi + Go mutra Or Aja Mutra. d) Nasyam with Vidanga + Aja Ksheera 4) Dhoopan with Krimighna drugs, dried Fish etc., 5) Raktha Mokshana is contra indicated.

8) SURYAAVARTHA OR BHAASKARAAVARTHA (FRONTAL SINUSITIS - MIGRAINE)

It is a special type of headache (Shirah shoola) that changes according to the intensity of the sun rays, The headache is directly proportionate to the intensity of the sun rays so only named as Suryaavarttha. The headache starts in the morning, gradually increases upto noon (miximum at noon or mid day) then gradually decreases upto night (minimum at night). The pain is experienced more at Eye, root of the nose (bhru), Temporal (Shankha) and frontal region (Lalata).

- 1) Sushruta explained it as Tridoshaja disease.
- 2) Vagbhata and madhava charya explained it as pitta predominant, Vata Associated, Tridoshaja diseases (it subsides naturally).
- 3) Charaka explained it as due to the suppression of natural urges, indigestion etc., causes Vata and Raktha doshas vitiate, affects the Mastulunga and causes the disease.
- 4) Videha explained "Suryaavarttha Viparyaya" in which symptoms are same as suryavarttha but it is Vata predominant, pitta associated sannipataj disease.
- 5) The Author of Gadanigrah explained the "Dwandaja suryavarttha" in which the symptoms are opposite to suryaavarttha (Pain maximum at night and minimum at day time)

Description :-

1. The severity of the disease reduces some times with hot therapy and some times with cool therapy, this indicates the vata and pitta predominance in tridoshas.

2. The severity of the disease should be judged according to the pitta dosha, at night due to pitta shaman pain is reducing and at day time due to pitta prakopa pain is aggravating.

Note :- Avapeedan Nasya with Shireesha moola, pippali moola, vacha etc., drugs reducing the disease though the medicines are pitta kara why because the drugs are effective not according to dosha karma But according to prabhava (Vyadhi Prathyaaneeka.).

3) At night pain is reducing why because the aggravated Kapha not accumulating due to widely opened srotas but at day time due to narrow - Closed srotas Kapha is accumulating and obstructing the channels, so only pain is aggravating (Contraversial description).

4). According to Charak.

The pain is aggravating in day time due to the vitiation of Rakta, Vata and liquification of Mastulunga and the pain is reducing at night due to solidification of mastulunga.

- 5) Explanation of the Aetio pathology of the disease according to dosha is very difficult.

A) Treatment Principles :-

1. Tridosha hara chikitsa (especially pitta - vata hara chikitsa) 2) Oral intake of Ghee + Guda. 3) Oral administration of Ghritha after meals. 4) Meals with milk or milk products. 5) Meals with the Jangala Mamsa rasa. 6) Shiro Vasti with chathur Snehas sarpi (ghee), Taila (Oil). Vasa (Fat), Majja (bone marrow). 7) Lepa (Local applications). 8) Seka with ghee or milk. 9) Kavalagrah (medicated gargles) 10) Virechan (Purgation therapy) 11). Vasti. (medicated enema) 12) Shiro Virechan. (nasya) 13) Upanaha sweda with jangala Mamsa. (Hot applications) 14) Raktha Mokshan, (Blood letting process)

B) Nasya yogas for Suryaavarttha

1) Ksheeri sarpi (Ghee prepared from milk) 2). Brungaraj swarsa + goat's milk. 3) apamarga swarasa 4) Shireesha moola, pippalimoola, vacha, Avapeedan Nasya 5) Jeevaneeya Ghritha Nasya. 6) Katphala churna pradamanNasya. 7) Vacha + Pippali 8) Yastimadu + Honey. 9) Manahshila +Water. 10) Chandan + Honey. 11) Shireesha beeja + Moolak beeja + water. 12) Vamshi beeja + Moolak beeja + Karpooora. 13) Inhalation of gas releasing from Navasagar + Sudha churna. 14) Masha Moola, swetha aparajitha moola, Gunja moola, Shireesha beeja and moola, Rasona Swarasa, Chakramarda beeja, Tulasi beeja Trikatu - Separately Or mixed can be used as nasya 15) Dashamoola kashaya + Saindhava Lavana. + ghee
16) Sita (sharkara) + madhanphala churna + cow milk. etc. are used as Nasya in suryaavarttha.

C) Lepas (External applications)

1) Suryamukhee beeja + Suryamukhee Swarasa. 2) sarivadi Lepa (Sariva,) uthphala, Kusta, Yastimadhu, Should be grinded with Kanji and applied to the shiras. 3) Tila + milk.

D) Rasaushadhis (oral remedies)

1) Suryaavarthiras 2) Danthi bhasma 1 gram. + Praval bhasma 125 mg with ghee. 3) Shira shooldadi Vajra ras tablets. 4) Guggulu Preparations. 5) Chandanadi Vati 6) Godanthi Bhasma+ spatika bhasma equally.

7) Vata roga hara yogas like Vata Vidwamsini etc., 8) Strength, promoting medicines like Ashwagandha, Shatavari, Vidarikand, Bala, Yastimadu, draksha, mukta, Pravala, Guduchi etc.

Note :- It is not possible for the exact modern co-relation of Suryaavartha to the present existing science.

9) ANANTHA VATA

(Trigeminal neuralgia - sinusitis - Referred headache etc.)

It is a disease in which tridoshas vitiate the manya or Greeva parshwa (The two nadies on either sides of neck) (due to excessive weeping, anger - Rough and cool items eating, fasting or taking less food etc., Causes) and produces severe untolerable pain at the back of the neck, in the eyeball, in the frontal region (Lalata), root of the nose (Bhru) and in temporal region (shankha). It also causes lockjaw (hanugraha), Eye diseases and shivering of Jaws (Ganda Paarshwa Kampa).

Note :- Some authors not mentioned this disease in shiro rogas for having similarity with anyathovata of sarvagatha netra disease. But by the following explanation it is clear that they are different not one.

Anantha Vata

1. Shiro Roga
2. Headache is the main symptom
3. Tridoshaj disease
4. Common symptoms are vitiation of manya and pain radiating to temporal & Orbital region.
5. Additional Lesions are Lockjaw, Shivering of jaws.
6. Tridosha hara, Suryaavartha Treatment should be given.

Anyathovata

1. Netra roga
2. Eye problem is the main symptom.
3. Vataj disease.
4. Common symptoms are vitiation of manya and pain radiating to Temporal and orbital region.
5. These symptoms are absent
6. Vata hara, Netra Brumhana Treatment should be given.

Treatment Principles:-

- 1) Like Suryaavartha, 2) Tridosha hara Chikitsa, especially Vata and Pitta dosha chikitsa. 3) Meals with milk, Ghee and its products. 4) Oral administration of Ghee after meals. 5) Upanaha Sweda (Hot applications) 6) Snehika dhooma pana (medicated smoking) 7) Mrudu Virechana (Light Purgation) 8) Sneha Vasti (Anuvasan Vasti). 9) Shiro Vasti (Keeping of Oleus substances on head by special procedure). 10) Raktha mokshan (Blood letting process). 11) Lepa (External Applications). 12) Periseka- (Pouring medicated Warm liquids). 13) Gandoosha (Gargling with medicated liquids). 14) Snehan Nasya. (Nasal drops) 15) Anjan (application of collirium) 16) Daha Karma. (Cauterisation) 17) Oral intake of sweets, Oleus substances and nutritive food

Nasya Yogas for Anantha Vata :-

- A) 1) Snehan Nasya 2) Ksheeri Sarpi (Ghee prepared from milk) 3) Dhanwantari tail 4) Ksheera bala taila 5) Shatbindu tail 6) Anutaila 7) Nasya with Jeevaneeya ghrita 8) Shunti + Aja Ksheera

B) Anjana yogas :-

- 1) Chandrodaya Varthi 2) Nagarjuna Varthi
C) Lepa yogas (External Applications)
1) Paste of Suryamukhee beeja + Suryamukhee Swarasa. 2) Sarivadi Lepam 3) hanidradi Lepam

Oral Remedies. :-

- D) 1) Shira Shooladri Vajra ras. 2) Ekaanga veer ras 3) Sudhanidhi ras, 4) Godanthi Bhasma + Spatica bhasma (equally) 5) Guggulu preparations 6) Saphthamruta loha. 7) Vata Vidwamsini Ras etc., Vatahar Aushadas 8) mayura ghrita 9) Triphala ghrita 10) Patoladya ghrita 11) Pathyadi quath 12) Maha Rasnadi quath 13) Neurotic drugs like Ashwagandha shatavari Yastimadu Bala Rasna Kapikacchu Vidarikand Devadaru Nirgundi etc., drug preparations can be given.

Note :- It can be correlated to Trigeminal neuralgia, referred head ache upto some extent.

10) Arthaavabhedak (Migraine)

It is termed as Half head ache by the common public, it is a severe interrupted head ache, teases once in 3-5- 10-15 or 30 days.

- 1) According to charak and Madhavacharya, it is Vataj or Vata Kaphaj disease.
- 2) According to sushruta It is Tridoshaj disease.
- 3) According to vagbhata- It is vataj disease (in Vataj shira shoola head ache is wide spread in the head but in Arthaavabhedak it is only in the half part of the head)

Aetiological factors and Symptoms-According to Charak.

Suppression of Natural Urges, indulging more exercise and sex, excessive in take of dry rough food, fasting, exposure to fog or cold, talking loudly - irrelevantly. Due to all these causes Vata or Vata Kapha doshas vitiates, affects the shiras and produces head ache in posterior lateral aspect of head (Manya), Temporal region (Shankha), frontal region (Lalata), root of the Nose (Bhru), ear, eyeball, and finally causes blindness and deafness as a complication.

According to Sushruta :-

Tridoshas vitiates, affects the half part of the head and causes different types of pain (head ache) (pricking, cutting, stabbing, tearing, burning type) for a short duration and recur in 3-5-10-15 -30 days (interrupted pain). It associates with vertigo.

Vagbhata :-
He said it is a part of Vataja shira shoola.

Treatment Principles :-

1) Like suryavartha. 2) Shiro abhyanga 3) Sneha pana - Oral intake of Chatur sneha or 10 years Old ghee. 4) Upanaha Sweda Or Nadi Sweda. 5) Shiro Vasti 6) Virechan, 7) Nasya 8) Vasti . 9) Dhooma Pana 10) Oral intake of Milk and Ghee after meals. 11) Oral intake of Milk and Ghee products. 12) Food with Jangala Mamsa rasa. 13). Pratishyaya, chikitsa 14) Shavaasan daily 15 to 30 minutes. 15) Regular practice of Pranayama 16) Lepa. 17) Seka 18) Raktha Mokshan 19) Agni Karma at Bhru Lalata and Shankha in Vataj and Kaphaj disorders. 20) Physical and mental rest 21) Vata - Kapha hara Chikitsa.

A) Nasya Yogas :-

AVAPEEDAN NASYA WITH

1) Shireesha Moola Or Phala. 2) Vamshi moola, Karpoora + Water, 3) Vacha Pippali + water. 4) Yastimadhu + Honey, 5) Vidanga Krishnatila + Aja Ksheera. 6) Milk + Sugar. 7) Chandana, manashila + Honey. 8) Katphala churna. 9) Arka patraswarasa. 10) Yastimadu, Yava, Vacha, Pippali + Water + Honey . 11) Shireesha beeja, Apamarga moola, Bidalavan 12) girikarnee phala Or moola + Water. 13) Madhura Brumhana Ghrita. 14) Tuvareedala + Doorva Swaras. 15) Gandhaathee + Jatamamsi + Ghrita (Pakwa.) 16) Kumkum + Ghee. After shodhan nasya - Shaman nasya should be given with.
1) Kakolyadi Ghrita 2) Moovadi Ghrita 3) Ksheera bala taila 4) Dhanvantari taila 5) Anu taila 6) Shatbindu taila etc.,

B) Lepa yogas - (External Applications):-

1) Sarivadi Lepam (Sariva, Neelkamal, Kusta, Yastimadu Vacha, Pippali, Kanji, Taila and ghee.) 2) Vidanga, Krishna tila + Aja Ksheera. 3) Tiladi Lepam (Tila, Jatamamsi, Saindhava Lavan, Shruna bhasma + Honey. 4) Application of Haridra Or Sariva. 5) maricha + Brungaraja Swarasa. 6) Shunti + Water.

II) SHANKHAKA

(Lateral Sinus thrombosis, Mastoid abscess, Encephalitis)

1) **Charak :-** Raktha, pitta and Vata doshas Vitiate and produces a painful red swelling at temporal region with severe burning sensation, it spreads very quickly like the poison, obstruct the chanel of head throat and kills the person within 3 days.

2) **Sushruta :-** - Vata predominant Tridoshas and Raktha vitiate and produces unbearable pain in the head, especially at temporal region, it is incurable and kills the person within 3 days.

3) **Vagbhata :-** Pitta Predominant tridoshas and Raktha vitiate and produces a Terrific Painful swelling at temporal region, associated with burning sensation fever thirst vertigo yellowish face, bitter taste of mouth, with irrelevant talking and kills the person within 3 days.

4) **Madhava Kara :-** - It is due to the vitiation of Raktha, pitta and Vata. doshas.

1. Charak :- Raktha predominant, pitta and Vata associated.
2. Sushruta :- Vata predominant, pitta Kapha and Raktha associated.
3. Vagbhata :- Pitta predominant ; Vata kapha and Rakta associated.
4. Madhava Kara :- Raktha predominant, pitta and Vata associated.

All the people accepted it as a terrific disease that kills the person within 3 days.

Treatment Principle :-

It is incurable but can try like suryavartha. 2) Oral intake of Ghee and milk products. 3) Oral intake of ghee and milk after meals. 4) Food with Jangala mamsa rasa 5) Ushna Sweda is not advisable. 6) Sira Vyadana at (Shankha) temporal region. 7) Local applications as follows.

a) Shatavari, Tila, Yastimadu, Neelothphala, Doorva, punamava with Kanji Or milk. b) Vidarigandhadi Or Kakolyadi Or uthphaladi Lepa Or seka. C) Daru haridra, Manjista, Nimba Twak, Ushera, Padmaka. d) Sariba, Nishotha, Priyang, Sarpagandha, with Kanji, e) Bala Moola, Neela Kamal, Dhooava, Krishna tila, Punarnava with Water. f) Ksheeri Vruksha Lepam.

- 8) **Nasya :-**
- 1) Avapeedan Nasya those explained in Suryaavartha.
 - 2) Girikarna Moola or phala Swarasa nasya.

SHIRO KAMPAM

It is explained by vagbhata in shiro roga. Vata Predominant. Tridoshas vitiate and produces (Kampam) shivering in the shiras, is known as shiro Kampa.

Treatment :- Like Vataj Shiro Roga.

ADDITIONAL 9 DISEASES OF VAGBHATA (KAPAALA ROGA).

1) Upasheershak.

During the pregnancy a painless, same coloured Oedema Or cyst develops on the head of the foetus by the vitiation of Vata dosha, it is known as upasheershaka. (Vata vitiates due to Midyahaara vihara of the pregnant mother).

It can be co-related to 1) Cephal haematoma (effusion of the blood between the skull and pericranium in the vertex presentation, during delivery, gives rise to soft fluctuant tumour on the parietal bone or occiput) 2) Caput succedenum (Oedema due to compression of superficial vessels during delivery) 3) Hydrocephaly (increased intra cranial pressure gives abnormal big head.)

Among these 3 diseases No. 1-2 doesn't need any treatment they resolve naturally in short time but No. 3 want specific treatment.

Treatment :-

- 1) In Non suppurative stage (apakwa grandhi). Treatment should be given like Vata Vyadhi.
- a) Abhyanga- Gentle massage with medicated Oils etc.
- b) Upanaha Sweda- application of the warm paste of the medicines for light Fomentation effect.

Ex:- 1. Warm paste of Yava-Gudhuma-Mudga+Ghee.

2. Warm paste of Panchavalka should be applied to the lesion.

2) a) Pariseka :-

Luke warm Dasha moola quath + Ghee should be poured on the affected area from 2 to 4 inches height.

3) Bandana:-

Tight compression bandage.

- 4) Symptomatic treatment like analgesics, anti inflammatory and Antibiotic drugs.
- 5) If cyst is infected due to contagious infections, the cyst may suppurate (Pakwa grandhi) with pus collection. Bhedhana puyanirharan and Vrana chikitsa should be done (incision Drainage and wound healing therapy). But suppuration of this cyst is uncommon.

2) Shiro Grandhi Or Pitica (Cyst)

It is of 5 types 1) Vataj 2) Pittaj 3) Kaphaj 4) Siraja 5) Medoja Grandhi.

3) Shiro Vidradi (Abscess)

It is of 6 types 1) Vataj 2) Pittaj 3) Kaphaj 4) Tridoshaj 5) Kshataja 6) Raktaj Vidradi.

4) Shiro Arbuda (Tumours)

It is of 6 types 1) Vataj 2) Pittaj 3) Kaphaj 4) Raktaj 5) Mamsaja 6) Medoja Arbuda.

Note :- The aetiology - Pathology - Clinical features and Treatment of Shiro grandhi, Shiro Vidradi and Shiro arbuda is like Shareeraja grandhi arbuda and Vidradi.

5) AROOMSHIKA

Multiple exudative small cysts arise on the scalp by the vitiation of pitta, Kapha, Raktha dosha and Krimi, it is an irritative disease, discharges yellowish foul sticky secretion, produces inflammatory skin lesions and hair loss.

Treatment Principles :-

1) Jalaukaavacharan to remove impure blood. 2) Cleaning the scalp with the decoction of Nimba etc. drugs. 3) Application of Lavan + Ashwa Pureesha. 4) Application of the paste of Patola patra, Nimba patra and Haridra. 5) Application of Paste prepared with Gomutra, Pinyaka and Kukkuta pureesha. 6) Application of the Fried powder of Kusta + Taila. 7) Application of the paste of Khadhira nimba and Jambu. 8) Application of Jathyadi Tailam. 9) Application of the paste of Neelothphala Kesar, Aamalaki + Yastimadu. 10) Application of Triphaladi Taila (Triphala, Yastimadu Brungaraj, uthphala, sariba, saindhavalavana, Taila). 11) Shareer shodhan with vaman virechan etc., 12) Shiro shodhan with Nasya.

6) DARUNAKA

The Vitiated vata and Kapha doshas deranges the skin of the scalp and changes it into dry rough with severe itching sensation and pain. The dried skin of the scalp fall in small pieces, causes loss of sensitivity and hair loss.

Treatment Principles :-

Prakshalana - Seka-Lepa-Abhyanga-Shirovasti Nasya and Rakthamokshana.

1) Cleaning the head with warm water and allow it to dry properly. 2) Raktha mokshan at frontal region. 3) Shiro abhyanga-Oil application to head to bring the Oleusness in the scalp. 4) Shiro Vasti with Vata Kapha hara sneha 5) Local application of the Paste of Priyala beeja, Yastimadu, Kusta, Masha Sarshapa and Honey. 6) Seka Or pariseka (pouring of Medicine) with the solution of the Kshara Prepared with Kodrava and Truna. 7) Application of the paste of Taila, Khas Khas Beeja + Milk, to the scalp. 8) Application of the paste of Kantakari phala ras Or japa Pushpa rasa + Taila to the scalp. 9) Application of the medicated oil prepared with Brungaraj swarara + Loha Kitta + Triphala + Sariba + Taila, to the scalp. 10) Nasya Karma with Brungaraj taila etc.

7) INDRALUPTHA

1) Madhavakara explained the Indraluptha, Khalithya, and Ruhya as synonyms. 2) According to Kartheeka, if hair of scalp fall down known as Khalithya, hair of the body fall down known as ruhya and hair of mustaches fall down known as Indraluptha. 3) But vagbhata explained that sudden fall of hair is Known as Indraluptha and gradual fall of hair is Known as khalithya. 4) vagbhata said that Indraluptha is also called as chacha. 5) Madhava Kara said that Khalithya Or Indraluptha doesn't occur in ladies because the the vitiation of the blood is corrected by menstruation in every month. So only if hair fall down that grows without any obstructing lesions.

INDRALUPTHA :-

The Vitiated Vata and Pitta affects the hair roots and causes loss of hair, then the vitiated Kapha and Raktha obstructs the hair roots, so there is no chance for the regrowth of hair (if hair roots are partially closed, by the proper treatment there is scope for regrowth of hair).

Treatment Principles :-

- 1) Sira vyadan at the nearer site and application of the paste of Kaseesa Manashila Tutta and maricha Or pippali to the head.
- 2) Application of Brungaraja taila.
- 3) Application of the paste of Bruhatiphala + Gunja moola.
- 4) " " Black cow urine + Japa pushpa,
- 5) " " Brungaraj swarasa + Taila (Pakwa)
- 6) " " root and fruit of Gunja.
- 7) " " Langali root + Milk.
- 8) " " Karaveera Patra Swarasa.
- 9) " " Kantakari Swarasa + Honey.
- 10) " " Dathura Patra Swrasa with Honey Or Ghee.
- 11) " " Bhallatak ras with Honey Or Ghee.
- 12) " " Tila pushpa, gokshura with Honey Or Ghee.
- 13) " " Hastidantha Masi + Taila (Tila Taila)
- 14) Upto the completion of the treatment bathing is not advised (Water contact aggravates the vitiation).

8) KHALITHYA OR KHALATHI

Aetiology and pathology of khalithya is like Indraluptha. i.e. Vata and pitta causes hairfall, kapha and Raktha obstructs the hair roots so No chances of regrowth of Hair But in Khalithya hairfall is gradual Or Slow, Not sudden as in Indraluptha.

- 1) If Vata dosha vitiation is predominant, the Skin of the scalp becomes thicker like the scar of burns. (Dagha charma).
- 2) If pitta dosha vitiation is predominant, in the the Skin of the scalp is with venous congestion and sweating.
- 3) If Kapha dosha vitiation is predominant the Skin of the scalp be comes more thicker.
- 4) If Tridoshas vitiates all the symptoms appears (If the scalp Skin is like the nail, burnt scar and with tridosha vitiation it is said as asadya.).

Treatment :-

Positive result Or improvement is not adequate but can try with the following principles.

- 1) Mukha and shiro Abhyanga. 2) Shodhan therapy - Vaman Virechan and Nasya etc., 3) Oral intake of milk daily. 4) Avoiding of Sex (Brahmacharya) 5) Local application of the paste of Jatamamsi, Kusta Tila Krishna Sariva, Neelothphala + Cow Milk + Honey. 6) Nasya Karma with nimba taila for a month. 7) Nasya with Bruhatyadigana taila Or jeevaneeyagana taila for a month. 8) Laghu panchamoladi taila nasya for a month.

Note :- Falling of the hair, occur due to so many aetiological factors but exact cause is obscure.

- 1) Genetic factors 2) emotional factors. 3) Mental Worries. 4) Chronic head ache. 5) Refusing regular head massage with nutrient oils 6) Repeated head bath. 7) Changes in the sebasious secretions of scalp. 8) Skin lesions of scalp (connective tissue disorders). 9) Unhygienic conditions of scalp. 10) Irritative inflammatory lesions of scalp. 11) Fungus infective lesions of scalp. 12) Ulcerative lesions of scalp by alcolies, acids, injuries, contagious infections, burns, drug toxicity, allergic disorders and chronic diseases etc., causes the hair loss.

9) PHALITHA OR PHALITHYA

Depigmentation of the hair occuring due to physical strain, mental strain, excessive anger, weeping etc., the over heat is produced in the body that propogates towards the head along with vitiated pitta dosha, affects the hair roots and causes the disease, known as phalitha, 1) In Vata predominance hair becomes rough dry brittle and brownish, 2) In pitta predominance hair becomes Yellowish with burning sensation, 3) In Kapha predominance hair becomes whitish Oily thicker and Lengthy, 4) In Tridoshaja vitiation all the above symptoms togetherly present and it is said as Asadya.

- Note :-** 1) Phalitha - If occurs due to headache contain tendernes of the scalp, 2) Phalitha if occurs due to Old age, is Yappa and need Rasayana Therapy. 3) Tridoshaja Phalitha is said as Asadya.

Phalitha Chikitsa :-

- 1) sannipathaj Phalitha is Asadya. 2) Phalitha of Old age is Yappa. 3) Shiro Abhyanga (Oil applications) 4) Shiro lepa (Medicine application) 5) Shodhan Karma (Vaman Virechan-Nasya). 6) Oral intake of Cow Milk, 7) Avoiding of Sex (Brahmacharya) etc are beneficial.

A) Nasya Togas :-

- 1) Bruhatyadi Jeevaneeya taila nasya. 2) Nimba taila nasya for a month. 3) Prapoundareekadi taila nasya. (Medicated oil prepared with Amalaki, Tila taila, prapoundareeka, Yastimadu pippali, chandana, Neelothphala, Taila, has to prepare according to taila paka vidhi) 4) Shatavaryadi taila Nasya. (medicated oil prepared from Shatavari, Jeevanthi decoctions, cow milk, yamaka sneha, Jeevaneeya Kalka - taila). 5) Neelinyadi taila nasya.

6) Ksheeradi taila Nasya. (medicated oil prepared from cow milk, sahachara, Brungaraja, Tulasi swarasa, tila taila and Yastimadu taila.) 7) Mundee taila for oral and for nasya. 8) Mayuradi ghritha nasya. 9) Shatbindu ghritha nasya. (medicated ghritha prepared from yastimadhu, Vidanga, shunti, bringaraj, madhuka and ghritha.)

B) External applications (Lepa).

1) Haridra, daruharidra + Navaneetha. 2) Neelothphala, Tila, Yastimadu, sarshapa, nagakesar, and Amalaki. 3) Aja Shruna masi + Tila taila. 4) Karpasa beej nagakesar, and Amalaki. 5) Dugdika, Karaveera + Cow Milk, 6) Priyaladi Lepam. majja + Arka ksheera. 7) Tila, Amalaki, (Priyala, Yastimadu, Jeevaneeya dravya, tila taila and Cow milk) 7) Tila, Amalaki, Padmakinjalka, Yastimadu + Honey. 8) Jatamamsadi Lepam. (Jatamamsi, Kusta, Krishna Tila, Krishna sariba, Neelothphala + Cow Milk + Honey.) 9) Aayushchurnadi kept for a month and applied.) 10) Mashadi Lepam, (Masha, Kodrava, Kanji, kept for 3 days then Lohachurna added and applied) 11) Kantakari phala rasa + taila. 12) Application of the swarasa of Japapushpa.

C) Ghritha yogas :-

Mayuradya ghritha, maha mayuradya ghritha etc., can be used for oral administration, massage, vasti and Nasya.

HEAD ACHE

Head ache is a term commonly used for "Pain felt anywhere in the head". It is observed as a symptom in most of the diseases. The signs, symptoms, nature, severity, duration and prognosis of the diseases etc., depends upon the aetiological factors and affected part. Some of the factors responsible for producing headache are hereunder.

1) Referred pain 2) Extra cranial Lesions. 3) Cranial neuralgias 4) Meningeal irritation. 5) Vascular changes 6) Traction and distortion, of the intra Cranial structures. 7) Psychogenic 8) Headache in association with other, systemic diseases.

I) Referred Head Ache :-

Pain in the head experienced because of the lesions of peripheral structures like ear, nose, paranasal sinuses, teeth, tonsils etc.,

a) Head Ache in Frontal Area Of the Head :-

Frontal head ache Occurs in glaucoma, iritis, frontal and maxillary sinusitis (behind the eyes in ethmoidal sinusitis) Chronic Rhinitis, ice cream head ache due to Cold stimulus to palate, in Temporo mandibular joint lesion (Facial neuralgia) and in the involvement of ophthalmic branch of Trigeminal nerve in Trigeminal neuralgia.

B) HEADACHE IN OCCIPITAL AREA OF THE HEAD

In cervical spondylosis, sphenoidal sinusitis (to the vertex also pain radiates), in refractive errors with high lesions, Meningitis, encephalitis and in sub arachnoid haemorrhages.

C) HEAD ACHE IN TEMPORAL AREA OF THE HEAD.

In cranial, vascular, dental and Aural lesions.

D) IN QUINSY (PERITONSILAR ABSCESS)

Hemicranial headache occurs.

2) Head Ache Due to extra Cranial Lesions. :-
Spastic contractions of neck and scalp muscles.

3) Head Ache Due to Cranial Lessons.
(Cranial Neuralgia)

Extordinary stimulus Or pressure exertion, Or due to un Known causes, severe head ache occurs due to the affection of 5-7-9-10 cranial nerves and cervical 1-2-3 nerves.

a) Trigeminal neuralgia - Paroxysmal and sharp pain confined to the distribution of 5th Cranial nerve.

b) Glosso pharyngeal neuralgia -
Stabbing pain in pharynx and deep into the ear that aggravates by eating and swallowing.

c) Facial Neuralgia :-
Pain radiates to the Frontal and Temporal region by the involvement of facial nerve at temporo mandibular joint.

4) Head Ache due to Meningeal Irritation :-

Encephalitis meningitis and sub -arachnoid haemorrhage causes occipital head ache with photo phobia, drowsiness, pyrexia and neck stiffness.

5) Vascular Changes

Throbbing type of head ache at temporal area due to the dilatation of intra cranial and extra cranial vessels.

Ex:- In migraine, unilateral periodic cluster head ache occurs.

6) Traction on the intra cranial structures. :-

Cerebral tumours, sub dural haematoma causes increased intra cranial pressure, lumbar puncture causes decreased intra cranial pressure - these two produces severe head ache. The condition aggravates by strain, coughing and Bending.

7) Psychogenic Head ache :-
In schizophrenia like disorders head ache is associated with anxiety and depression etc.

8) Head Ache In Systemic Diseases :-

1) Chronic nephritis. 2) Uraemia. 3) Hypertension. 4) Hypotension. (low B.P.) 5) Polycythemia 6) Anaemia. 7) Acidosis. 8) Alcolosis. 9) Alcoholism 10) Congestive heart failure. 11) Hyperacidty. 12) Lead Poisoning. 13) Liver disorders. 14) Sun Stroke. 15) Syphilis. 16) Disorders of uterus. 17) Disorders of Testicles. 18) Vataj and Kshayaajja Kasa (Dry cough with debilitating diseases.) 19) Vata balasak Jwara. 20) Vishama Jwara. 21) Antrika Jwara. 22) Masurika Jwara. 23) Peetha Jwara. 24) Constipation. 25) Apasmara. 26) Vata Raktha. 27) Madhu meha. 28) Raktha pitta poorva rupa. 29) Vata roga. etc. 30) Dusta Pratishyaya etc.

TRIGEMINAL NEURALGIA

It is commonly observed in middle age group, the exact aetiology is obscure but it may be due to Neurological vascular muscular problems, commonly follows after chronic contagious infections, pyogenic infections, Cold wind attacks, genetic and debilitated conditions.

The pain is paroxysmal, sharp and confined to the distribution of 5th nerve. The nerve get stimulated by talking - coldwind- washing and chewing etc., First maxillary and mandibular branches affects then ophthalmic branch. Each paroxysm lasts for only few seconds, with shooting cutting burning and stabbing type of pain. The stab of the pain may be followed by a dull aching. The Pain is precipitated by touching localised trigger zones on the affected side of the face. Paroxysms continue for days or weeks. remission become shorter and less frequent as the disease progresses. On examination of 5th nerve no functional abnormality is observed.

Treatment :-

1) Carbamazepine 200mg tabs tid. 2) Phenytoin 100 mg. tid. 3) Clonazepam 1-2mg tid. 4) Alcohol injection into the branch of the nerve Or into Gasserian ganglion.

MIGRAINE

Migraine is characterised by periodic headache which is typically unilateral and often associate with visual disturbance and vomiting. The attacks occur at intervals which vary from a few days to several months.

It is believed to be due to disturbance in the carotid Or vertebro basilar vascular tree by the sudden contraction and dilatation of the vessels. First Vaso constriction causes ischaemic symptoms and followed vaso dilatation, exerts pressure on the nerve endings of vessels of intra Or extra cranial arteries, causes throbbing pain in the head. Pain may be prolonged by Secondary muscular contractions.

Most of the cases of migraine are observed with the Family history (genetic) it is stimulated Or aggravated during menstruation, exposure to flash lights, stress strain, anxiety, eating of Chocolate cheese and usage of medicines like reserpine, tyramine etc.,

The common symptoms are paraesthesiae Or weakness of One half of the body, severe throbbing pain in the half part of the head (The affected side is not constant with each attack) With Vomiting, Photophobia, pallor, sweating and prostration which may necessitate the patient taking to bed in a dark room. The attack may last from few hours to several days and leaves the patient weak and exhausted. In rare cases hemiplegic migraine occurs.

Treatment :-

1) Anti anxiety drugs. 2) Sleep inducing drugs. 3) pain killers. 4) Brain tonics.

EXAMINATION OF HEAD (SHIRAS)

Sushruta explained 11 shiro rogas those contain shirashoola (Headache) as the Prime symptom. but vagbhata explained 19 diseases including the scalp and hair lesions. The lesions of scalp and hair can be easily diagnosed. but diagnosis of Head ache is not so easy for containing so many aetiological factors like the following.

1) Disorders of scalp and Hair 2) Brain and Meninges 3) Cranial nerves 4) Intra and Extra cranial blood vessels. 5) Muscles of neck face and scalp 6) Diseases of Eye ear nose sinuses teeth and throat 7) Psychological factors. etc. So, for the proper diagnosis of head ache detailed histry of the case and complete investigations are needed

While taking histry the following points are helpful for the diagnosis.

1) Size and Shape of Head :-

- Normal - Abnormal
- Bilateral Symmetrical or not
- Normal Or bigger Or smaller.

Note :- In congenital abnormalities, Hormonal disorders, the lesions in the size and shape of the head can be noted.

2) Examination of the scalp.

Whether normal Or abnormal, if abnormal for the following lesions of scalp should be checked.

- a) Wounds, b) Scars c) Dandruff d) Inflammatory lesions e) Allergic lesions f) Cysts g) Tumours h) Abscess i) Pigmentary changes of Skin of the Scalp etc.

3) Examination of the Hair.

- a) Whether lengthy, thicker Or with loss of hair (Partial or Total)
b) Normal Pigmentation Or depigmentation.

4) Head Ache (Shira Shoola)

(A) Collection of the associated symptoms of headache

- a) Burning sensation b) Itching sensation. c) Heavyness of head d) Nausea - Vomiting. e) Drowsiness f) Photophobia g) Neck pain h) Body pains i) Otalgia j) Eye strain k) Tinnitus l) Hypertension m) Hypotension n) Rhinitis o) Sinusitis p) Carious teeth q) Neck stiffness r) Giddiness s) Indigestion t) Constipation u) Hyper acidity v) Dysphagia w) Gas abdomen x) Nasal Obstruction. y) Palpitation. z) Oedema of face limbs etc.,

Ex :- 1) In cranial lesions associated symptoms are Drowsiness, photophobia and Neck stiffness.

2) In Refractive errors - Eye strain. is associated.

3) In Nasal lesions - Nasal Obstruction - rhinitis. etc associated.

4) In Hyper tension - Burning sensation, giddiness, pulsation of Vessels. etc associated.

5) In ear disorders - Otalgia, Tinnitus. etc. associated.

6) In G.I.T. lesions - Gas abdomen, constipation, Hyperacidity- indigestion etc., associated.

7) Cold allergy - Heavyness of head, itching sensation etc. are associated.

B) Differentiation of Head Ache for Proper Diagnosis :-

The following data give idea for the diagnosis.

1) Head ache partial Or Localised Or Total

2) Fixed Or spreading.

3) Continuous Or interrupted.

4) Regular Or Irregular.

5) Site of the Pain :- Whether at Frontal region, temporal. parietal, occipital vertex, retrobulbar area of eye. etc.

Severity of head ache :-

- 6) a) Whether Mild - Moderate or severe b) In the morning - Noon or night
c) In summer - Winter or Rainy season. d) Irrelevant or irregular.

Nature of Pain :-

- 7) Pricking pain-cutting pain-tearing pain, stabbing pain or churning pain etc.,

8) Duration of Pain :-

For - seconds, minutes, hours, days weeks or months etc.,
Duration of recurrence for 3 days -5-10-15-30 days. Duration of remission of pain short, moderate or Long.

9) Aggravating Factors :-

By Stress and strain, coughing, sitting, sleeping, Reading, bending, Talking, Night arousal, Hot therapy, Hot exposure, Cold therapy, Cold wind exposure, dust exposure smoke exposure, swallowing, at mornings, Noon or at Nights. Psychological etc.,

10) Relieving factors :-

Naturally - seasonally - by rest, Cold therapy - Hot therapy, Oleation, sudation - Pancha Karma therapy- Drugs etc.,

11) Investigations :-

- a) Urine In general
b) Blood for Hb%, CBP, ESR and seriological examination.
c) Stools for Ova and Microbs.
d) X ray - for Nasal sinus - Brain and ear.
e) CT scan of Brain & E.E.G.
f) E.C.G. and Echo.
g) Vision tests - Ophthalmoscopic examinations.
h) Audio metry
i) Rhinoscopy
j) Pharyngo scopy- Laryngo scopy.
k) Systemic examinations etc.

KARNA ROGA DISEASES OF THE EAR

38

कर्णरोगों की सम्प्राप्ति और निदान

अवश्यायजलक्रीडाकर्णकण्डूयनैर्मरुत्
मिथ्यायोगेन शस्त्रस्य कुपितोन्यैश्च कोपनैः ॥
प्राप्य श्रोत्रशिराः कुर्याच्छूलं स्रोतसि वेगावान्।
ते वै कर्णगता रोगा अष्टाविंशतिरीरिताः ॥

(योः : कर्ण)

कर्णरोगों के भेद

कर्णशूलं प्रणादश्च बाधिर्यं क्ष्वेड एव च ॥
कर्णस्नावः कर्णकण्डुः कर्णवर्चस्तथैव च ॥
कृमिकर्मप्रतिनाहौ विद्रधिर्द्विविधस्तथा ॥
कर्णपाकः पूतिकर्णस्तथैवाशंसचतुर्विधम् ॥
कार्णाबुद्धं सप्तविधं शोफश्चापि चतुर्विधः।
एते कर्णगता रोगा अष्टाविंशतिरीरिताः ॥

(सु. उ. 20/3,4,5)

1. कर्णशूल

समीरणः श्रोत्रगतोन्यथा चरः समन्ततः शूलमतीव कर्णयोः।
करोति दोषैश्च यथास्वभावतः स कर्णशूलः कथितो दुराचरः ॥

(सु. उ. 20/6)

वातिक कर्णशूल

प्रतिश्यायजलक्रीडाकर्णकण्डूयनैर्मरुत्।
मिथ्यायोगेन शब्दस्य कुपितोन्यैश्च कोपनैः ॥
प्राप्य श्रोत्रशिराः कुर्याच्छूलं स्रोतसि वेगवत्।
अर्धावभेदकं स्तम्भं शिशिरानभिनन्दनम् ॥
चिराच्च पाकं पक्वं तु लसीकामल्पशः स्रवेत्।
श्रोत्रं शून्यमकस्माच्च स्यात् संचारविचारवत् ॥

(अ० ह० उ० अ० १७)

39

पित्तज कर्णशूल

शूलं पितात् सदाहोषाशीतेच्छाश्वयथुज्व रम् ।
आशुपाकं प्रपक्वं च सपीतलसिकासुतिः ॥
सा लसीका स्पृशेद् यद्यत् तत्तत्पाकमुपेति च ।

(अ० ह० उ० अ० १७)

कफज कर्णशूल

कफाच्छिरोहनुग्रीवागौरवमन्दतारुजः ।
कण्डूश्वयथुउष्णेच्छा पाकाच्छ्वैतघनसुतिः ।

(अ० ह० उ० अ० १७)

रक्तज कर्णशूल

करोति श्रवणे शूलमभिघातादिदूषितम् ॥
रक्तपित्तसमानाति किंचिद् वाधिकलक्षणम् ।

(अ० ह० उ० अ० १७)

सन्निपातज कर्णशूल

शूलं समुदितैर्दोषैः सशोफज्वरतीव्ररुक् ॥
पर्यायादुष्णशीतेच्छं जायते श्रुतिजाड्यवत्
पक्वं सितासितरक्तनूप्यप्रवाहि च ॥

(अ० ह० उ० अ० १७)

2. बाधिर्यं

स एव शब्दानुवहा यदा सिराः कफानुयातो व्यनुसृत्य तिष्ठति ।
तदा नरस्याप्रतिकारसेविनो भवेत्तु बाधिर्यमसंशयं खलु ॥

(सु० उ० अ० 20/8)

श्लेष्मणानुगतो वायुर्नादो वा समुपेक्षितः ।

उच्चैः कृच्छ्राच्छ्रुतिं कुर्याद् वधिरत्वं क्रमेण च ॥

(अ० ह० उ० अ० १७)

3. कर्णनाद

यदातु नाडीषु विमार्गमागतः स एव शब्दाभिवहासु तिष्ठति ।
शृणोति शब्दान् विविधांस्तदा नरः प्रणादमेनं कथ्यन्ति चामयम् ॥

(सु० उ० अ० 20)

शब्दवाहिसिरासंस्थे शृणोति पवने मुहुः ।
नादानकस्माद् विविधान् कर्णनादं वदन्ति ॥

(अ० ह० उ० अ० १७)

4. कर्णक्ष्वेद

श्रमात् क्षयाद्रूक्षकपायभोजनात्
समीरणः शब्दपथे प्रतिष्ठितः ॥
विरिक्तशीर्षस्थं च शीतसेविनः
करोति हि क्ष्वेडमतीव कर्णयोः

(सु० उ० अ० 20)

5. कर्णस्त्राव या कर्णसंस्त्राव

शिरोभिघातादथवा निमज्जतो
जले प्रपाकादथवापि विद्रधेः ॥
स्त्रवेत्तु पूयं श्रवणोनिनावृतः
स कर्णसंस्त्राव इति प्रकीर्तितः ॥

(सु० उ० अ० 20)

6. कर्णकण्डू

कफेन कण्डूः प्रचितेन कर्णयोः
भृशं भवत् स्रोतसि कर्णसंज्ञिते ॥

(सु० उ० अ० 20)

7. कर्णगूथक

विशोषिते श्लेष्मणि पित्ततेजसा नृणां भवेत् स्रोतसि कर्णगूथकः ॥

(सु० उ० अ० 20)

8. कर्ण-प्रतिनाह

सकर्णविट्को द्रवतां यदा गतो
विलायितो घ्राणमुखं प्रपद्यते ।
तदा स कर्णप्रतिनाहसंज्ञितो
भवेद् विकारः शिरसोभितापनः ॥

(सु० उ० अ० 20/12)

वातेन शोषितः श्लेष्मा स्रोतो लिम्पेततो भवेत् ।
रुग्गौरवं पिधानं च स प्रतिनाहसंसितः ॥

(अ० ह० उ० अ० १७)

9. कृमिकर्ण

यदातु मूर्च्छन्त्यथवापिजन्तवः
सृजन्त्यपत्यान्यथवापि मक्षिकाः
तर्दजनत्वाच्छ्रवणो निरुच्यते
भिषग्भिषाद्यैः कृमिकर्णको गदः ॥

(सु० उ० अ० 20/13)

वातादिदूषितं श्रोत्रं मांसासृक्क्लोदजारुजम् ॥
खादन्तो जन्तवः कुर्युस्तीव्रां सकृमिकर्णकः

(अ० ह० उ० अ० १७)

10, 11) कर्णविद्रधि

क्षताभिघातप्रभवस्तु विद्रधिर्भवेत्तथा दोषकृतोपरः पुनः ।
सरक्त पीतारुणमस्रमास्रवेत् प्रतोदधूमायनदाहचोषवान् ॥

(सु० उ० अ० 20/14)

श्रोत्रकण्डूयनाज्जाते क्षते स्यात् पूर्वलक्षणः ॥
विद्रधिः पूर्ववच्चान्यः

(अ० ह० उ० अ० १७)

12. कर्णपाक

भवेत् प्रपाकः खलु पित्तकोपतो
विकोथविक्लेदकरश्च कर्णयोः ॥

(सु० उ० अ० 20)

13. पूतिकर्ण

स्थिते कफे स्रोतसि पित्ततेजसां विलाय्यमाने भृशसंप्रतापवान् ।
अवेदनो वाय्यथवा सवेदनो घनं स्रवेत् पूति च पूतिकर्णकः

(सु० उ० अ० 20)

कफो विदग्धः पित्तेन सरुजं नीरुजं त्वपि ॥
घनपूतिबहुक्लोदं कुरुते पूतिकर्णम्

(अ० ह० उ० अ० १७)

- 14 से 17) चत्वारि अंशां
18 से 21) चत्वारि शोफा
22 से 28) सप्तार्बुदानिच

(सु० उ० अ० 20)

1. कुचिकर्णक और 2. कर्णपिप्पली

गर्भेनिलात् संकुचिता शङ्कुली कुचिकर्णकः ।
एकोनीरुगनेको वा गर्भे मांसाङ्कुरः स्थिरः ॥
पिप्पली पिप्पलीमानः

(अ० ह० उ० अ० १७)

3. विदारिका

सवर्णः सरुजः स्तब्धः श्ववधुः, स उपेक्षितः ॥
कटुतैलनिभं पक्वः स्रवेत् कृच्छ्रेण रोहति ।
संकोचयति रूढा च सा ध्रुवं कर्णशङ्कुलीम् ॥

(अ० ह० उ० अ० १७)

4. पालीशोष

सिरास्थः कुरुते वायुः पालीशोषं तदाह्वयम् ।

(अ० ह० उ० अ० १७)

5. तन्निका

कृशा दृढा च तन्त्रीवत् पाली वातेन तन्निका ॥

(अ० ह० उ० अ० १७)

6. परिपोट

सुकुमारे चिरोतुसर्गात् सहस्रैव प्रवर्धिते ।
कर्णशोफः सरुक्पाल्यामरुणः परिपोटवान् ॥
परिपोटः स पवनात्

(अ० ह० उ० अ० १७)

7. उत्पात

गुर्वाभरणभाराद्यै श्यावोरुग्दाहपाकवान् ।
क्षयथुः स्फोटपिटिकारागोषाक्लेदसंयुतः ॥

(अ० ह० उ० अ० 27)

8. उन्मन्थ

पाल्या शोफोनिलकफात्सर्वतो निर्व्यथः स्थिरः ।
स्तब्धः सकर्णः कण्डुमान् उन्मन्थो गल्लिरश्च सः ।

(अ० ह० उ० अ० 27)

9. दुःख वर्धन

दुर्विद्धे वर्धिते कर्णे सकण्डुदाहपाकरुक् ।
क्षयथुः सन्निपातोत्थः स नाम्ना दुःखवर्धन ।

(अ० ह० उ० अ० 27)

10. लेह पिटिका

कफासृक्कृमिजाः सूक्ष्माः सकण्डुक्लेदवेदनाः ।
लेह्याख्याः पिटिकास्ता हि लिङ्ग्यः पालीमुपेक्षिताः ।

EAR DISEASES

KARNA SHAREERA.

(Anatomy of ear According to Ayurveda)

In Ayurvedic samhitas detailed Anatomical description of ear is not available, some description is here under.

- | | | | |
|----|-------------------------|---|--|
| 1) | Shrotram | = | Indrium -1 (Invisible) |
| 2) | Karnam | = | Indria Adhistaanam
(Visible 2 ears) |
| 3) | Aakasham | = | Indria dravyam. |
| 4) | Shabdham (sound) | = | Indriaartham |
| 5) | Shroto buddhi | = | Indria buddhi. (Auditory centre) |
| 6) | Dikh | = | Indria Devata. |
| 7) | 2 ear are grouped under | = | " Nava Dwara " |
| 8) | Shravanendrium | = | is one among " Panchendrias " |

9. Karna Pali (Karna Lathika)

It is lobule of external ear, karna vyadana is done (in the diiva krutha Chidra of pali) to it.

10) Karna Peetham (Putrikopari Pradesham).

It is the seat of auricle.

11) Karna Putrika (Bahya Karnaavyava)

It is the auricle or pinna

12) Karna Shaskuli (karna Gatha Aavarthaka)

It is the external auditory meatus.

13) Karna patah (Tympanic Membrane)

14. The distance between karna and apanga is 5 angula.

15. It is supplied by 2 damani and 10 sira.

- | | | | |
|-----|---------------|---|----------------|
| 16. | Bahya Karna | = | External ear. |
| | Madyama Karna | = | Middle ear |
| | Antah Karna | = | Internal ear. |
| | Shabdanadi | = | Auditory Nerve |

ANATOMY OF EAR

Ear is the organ of hearing and equilibrium. Anatomically it can be divided into 3 parts.
1) External ear 2) Middle ear 3) Internal ear.

1) External Ear :-

It consists of a) Pinna (Auricle) and
b) External auditory canal.

a) Pinna (Auricle)

The pinna is composed of a skin covered yellow elastic cartilage. The posterior surface is convex, smooth and with loose skin, the anterior surface is concave with folds and hollows (Scaphoid fossa superiorly and concha medially at the centre) here the skin is directly adherent to the perichondrium.

The anterior external margin of pinna is known as helix, the parallel ridge which is in front is known as anti helix, the protruding cartilage over the external auditory meatus is named as tragus, the parallel protruding cartilage at the lower end of antihelix is known as Anti tragus, at the bottom of pinna there is lobule which is devoid of cartilage and there is another part which is devoid of cartilage is at the junction of root of helix and tragus known as Incisura terminalis (formed by fibrous tissue) it is utilised for Endaural incision for mastoid surgery.

Blood Supply :-

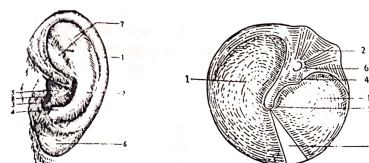
1) Anterior surface of pinna is supplied by the branches of the superficial temporal artery. 2) Posterior surface is supplied by posterior auricular artery, a branch of external carotid.

Nerve Supply :-

1) Upper 2/3 of Anterior surface of Pinna is supplied by auriculotemporal nerve.
2) Lower 1/3 of Anterior surface of Pinna is supplied by Greater auricular nerve.
3) Lower 2/3 of posterior surface of Pinna is supplied by Greater auricular nerve.
4) Upper 1/3 of posterior surface of Pinna is supplied by lesser occipital nerve.

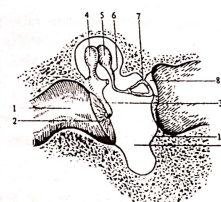
b) External auditory Canal:-

It is a tortuous canal, extending from bottom of concha to lateral surface of tympanic membrane (ear drum), approximately 2.4cm. (24mm) in length. The outer 1/3 (8mm area) is cartilaginous portion and inner 2/3 (16mm area) is bony portion. The direction of cartilaginous meatus is inwards upwards and backwards while the bony meatus is inwards downwards and forwards, in total S shape is produced in the meatus. So while examining the ear meatus the pinna must be pulled backwards and upwards in adults and downwards and outwards in children to straighten the canal to visualise the canal and tympanic membrane properly. The walls of the meatus are lined with skin. The skin of the cartilaginous part has hair follicles, sebaceous and ceruminous glands which secrete the ear wax or cerumen, for the protection of ear drum.

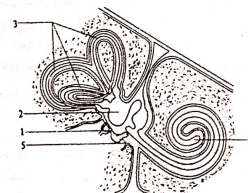


Auricle:
1—helix, 2—antihelix, 3—tragus, 4—antitragus, 5—concha, 6—lobule, 7—crus of the antihelix, 8—acoustic meatus

Tympanic membrane:
1—pars tensa, 2—pars flaccida, 3—cone of light, 4—manubrium of the malleus, 5—umbo, 6—malleolar prominence



Tympanic cavity:
1—acoustic meatus, 2—tympanic membrane, 3—manubrium of the malleus, 4—head of the malleus, 5—anvil (incus), 6—long process of the anvil, 7—stapes, 8—oval (vestibular) window, 9—tympanic cavity, 10—round window



Internal ear:
1—oval window, 2—vestibule, 3—semicircular canals, 4—cochlea, 5—round window

The skin of bony meatus is thin, firmly adherent to the periosteum, contain no hair follicles or glands (The bony part is formed by the tympanic and squamous portions of temporal bone). The narrowest part (isthmus) is situated 5mm lateral to the ear drum where foreign bodies usually get lodged.

Dehiscences in the Anterior wall of cartilaginous meatus (Fissures of Santorini), and at Anteroinferior part of bony meatus (Fissure of Huschke) gives scope for spreading of infection from meatus to parotid gland and vice versa.

Anteriorly meatus is related to temporomandibular joint hence infection of external auditory canal may cause Trismus (Painful Opening of mouth.)

Blood Supply :-

- 1) Auriculo temporal branch of superficial temporal artery.
- 2) Posterior auricular branch of external carotid artery.

Nerve Supply :-

- 1) Auriculo temporal nerve for anterior half.
- 2) Auricular branch of Vagus - Arnold's nerve for posterior half stimulation this nerve may cause coughing and vasovagal syncope.

Lymphatic Drainage :

- 1) Pre auricular lymph nodes anteriorly.
- 2) Post auricular lymphnodes posteriorly.
- 3) Infra auricular lymphnodes inferiorly

Tympanic membrane (Ear Drum)

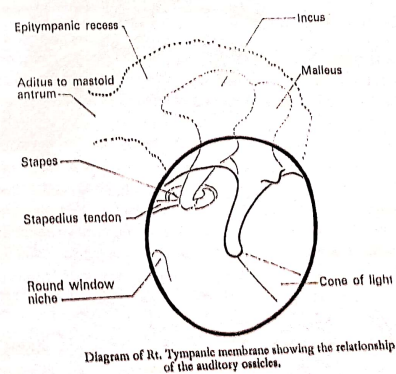
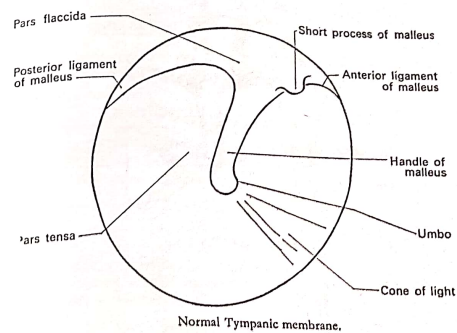
Tympanic membrane is a thin freely mobile, translucent elliptical, greyish white membrane, set obliquely in the canal and separates the external ear from the middle ear. It is convex towards middle ear and concave towards external ear. It is the lateral wall of tympanic cavity (middle ear). On examination under illumination it appears as pearly grey or mother of pearl with a triangular cone of reflected light in its anterior inferior quadrant.

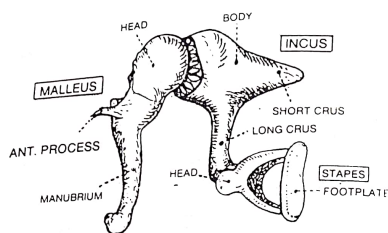
Layers :-

It consist of 3 layers.

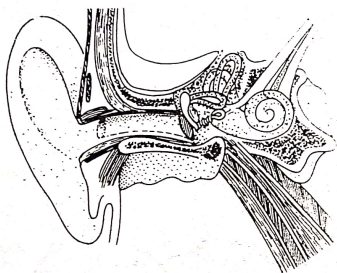
- 1) Outer epithelial layer which is continuous with epithelium of external ear.
- 2) Middle fibrous layer, consisting of radial and circular fibres.
- 3) Inner mucous layer which is continuous with the mucosa of middle ear cavity.

Note :- The upper smallest zone of tympanic membrane (Pars flaccida) contain only 2 layers (devoid of middle fibrous layer).

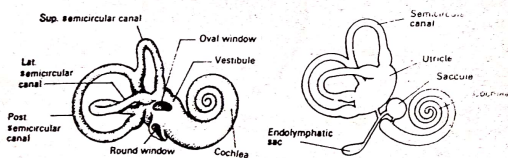




Bony Ossicles



Section of the external, middle and inner ear



Bony labyrinth

Membranous labyrinth

Parts of Ear Drum :- 2 parts

1) Pars Tensa :-

It is the largest tense part of tympanic membrane, thickened peripherally into fibro cartilaginous annulus which fits into the bony ring or tympanic sulcus. The sulcus is grooved to receive the annulus.

2) PARS FLACCIDA OR SHRAPNELL'S MEMBRANE OR ATTIC PART

It is devoid of fibrous layer and annulus, it fits into the notch of Rivinus. It is lax or flaccid part.

Size :- Approximately 10mm in vertical diameter and 8mm in horizontal diameter.

Shape :- It is oval or elliptical in shape.

Position :- The drum is placed obliquely at an angle of 55° with the floor

Surfaces:-
1) Lateral surface is free and concave.
2) Medial surface is convex.

Features :-

On examination ear drum appears pearly grey translucent and concave, pars tensa shows vertical handle of malleus attached to the tympanic membrane at medial surface which passes downwards and backwards from the short or lateral process of malleus to the umbo at the centre of the drum, the conical light reflex extend from Umbo to the antero inferior quadrant of ear drum, the long process of incus may be visible through the ear drum behind and parallel to handle of malleus. The anterior and posterior. Malleolar folds run forwards and backwards from short process of Malleus by which it is divided into two, smaller above part pars flaccida and larger below part is pars tensa. The pars tensa is divisible into four quadrants by drawing the imaginary lines from Umbo vertically and horizontally, they are 1) antero superior quadrant 2) antero inferior quadrant 3) Postero superior quadrant 4) postero inferior quadrant This description is beneficial for discription of tympanic lesions.

Blood Supply :-

1) External surface is supplied by auricular branch of maxillary artery. 2) Inner surface is supplied by

a) Anterior tympanic branch of maxillary artery b) Posterior tympanic branch of stylomastoid branch of posterior auricular artery. c) Inferior tympanic artery a branch of ascending pharyngeal artery. d) Arteria nutricia incudo mallei a twig of middle meningeal artery.

Nerve supply :-
Outer surface as like external auditory meatus, inner surface is supplied by tympanic plexus.

Middle Ear Anatomy :-
(Tympanum)

The entire middle ear cavity is lined with respiratory mucous membrane which is an extension of mucosa of Nasopharynx. It is extending from medial surface of tympanic membrane to cochlear promontory of internal ear. (It lies in between external ear and inner ear) it is shaped like a biconcave disc. The vertical and antero posterior diameters are 15mm and transverse diameter is 6mm at upper part, 2 mm at the centre and 4 mm at the lower.

Tympanic Cavity :-

1) 6 walls

1) Roof 2) Floor 3) Anterior Wall 4) Posterior wall 5) Medial wall 6) Lateral wall.

2) 4 Chambers :-

1) Meso tympanum 2) Epitympanum 3) Hypo tympanum 4) Posterior tympanum.

3) Contents :-

Tympanum contains 1) Air 2) Ossicles 3) Tympanic plexus 4) Intra tympanic muscles (tendon of Tensor tympani and stapedius muscles) 5) Chorda tympani nerve 6) Ligaments 7) Arteries and veins.

4) Communication :-

1) Anteriorly to naso pharynx through Eustachian tube 2) Posteriorly to mastoid antrum through the aditus.

1) Walls of the tympanum - 6 They are

1) **Roof or tegmental Wall :-**

Roof separates the tympanum from the middle cranial fossa by a thin bony plate known as Tegmen tympani chronic inflammatory conditions of middle ear may spread through the tegmen to the meninges of brain.

2) **Floor :-**

The middle ear cavity is separated from the jugular bulb by a thin bony plate (it is known as jugular wall) chronic inflammatory conditions of middle ear may spread to jugular vein and may cause thrombosis.

3) **Lateral Wall :-**

It is formed by the tympanic membrane and partly by bone above behind and below.

4) **Anterior Wall or Carotid Wall :-**

From above down wards the following openings are present on the anterior wall.

1) Canal for chorda tympani nerve (canal of Huguier) 2) Canal for tensor tympani muscle. 3) Eustachian tube opening. 4) Giasserian fissure transmit the tympanic artery and the anterior ligament of the malleus. 5) A thin bony plate known as carotid canal wall separates the middle ear cavity from internal carotid artery.

5) **Posterior wall or Mastoid Wall :-**

1) Aditus antrum connects the epitympanum with the mastoid antrum. 2) Below to aditus a bony projection known as pyramid present through the tip of it stapedius tendon passes and inserts into the neck of stapes. 3) lateral to the pyramid is the opening for the chorda tympani nerve of facial nerve.

6) **Medial Wall or Labyrinthine Wall :-**

It separates middle ear cavity from internal ear.

1) Most obvious feature is promontory of cochlea formed by the turn of cochlea. 2) Above and behind the promontory there is fenestra ovalis (Oval window) that is closed by foot plate of stapes and annular ligament. It lies between middle ear and scala vestibuli of the cochlea. 3) Below and behind the promontory Round window present that is closed by Secondary tympanic membrane which separates middle ear from scala tympani of the cochlea (Sinus tympani a depression between the two openings Oval and round) 4) Above and posterior to promontory Fallopiian canal with facial Nerve present. 5) Lateral Semi circular canal Prominence present just above the facial Nerve.

TYMPANIC CAVITY :-

Middle ear cavity can be divided into 4, they are

- 1) **Meso tympanum :-** It is the middle ear proper and the biggest of the 4, it corresponds with the pars tensa of tympanic membrane.
- 2) **Epitympanum :-** It is also known as epitympanic recess or Attic, the area above to meso tympanum (the upper part of tympanum)
- 3) **Hypo tympanum :-** The lower part lying below the tympanic membrane (Or below the meso tympanum).
- 4) **Posterior Tympanum :-** The posterior part lying behind the level of tympanum.

COMMUNICATIONS OF MIDDLE EAR CAVITY

(Anteriorly it is having communication with Eustachian tube.)

Eustachian Tube :-

It is about 3.5cm in length connects the middle ear with Naso pharynx. The outer third of this is bony, that adjoins with middle ear, The inner 2/3 is cartilagenous and leads in to Nasopharynx. The naso pharyngeal opening lies behind and on a level with the posterior end of inferior turbinate, at rest it remains closed and during Yawning or swallowing opens. In adults the tube is Obliquely placed where as in infants it is short, wide and horizontally placed so Naso pharyngeal infections easily spread to middle ear in infants.

2) Mastoid :-
Posteriorly middle ear cavity communicates with mastoid antrum through aditus.

a) Aditus ad antrum - a short canal connecting epitympanum with mastoid antrum.
b) Mastoid antrum - It is the largest air cell in mastoid bone.

Anteriorly - It receives the aditus medially related to horizontal semicircular canal.
Laterally - formed by the cortex of mastoid bone.

Roof - is formed by tegmen plate, postero inferiorly antrum communicates with numerous mastoid air cells.

c) **Mastoid Air Cells :-**
Variable in number, size and distribution, these communicate with the mastoid antrum. 3 types of mastoid processes are
1) Cellular 2) Diploetic 3) Sclerotic.

Contents of middle Ear :-
3 Ossicles (3 tiny bones) they are
1) Malleus (Hammer) 2) Incus (Anvil) 3) Stapes (Stirrup)

1) **Malleus (Hammer)**
Largest and most lateral ossicle, measuring 6mm in length. It has a head, neck, handle, anterior and lateral processes. Handle is firmly attached to the pars tensa of ear drum, head is situated in the epitympanum and articulates with body of incus.

2) **Incus (Anvil)**
It has a body, a short process and long process. Body articulates with head of malleus, short process projects backwards in the attic, long process projects downwards behind the handle of malleus and articulates with the head of stapes.

3) **Stapes (Stirrup)**
Smallest ossicle measuring about 3.5 mm and consists of a head, neck, foot plate and also anterior and posterior crura. Head articulates with long process of incus and foot plate of stapes is held to the oval window by the annular ligament.

Muscles :-

- 1) Tensor tympani is inserted into neck of malleus.
 - 2) The stapedius is inserted into neck of stapes.
- These muscles decrease the movements of Ossicles.

Relations of the Middle Ear Cavity :-

Laterally External ear and medially inner ear.

1) Tegmen plate (Roof) separates the tympanum from Temporal Lobe of brain and meninges. 2) Cerebellum is postero medial to mastoid air cells. 3) Horizontal semicircular canal lies postero superior to facial Nerve. 4) 5-6th cranial nerves lie close to the Apex of petrous pyramid. 5) Horizontal part of facial Nerve present back of medial wall. 6) Lateral Sinus is posterior to mastoid cell. 7) Jugular bulb close with Floor of tympanum. 8) Internal carotid artery is anterior to tympanum.

So middle ear chronic inflammatory lesions easily spread to above parts and cause severe complications.

Blood supply :- 1) Middle meningeal artery 2) Maxillary artery 3) Ascending pharyngeal artery 4) Stylo mastoid branch of posterior auricular artery.

Nerve Supply :-

Sensory - Tympanic branch of Glossopharyngeal nerve.

Motor - Tensor tympani by mandibular Nerve, stapedius by facial nerve.

Lymphatic Drainage :- 1) Pre auricular lymph nodes. 2) Retro pharyngeal lymph nodes.

Inner Ear (Labyrinth)

Inner ear is a structure of winding passage, it is also named as labyrinth situated in the temporal bone, consists of 2 parts. 1) Bony Labyrinth 2) Membranous labyrinth (Membranous labyrinth is covered by bony Labyrinth) Membranous Labyrinth contains endolymph and perilymph is present in between bony and membranous labyrinth.

Bony Labyrinth :-

It has 3 parts.
1) Vestibule 2) Cochlea 3) Semicircular canals.

1) Vestibule :-

It lies in the centre of bony Labyrinth on its lateral wall is the opening of Oval window which is closed by foot plate of stapes. Postero medially there is an opening for the aqueduct of the vestibule.

2) Bony Cochlea :-

It lies in front of the vestibule and is like a snail shell. It has 2 3/4 turn around a central pillar known as modiolus, an osseous membranous lamina divides the tube lumen into two, the upper one scala vestibuli which communicates with vestibule, the lower one is scala tympani which communicates with tympanic cavity through round window these two cavities are filled with perilymph and are communicated at the apex through a small opening known as Helicotrema.

3) Bony Semicircular Canals :-

These are 3 in number 1) Horizontal 2) Superior and 3) Posterior semicircular canals are set at right angles to each other. The 3 canals open by five openings into the vestibule posteriorly.

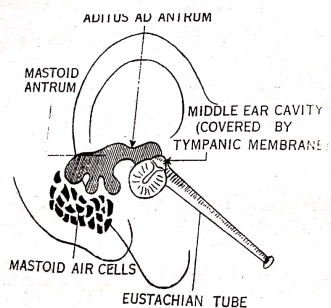
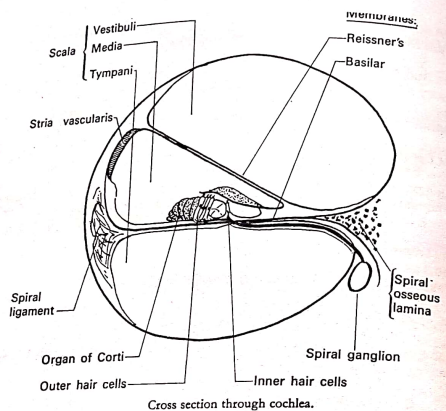
Membranous Labyrinth :-

Membranous labyrinth present in the bony Labyrinth, filled with endolymph and comprises the following.

1) Sacculle and utricle present in bony vestibule 2) Membranous semicircular ducts present within the corresponding bony canals. 3) Ductus cochlearis present in the bony cochlea.

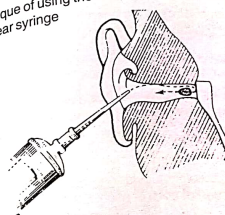
1) Sacculle and Utricle :-

Utricle lies in the upper part of vestibule and is connected with 3 semicircular ducts by five openings while the sacculle lies below and in front of utricle and communicates with duct of cochlea. These two join to form endolymphatic duct which occupies the bony aqueduct of vestibule. There is specialised neuro epithelium known as Macula which is end organ for gravitational pull and Linear acceleration.

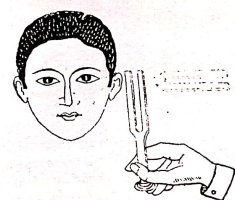
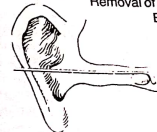


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Technique of using the ear syringe



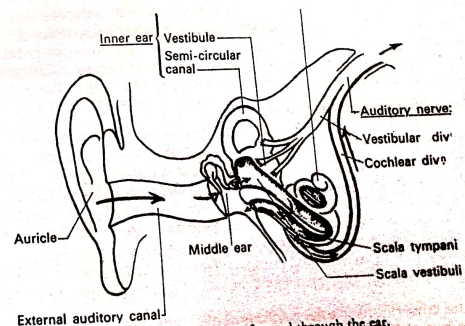
Removal of wax or Foreign Body



(a) Rinne's Test



Weber's test



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2) Membranous semicircular Ducts:

These open into utricle by five openings, at near the opening the part is dilated known as ampulla, it contains specialised Neuro epithelium called *crista*, it is end organ for Angular acceleration and caloric stimulation.

3) Ductus Cochlearis - Or scala media :-

Cochlear duct lying in the bony cochlea it is in between scala vestibuli and scala tympani, triangular in cross section with Reissner's membrane. The end organ of Cochlea is the specialised neuro epithelium known as **organ of corti** present in basilar membrane.

Nerve Supply :-

Ampullary neuro epithelium *crista* and saccular utricular neuroepithelium *macula* together form vestibular nerve for equilibrium. **Organ of corti** of cochlea becomes cochlear nerve for hearing. These two nerves vestibular + Cochlear ultimately become vestibulo cochlear nerve Or auditory nerve (8th cranial). Auditory centre of hearing present in the superior temporal gyrus of cerebrum.

Vestibular nuclei situated at pons and medulla and connected with cerebrum cerebellum and spinal cord.

Blood supply :-

Internal auditory artery

PHYSIOLOGY OF EAR

The ear performs two functions

- 1) Hearing
- 2) Maintenance of equilibrium.

Hearing Mechanism:-

Hearing mechanism consists of two components.

- 1) The Sound conducting mechanism (Transmission) 2) the perceptive neural mechanism (Transduction)
- 1) The sound conducting mechanism required apparatus consists of external ear, tympanic membrane, ossicular chain middle ear cleft and eustachian tube. (Conduction of sound). 2) The perceptive apparatus consist of cochlea, Labyrinthine fluids, organ of corti, auditory nerve and its central connections (Perception of sound.)

Physiology of Conductive Mechanism :-

This consists of conduction of sound through air and bone to the internal ear through external ear, tympanic membrane, ossicles and oval window. Tympanic membrane and ossicles not only conduct the sound but also increases its pressure before it is transmitted to the cochlea. It is needed to overcome the impedance (resistance) to the sound transmission and is called impedance matching function of the middle ear. The gain pressure is 22 or 28 db, due to hydraulic effects of middle ear and lever effect of ossicles. Hydraulic effect is due to difference in the vibrating surface area of the drum (55 Sq.m.m.) and foot plate of stapes (3.5 sq. m.m) which is approximately 17. Lever effect of Ossicles is due to relative difference 1:1.3. Total gain sound pressure transformer ratio is $17 \times 1.3 = 22$.

This is how the middle ear functions as the sound pressure transformation mechanism helps in impedance matching of sound.

IMPORTANCE OF ROUND WINDOW :-

The sound waves which are transmitted through tympanic membrane ossicular chain reaches the Oval window and vibrate the perilymph of cochlea for the stimulation of organ of corti and gives protection to round window (when tympanic membrane is intact) from the direct impact of sound waves thus allow it to function as a release point necessary for fluid displacement of the inner ear (to give phase difference between oval and round window).

Importance of Tympanic Muscles :-

The muscles restrict the ossicular movement to save the delicate inner ear from loud sounds.

Functions of Eustachian Tube :-

- 1) It is useful for the aeration of middle ear cleft for the proper function.
- 2) For providing hypotympanic air bubble for the movement of the membrane of round window.
- 3) To equalise the air pressure on either sides of tympanic membrane.

Ex :- When atmospheric pressure is reduced as during ascent in an aeroplane the air in the middle ear cavity gets absorbed and a negative pressure develops in side the middle ear cavity that can be equalised by frequent swallowing movements by which eustachian tubes open. Failure to open the tubes causes tympanic rupture and serous otitis media.

Function of Mastoid Aircells :-

It is not clear but may serve the following functions.

- 1) Air reservoir for middle ear cavity.
- 2) Protect the Labyrinth from temperature variations.
- 3) provide resonance to sound.

Bone conduction of sounds :-

Besides air conduction the sound is also transmitted by bone conduction by the vibration of skull bones. Perceptive neural mechanism and apparatus. the sound waves normally enters the cochlea through the Oval windows (through round window and also by skull bones).

Propagation of sound within the cochlea is controversial But it is clear that the foot plate of stapes causes movement of cochlear fluids, an energy displaces the basilar membrane, the organ of corti gets stimulated which results in generation of cochlear microphonics and the nerve impulses are carried to the central connection.

1) Hydrodynamics. :-

Sound vibration through stapes movement will produce a flow of perilymph from scala vestibuli - Helicotrema - scala tympani and vice versa. Acoustic energy displaces the basilar membrane to and fro between the two scaleae.

2) Mechanical Excitation of The Hair Cells :-

Vibration of basilar membrane results in a sliding or shearing movement between the tectorial membrane and haircells. This results in the development of cochlear microphonic due to electrical potential difference in endolymph, perilymph and organ of corti which help acoustic impulse to be transmitted as neural impulse.

Theories of Hearing :-

- Resonance theory or place theory of Helmholtz:- The perception of pitch of sound depends upon the selective vibratory action of the basilar membrane.
- 1) Rutherford's telephone theory or Telephone diaphragm theory:-
 - 2) Whole basilar membrane vibrates with each sound and perception of pitch is related to the rate of firing of individual nerve fibres.
 - 3) Volley theory Or Waver's Theory.

Combined theory of above both.

- a) higher frequencies are perceived by place theory.
- b) Lower frequencies are perceived by telephonic theory.
- c) Intermediate frequencies are perceived by both theories.

4) Travelling wave theory or Bekesy's theory. Sound waves travel from basilar membrane to the apex of cochlea. The point of maximum amplitude on the basilar membrane depends upon the frequency of sound, and the final perception of sound occurs in the cerebrum.

Physiology of Equilibrium :-

Vestibule is very important end organ of the proprioceptive mechanism. Other proprioceptors of the body are in muscles tendons, joints, skin and eyes. These end organs are connected to cerebellum and cerebrum where the final perception of the sense of equilibrium occurs.

The Vestibular Apparatus :-

It supplies information to the brain about the position and movement of head as a basis for postural adjustments.

1) Utricle and Saccule :-

The macule of utricle and saccule get stimulated due to linear acceleration or gravitational pull and in static posture (Rest).

2) SEMI CIRCULAR CANALS:- The crista of ampulla of semicircular canals gets stimulated by angular acceleration (Kinetic posture produced during movements.)

The three canals on each side of body are arranged at right angles to each other and thus stimulated by movements.

HISTORY TAKING AND SYMPTOMATOLOGY.-

Before otoscopy and functional examination of ear, knowing the History of the patient with common symptomatology is very important and gives scope for correct diagnosis.

- 1) Age of the patient (for senile degenerative lesion)
- 2) Place of living (At dusty crowded areas allergic disorders are common).
- 3) Occupation (Labours working in noisy surroundings are commonly prone to deafness etc., disorders).
- 4) Personal history - (Smoking, tobacco chewing, swimming and diving, eating of cold items, fridged items, scratching the ear canal with match sticks, Lower socio economic and unhygienic living habits etc.,).

- 5) Past history of diseases like diabetes, hypertension, syphilis, Tuberculosis, habit of Ototoxic drugs. injuries, operations etc.,
- 6) Family history of deafness otosclerosis etc.,
- 7) History of drug intake like salicylates, aminoglycosides, quinine and cytotoxic drugs.
- 8) History about the present condition or Chief complaint & associated complaints.

Origin, duration, severity, progress, nature of the disease, aggravating factors, focal lesions of referred lesions, continuous problem or intermittent, sudden onset or gradual, fixed lesion or spreading type, unilateral or bilateral, congenital or hereditary or developmental Or degenerative, or traumatic or inflammatory or Neoplastic or metabolic or Allergic or idiopathic - in all these angles case study should be carried that gives perfect scope for diagnosis.

The common symptoms of ear diseases are :-

- 1) Earache
- 2) Itching sensation in the ear canal
- 3) Deafness
- 4) Otorrhoea
- 5) Tinnitus
- 6) Vertigo

General Symptoms :-

- 1) Head ache
- 2) Body pains
- 3) Fever
- 4) Nausea
- 5) Vomiting
- 6) Common Cold and cough
- 7) Upper respiratory symptoms
- 8) CNS (Central nervous system)
- 9) Allergic symptoms etc.,

Note : Enquiry about each symptom in detail is explained in their concerned topics.

Physical Examination of Ear. Auricle or Pinna :-

- 1) a) Appearance - Congenital deformities, inflammatory changes, ulcers, swellings, scars are observed.
- 2) Mastoid region should be examined for abscess swelling and fistula (Mastoiditis).
- 3) Position of Pinna - It is pushed outwards forwards and downwards by a mastoid abscess.
- 4) Tenderness - In Acute otitis externa the movements of pinna and tragus are extremely tender.
- 5) Post auricular groove gets obliterated and auricle stands out prominently in furunculosis.

Otoscopy :-

Examination of external auditory canal and tympanic membrane with the help of an ear speculum or electric otoscope is known as otoscopy.

- 1) Electric Otoscope is self illuminated with ear speculum easy for handling and examination but difficult for manipulations with instruments etc.,
- 2) Ear speculum needs the support of bright illumination (Bull's eye condensor) and forehead mirror to focus the light rays into the ear canal.
- 3) Forehead mirror with light also available for Otoscopy.

Procedure of Otoscopy :-

- 1) Doctor should sit slightly lower than the patient.
- 2) Patient should sit in a chair facing the doctor.
- 3) Bull's eye condensor (illumination) should be placed close to the left side of the patient on a level with patient's head.
- 4) The Doctor should adjust the head mirror and through the central aperture of mirror only he should visualise the ear canal with his right eye.
- 5) Children should be properly examined with the aid of an assistant.
- 6) According to the size and diameter of ear canal only proper sized speculum should be selected, the dilated part of speculum is held between thumb and forefinger, it is then carefully introduced into the meatus up to 8mm depth without touching the bony part (causes pain and irritability).
- 7) At the same time of insertion of speculum the pinna is pulled upwards and back wards in adults and downwards and backwards in infants to straighten the canal to visualise the contents and tympanic membrane properly.
- 8) In the ear canal there may be wax, fungus, foreign bodies, fununcles, polyps, swellings, cysts, inflammatory changes and ear discharge etc.. The nature of the contents should be observed and for deeper examination (tympanic membrane) wax and discharge etc., should be cleaned with wax removing probe and cotton tipped applicator.

9) Tympanic membrane Norma Findings :-

Greyish white translucent Odiquely set membrane through which handle of malleus short process of malleus, Anterior and posterior malleolar folds, short and long process of incus, umbo and cone of light are seen.

Abnormal Findings :-

A) Integrity of Membrane Should be Examined.

- a) Whether it is intact or perforated.
- b) **If perforated :-** Site (Central or safe, marginal or unsafe, attic or complicative with cholesteatoma.), Shape (Round or oval or irregular), Size (Small or big.) Number (Single or multiple.) with discharge or without discharge and whether middle ear contents are visible or not (the visible contents are ossicles, or polyps or cholesteatoma or granulations etc.).

B) Colour of tympanic membrane :-

Normally greyish white, pale, lustreless in secretory otitis media, congested in Acute otitis media, Bluish in haemotympanum etc.,

C) Position of tympanic membrane :-

Bulged in effusions of middle ear.
Retracted in Eustachian block, serous otitis media and Adhesive otitis media with reduced mobility.

D) Mobility of tympanic Mebrane :-

Restricted in Adhesive otitis media or effusions of middle ear. Hyper mobile in serous otitis media. (The mobility of tympanic membrane is examined with siegle's pneumatic speculum. It contains an ear speculum attached with rubber bulb and tube ear speculum is inserted into the ear canal and rubber bulb is pressed for air pressure to cause mobility of ear drum that should be visualised with ear speculum in bright illumination)

- E) Eardrum should be examined for fluid Levels like in serous otitis media.
- E) A test for examine the patency of eustachian tube -
Ear drops if reaches the throat is the significance of tympanic perforation with patent eustachian tube.
- a) Air bubbles in ear discharge suggests the perforated ear drum and patent eustachian tube.
- c) While closing the mouth and nose if patient is asked to blow out and if the patient hears the air rushing into the middle ear with mobility of ear drum suggests a patent eustachian tube.

d) **Politzerisation :-** The nozzle of the politzer bag is inseted into one nostril and the both nostril should be closed by the patient and asked to make a swallowing movement and the bag is pressed simultaneously if the patient feels air rushing into his ears it is significant of patent eustachian tube (By swallowing movement Estachian tubes open so the released air from politzer's bag enters into middle ear through the patent eustachian tube).

e) **Eustachian Catheterisation :-** Eustachian catheter is attached to rubber bulb, the tip of catheter is inserted at the opening of eustachian tube through Nasopharynx and the bulb is pressed, if the Eustachian tube is patent air rushes into middle ear and causes movement of eardrum.

11) Radiography Confirms the diagnosis.

FUNCTIONAL EXAMINATION OF EAR :-

The hearing may be tested in number of ways.

- 1) Voice test.
 - a) Conversational voice
 - b) Whispered Voice.
- 2) Watch test.
- 3) Tuning fork test
- 4) Audiometry.

1) Voice Test :-

- a) Conversational Voice test (C.V)
- b) Whispered Voice (W.V.) each ear is tested separately while the other ear should be masked. These tests are performed in a sound proof quiet room.
- a) Normal Conversational Voice can be heard upto a distance of 20 to 40 feet or 12 meters.
- b) Normal whispered Voice can be heard upto a distance of 12 feet or 4 meters.

2) Watch Test :-

This test is carried out with the help of watches, a normal person hears the ticking sound of watch.

Above 2 types of methods are not for an accurate assessment of hearing.

3) Tuning fork Test :-

These test are carried out by the vibration of tuning forks of Varying frequencies 256, 512, 1024 etc.,

The most useful fork is the 512 CPS (cycles per second)

1) Air conduction (A/C)

The vibrating tuning fork is placed opposite to the ear canal (Sound conduction through air and tympano ossicular chain)

2) Bone Conduction (BC)

The vibrating tuning fork is placed on the mastoid bone or forehead (Sound conduction through skull, cochlea, auditory nerve and central connections).

Note :- For vibrating the tuning fork, handle the stem of the fork and strike slightly against knee or Elbow or on soft surfaces like rubber pad or on hypo thenar eminence of palm etc.,

(A) Rinne's Test :-

The comparative assessment of Air conduction with Bone conduction.

Strike the tuning fork and place before the external auditory meatus to hear the vibration of sound through air, ask the patient to raise the finger when he can no longer hear the vibrations, after the signal place the base of the of the fork on mastoid process and ask him if he again hears the vibrations Rinne's test is Negative, if he cannot hear the vibrations at mastoid Rinne's positive.

Interpretation :-

1) In Normal hearing Air conduction is longer than Bone conduction, this is called Rinne positive.

Normal hearing
Rinne positive = A.C. More than B.C.

2) when Bone conduction is longer than Air conduction it is called Rinne negative - Suggests conductive deafness.

Rinne negative
Conductive deafness = B.C. More than A.C.

3) Air conduction is more than Bone conduction but low volume and shorter duration is called as low positive Rinne, suggests sensori neural deafness.

Low Rinne positive.
Sensori neural deafness A.C. more than B.C.

4) Rinne equivocal - Air conduction and Bone conduction are equal suggests Low or mild conductive deafness.
A.C. = BC

5) False Rinne negative - Suggests unilateral sensori neural deafness. AC and BC are markedly reduced on the diseased side. But B.C appears normal though reduced because the Bone conduction is heard normally by spreading to the normal opposite side, soonly explained as false Rinne negative (to avoid this masking of the ear is needed)

- | | | |
|----|---------------|---|
| a) | A.C. > B.C. - | Normal |
| b) | A.C. > B.C. | But both reduced, mild perceptive deafness. |
| c) | B.C. > A.C. | Conductive deafness. |
| d) | AC = BC | Mild conductive deafness. |
| e) | Only AC, | No, B.C. - Severe perceptive deafness |
| f) | Only BC, | No. A.C. - Severe conductive deafness. |

(B) Weber's Test :-

It is useful for testing the unilateral deafness or when there is marked difference between the two ear.

- 1) Bone conduction of two ear are compared.
- 2) Air conduction is not examined.
- 3)

Procedure :-

This test is performed by placing the base of vibrating tuning fork at the centre of forehead or vertex or on the upper incisor, the patient is asked in which ear the sound is best heard a) Better hearing on one side b) Equal on both sides c) Not hearing at all, this may be expressed as the Lateralisation of Sound (lateralisation occur when there is difference of bone conduction by more than 5 db.)

Interpretation :-

1) Normal Person hears equally on both sides.

2) Conductive deafness.

a) Bilaterally equal conductive deafness centralisation of sound.

b) Bilaterally unequal conductive deafness, sound lateralisation towards more deaf side.

c) In unilateral conductive deafness, sound Lateralisation occur towards affected side.

3) Sensori neural deafness.

a) In bilaterally equal nerve deafness Centralisation of sound.

b) In bilaterally unequal nerve deafness, Lateralisation of sound towards better ear.

c) In unilateral nerve deafness sound lateralisation towards normal ear.

c) Absolute Bone Conduction Test (A.B.C.) :-

The bone conduction of the patient is compared with that of the examiner, assuming that the examiner has a normal hearing.

For testing A.B.C. the ear canal is blocked by a finger, the vibrating tuning fork is placed on the mastoid process of the patient, As soon as he stops hearing it is transferred to the mastoid of the examiner. The process may be tried again in a reverse manner.

- 1) In Normal and Conductive deafness A B C of patient is equal to ABC of examiner.
- 2) In Sensori nerve deafness ABC of patient is reduced.

D) Schwabach Test :- This is as like A.B.C. but the test is performed without occluding the meatus, it is less reliable than A.B.C.

TUNING FORK TEST ANALYSIS

		Rinne	Weber	A.B.C.
A)	Normal hearing.	Rinne positive	Central heard equally on both sides.	Normal
B)	Conductive deafness.			
a)	Right side	RT ear negative LT ear positive	Lateralised to right	Normal
b)	Left side	RT ear positive LT ear Negative	lateralised to left.	Normal
c)	Bilateral	Both ears Negative	Lateralised to deafer side or central if equal on either sides.	
C.)	Sensori Neural deafness			
a)	Right ear	Right ear Positive (Low) Left ear Positive	lateralisation to left ear	RT ear reduced.
b)	Left ear	Left ear positive (low) Right ear positive	Lateralisation to right ear.	Left ear reduced.
c)	Bilateral	Both ear Positive (Low)	lateralisation to better side or central if equally deaf.	both ear. reduced

4) Audiometry.

Audiometer is an electronic instrument providing uniform standard graphical measurement of hearing qualitatively and quantitatively. It is capable of producing pure tone sounds of different frequencies at variable intensities, pure tones are delivered to the ears by a head phone for A.C. and by a vibrator for B.C.

The frequency ranges from 125 C.P.S. to 8000 C.P.S. (Mainly 500 to 2000). The intensity is measured in decible (dB), ranging from 0 dB to 110 dB,

The intensity of sound is increased or decreased for each frequency in A.C. and B.C. is plotted on a graph called audiogram.



Taking an audiogram



Technique of holding the child for E.N.T. examination

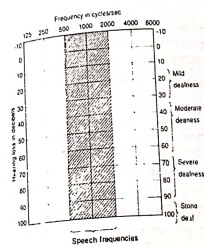
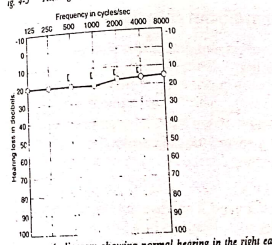


Fig. 4-5 Audiogram chart.



Audiogram showing normal hearing in the right ear.

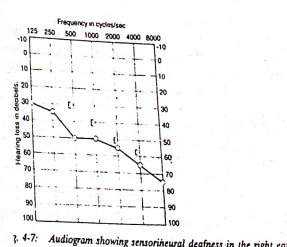
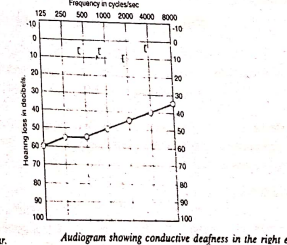


Fig. 4-7 Audiogram showing sensorineural deafness in the right ear.



Audiogram showing conductive deafness in the right ear.

Procedure :- Audiometry is performed in a sound proof, quiet room. Initially A.C of both ear is recorded, the threshold curve of right ear is recorded in red continuous line and left ear in blue continuous line whereas B.C. of both ear is recorded in interrupted lines or like brackets.

1) Normal - A threshold between 0 to 20 dB is normal. AC and BC closely follows in normal limits.

2) Sensori neural deafness :- Threshold levels beyond 20dB. deafness more severe in high frequencies. AC and BC are reduced.

3) Conductive deafness :- Threshold levels - AC is beyond 20dB, but BC is within normal limits. Loss of hearing by AC is more in lower frequencies - wide gap between AC and BC.

4) Mixed Deafness :- AC reduced, BC partially reduced with some gap between AC & BC.

- 5) Mild deafness, hearing loss between 20 to 30 dB.
- 6) Moderate deafness hearing loss between 30 to 60 dB.
- 7) Severe deafness, hearing loss between 60 to 110 dB.

Use :-

- 1) Permanent record is obtained
- 2) Diagnosis of qualitative and quantitative deafness is possible,
- 3) For fitting appropriate type of hearing aid.
- 4) For special test of recruitment.

Note :- Other types like speech Audiometry (SRT and SD), Impedance audiometry (Tympanometry), Bekesy Audiometry, Evoked response audiometry available for the assessment of deafness.

FUNCTIONAL TESTS OF THE VESTIBULAR APPARATUS.

Vestibular lesions may produce the following symptoms and response.

A. Symptoms - 1) Vertigo 2) Nausea and vomiting,
3) Palpitation and perspiration.

B. Response :- 1) Nystagmus (Oscillatory movement of eye ball 2) Fast pointing (the patient feels that the object is moving) 3) Falling (The patient tries to correct the hallucination of movement and he tends to fall in opposite direction.).

Nystagmus :-

It is the rhythmic oscillatory movement of the eyes, it has two components a) Slow labyrinthine movement b) quick cerebral movement.

It is of 3 types.

- 1) Central - associated with intra cranial lesions.
- 2) Ocular - associated with eye lesions.
- 3) Vestibular - due to vestibular lesions.

Vestibular nystagmus is of 2 types:- 1) Spontaneous 2) Induced

- 1) Spontaneous
 - a) 1st degree-nystagmus produced when a patient looks in the direction of quick component
 - b) 2nd degree Nystagmus produced on looking straight.
 - c) 3rd degree - Nystagmus produced on looking in the direction of slow component.

2) Induced - Due to stimulant like in caloric test, rotation test, etc.,

1) Caloric Test (Hallpike Test)

Caloric test is a test of the vestibular function based on the principle of stimulating Labyrinth by temperature differences. Patient is placed in supine position with the head raised 30° from horizontal level to bring the horizontal semi circular canal into vertical position. Nearly 200 to 300 CC water with 30° C and 44° C (Separately) is flushed into external ear upto 40 seconds with enema can - Nystagmus and vertigo develops, the duration of Nystagmus is measured. It is approximately 1 minute and 20 seconds to 2 minutes in normal labyrinth.

In every ear two readings should be measured one with Cold water (30 C°) and another with hot water (44C°), cold water causes Nystagmus to opposite side where as hot water causes Nystagmus to the same side. The 4 Values commonly equal.

In canal paresis the duration of induced Nystagmus is reduced this is observed in - menieres disease, post aural vertigo and vestibular neuritis. Unilateral hypo activity of a Labyrinth with perceptive deafness is highly suggestive of acoustic neuroma. Sometimes caloric responses are enhanced in one particular direction that is known as Directional preponderance of Nystagmus.

2) Cold Caloric Test (Kobrak's Test)

About 5CC of Ice cold water is injected into external auditory meatus, Labyrinth is stimulated and nystagmus occurs with 2 minutes duration. (Rough method for testing).

3) Cold Air Caloric Test.

In perforated ear drum of the patients, Cold water instillation causes complications so in such cases only cold air is supplied by Dundas Grant apparatus.

4) Fistula Test :-

It is used to detect a fistula in the bony wall of the Labyrinth, on increasing the air pressure in external auditory meatus and middle ear with Siegle pneumatic speculum that is transmitted into Labyrinth through the fistula and causes vertigo and Nystagmus it suggests fistula test positive.

5) Rotation test :-

Patient is placed on a revolving baranys chair which is rotated at the rate of 10 revolutions per second (10 rps) the chair is then stopped and patient is observed for post rotational nystagmus.

6) Romberg's Test :-

Patient is asked to stand with his feet together and arms at his side. He is asked to close the eyes- The patient falls on the side of the lesion in vestibular paresis.

7) Opokinetic Test :-

A white rotating drum with black vertical lines is rotated horizontally and stopped normal person get Nystagmus of both side. but unilateral Nystagmus suggests central vestibular Lesion.

SAMANYA NIDANA OF KARNA ROGA (Common aetiological factors of ear diseases)

1) **Avashyaya - Exposure to snow Or Cold Items:-** Exposure to Cold items gives scope for infection, fungus development, common Cold, pressure differences on either sides of tympanic membrane, and so many cold wind allergic manifestations of External and middle ear.

2) **Jalakreeda -** Diving or swimming Or exposure to polluted water. Water enters into external ear and causes infection, fungus collections and trauma to tympanic membrane.

3) **Karna Kandooyaya :-** Picking Or Probing the external auditory canal. It is common habit to get relief from itching sensation. But it causes scratches, ulcers and inflammation in the external auditory canal, which leads to many complications.

4) **Mithya yogena Shastrasya :-** Improper instrumentation during the examination and treatment.

Improper use of ear wax removing probes, Foreign body removing hooks, syringes Or forceps by untrained persons. It causes severe complications. like tympanic perforation, otitis externa etc.,

5) **Sound Pollution :-** Hearing (high frequency) loud sounds, this causes problems like tympanic rupture (conductive deafness) etc.,

6) **Abhigata :-** Injury to head especially to the temporal bone may cause severe complications of ear and even death.

7) Regular Head Bath (Shira snana)

The water if entered in to the ears, easily cannot come out side because of curved external auditory canal, some water by retaining in side causes fungus infection etc., complications.

8) All the aetiological factors explained for Nasal diseases also applicable to ear diseases.

9) Peripheral or adjacent lesions like scalp infection, pharyngeal lesions and lesions of face may cause ear problems.

10) Chronic systemic infections like Tuberculosis, Leprosy, syphilis etc may cause ear problems.

11) Congenital (Atresia of external auditory canal), Hereditary, Psychological, Professional (Labour working in mills with sound and dust pollution), Vascular, Neurological, Drug induced (Streptomycin induced deafness), degenerative by age (senile deafness), Allergic and Idiopathic causes can produce ear diseases.

SAMANYA SAMPRAPTHI OF EAR DISEASES

Samprapthi :- 1) Doshaj 2) Aaganthuja.

1) By above causes vatadi doshas vitiate the Shabda vaha srotas and cause ear diseases like Karna shoola, Karnaada, Badiya etc.,

2) Due to traumatic causes also in short time ear diseases like deafness (Badiya), Tinnitus (Karna Pranada), karna Pratinaha (Tympanic perforation) may be produced.

CLASSIFICATION OF EAR DISEASES

- i) According to Sushruta and Yogaratnakar ear diseases are = 28
- ii) According to vagbhata = 25 ear diseases
- iii) According to Charaka = 4 Diseases.

i) Sushruta's classification of ear diseases = 28, they are,

- 1) Karna shoola (Otagia - Pain in the ear)
- 2) Karna pranaada (Noises in the ear - Tinnitus)
- 3) Karna Kshweda (-do-)
- 4) Badiya (Deafness)
- 5) Karna Srava (Otorrhoea)
- 6) Karna Kandu (Itching Sensation in the ear canal)
- 7) Karna gootha Or Varcha (wax in the external auditory canal)
- 8) Karna Pratinaha (Tympanic perforations)
- 9) Krimi Karna (Maggots in the ear)
- 10) Karna Paka (Furunculosis)
- 11) Poothi Karna (Suppurative otitis media)
- 12) and 13). 2 types of Vidradi (Abscess)
- (14 to 17) . 4 types of Arsha (Polyps of ear)
- (18 To 21) . 4 types of shopha (Oedema Or Swellings)
- (22 To 28) 7 Types of Arbuda (Tumours)

II Vagbhata's classification of ear diseases = 25

15 diseases of ear canal (Karna sroto rogas)
10 external ear diseases (Bahya Karna rogas)

- The 15 Diseases of Karna srotas are,
1 to 5, 5 Types of Karna shoola (Otitis)
6) Karna Nada (Tinnitus)
7) Badiya (Deafness)
8) Karna pratinaha (Tympanic perforations)
9) Karna Kandu (Itching sensation in the ear canal)
10) Poothi Karna (Suppurative Otitis media)
11) Krimi Karna (Maggots of ear)
12) Karna shopha (Oedema Or swelling of ear)
13) Karna arsha (Polyps of the ear)
14) Karna vidradi (Ear abscess)
15) Karna arbuda (Tumours of ear)

Bahya Karna Rogas = 10, They are,

- 1) Kuchi Kamika
- 2) Karna Pippali
- 3) Vidarika
- 4) Pali sosha
- 5) Tantrika
- 6) Paripotha
- 7) Uthpatha
- 8) Unmatta Or Gallire
- 9) Dukha Vardana
- 10) Lehyaa.

Asadya Karna rogas According to Vagbhata are 4 in number, they are.

- 1) Karna Pippali
- 2) Sannipataj Karna shoola
- 3) Vidari
- 4) Kuchi Kamika.

III) Charaka's Classification of ear diseases 4 in number they are.

- 1) Vataj Karna roga
- 2) Pittaja Karna roga
- 3) Kaphaj Karna roga
- 4) Sannipataj Karna roga.

Description of Ear Diseases According to Charaka - 4, they are

- 1) **Vataja Karna Roga.**
The patient complains of different types of sounds in the ear, pain, deafness, dried wax and with scanty thin blackish ear discharge.
- 2) **Pittaja Karna Roga.**
The patient complains of red coloured oedema, crustformation, burning sensation and with yellowish foul ear discharge.
- 3) **Kaphaja Karna Roga :-**
The patient complains of deafness, deformity of ear, itching sensation in the ear canal, light pain, immobile swellings and with whitish sticky ear discharge.
- 4) **Sannipathaja Karna Roga :-**
All the above (mixed type) symptoms are present

1) KARNA SHOOLA (Otalgia Or Earache)

- Sushruta explained it without any sub divisions.
Charaka explained 4 sub divisions they are.
- 1) Vataja Karna shoola
 - 2) Pittaja Karna shoola
 - 3) Kaphaja Karna shoola
 - 4) Sannipataj Karna Shoola.
- 3) Vagbhata explained 5 sub divisions.
- 1) Vataj Karna shoola
 - 2) Pittaj Karna Shoola
 - 3) Kaphaja Karna shoola
 - 4) Raktaja Karna Shoola
 - 5) Sannipataj Karna Shoola.

a) Karna Shoola according to sushruta.

In the ear canal the vitiated Vata dosha is encircled (Aavarana) by pitta Kapha Rakta and other types of Vata, and causes improper circulation of vata (Vata viloma gathi) and produces intolerable pain in the ear, is known as Karna shoola which is explained as difficult to treatment (Kasta sadya).

- 1a) Vataja Karna shoola according to Charak :-
Vitiated Vata causes Noises in ear, pain, dried scanty thin ear discharge and deafness.

I.b) Vataj Karna Shoola According to vagbhata :-

Pratishyaya (Rhinitis), jala kreeda (Swimming or diving), Karna Kandooyan (Scratching of ear canal with sticks etc), hearing loud sounds, rest lessness and dieting etc, causes vata vitiation in the auditory canal (shabda vaha srotas), and causes severe pain in ear. The associated symptoms are Ardhava bhedak (Migraine), Hanustamba (Lock jaw), loss of appetite, disinterest in cool things, ulceration of ear with watery discharge and intermittent deafness etc.

It can be co-related to Acute otitis externa, Acute serous otitis media etc diseases.

2 a) Pittaja Karna Shoola By Charak :-

Vitiated pitta causes reddish oedema, cutting and burning type of pain and yellowish foul discharge from the ear.

2. b) Pittaja karna Shoola By Vagbhata :-

Vitiated pitta dosha causes pain, fever, burning sensation, quickly suppurative oedema with yellowish watery discharge and shows interest in cool things. (By sticking of the discharge to the other normal site causes progression of the disease).

It can be co-related to Acute otitis externa (Furunculosis) Acute serous otitis media etc diseases.

3 a) Kaphaj Karna Shoola By Charak :-

The vitiated Kapha dosha causes deformity, deafness, itching sensation, light pain and bigger oedema with whitish sticky discharge from the ear.

3. b) Kaphaj Karna Shoola by Vagbhata :-

The vitiated Kapha dosha causes light pain in the ear, Heavyness in the head, jaws and neck, itching sensation, sticky white discharge from ear and the patient desires hot things

It can be co-related to chronic otitis externa and chronic otitis media.

4) Sannipajja Karna Shoola By Charak and Vagbhata :-

The tridoshas vitiate and produces terrific pain, swelling and multi coloured pus discharge from ear with fever. Symptoms are fluctuating according to dosha predominance. It can be co-related to Acute/chronic otitis media.

5) Rakthaja Karna Shoola By Vagbhata, it is not Explained By Charak.

Raktha dosha vitiates due to injuries (Trauma to ear or head) and produces bleeding ulcer in the ear canal or blood stained ear discharge and signs and symptoms of pittaja karna shoola (signs and symptoms are more severe than pitta Karna shoola).

It can be co-related to traumatic acute otitis.

Complications of Karna Shoola :-

If Karna shoola associates with following complications it becomes incurable (Asadya).

- 1) Moorcha, 2) Burning sensation, 3) Jwara, 4) Kasa, 5) Klama, 6) Vamana.

OTALGIA (Pain in ear)

The pain in ear occurs due to lesions of ear and also due to referred causes in the lesions of the organs which have the same nerve supply.

A) Local Causes of otalgia

a) External ear Lesions which cause Otalgia :-

- 1) Furunculosis, 2) Impacted wax in the external ear canal. 3) Foreign bodies, especially Animate Foreign bodies, 4) Perichondritis, 5) Acute otitis externa, 6) Otomycosis, 7) Myringitis, 8) Trauma, 9) Tumours, 10) Ramsay - Hunt's Syndrome.

b) Middle ear Lesions which cause Otalgia :-

- 1) Eustachian catarrh, 2) Acute otitis media, 3) Acute mastoiditis, 4) Complications of otitis media, 5) Trauma, 6) Barotrauma, 7) Tumours.

B) Referred Otalgia :-

Referred otalgia occurs in the lesions of the organs having following nerves supply
1) 5th (Trigeminal), 2) 7th (Facial), 3) 9th (Glossopharyngeal), 4) 10th (Vagus), 5) Cervical 2nd, 6) Cervical 3rd,

1) Via Trigeminal Nerve :-

The auriculotemporal nerve (the branch of mandibular of Trigeminal nerve) supplies to external ear and also to the oral cavity, teeth, nasopharynx, nose, para nasal sinuses and temporo mandibular joint, so in the lesions of these parts, pain referred to ear through auriculotemporal nerve.

Ex :- in caries teeth, alveolar abscess, impacted wisdom tooth, traumatic and inflammatory lesions of mouth, tongue and salivary glands, temporo mandibular joint arthritis, deviated nasal septum, sinusitis and malignancy.

2) Via Facial Nerve :-

This nerve supplies face and some sensory fibres to the ear, so in herpes zoster like lesions pain radiates to the ear through facial nerve fibres.

3) Via Glossopharyngeal Nerve :-

Tympanic branch of glossopharyngeal nerve supplies to the middle ear and also to oropharynx, tonsils etc., so in

- a) Acute ulcerative tonsillitis b) Peri tonsillar abscess
c) Retropharyngeal abscess d) Para pharyngeal abscess
e) Neuralgia etc, lesions pain refers to ear.

4) Via Vagus Nerve :-

Auricular branch of Vagus supplies to the external auditory canal, eardrum pharynx, Larynx, crico pharynx etc, in these lesions pain radiates to ear.

5) Via Cervical 2-3 Nerves :-

Lesser occipital and great auricular nerve supply to the external ear and also to the cervical region, so in cervical lesions like a) Spondylosis b) Fibrositis c) Myositis d) Herpes - Pain refers to the ear.

6) Neuralgia also cause pain in the ear.

Treatment :-

A) For Local otalgia

- 1) Avoid the causative factor.
- 2) Cleaning of wax from external audiotroy canal.
- 3) Removing of Foreign bodies if any.
- 4) Broad spectrum antibiotics Or fungicides, Local and systemic.
- 5) Oral Anti inflammatory drugs and analgesics.
- 6) Anti histamine drugs (Systemic)

B) For referred Otalgia -

The causative disease should be treated.

2) KARNA NADA OR KARNA PRANAADA.

(Tinnitus Aurium)

Vitiated Vata dosha either entering into other channels (Vimaarga gaman) or encircled by Kaphadi doshas in shabda vaha srotas (auditory canal) produces different types of sounds in the ear like Bheri, mrudanga, shankha etc, is known as karnanada or Karna Pranaada.

3) KARNA KSHWEDA

Tinnitus Aurium

The vata etc doshas are vitiated due to Dhaathu Kashaya, taking of cold water after excessive Nasya karma etc, causes the vitiation in the auditory canal (shabda vaha srotas) and produces noises like Flute, in the ear, is known as karna kshweda (It is not explained by vagbhata)

DIFFERENTIAL DIAGNOSIS OF KARNA NADA AND KARNA KSHWEDA.

Sl. No. Karna Nada

Karna Kshweda.

- | | |
|---|--|
| 1. Vata dosha only vitiates | 1) Vata and other doshas vitiates (Vata pitta Kapha and Raktha). |
| 2. Different types of sounds are heard. | 2) Only flute noise is heard. |
| 3. It arises due to obstructive lesions of shabda vaha srotas (external and middle ear) | 3) It arises due to degenerative lesions (Dhathu Kshaya etc) of shabda vaha srotas (internal ear). |
| 4. Treating the Vata dosha cures the disease. | 4) Vata etc doshas should be treated for improvement. |

TINNITUS

Tinnitus is defined as an auditory sensation or adventitious sound heard in one or both ears in the absence of any relevant external stimulus to cause it. The sounds are of different types like whistling, hissing, buzzing, steaming ringing, roaring, clicking etc.

Types A)

1) Unilateral 2) bilateral

B)

1) Central 2) Peripheral (Functional types.)

C)

1) Subjective tinnitus (Sounds heard only by patient)

2) Objective tinnitus (sounds heard by patient and examiner or Doctor)

D)

1) Intermittent - Tinnitus with gaping

2) Continuous - without gaping

3) Fluctuant - Not uniform with the changes in intensity.

4) Changes in the pitch of tinnitus.

Causes of Tinnitus :-

A) Subjective Tinnitus.

I) Tinnitus with deafness.

All the causative factors responsible for the deafness also produce tinnitus.

Ex :- 1) Impacted wax Or Foreign bodies in ear
2) Secretory otitis media 3) Aero otitis media. 4) Oto Sclerosis 5) Acoustic trauma.

II) Tinnitus without Deafness :-

Ex :- 1) Anaemia 2) Hypertension 3) Hypotension 4) Caries teeth Or impacted wisdom teeth.

III) Functional Tinnitus :- Due to emotional factors.

IV) Idiopathic causes

B) Objective Tinnitus causes.

- 1) Clicking temporo mandibular joint, 2) Clonic contractions of palatal and tympanic muscles, 3) Patulous eustachian tube, 4) Live insects in the ear canal, 5) Vascular pathology Ex- Arterio venous shunt, Glomus jugulare tumour, Aneurism of occipital, superficial temporal vessels and arch of Aorta (Around the ear), 6) Intra cranial vascular tumours.

Investigations :-

Otological, neurological, cardio vascular, audiological, vestibular and Radiological examination are needed for the diagnosis

Treatment :-

- 1) Cause should be treated 2) Mild sedatives, anxiolytics, vasodilators, Carbamazepine, vitamins are useful. 3) Reassurance to the patient explaining that it is not dangerous. 4) Masking of the sounds with alarm clock Or radio etc. 5) Surgical treatment -sectioning of cochlear nerve, but is not so beneficial

4) KARNA BADIYA.

(Deafness)

The vitiated vata dosha or vata kapha doshas by deranging or obstructing the shabda vaha srotas (Auditory canal) or shabda Vaha sira (Vessels) and nerves of the ear or neglecting Karma nada etc. diseases causes difficulty in hearing or in capability of hearing is known as Badiya.

- 1) Kaphaj Badiya can be co-related to conductive deafness
- 2) Vataj Badiya can be co-related to perceptive deafness
- 3) Vata kaphaj Badiya can be correlated to mixed deafness.

Deafness :-

The deafness means impairment of hearing. It can occur at any age, congenital or acquired, and it varies in degree "mild to severe". (Congenital deafness is commonly associated with dumbness).

Types :- 1) Conductive deafness 2) Perceptive deafness 3) Mixed deafness.

I) Conductive Deafness :-

It is due to defect in the conducting mechanism of the ear (External and middle ears) from external auditory canal to the oval window.

Causative Factors of Conductive Deafness :-

a) Causes of External Ear :-

- 1) Congenital causes (Atresia or Microtia),
- 2) Acquired causes like Wax or cerumen, impacted foreign bodies, otomycosis, Otitis externa, Polyps, tumours, myringitis or Tympanic perforations.

b) Causes of Middle Ear :-

1. Congenital defects of ear drum and ossicles, ossicular discontinuity, Haemotympanum,
2. Traumatic lesions like fracture of Base of skull and Barotrauma
3. Inflammatory lesions like acute otitis media, chronic otitis media, serous otitis media, adhesive otitis media, secretory otitis media, barotraumatic otitis media, tympano sclerosis, specific otitis media,
4. Neoplasms
5. Miscellaneous like otosclerosis.

c) Causes of eustachian tube and nasopharynx :-

Eustachian catarrh or obstruction, Eustachian tube dysfunction, Barotrauma, enlarged, adenoids and growths in nasopharynx.

II) Sensory neural deafness or Perceptive deafness.

The deafness is due to the lesions of Labyrinth (Internal ear), 8th cranial nerve (auditory nerve) and central connections. (It includes psychogenic deafness).

The Causative factors of sensory neural deafness :-

1) Congenital causes :-

Hereditary developmental defects, consanguineous marriages, Rh incompatibility, diseases affecting the pregnant mother (like German measles, diabetes, syphilis, hypertension, pre eclampsia), intake of ototoxic drugs by pregnant women (like thalidomide, quinine, streptomycin, kanamycin or gentamycin etc.), Major surgery under general anaesthesia during pregnancy, prolonged and difficult labour, forceps delivery with head injury, premature delivery, post natal kernicterus, encephalitis, meningitis, ototoxic drugs, viral infections, head injury etc.,

2) Acquired Local Causes :-

- a) Trauma :- Head injury, surgical injury to Labyrinth, loud sounds producing concussion, contusion or laceration of the labyrinth.
- b) Infection :- Like mumps, syphilis, Tuberculosis, measles, chicken pox, Influenza, meningitis, enteric fever, labyrinthitis, herpes etc.,
- c) Ototoxic Drugs :- Streptomycin, Gentamycin, quinine, salicylates, frusemide etc.,
- d) Tumours - Acoustic neuroma
- e) Meniere's Disease :- Ramsay Hunt syndrome etc.,
- f) Degenerative :- Senile deafness or presbycusis.

3) Acquired General Causes :-

Atherosclerosis, Hypertension, Vasospasm of C.N.S., Labyrinthine artery disseminated sclerosis, cerebro vascular insufficiency due to thrombosis, embolism and haemorrhages, cerebello pontine angle tumour.

Diabetes, Hypothyroidism, Avitaminosis, Smoking, Alcoholism, Psychological etc.,

III) Mixed Deafness :- If both conductive and perceptive deafness are present that is known as mixed deafness.

Causes :- Blast injuries, Acoustic trauma, Head injuries, Chronic suppurative otitis media with Labyrinthitis, senility (Presbycusis) and otosclerosis.

IV) Psychogenic Deafness :- There is no organic cause for this deafness.

1) **Hysterical :-** The deafness is outside conscious control. The patient ceases to listen and so fails to hear. Patients are usually female (Functional or emotional).

2) **Malingering :-** Patient is conscious of deception. He or she listens intently but endeavours not to respond. (Pretends to be deaf for personal gains).

Causes of sudden Sensory Neural Deafness :-

- 1) **Vascular :-** Spasm, thrombosis, embolism, haemorrhage.
- 2) **Trauma :-** Head injury, acoustic trauma, rupture of round window membrane.
- 3) **Infection :-** Viral Labyrinthitis, mumps.
- 4) **Meniere's disease.** 5) **Ototoxicity** 6) **Central nervous system :-** meningitis encephalitis, vascular lesions, trauma. 7) **Functional.**

DIFFERENTIAL DIAGNOSIS OF CONDUCTIVE AND PERCEPTIVE DEAFNESS.

	Conductive deafness	Perceptive deafness.
1. Congenital	Less Common mainly progressive	More common Sudden as well as progressive
2. History of Viral fevers, exanthematous fevers, prolonged medication, sound trauma.	Nil	More Common.
4. History of head injury, vertigo	Less Common	More Common
5. History of Otorrhoea	Often	Nil
6. Voice	Speaks in Low Voice	Speaks Loudly
7. Noise intolerance	No	Yes
8. Speech discrimination	Good	Poor
9. Recruitment	Absent	present in Cochlear lesion
10. Site of Lesion	External and Middle ears.	Inner ear, 8th nerve with central connections
11. Rinne test	Rinne(-), BC > AC	Rinne positive AC > BC But reduced.
12. Weber test	Lateralised to the worse ear	Lateralised to better ear
13. Pure tone Audiometry	BC threshold normal AC * increased, good AC, BC gap.	AC, BC thresholds both increased.
14. Hearing loss	Not more than 60 dB.	May be more than 60 dB.

degrees of Deafness :-

- 1) Mild deafness 20 to 30 dB.
- 2) Moderate deafness 30 to 60. dB.
- 3) Severe deafness :- Above 60. dB.

Investigations.

- 1) Hearing tests. 2) Audiometry. 3) Caloric tests. 4) V.D.R.L., Blood sugar, serum cholesterol. 5) Radiography. 6) Blood pressure. 7) Neurological examination etc.

Treatment :-

A) **Conductive deafness :-**

- 1) Treating the causative factor
- 2) Hearing aids.

B) **Sensory Neural Deafness :-**

- 1) Treating the specific causative disease if any like syphilis, Diabetes etc.
- 2) Vaso dilators for menier's disease like disorders. .
- 3) Vitamines - B1, B6, B12, A,C,E.
- 4) Steroid therapy in sudden perceptive deafness.
- 5) Tranquilizers, Antidepressants for Tinnitus with deafness.
- 6) Hearing aids.
- 7) Conversation should be slow, clear and not loud with the patient.
- 8) Auditory training and Lip reading.

Presbycusis :- Senile deafness.

It is a type of sensorineural deafness due to old age, speech discrimination is poor and don't tolerate loud sounds,

Meniere's Disease

This disease is characterised by a triad of symptoms consisting of 1) Vertigo 2) Deafness 3) Tinnitus, which occur at irregular and unpredictable intervals. This occurs due to failure of the mechanism regulating the production and absorption of endo lymph.

Aetiology :-

- 1) Exact cause is unknown
- 2) Vaso spasm (Reduced circulation to Labyrinth)
- 3) Endo lymphatic hydrops (Increased tension in the endo-lymph of Labyrinth).
- 4) Emotional factors.
- 5) Sympathetic system over activity causes vasospasm.
- 6) Hormonal disturbances may cause water and electrolyte imbalance in the endo lymph.
- 7) B. Complex deficiency. 8) Allergy and septic focus.

Pathology :-

Increased tension of endo lymph causes distention of membranous labyrinth with degeneration of Labyrinth leads to rupture of membranous labyrinth, mixing of perilymph and endolymph and damage to organ of corti and vestibular neuro epithelium.

Clinical Features :-

1) Rotatory type of giddiness of varying intensity duration and intervals. 2) Fluctuating type of sensori neural deafness, and intolerance to loud sounds. 3) Continuous or interrupted Tinnitus. 4) Nausea and Vomiting present if giddiness is more.. 5) Perspiration, Gastric upset and diarrhoea due to vagal stimulation. 6) Fullness in the affected ear. 7) Head ache 8) Nystagmus. 9) Anxiety 10) First unilateral then becomes Bilateral,

Diagnostic Criteria :-

1) Sensori neural deafness. 2) At first deafness present in lower frequencies, latter on at higher frequency. 3) Recruitment present . 4) Speech discrimination reduces. 5) Conal paresis present. 6) Spontaneous nystagmus 7) Directional preponderance present.

Treatment :-

1) Reassurance regarding the nature of the disease, 2) Labyrinthine sedatives like prochlorperazine or Dimenhydrinate. 3) Vaso dilators. 4) Vitamines. 5) Diuretics and Low salt diet,. 6) Tranquillizers and antidepressants. 7) Avoiding smoking, alcohol, septic focus.

Surgery :-

1) Decompression or shunt operation of the endo lymphatic sac. 2) Partial destruction of Vestibule 3) Vestibular nerve section. 4) Labyrinthectomy.
(Lermoyez Syndrome :- Similar to meniere's syndrome but deafness dominates the vertigo).

OTO SCLEROSIS

Fixation of the stapes to the oval window due to development of new bone in the annular ligament of stapes. This gives rise to conductive deafness, aetiology is not clear.

Symptoms :- 1) Deafness 2) Tinnitus 3) Giddiness

Signs :-

Flamingo tint - a pink patch may be present on the promontory and may be visible through the drum.

Investigations - Tuning fork test, Gelle test, Audiometry, impedance audiogram confirm the diagnosis

Treatment :- Stapedectomy operation.

VERTIGO :

Vertigo or Giddiness is a disturbance of the sense equilibrium and movements. It is a sense of turning one's body (Subjective vertigo) or the environment (Objective vertigo). Severe vertigo may be accompanied by nausea, vomiting, nystagmus, perspiration, gastric upset and diarrhoea due to vagal stimulation.

The maintenance of equilibrium depends upon the co-ordination of informations from various parts of the vestibular apparatus, muscles, joints, tendons, cutaneous touch receptors and visual source. If there is interference with co-ordination of information in the brain stem and cerebellum, then vertigo is experienced.

Causes :-

A) Lesions of Ear :-

Wax, furuncle in the external ear due to vagus stimulation, Eustachian catarrh due to transmission of negative pressure to inner ear, Labyrinthitis due to A.S.O.M. or, C.S.O.M. head injury with fracture of Temporal bone and Labyrinth, surgical trauma to vestibule, acoustic trauma, perilymph fistula due to rupture or viral infections, Vascular changes due to thrombosis or embolism disease, motion sickness and ototoxic drugs.

b) Causes other than Ear :-

1) hypertension, hypotension, atherosclerosis, aortic stenosis, mitral regurgitation, etc., cardiovascular lesions diminish blood supply to Labyrinth, cerebellum and cerebrum and cause vertigo.
2) Neurological lesions like vertebro basilar artery syndrome, disseminated sclerosis, tumour or abscess of cerebellum and brain stem, epilepsy, increased intra -cranial tension, and head injuries causes vertigo.
3) Metabolic disorders like 8th nerve neuritis due to diabetes, Hypoglycemia etc reduces glucose supply to the vital parts leads to vertigo.
4) Anaemia - Reduced Oxygen supply to Labyrinth and brain stem causes vertigo.
5) Ophthalmic lesions like diplopia refractive errors and glaucoma cause vertigo.
6) Cervical spondylosis causes vertigo.

c) Non Pathological vertigo

1) Height- Due to unusual visual stimulation from heights causes vertigo.
2) Spinning movements cause vertigo due to stimulation of semicircular canals.
3) Sudden changes of Floor texture.

d) Functional vertigo - The causes are still unknown

E) Other causes :

V	=	Vascular causes
E	=	Epilepsy - Hypoglycemia and diabetes (endocrine lesion)
R	=	Remedies (Ototoxic drugs)
T	=	Trauma, Tumours, Hypothyroidism
I	=	Infection to Labyrinth
G	=	Glial disease (Multiple sclerosis)
O	=	Ocular diseases, other like menier's diseases.

Investigations :-

1) History about above lesions. 2) Otoscopy and functional examination of ear. 3) Vascular Examination 4) Radiological Examination. 5) E.C.G. 6) C.T. Scan 7) Pathological investigations.

Treatment :-

1) Cause should be treated
2) Similar to Tinnitus and meniere's syndrome.

OTOTOXICITY

Ototoxicity is the damage caused by the toxic effects of certain drugs to the inner ear.

Ototoxic Drugs :-

- 1) Aminoglycoside antibiotics
- a) Cochleo toxic - Neomycin, Kanamycin, Framycetin tobramycin
- b) Vestibulo toxic - Streptomycin, gentamycin.
- 2) Diuretics - Frusemide, ethacrynic acid
- 3) Salicylates
- 4) Cytotoxic agents - Nitrogen mustard cisplatinum.
- 5) Antiprotzoal - Quinine
- 6) Anti epileptic drugs - Phenytoin sodium
- 7) Anti heparinizing agents.
- 8) Beta blockers - Propranolol.

Clinical Features :-

Tinnitus, deafness and vertigo.

Treatment :- Withdrawal of the medicines.

POSITIONAL VERTIGO

It is the momentary Vertigo which occurs only in certain positions of the head while changing the position.

Aetiology - Head injury, Labyrinthitis and idiopathic causes.

Pathology - there may be changes in maculae of the utricle or sacule on one side, the otolith membrane may be damaged. or due to certain brain stem lesions like demyelination or malignant metastasis.

Clinical Features :-

- 1) Momentary or positional giddiness .
- 2) No - nausea, Vomiting, deafness and tinnitus.

Treatment - Similar to meniere's disease.

Vestibular neuronitis.

It is the acute inflammatory condition of the vestibular nerve due to viral infection.

Clinical features :- 1) Giddiness, nausea, vomiting present 2) No deafness, tinnitus and recurrence of the disease.

Treatment :- Similar to meniere's disease.

Acoustic Neuroma.

It is the neurofibroma arising from the neurilemma sheath of the 8th cranial nerve in or near the internal auditory meatus.

Clinical Features :-

- 1) Unilateral sensori neural deafness and tinnitus 2) Chronic unsteadiness. 3) Trigeminal symptoms 4) Facial paralysis 5) Late Symptoms like intra cranial tumour and headache.
- 6) Nausea and vomiting absent

LABYRINTHITIS

Inflammation of inner ear is known as Labyrinthitis, the infection may affect the Labyrinth in 3 stages.

- 1) Circumscribed Labyrinthitis or fistula formation or perilymphine inflammatory process, the infection doesnot reach upto membranous labyrinth.
- 2) Diffuse serous labyrinthitis with reversible clinical features. (Mild inflammatory change in perilymphatic space)
- 3) Diffuse purulent labyrinthitis. Massive purulent infection of perilymph and endo lymphatic space with permanent deafness and loss of vestibular function.
- 4) Dead Labyrinth

Clinical Features :-

- 1) Vertigo. 2) Deafness. 3) Nystagmus. 4) Nausea Vomiting. 5) Fistula test positive. 6) Tinnitus.

Treatment :- Labyrinthotomy for the drainage of pus from the labyrinth.

Infective Labyrinthitis :-

Infection spread from meningeal route Or haematogenous route.

Viral Labyrinthitis

Certain viral infections such as measles, mumps, influenza etc may cause destruction of organ of corti and vestibule.

Toxic Labyrinthitis.

Labyrinthitis occurs by intake of ototoxic drugs like streptomycin, quinine, diuretics, Tobacco, alcohol etc.,

Traumatic Labyrinthitis.

Labyrinthitis due to fracture of skull or temporal bone or due to surgical trauma follows stapedectomy.

Otic Labyrinthitis

Labyrinthitis due to middle ear infections.

COMMON TREATMENT PRINCIPLES OF EAR DISEASES (KARNA ROGA)

- 1) Oral intake of cow ghee with luke warm milk, especially at night.
- 2) Regular usage of Rasayan Yogas like Chyavan prash, Triphala churna with Tila taila, ghritha Or madhu etc.,
- 3) Taking rest Or avoiding excessive exertion or strain (Avyaayama).
- 4) Avoiding head bath
- 5) Brahmacharya
- 6) Avoiding loud or prolonged or irrelevant talking (Pralapa causes vata vitiation so only mita bhaashan is suggested)
- 7) Avoiding the aetiological factors of pratishyaya.
- 8) All the treatment principles of pratishyaya.
- 9) Vrana hara (ulcer healing therapy) treatment is suggested.
- 10) Advised to take mamsa rasa in the meals.

- 11) Advised to take Vata hara, kapha hara ghrithas at nights.
- 12) Vegetables like Varthaka, patola, shighru, Karavellaka and food grains like Goduma, shali, Yava, mugda etc are advised to use.
- 13) Systemic treatment principles (Deha shodhan), Abhyanga, sneha pana, shirovasti, Swedan(nadi Sweda and pinda Sweda), Vaman, virechan, Nasya, vasti, Dhooma and Raktamokshan. etc.
- 14) Karna shodhan (local treatment principles):- karna mala nirharana (Removing wax), Karna prakshalana (Ear wash), Karna dhoopana (Fumigation), Avadhoolana (Dusting the medicated powders), Karna poorana (instillation of ear drops) and karna pramarjana (Dry mopping method).
- 15) Apathya (contra indications)
 - a) Head bath b) Excessive Exercise c) Loud and irrelevant talking (pralapa)
 - d) Swimming Or diving) Scratching the skin of external auditory canal (karna Kandooyana). f) Oral intake of heavy bulk food items. g) usage of sticks for brushing the teeth h) Foods or habits which cause pratishyaya. i) Vata, Kapha dosha vitiating foods or habits. j) Head injury. k) improper instrumental manipulations. l) Rejecting the head masage. m) Drinking cold water or cool drinks. h) Hearing loud sounds.

- 1) Karna shoola
- 2) Karna nada
- 3) Badiya
- 4) Karna Kshweda.

These 4 diseases contain similar treatment principles.

A) The Treatment Principles of Vataj Karna Shoola :-

- 1) Vata hara sneha (Oleus) drugs, for oral administration and for the external applications (Abhyanga- Shiro vasti etc.)
- 2) Nadi sweda Or pinda Sweda with Vata hara drugs.
- 3) Snehika Nasya, virechan, Vasti, Dhoomapana and Karna pooran.
- 4) According to necessity Dosha elimination process (shodhan karma) like Vaman Virechan Nasya Vasti and Rakta mokshan - has to be selected for the therapy.
- 5) According to necessity Local therapies like a) Karna pooran (Filling or dropping the medicine into external ear canal). b) Karna dhoopan (fumigation of external ear canal with medicated smoke). c) karna prakshalan (Ear wash.) d) karna mala nirharan (removing wax etc waste material from the ear canal) e) karna pramarjan (Dry mopping with cotton tipped sticks or probes), etc has to select for the therapy.
- 6) Common treatment principles which are explained are also beneficial.
- 7) The following Oleus preparations are advised for oral administration . a) cow ghee with Luke warm Milk, especially at night b) Shata Paka Bala taila c) Vata hara snehas like Rasnadighritha, Dashamool taila etc..

- 8) Bala taila is advised for external applications, Oral administration, Nasya Shiro Vasti and for Karna pooran

9) Nasya Yogas :- Bala taila, Anu taila, Ksheera bala taila, Narayan taila etc.,
 10) The common drugs used for NADI SWEDA are Bilwa, Erenda, Arka, Punarnava, Kapitha, Dathura, Shighru, Agnimantha, Ashwagandha, Tarkeri, Vamshaankur, etc., should grind with Amla Varga drugs like Kaanji, decoction is prepared and is used for Nadi Sweda in Vataj and Kaphaj Karna shoola.

- 11) Pinda sweda is done with the hot bolus of Flesh, packed in cloth pieces (fish hen, Lavak etc., or with hot solid milk products.)

- 12) Karna dhoopan with the Kshauma Vastra, guggulu, Agaru and ghritha etc., drugs. The smoke is exposed to the affected site with Dhooma Yantra to dry the infection like fungus.

13) Karna mala nirharan :- Wax, Fungus (Karna gootha), Disintegrated foreign bodies (krimi) etc., should be cleaned with cotton tipped shalaka, ear probe, foreign body remover etc., instruments.

14) Karna Prakshalan (ear wash):-

To remove deeply seated foreign bodies, Or to flush out dried ear debris, ear syringing is done with Lukewarm water Or medicated decoctions like Triphala Kashaya etc., drugs.

15) Karna Pramarnjan (Dry mopping).

The Oozing ear secretion or Wet ear canal is cleaned Or dried with cotton tipped stick or probe.

16) Karna pooran Yogas :-

- a) The extracts of following wet medicines (Swarasa) should put in the ear,

Lashuna, Aardraka, Shigrubeeja, Moolaka, Kadaliphala, Kapitha, Mathulunga, Arkapatra, Suryamukhee, Tila parnee, shyonaka etc., drugs individually or in combination.

- b) Puta paka Swarasa of Ashwatha, Bilwa, Arka, Erenda, Moolaka, shyonaka etc., the drugs are used individually. by the application of lavan and taila the leaves are heated and the juice is extracted by special process and is used for karna pooran

- c) Oil prepared with above 2 groups of drugs, is used (either individually or in combination) for Karna pooran.
 d) The following Oil preparation are used for karna pooran.

Nirgundee taila, Kshara taila, Biliwa taila, Ksheera bala taila, Hingwadi taila, Apamarga Kshar taila, Katu taila, Kakajangha taila, Nagaradi taila, Dashamoola taila, Lashunadya taila, Tila taila, ghritha, Ashwatta patra Khalla taila, Karnabindu taila etc.,

- e) Milk or stanya (Breast Milk) or Kaanji are used for karna pooran
 f) Karna pooran with Lukewarm urine of the 8 types of Animals like 1) cow 2) Sheep 3) Goat 4) Buffalo 5) camel 6) Elephant 7) Horse 8) Donkey etc. (individually)
 g) Karna pooran with the oil prepared with Hingu, tumburu, shunthi and Sarshapa taila etc drugs.
 h) Karna pooran with the Oil prepared with Devadaru, shunthi, Vacha, shatahwa, Kusta, saindhava Lavan, sarshap, Aja mutra, taila etc drugs.
 i) Karna pooran with Oil prepared with Varata bhasma. agaru (scented items) Rasanjana, Shunthi, Tila taila etc drugs.
 j) Karna pooran with the Oil prepared with decoction of vatahara drugs, 8 types of animals urine, amala varga drugs, and chathur Sneha (Sarpi - Taila - Vasa - Majja).
 k) Karna pooran with the Oil prepared with Hingu, Shunthi, Saindhava Lavan, Sarshapa taila etc drugs.
 l) Karna pooran with the Oil prepared with Samudraphena, Vacha, Shunthi Saindhava lavan, Aardra Swarasa and Tila taila .
 m) Karna pooran with the Ghee prepared with goat's urine, vamsha twak and cow's ghee.
 n) Karna pooran with goat's milk and saindhava Lavan (in Luke warm State).
 o) Karna pooran with the compound formed by Kantakari moola 1 phala, Goat's milk 8 phala, Kukkuta Vasa and heated again this can be used for Karna pooran.
 g) Karna pooran with Deepika taila.

Bruhat pancha moola or Devadaru or Kusta Or sarala etc, drugs 18" Length root is taken and covered with Kshauma Vastra (Malmal Cloth) is dipped in medicated Oil and the Lower end of the root is burnt and the drops which are dribbling from the flame should be collected for karna pooran.

- 17) Vataja pratishyaya Chikitsa - should be given.
 18) Vata Vyadhi Chikitsa should be given.
 19) Nidana parivarjana (Avoiding the causative factors or predisposing factor).

20) Giving, shoola hara shotha hara yogas like Triphala guggulu Kanchanara guggulu, Ekangaveer ras, saribadi vati, Induvati, Lakshmiivilas ras, Lagusutha sekara ras, Khadhiradi Vati, etc drugs are beneficial

B) Treatment principles of Pittaja Karna Shoola.

- Most of the drugs of Vataja karna shoola are effective for this disease also in addition to these the following principles are also helpful.
 1) Pittaja pratishyaya Chikitsa,
 2) Vata Vyadhi chikitsa,
 3) Abhyanga Nasya and shiro Vasti are advised with sheeta Veerya snehas.
 4) Sneha virechana, Or mrudu Virechana, shaman Nasya, Virechanika dhooma, shaman gandoosha etc., are useful.
 5) The Oil prepared with the decoction of Yastimadu and Milk (1 and 2 prasta), Tila Taila 1 Kudava, and semi solid paste (kalka) of Yastimadu, Guduchi, chandana, usheera, kakoli, Lodra, jeevak, Manjista, Sariva, kamal nala etc., This Oil is beneficial for abhyanga, Nasya and Karna pooran.
 7) Lepa or external application of the paste of above drugs with ghee is effective.

8) Nasya Yogas :

a) Vidari gandhadi ghritha. b) Kakolyadi ghritha. c) Panchavalkala ghritha (leaves of ficus group), d) Chandanadi ghritha. e) Yastimadu ghritha, f) Ksheera Bala taila, g) Shata paka Bala taila, h) Anu taila, i) Ksheeri sarpi.

9) Karna Pooran Yogas :-

Karna pooran is done with any of these
 a) Stanya (Breast milk) b) Ghritha (Old ghee) c) Ksheeri sarpi. d) Ashwatha patra Khallasta tail Or ghritha. e) Kanji. f) Deepika taila. g) Ghee prepared with Yastimadu chandan Trivruth Sugar and Chatur snehas. h) Yastika ghritha i) Chandanadi ghritha, j) Maha Tiktha ghritha. k) Ksheeri Vruksha pallava ghritha l) Kakolyadi Ksheera (According to ksheera Paka) m) Kakolyadi ghritha. n) Vidarigandhadi ghritha. o) the decoction of Draksha Yastimadu and stanya p) Asta mutra with saindhava lavan or samudra Phena churna. q) Aja ksheera + Saindhava Lavan or samudra phena churna. r) with leaves extract (Swarasa) like Arka, Tulasi, Vasa, Lashuna, Aardra.

C) Treatment Principles of Kaphaja Karna Shoola.

Most of the above yogas are useful, in addition the following principles are also helpful.

- 1) Abhyanga with ushna veerya sneha like pippalyadi ghritha. 2) Rooksha sweda. 3) Vaman. 4) virechana 5) Rechan Nasya. 6) Teekshna dhooma pana & Gandoosha. 7) Kaphahara lepa, Shiro Vasti and Karna pooran.

8) Karna Pooran Yogas :-

- Ingudi and sarshapa taila.
- Lukewarm sarshapa taila.
- Surasadi taila.
- Bruhath panchamoola taila.
- The extracts (Swarasa) of Aardraka, Kapitha, matulunga, shyonaka, Tulasi moolaka, Kadali kanda, shirgru, (either individually Or in combination.
- Oil prepared with above drugs.
- Arka patra puta paka swarasa
- Kanji and samudra phena or saindhava lavan.
- Sarshapadi Taila - prepared with vamsha twak, Aja or avi mootra (Goat or sheep Urine), Tila taila, hing, shunthi, Sarshapa taila.

D) Treatment principle of Raktaja Karna shoola

- Like pittaj kamashoola 2) in addition sira mokshana is suggested by Vagbhata.

E) Treatment Principles of sannipataj Karna Shoola

- Tridosha hara Chikitsa
- All the above principles are beneficial.

SPECIAL TREATMENT PRINCIPLES OF KARNA NADA AND KARNA KSHWEDA.

- Karna shoola treatment, 2) Pratishyaya treatment. 3) If kapha dosha is associated, first Vamana Karma is advised. 4) Vata dosha Chikitsa should be done, 4) karna pooran with a) katu taila or sarshapa taila b) Vachadi taila (the Oil prepared with vacha Hingu jatamamsi Lavanga twak Sarjakshara, Pippali tila taila), c) Karna nada hara taila (prepared with Erenda varuna shigru moolaka etc drugs leaves extracts 4 parts, cow milk 8 parts, tila taila 1 part, other drugs are Yastimadu Kakoli Ksheera kakoli etc. drugs.) d) Shambhooka taila e) Lashunadya taila f) Nagaradi taila, g) Apamarga Kshar taila. h) Bilwa taila etc are useful.
- Oral administration of drugs like. a) Sarivadi Vati. b) Rasnadi guggulu. c) kanchanara guggulu. d) Triphala guggulu. e) Ekangaveer ras f) Vatavidwamsini vati h) Induvati with Amalaki Swarara i) Chopacheenyadi Choorna j) Krauncha beeja choorna k) Ashwagandha rista or l) Balarista m) Drakshasav n) maha Rasnadi quath o) Shankha Pushpi syrup p) Saraswatarista q) Brahmi Vati. r) Lakshmiivilasras with Gold. s) Susthasekara ras, etc are beneficial.

SPECIAL TREATMENT PRINCIPLES FOR KARNA BADIHYA.

- Like, Vataj Karna shoola, Vataj pratishyaya and Vata Vyadhi treatment.
- Vaman etc shodhan Karmas to eliminate Kapha etc doshas, to purify the body.
- Karna Pooran Yogas.:-**
 - Lashunadya taila (Lashuna Amalaki Haritala each 25 gram, Tila taila 250grams, Milk 1 litre, 4 times water, Oil should be prepared according to taila paka vidhi)
 - Nagaradi taila :- Should prepare with shunthi saindhavalavan pippali musta Hingu Vacha Lashun each 1 Tola, Arka patra swarasa 1kg, phalasha patra swarasa 1kg, Tila taila 250 grams.

- Dashamoola taila (oil prepared with Dashamoola - Tila taila)
- Kakajangha taila (oil prepared with Kakajangha - Tila taila)
- Apamarga Kshara taila (oil prepared with Apamarga Kshara Tila taila).
- Bilwa taila :- Bilwa majja 250 grams should be grinded in 1kg gomutra, add 1kg cowmilk and 1kg tila tail - Oil should prepare.
- Shambhooka taila
- Raktha mokshan is suggested by vagbhata.
- oral administration of Indu Vati with Amalaki Swaras.
- Rasayan, Brumhan, Nadibalya Aushadas should be given.
- Deafness if occurs to children (due to congenital Or hereditary causes)
- Aged or old or existing since long time is said to be Asadya.

5) KARNA SRAVA OR KARNA SAMGRAVA

(Chronic suppurative Otitis media (C.S.O.M.) Otitis externa-Otorrhoea).

Vitiated Vata dosha causes pus discharge from the ear due to head injuries (Shirobhighatha), diving in water (Jala nimajjana), inflammation of aural mucosa (karna Paka), and ear abscesses (karna Vidradi) etc causes, is named as karna srava or Karna Samsrava.

1) Head injuries (Shirobhighatha)

Traumatic lesion of external ear (otitis externa) and middle ear (Otitis media) causes foul pus discharge from ear due to suppurative inflammatory processes of Aural mucosa.

2) Diving in water (Jalanimajjana)

It causes forcible entry of polluted water into the ear canal, that may cause tympanic rupture along with Aural inflammation (Otitis externa- otitis media - myringitis and tympanic perforation or rupture).

3) ULCERATION OR INFLAMMATION OF AURAL MUCOSA (KARNA PAKA)

It is the main factor for the suppurative inflammation of external or middle ear in which infection spreads to the ear through external auditory canal, eustachian tube, blood stream or due to traumatic lesions.

4) Ear Abscesses (karna Vidradi)

Suppuration of abscess of external ear Or middle ear may causes pus discharge from ear.

Note :- By above discription it is clear that, Karna srava is one of the clinical features of the suppurative lesions of the external and middle ear like, Otitis externa (furunculosis - diffuse otitis externa) suppurative otitis media, etc.,

6) POOTHI KARNA

(Suppurative Otitis media - Otitis externa Foul Otorrhoea.)

The painful or painless foul discharge from the ear is known as poothi karna.

According to Sushruta :-

The kapha of Karna Srotas (The mucosal lining of the ear) is melted by pittoshma (Acute inflammatory process) and causes foul sticky ear discharge with or without pain, is known as poothi karna.

The painful condition with profuse sticky foul discharge from the ear is the significance of acute inflammatory process. The painless scanty foul discharge from the ear is due to the chronic inflammatory process of ear, either middle or external ear. So poothi karna is a clinical feature observed in suppurative lesions of middle ear (Suppurative otitis media) and external ear (Otitis externa).

7) KRIMI KARNA

(Maggots in the ear)

It is a curable disease of the ear occurs by the vitiation of Tridoshas in which a single or multiple small insects are Visualised with severe otalgia (ear pain).

(1) The maggots (flies, mosquitoes ants etc., may enter into the ear canal from outside, erode the tissue of the ear canal and so causes severe earache with ulcerative lesions.

(2) Unhygienic conditions, impaction of ear wax, ulcerative lesions suppurative conditions etc., may vitiate vatadi doshas that deranges the Twak, Rakta, Mamsa of the ear canal and small infective organisms are produced from the excreta (dead tissue wax exudations pus etc) these also cause destructive process and associate with severe earache.

(1) Vitiated Kapha causes - Collection of debris or exudates causes itching, foul smell and animate Foreign body sensation.

(2) Vitiated pitta causes tissue degeneration (Dhathu Paka) Putrifaction and tissue necrosis.

(3) Vitiated Vata Causes severe earache.

Treatment principles of Karna Srava - Poothi Karna and Krimi Karna.

- 1) Karna Srava - Poothi Karna and Krimi Karna are having Similar treatment principles.
- 2) Common treatment principles of Karna roga are also applicable here.

(3) The common treatment procedures for these 3 diseases are

- a) Shiro Virechana
- b) Dhooma Pana
- c) Swedana
- d) Gandoosha
- e) Dusta Vrana Chikitsa
- f) Karna prakshalan
- g) Karna Pramajan
- h) Karna dhoopan
- i) Karna Pooran
- j) Karna Avachoorana

SPECIAL REMEDIES FOR THE TREATMENT OF KARNA SRAVA OR KARNA SAMSRVA

(1) The ear discharge (mucoïd, mucopurulent, purulent Blood stained discharges) should be cleaned by ear wash (karna Prakshalana Or Karna dhavan) with the following decoctions.

(a) Triphala Kashaya b) Yastimadu Kashaya c) Shunthi Kashaya, (b) Nimbadi Kashaya (e) Pancha Valkala Kashaya (f) Dashamoola Kashaya (g) Trikatu Kashaya (h) Aaragwadadi Kashaya i) Raja Vrukshadi Kashaya j) Surasadi Kashaya k) Manjista, Khadira Sariva, Patola, Guduchi, Rasna, shigru, etc decoctions.

The decoctions are taken in the ear syringe for ear wash, while syringing the nozzle of the syringe should face the walls of the ear canal and piston should be pressed with gentle pressure.

2) After Karna prakshaalan the ear canal should be cleaned with cotton buds known as karna pramarjana (Dry mopping)

3) The Residual exudations should be dried by inserting medicated smoke or fumes is known as Karna dhoopan, it is done with Vrana dhoopan Yantra. The common remedies which are used for dhoopan are guggulu, Agaru, kshauma Vastra, rasanjan, Hingu, Varthaka Phala, Vidanga etc. drugs.

4) Karna pooran - Putting the ear drops or Dusting the medicated fine powder into the external auditory canal is known as Karna pooran.

Some Remedies of Karna Pooran :-

a) With Triphala Kashaya or Aaragwadadi Kashaya etc., decoctions which are used for ear wash. b) Tindukadi pancha Kashaya (Tinduka Abhaya Aamalaki Lodhra Manjista). c) Sarja Twak + Vana Karpasa phala swarasa + honey d) Tindukadi Pancha Kashaya + Kapiththa Swarasa + Honey. e) Sarja kshara + Lemon Juice. f) Pancha Valkala Kashaya + Kapiththa swarasa + Honey. g) Dusting the fine medicated powders into the ear canal (Karna avachoorana) with the following medicines.

- A) Samudra phena Churna E) Rasanjan
B) Sphatic bhasma F) Sarjarasa
C) Tankan bhasma G) haridra Churna
D) Laksha Choorna

H) Quatha Churnas of pancha Kashaya, panchavalkala kasahya, Triphala Kashaya, Nimbadi Kashaya, Aragwadadi Kasaya, Surasadi Kashaya, Raja Vrukshadi Kashaya etc.,

- h) Karna pooran with the Oils prepared with above decoctions.
i) Karna pooran with the oil prepared from Amrapallava, Kapitha pallava, Madhuka, dhava, shalatawak and taila.
j) Karna Pooran with Priyangwadi taila (Priyangu, Yastimadu, Patha, Dhataki, uthphala, Shalaparni, Manjista, Lodra, Laksha, Kapitha and taila.
k) Karna Pooran with the oil prepared from Doorva, snuhi, Jambu, Amra patra, Karkatak Shrunji, Manduka Parni, Honey and Taila.
l) Rechana Nasya (Apmarga beeja churna Or Katphala Churna) Dhoomapan, Swedan, Gandoosha etc., has to do according to the condition of the patient.

SPECIAL REMEDIES FOR TREATMENT OF POOTHI KARNA.

- 1) The common treatment principles and remedies are merely like Karna srava.
2) The order of treatment procedures are like the following
a) Karna Prakshalan - Ear wash
b) " Pramarijan - Dry mopping
c) " Dhooapan - Fumigation
d) " Pooran - Filling the medicated drops.

3) Some remedies of Karna pooran -

a) Most of the preparations are as like Karna Srava. b) Stanya + ghritha + madhu + Rasanjan. c) Jambu, Amra, Kapitha, Karpasaphala swarasa + madhu. d) Oil prepared with above drugs + Sarshapa, Nimba, Karanja + Taila. e) Oil prepared with Amra, Jambu, Yastimadu, Vata patra, Jathi patra + Taila. f) Oil prepared with Nirgundi patra, Saindhava Lavan, Gruha dhooma, guda, madhu and Taila. g) Kustadi taila prepared with, Tila Taila 1kg, Ajamutra 4 Kg, Kalka dravyas - Kusta, Hingu, Vacha, Devadaru, Shunthi, Saindhava Lavan - Total 250 grams. h) Jathi patra Swarasa + Honey. i) Gomutra + 125mg. Haritala. j) Nishataila - Prepared with 8 phala sarshapa taila, Haridra and Gandhak each 1 phala, Dathura swarasa 10 phala. k) Nasya Gandoosha, Dhoomapana, swedan etc., according to the condition.

Special Remedies For Tretment of Krimi Karna :-

- 1) Treatment principles and most of the remedies are as like Karna srava and poothi Karna.
2) Dusta Vrana and Krimi hara treatment should give.
3) The order of treatment procedures is
1) Karna prakshalan - Ear wash
2) " Pramarijana - Dry mopping
3) " Dhooapan - Fumigation.
(with guggulu, Agarar Hingu, Vidanga Rasanjan, Kshauma Vastra, Varthaka phala etc.)
4) Karna Pooran

4) Additional Karna pooran preparations for the treatment of Krimi Karna are:
a) Sarshapa Taila. b) Gomutra + 125 mg Manahshila. c) Gomutra + Vidanga Churna. d) Oil prepared with Nimba Kashaya 12 grams, haridra Churna 1 gram, Sarshapa taila. e) The extracts of Langali moola, Phalasha moola, Trikatu, Suryamukhee, Sindhuvar, etc drugs.

5) The visible alive or dead insects should be removed by special skillfull techniques.

CONGENITAL ABNORMALITIES OF EAR :-

A) External Ear Defects :-

- 1) Pre auricular sinus - it is due to improper fusion of the auricular tubercles during the developmental stage. The exact site of the sinus is near the tragus and root of helix.
2) Small elevations of Skin with cartilage at tragus and helix. (accessary auricles)
3) Anotia :- Absence of Pinna
4) Microtia :- Small deformed Pinna
5) Macrotia :- Abnormally big sized pinna
6) Coll aural fistulae :- A fistula in between external auditory canal and angle of jaw at the anterior border of sterno mastoid.
7) Dermoid Cysts :- Develop on the Pinna.
8) Darwin's tubercle :- A small elevation on the postero superior part of helix.
9) Wilder muth's Ear :- Anti helix is more prominent than helix, lobule may be absent or adherent to the side of the ear.
10) Bat ear :- Abnormal outward protrusion of pinna with absence of anti helix.
11) Atresia of external auditory canal.
12) Changes in the curvature of the external auditory canal.
13) Treacher collin's syndrome - hypo plasia of external ear, middle ear, eyes, malar bones, maxillae and mandible.

Treatment :-

- 1) Plastic surgery in minor defects.
2) Prosthesis in major deformities.
3) Excision of Sinuses and cysts.

B) Middle ear defects (Congenital)

- 1) Ossicular deformities
a) Fusion of malleus with incus Or malleus adherent to the walls of epitympanum.
b) Fusion of incus with malleus or stapes. c) Fusion of Foot plate of stapes to oval window etc.,
2) Abnormal course of Facial nerve in its bony canal.
3) Treacher Collins syndrome.

Treatment :-

Surgical exploration to reconstruct the parts for the maintenance of normal hearing mechanism.

C) Internal Ear :-

- 1) Abnormalities of Bony or membranous Labyrinth.
2) Deaf mutism.
3) Sensori neural deafness (cochlear and auditory nerve lesions).
4) Labyrinthine lesions with the symptoms like vertigo Tinnitus develops.

DISEASES OF EXTERNAL EAR

1) Haematoma of Pinna :-

Collection of blood on the outer surface of the pinna under the perichondrium

Treatment :-

1) Aspiration and pressure bandage. 2) Antibiotics. 3) Analgesics and Anti inflammatory drugs.

2) PERICHONDRIITIS OF AURICLE :-

Perichondritis is the inflammation of cartilage of Pinna. It may follow haematoma injury to pinna as a complication of furunculosis and mastoid surgery.

The causative organisms are staphylococcal aureus, Bacillus pyocyaneus. It is a very painful condition with acute inflammatory features and leads to necrosis and deformity of pinna.

Treatment :-

1) Antibiotics. 2) Incision and drainage of pus. 3) Pressure bandage. 4) Plastic surgery for the correction of the deformity.

3) Frost Bite of the Pinna :-

It is the lesion of pinna for being exposed to temperature variations like cold affect and produces pain, burning sensation, oedema, blebs and necrotic changes.

Treatment :-

1) Slow thawing. 2) Vaso dilator drugs. 3) Treatment like gangrene. 4) Burns of Pinna - should treat by surgical methods.

4) Burns of Pinna :- Should be treated as per surgical methods.

Pseudo cysts of Pinna :-

Should treat by 1) Aspiration 2) Incision and drainage 3) Pressure bandage 4) Wound therapy.

Otitis Externa :-

It is the inflammation of mucosa of the external ear it may be Acute or chronic. Localised Or diffuse, infective or reactive.

CLINICAL TYPES OF OTITIS EXTERNA

A) Due to Infection.

- a) Bacteria 1) Localised otitis externa Or furunculosis. 2) Generalised " or Diffuse otitis externa 3) Erysipelas.
b) fungal 1) Otomycosis
c) Viral 1) Herpes Simplex 2) Herpes Zoster
3) Bullous Myringitis.

B) Reactive

- 1) Eczematous Otitis externa
2) Seborrhoeic Otitis externa
3) Myringitis
4) Malignant Otitis externa
5) Keratosis Obturans etc.

1) Localised Otitis Externa Or Aural Furunculosis.

It is a staphylococcal infection of root of hair follicle and sebaceous gland in the cartilaginous portion of external auditory canal.

The infection usually follows

- 1) Injury to canal while cleaning. 2) Affection of ear discharge coming from middle ear. 3) Diabetes.

Clinical Features :-

1) Severe pain in the ear that aggravates by the movement of pinna, chewing, yawning and opening the mouth. 2) Swelling and redness of meatus wall. 3) Otorrhoea - When the furuncle ruptures. Blood stained purulent discharge comes. 4) Deafness due to occlusion of meatus with furuncle. 5) Tinnitus at night. 6) Severe itching sensation. 7) Trismus. 8) On examination meatus appears congested, oedematous, stenosed and with pus collection. 9) Infection by spreading backwards causes cellulitis in the post aural region, by obliterating post aural groove and the auricle stands out forwards and outwards. 10) The infection may cause perichondritis and post aural Lymphadenitis etc. 11) The infection spreads forwards into parotid region through the fissures of santorini and inwards into tympanic cavity through the notch of Rivinus.

Treatment :-

1) Packing of the canal with gauze soaked in 10% Ichthylol in glycerine, glycerine reduces oedema and pain where as Ichthylol is an antiseptic. 2) Antibiotic drops. 3) Antibiotic drops with steroids. 4) Ear toilet by cleaning the secretions. 5) Incision and drainage of Furuncle may be performed for prompt relief from pain. 6) Systemic Antibiotics, analgesics and anti inflammatory drugs. 7) Diabetes if present should be treated.

2) **Generalised Or Diffuse Otitis Externa.**

Generalised infection involving the entire skin of external auditory canal including the surface of tympanic membrane.

The predisposing factors are scratching of the ear canal, water entry into ear canal, unskilled instrumentation and affection of the discharges of Acute or chronic suppurative otitis media. The commonest affecting organisms are staphylococcus aureus PS, pyocyanea, B. Proteus, E.Coli. etc.,

The Common clinical features are :-

1) Irritation discomfort and pain in the ear. 2) Inflammatory changes in External auditory canal. 3) Crusting, desquamation and discharge with stenosis of external auditory canal.

Treatment :-

1) Avoidance of predisposing factors. 2) cleaning the ear canal by putting Astringent drops, lubricants, Hydrocortisones and with antibiotics etc drug applications. 3) Systemic antibiotics, Analgesics and anti inflammatory drugs.

3) **Erysipelas.**

It is an acute streptococcal Lymphangitis and dermatitis of ear canal, spreads rapidly which often follows a scratch.

Treatment :- Systemic antibiotics, Anti inflammatory drugs.

1) 10% Ichthyol in glycerine application. 2) Ultra Violet light exposure.

4) **Oto Mycosis.**

It is one of the varieties of Otitis externa which is caused by the fungus. It is common in the damp and rainy seasons, it is very painful infection, fungus causing the infection.

Clinical Features :-

1) Severe pain with itching 2) Scanty Brownish Or blackish discharge. 3) Deafness Tinnitus and Trismus may also present. 4) On Examination cotton like growth or wet news paper like mass (Brownish Black) present with inflammatory changes. 5) Other symptom of otitis externa also present.

Treatment :-

1) Cleaning the ear frequently. 2) Instillation of drops of Broad spectrum fungicides. (clotrimazole, tolnaftate, Nystatin etc. 3) Symtomatic treatment.

5) **Herpes Viral Infection :-**

1) Vesicles formation in the external auditory canal. 2) It is a neurotrophic virus causes paralysis of facial nerve (Ramsay hunt syndrome - Deafness vertigo and facial nerve palsy).

6) **Bullous Myringitis :-**

Haemorrhagic vesicles on the external surface of the ear drum. There is severe pain conductive deafness and blood stained otorrhoea.

Treatment :-

1) Local and systemic antibiotics. 2) Analgesics and anti inflammatory drugs. 3) Aural toilet. 4) Anti histamine drops.

7) **Eczematous Otitis Externa :-**

This is allergic dermatitis of the external auditory canal (allergen may be extrinsic or intrinsic)

Clinical Features :-

1) Irritation, redness, oedema followed by vesication, weeping and crust formation. 2) In chronic stage or with secondary infection fissuring and scaling of external ear canal is observed with fibrosis and stenosis.

Treatment :-

1) Steroid or Antibiotic Ointment applications. 2) Systemic antibiotics. 3) Anti histamines. 4) plastic surgery for fibrosed or stenosed external auditory canal.

8) **SEBORRHOEIC OTITIS EXTERNA**

It is similar to seborrhoeic dermatitis of scalp. Characterised by a greasy scaly and crusty skin of the external wall with itching sensation.

Treatment :-

1) Steroid or Antibiotic Ointment applications.
2) Aural Toilet 3) Shampooing of Scalp every alternate day.
4) Systemic antibiotics and anti inflammatory drugs.
5) Anti histamine drugs etc.,

9) **Myringitis :-**

Inflammation of external surface of ear drum.

Clinical Features :-

Severe pain, deafness, tinnitus and discomfort in the ear canal.

10) **Malignant Otitis Externa :-**

It is a progressive necrotising infection of ear canal and involves the tissues of the base of skull and temporal bone along with cranial nerves. The causative organism is pseudomonas and commonly occurs to the chronic diabetic.

Clinical Features :-

1) Rapidly spreading granulations in the junction of Bony and cartilaginous meatus.
2) Infection spreads to parotid, Base of skull and to cranial nerves (7,9,10,12,).

Treatment :-

1) Diabetes should be controlled. 2) Local and systemic antibiotics. 3) Surgery to drain the abscess or to remove necrotic tissue.

11) Keratosis Obturans :-

It is due to abnormal desquamation of the epithelium in the deep external auditory canal, forms similar lesion like cholesteatoma and causes bony erosion with destruction of surrounding tissues.

Treatment :- Surgery.

12) WAX :-

Wax is a mixture of secretions of the ceruminous glands, sebaceous glands, shedded epithelium and dust particles, etc.

If the wax is impacted in the external auditory canal causes pain, discomfort, conductive deafness, tinnitus, vertigo etc.,

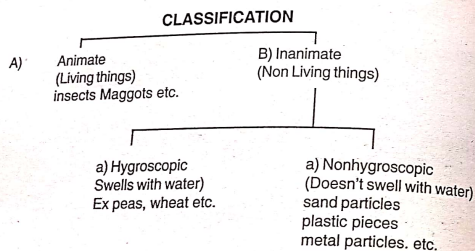
Treatment :-

- 1) Wax removal by the instillation of Lubricant drops etc.,

Note :- (detailed explanation given at Karna gootha disease description).

13) Foreign Bodies of External Ear.

Various types of Foreign bodies are found in the ear.



Treatment :-

1) **Animate Foreign bodies** :- Instilling of oil or water into the ear to suffocate the insect then by syringing or Forceps or with foreign body removing hook, probe etc. Foreign body should be removed.

2) Hygroscopic Foreign bodies :-

These swell with water so syringing causes impaction of foreign body by increased size instilling glycerin or alcohol is advisable to shrink and lubricate the foreign body then with the help of Forcep Foreign body should be removed.

3) **Non hygroscopic Foreign bodies** can be removed by ear syringing with water etc.,

4) **In Non co-operative patients** like children general anaesthesia should be given to remove Foreign bodies.

14) Tympanic Membrane Rupture or Perforations :-

Rupture follows trauma and the perforation follows pathological lesions

Aetiology of tympanic rupture :-

- 1) Picking the ear with matchsticks pencil etc.
- 2) Improper instrumentation while removing foreign bodies
- 3) Improper syringing of ear
- 4) Air compression due to sudden atmospheric changes
- 5) inflammation of Eustachian tube
- 6) head injury especially to petrous part of temporal bone.

In traumatic rupture of tympanic membrane the lesion is irregular and not easy for repair.

The tympanic perforation is commonly due to middle ear pathology, these are

- 1) Central perforation (heals quickly)
- 2) Marginal perforation (Difficult for healing)
- 3) Attic perforation (Complicative)

Clinical Features :-

Deafness, Tinnitus, earache, vertigo, otorrhoea, inflammatory changes and with tympanic perforation.

Treatment :-

- 1) Swimming, head bath, syringing of the ear, mopping of the external auditory canal etc should be avoided.
 - 2) Aural toilet
 - 3) Systemic Broad spectrum antibiotics like penicillin.
 - 4) Treatment for associated symptoms.
 - 5) If treatment doesn't respond.
- Myringo plasty operation is the only alternative.

DISEASES OF MIDDLE EAR CAVITY :-

Otitis media :-

It is an inflammatory condition of mucosa of middle ear cavity

CLASSIFICATION

- 1) Suppurative otitis media
 - a) Acute
 - b) Chronic
- 2) non Suppurative otitis media
 - a) Acute
 - b) Chronic
- 3) Specific otitis media - Ex. TUBerculous, syphilitic.
- 4) Adhesive otitis media

1) ACUTE SUPPURATIVE OTITIS MEDIA (A.S.O.M.)

It is an acute inflammatory condition of middle ear mucosa. The common organisms responsible for this disease are streptococcus haemolyticus, staphylococcus aureus, pneumococcus, haemophilus influenzae, Bacillus pyocyneus, Bacillus coli, Bacillus proteus etc.

Aetiology :- 1) It is common in children than adults

Eustachian tube :- It is shorter wider and horizontally placed in children, So only most of naso pharyngeal infections easily spread into middle ear and cause the disease. (in majority of cases infection spreads through Eustachian tube).

2) Infection also spreads in to middle ear through the external ear canal by the rupture of tympanic membrane (improper instrumentation while cleaning, improper ear syringing, scratching of ear with matchsticks, Forcible entry of water while diving into water etc.)

3) Head injury may affect the middle ear by the fracture of temporal bone

4) Blood borne infection rarely reaches the middle ear.

5) Predisposing factors are

a) Reduced vitality (Resistance power) b) Atmospheric pressure changes during Flying, diving etc. c) Infections like chronic rhinitis chronic sinusitis, tonsillitis, adenoids exanthematous Fevers like measles scarlet fever chronic or recurrent pharyngitis, etc. d) nasopharyngeal polyps, tumours, packing etc. e) Eustachian tube block.

Pathology :-

The infection passes through 5 stages

1) Catarrhal state or stage of congestion, occlusion of eustachian tube and congestion in the middle ear

2) Stage of exudation :- Exudates collect in the middle ear which is serous at first and later becomes purulent.

3) Stage of Suppuration :-

The collected pus in the middle ear stretches the drum and perforates by pressure necrosis and the exudates start escaping into external auditory canal.

4) Stage of healing :- Depending upon the virulence of the organism, resistance power of the patient and drugs administration the infection clears up completely without complications.

5) stage of complications :-

If resistance power of patient is less, infecting organism is more virulent and proper antibiotics are not given, the infection progresses and cause complication, like mastoiditis

Clinical Features :-

1) Catarrhal stage :- Heaviness and pain in the ear, deafness, tinnitus, autophony, fever body pains.

Retraction and congestion of ear drum with loss of light reflex is seen on examination.

2) Exudative stage :- Above symptoms aggravate, and bulging of tympanic membrane by the pressure of exudates of tympanum.

3) Stage of suppuration :-

a) At this stage drum perforates and pus starts flowing out b) Pain and other constitutional symptoms reduce after escape of ear discharge c) The type of discharge can range from mucoid to frankly pus

4) Stage of healing :- it may begin from any stage depending upon the virulence of organism, resistance power of patient and administration of antibiotics.

5) Stage of Complications:-

Infection spreads to mastoid and neighbouring structures.

Treatment :-

1) Systemic antibiotics like erythromycin, ampicillin, penicillin, etc. for 7 days.

2) Systemic and Local (nasal) decongestants to decongest the mastoid tympanum nasal cavity and eustachian tube

3) Analgesics and anti inflammatory drugs.

4) Instillation of antibiotic ear drops.

5) Aural toilet, ear discharge may be mopped with cotton buds.

6) Myringotomy :-

Giving incision to drain the pus from middle ear cavity, in exudative stage under general anaesthesia to avoid irregular tympanic rupture and to promote easy healing.

MYRINGOTOMY

It is a surgical procedure in which ear drum is incised to drain the exudates of middle ear cavity, in the stage of exudation of Acute suppurative otitis media to prevent tympanic rupture and to relieve from severe earache.

1) Atropinisation to prevent vaso vagal attack. 2) General anaesthesia is given. 3) Patient lies in supine position with the head turned to the opposite side of the affected ear. 4) Under good illumination, with operative microscope with aseptic precautions, with myringo tome, a J shaped incision is given in the postero inferior quadrant mid way between umbo and annulus. 5) The fluid in the middle ear escapes out side or should be aspirated. 6) A strip of gauze is inserted in the ear. 7) Local and systemic antibiotics should be given. 8) Analgesics and anti inflammatory drugs. should also be given for proper healing.

Myringo puncture :-

It is puncturing of the ear drum with a long thick injection needle to aspirate the middle ear exudates.

Myringo Plasty

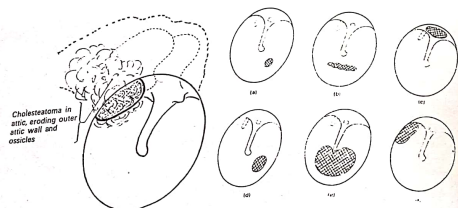
Myringo plasty is the repair of the perforation of tympanic membrane usually done by temporal fascia or vein graft.

Tympano Plasty :-

it is a surgical process in which the reconstruction of the ear drum and the ossicular chain is performed.

Indications :-

1) Dry tympanic perforation 2) Benign Perforation 3) Eustachian tube should be functioning. 4) Stapes should be mobile. 5) After getting stamina against upper respiratory infections.



16. Small peripheral attic perforation of serous otitis media.

Different types of perforations of the right tympanic membrane: (a) Acute Otitis media with a small perforation; (b) Traumatic perforation; (c) posterosuperior quadrant perforation; (d) and (e) Central perforation; (f) Marginal perforation.

ACUTE DISEASES OF THE MIDDLE EAR CLEFT



Myringotomy incision



Fluid seen behind the ear drum

Secretory Otitis Media. Grommet inserted in a myringotomy incision. Inset- "Teflon" Grommet.

Contra Indications :-

- 1) Dangerous perforation. 2) Wet perforation with active discharge. 3) with pharyngeal - upper respiratory infections. 4) Eustachian tube dysfunction. 5) Otosclerosis. 6) Bleeding disorders. 7) with diabetes and hyper tension. 8) Sensori neural deafness.

Method :-

- 1) Under general anaesthesia Temporalis fascia should be collected in 1.5 c.m. diameter for grafting.
 - 2) Of the three layers of ear drum the outer layer is reflected laterally from the middle fibrous layer along with some portion of the skin of external auditory meatus.
 - 3) **Ossiculoplasty :-** the ossicular chain is inspected by lifting the layers of ear drum from its attachment at the annulus and corrected by transposition or ossicular grafting.
 - 4) The tympanic perforation is repaired by laying temporalis fascia on the fibrous middle layer of the drum, the ear canal skin and outer layer of the drum are replaced back on the temporalis fascia (onlay technique).
- (In inlay technique temporalis fascia is put medial to ear drum by elevating the ear drum from its annulus in the posterior part.)

- 5) Pressure bandage and plugging of external auditory canal.
- 6) Administration of proper antibiotics for healing of the lesion.

CHRONIC SUPPURATIVE OTITIS MEDIA (C.S.O.M.)

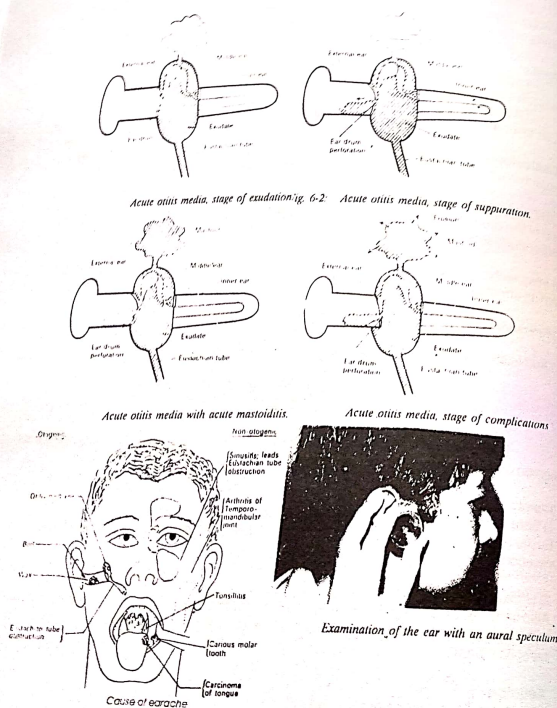
It is the chronic inflammatory condition of middle ear mucosa, it may remain as benign or may lead to fatal intra cranial complications.

Types :-

- 1) Safe or Tubo tympanic type or Benign Type :- Eustachian tube and tympanum affects central tympanic perforation present with no complications.
- 2) Unsafe or Dangerous or Attico antral type. Attic or epitympanic region and antral part is affected, marginal or attic perforation is seen with severe life threatening complications like destructive cholesteatoma and intra cranial complications.

Aetiology :-

- 1) Failure of the treatment for A.S.O.M. due to recurrent upper respiratory problems and others like Tonsillitis, Adenoids, Rhinitis, sinusitis, pharyngitis, laryngitis, Low resistant power, virulent infection, acute necrotic otitis media with exanthemata, Traumatic rupture, big unhealing perforation of tympanic membrane, Eustachian catarrh and congenital cholesteatoma.



2) Causative organisms :-

- For benign or safe type, are streptococci, staphylococci and pneumococci.
- For unsafe or dangerous type, are bacillus pyocyaneus, Bacillus proteus, Bacillus coli and haemolytic streptococci.

3) General Factors:-

Unhygienic conditions, recurrent upper respiratory infections, upper respiratory infections, poverty, malnutrition, and Low resistance.

Pathology :-

- 1) Tubo tympanic type or Benign type :-
 - Poor blood supply to tympanic membrane especially at the tip of handle of malleus so more scope for perforation.
 - Necrosis of ossicular chain (Acute necrotic otitis media)
 - Persistent mucosal disease. Repeated infection of middle ear causes hyperplasia of its mucosa, even leads to polyp formation.
- 2) Attico antral type is dangerous by the formation of Cholesterol granuloma (Neither it is a tumour nor contain cholesterol)

Hyper trophy of tympanic mucosa causes obstruction for ventilation from eustachian tube so vacuum is created in the posterior portion of tympanum leads to extravasation of blood into middle ear, this provokes the formation of cholesterol granuloma, Tympanic membrane appears blue in this condition.

Cholesteatoma is a sac lined by Keratinising stratified squamous epithelium in the middle ear cleft and contains desquamated epithelium arranged like onion skin layers. It has the consistency of a tooth paste but it possesses a great bony destroying capacity Hence it is called "Bone destroying disease of ear "

Symptoms	Benign	Dangerous
1) Name of disease	Tubo tympanic	Attico antral
2) Perforation	Central	Attic or marginal
3) Discharge	Intermittent muco purulent or purulent usually without foul smell, white or yellowish Bledding is un common copious Increases with upper respiratory tract infections.	Continuous Always purulent Always foul smelling, yellow or brown or green may be blood stained often scanty. Not affected by R.T.I.

4) Polyp	Occasional	Common
5) Cholesteatoma	Very rare	Common
6) Deafness	Conductive mild to moderate	Conductive or mixed mild to severe
7) Complication	Very rare	Common
8) Radiography of mastoid	Cellular or sclerotic	Sclerotic with erosion
9) Fistula test	Negative	Positive
10) Treatment	Satisfactory	Notsatisfactory.

Clinical stages :-

1) Benign perforation 3 stages

- Active - discharge actively flowing
- Quiescent - ear remains dry for 6 months
- Inactive - ear remains dry for more than 6 months.

The perforation may be healed completely or may heal with a thin membrane formation. It may be associated with tympanic sclerosis, ossicular discontinuity due to necrosis or adhesions.

2) Dangerous perforation - Always active stage
Investigations - 1) Audiometry 2) Patency of Eustachian tube 3) Radiology of mastoid 4) Otomicroscopy 5) Bacteriological examination of ear discharge.

Treatment :-

A) Benign perforations:-

Active stage with otorrhoea.

- Removal of septic foci 2) Aural toilet to keep the ear canal clean and dry 3) Antibiotic ear drops if there is ear discharge 4) Chemical cautery of perforation with 50% Trichloroacetic acid 5) Improvement of nutrition of the patient.

surgery :- If conservative treatment fails surgery is advisable

- Polyps and granulation should be removed 2) Tympanoplasty. 3) Myringoplasty

B) Treatment of Attic antral - dangerous perforation.

- Same conservative treatment similar to above.
- Suction cleaning under the microscope.
- Granulation and polyps should be removed.
- Radical mastoidectomy or modified Radical mastoidectomy.
- Atticotomy and Attic Antrostomy.
- Tympanoplasty.

COMPLICATIONS OF OTITIS MEDIA.

I) Mastoid infection.

A) Mastoiditis.

- Acute mastoiditis.
- Chronic mastoiditis.

B) Mastoid abscesses

- Subperiosteal abscess
- Bezold's abscess.
- Zygomatic abscess.
- Luc's abscess
- Citelli's abscess.

II) Extra cranial complications.

- Petrositis
- Facial nerve palsy
- Labyrinthitis.

III) Intra cranial complications.

- Extra dural abscess.
- Sub dural abscess.
- Meningitis.
- Sigmoid sinus thrombophlebitis.
- Brain abscess.
- Otitic hydrocephalus
- Encephalitis.

Otorrhoea :-

Discharge from the ear is known as otorrhoea. It is due to ear diseases and also due to other external causes.

A) Causes of Ear

- furunculosis 2) Otitis externa 3) Otomycosis 4) Granuloma 5) myringitis
- Tumours 7) A.S.O.M., 8) C.S.O.M. 9) Suppurative Labyrinthitis
- Aural abscess

B) External causes of Otorrhoea

- Cerebro spinal fluid otorrhoea
- Parotid abscess and Temporo mandibular abscess rupturing into external auditory canal.

Differential Diagnosis :-

- 1) Watery otorrhoea in C.S.F. otorrhoea.
- 2) Serous otorrhoea in acromatous otitis externa.
- 3) Mucopurulent otorrhoea, in A.S.O.M. and safe C.S. O.M
- 4) Purulent otorrhoea in Furuncle, abscess of ear and the parotid abscess and Temporo mandibular joint abscess which open into external ear.
- 5) Foul otorrhoea in Cholesteatoma
- 6) Blood stained otorrhoea in aural polyp, granulations, acute otitis media, malignancy.
- 7) Frank blood otorrhoea in Trauma and glomus tumour.

Treatment :-

- 1) Aural toilet
- 2) Broad spectrum Local and systemic antibiotics.
- 3) Symptomatic, according to cause.

Mastoiditis:-

Inflammation of the mucosa of mastoid antrum and air cells is known as mastoiditis it occurs in two forms.

- 1) Acute mastoiditis 2) Chronic mastoiditis

Acute mastoiditis :- It occurs in cellular type of mastoid bone due to the complication of acute suppurative otitis media.

Aetiology/pathology :-

- 1) Inadequate drainage of exudates and spread of infection to the mastoid.
- 2) Virulence of the infective organisms.
- 3) Lowered resistance of the patient.
- 4) Improper treatment of acute otitis media.
- 5) Cellular mastoids are more likely to be involved.

a) Catarrhal mastoiditis :- Congestion of mastoid mucosa with aggravated symptoms like 1) severe boring type of pain in the ear and at mastoid region 2) creamy yellowish otorrhoea 3) deafness 4) Tenderness on mastoid antrum.

b) Coalescent mastoiditis :- Infection proceeds, pus collects in the mastoid antrum, inter cellular septa of mastoid get destructed due to pressure necrosis, the air cells in the mastoid coalesce and mastoid cavity get converted to a bag of pus (empyema). The Clinical features are 1) Severe pain and Fever 2) Otorrhoea may increase or reduce 3) congested ear drum 4) Deafness 5) Tenderness of mastoid antrum 6) Pinna pushed forwards 7) Sagging of postero superior part of external auditory canal 8) Retro auricular oedema or sub periosteal abscess 9) Tachycardia 10) Patient looks ill and anxiatic.

Investigations :-

- 1) X-ray of mastoid Air cells are hazy or opaque with coalescence
- 2) Blood:- polymorpho nuclear leucocyctosis, increased erythrocytic sedimentation rate.

Treatment :-

- 1) Surgery is needed, if neglected it causes Trigeminal neuralgia, 6th cranial nerve paralysis and masked mastoiditis etc complications.
- 2) Cortical mastoidectomy or schwartze operation or simple mastoidectomy is the choice of operation.

surgical method (Cortical mastoidectomy) :- 1) Cortical mastoidectomy is performed to remove the infected air cell of the mastoid process (the middle ear and its contents are not interfered with)

- General anaesthesia is given.
- 2) Preparation of the site for giving incision.
- 3) Postaural incision (wilde's) is given parallel to the post auricular groove 1/2 cm behind to it, from the tip of mastoid to the level of upper attachment of the auricle.
- 4) The incision is deepened up to mastoid bone through skin subcutaneous tissue and periosteum.
- 5) The soft tissues are elevated from the bone by a periosteum elevator then self retaining mastoid retractor is applied for the exposure of the mastoid and for haemostasis.
- 6) The supra meatal triangle of Mc Even is identified and in this region the mastoid cortex is removed with a hammer and gouge or with an electric drill until the antrum is reached.
- 7) The mastoid air cells are removed without injuring the boundaries.
- 8) Widening of the aditus to antrum to provide drainage of mastoid to the middle ear.
- 9) Insertion of polyethylene drainage tube at the lower end of the incision and the wound is closed in layers.
- 10) Drainage tube should be removed after 48 hours and sutures should be removed after 7 days.
- 11) Suitable antibiotics should be given in adequate dosage for about 7 to 10 days.

Chronic Mastoiditis

Chronic inflammatory changes of mastoid mucosa is known as chronic mastoiditis.

- 1) Benign chronic otitis media may produce scanty granulations in the mastoid.
- 2) Dangerous chronic otitis media with cholesteatoma may erode the mastoid bone gradually.
- 3) Pus will be scanty and purulent.
- 4) The patients are usually poor with low standards of hygiene

Clinical features :- 1) Otorrhoea - Scanty foul creamy and purulent 2) Deafness 3) Granuloma formation 4) Other symptoms of Acute mastoiditis.

Radiological Examination

Sclerotic mastoid with or without erosions

Treatment :

- 1) Radical mastoidectomy
- 2) Modified Radical mastoidectomy.

Radical mastoidectomy :-

The mastoid, middle ear and external auditory canal are converted into a single cavity by lowering the wall between the mastoid and tympanum by removal of remnants of ear drum, malleus and incus (Stapes is not removed)

Incision and exposure of mastoid cavity is as like cortical mastoidectomy.

Proper antibiotics are sprinkled in the cavity after operation and the patient is advised for review and for cleaning of the wax debris frequently.

Complications :-
1) Facial palsy 2) labyrinthitis 3) conductive deafness 4) Unhealed cavity.

Modified Radical Mastoidectomy :-

Similar to radical mastoidectomy but meso tympanum and hypo tympanum is preserved (only epitympanum is removed along with mastoid air cells).

Mastoid abscesses

These occur due to acute /Chronic mastoiditis.

1) Sub periosteal abscess -

It is the commonest type of abscess due to mastoid infection. Pain and swelling over the mastoid antrum with all common features of mastoiditis

2) Zygomatic abscess :- Pain and swelling in front of and above the external auditory canal

3) Luc's abscess - Pus from zygomatic region may track outwards under the periosteum of the roof of the bony canal and reach infra temporal region.

4) Bezolds abscess - Perforation of the inner surface of the tip of mastoid, may give rise to an abscess deep to sterno mastoid muscle, it is also known as sinking abscess of neck.

5) Citelli's abscess - Extension of abscess to digastric triangle from tip cells.

6) Apisitis or petrositis :- extension of the infection to the body and apex of petrous bone.
Treatment :- Surgery like mastoiditis.

Aural Polyp :-

It is a pedunculated mass lying in the external auditory canal but can arise from external ear or middle ear.

Aetiology :- External ear -

1) Granuloma develops due to constant irritation due to un healed furuncle, traumatic ulcer, wax otitis externa.

2) Tumours

Middle ear :-

1) A polyp may arise from the middle ear as a prolapsed mucous membrane or a pedunculated granuloma

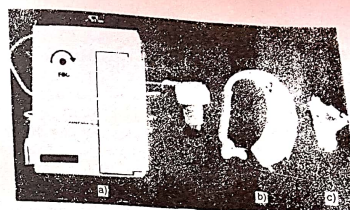
2) Tumours.

Clinical features :-

Otorrhoea, Bleeding, deafness, pain, itching and presence of pedunculated mass.

Treatment :-

- 1) Antibiotics
- 2) Polypectomy.
- 3) Treating the causative factor.



Hearing Aids

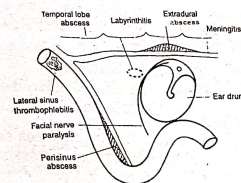


Diagram showing the possible complications of otitis media



Postaural fistula



Acute subperiosteal mastoid abscess

TUMOURS OF EAR :

External ear :-

Ceruminoma is a rare benign tumour which may present as a polyp and no malignant lesions are seen.

Middle ear :-

- 1) Benign - Not common
- 2) Malignant
- a) Squamous cell carcinoma (common)
- b) Adeno carcinoma
- c) Sarcoma
- d) Glomus jugulare

a) Squamous cell carcinoma :- Common, Blood stained discharge, facial palsy, deafness, pain and bleeds on touch, diagnosis is confirmed by biopsy
Treatment :- Excision and radio therapy

d) Glomus jugulare :-

It is a rare vascular tumour in relation to the glomus tumour in relation to the glomus bodies, on the dome of the jugular bulb.

8) KARNA KANDU

(itching sensation in the external auditory meatus)

According to sushruta :-

The accumulated, vitiated kapha dosha produces severe itching sensation in the external auditory canal, (balya karna srotas) is known as karna kandu

According to madhava kar :- The vitiated vata and kapha produces severe itching sensation in the external auditory canal is known as karna kandu.

The common aetiological factors are :-

- 1) Collection of polluted water in the external auditory canal due to swimming, head bath etc causes.
- 2) Fungus infection in the external auditory canal (Otomycosis)
- 3) Dust, smoke etc exposures may cause allergic reactions that produce itching sensation in the external ear canal.
- 4) Wax impaction in external auditory canal.
- 5) Collection of suppurative infective exudates of otitis media and otitis externa.
- 6) Improper cleaning of ear
- 7) Pulling of impure oils etc in the ear.

Treatment :-

- 1) Nadi sweda
- 2) Vannana
- 3) Vilechana karna dhooma
- 4) nasya
- 5) Kapha hata chikitsa
- 6) Nidhana Parivarjan.

7) Karna prakshalan (ear wash) with Aragwadadi Kashaya, etc decoctions to clean the exudation. 8) Karna pramarjana - (dry mopping) the exudates should be cleaned to keep the external auditory canal dry with the cotton buds. 9) Karna dhooapan - with guggulu agaru Hingu, Rasanjana etc to dry or burn the vitiated kapha dosha. 10) Karna Pooran with sarsapa tail etc oils. 11) Removing of thick sticky collections with shalaka yantra (ear probe or Foreign body remover etc.) 12) Oral remedies like Lagusuthasekara ras, Khadhiradivati, Trijathakadi vati, Nimbadi guggulu, kanchanara guggulu, Triphala guggulu, Harda Khandha, chopra cheenyadi churna, Yasimadu churna, sitophadi churna, Talisadi churna, Trikatu churna.

9) KARNA GOOTHA OR KARNA VARCHA

(cerumen or wax in the external auditory canal)

The vitiated or accumulated Kapha dosha get burnt by pित्तoshma and causes the collection of semi solid or solid material in the external auditory canal, is known as Karna gootha or Karna varcha or Karna vit.

CERUMEN OR WAX - IN EXTERNAL AUDITORY CANAL

The sebaceous glands and ceruminous glands of external auditory canal secrete oily sticky secretion, this secretion and hair protects the external ear from the entry of Foreign bodies.

Sebaceous secretion + Ceruminous secretion + Dust particles + Necrotic tissue and shedded epithelium forms sticky blackish brown wax which is physiological when present in less quantity without producing the symptoms and signs.

This wax collection when packed in the external auditory canal (Without removing in regular intervals) causes deafness, tinnitus, itching sensation, vertigo, pain and inflammation of external ear. (in fungus infection (otomycosis) wet paper like exudations collected with severe itching sensation)

Treatment :

If the wax is hard :

- 1) Softening of wax by putting oleus ear drops (Karna Pooran (Ex : Nirgundi taila, Kshara taila)

- 2) Removing the wax with wax probe (karna gootha nirharana shalaka)
- 3) Swedana to liquify the wax and to reduce pain.
- 4) Karna pramartjan with cotton buds.
- 5) karna dhoopan with Guggulu Rasanjana etc drugs.
- 6) According to modern to soften the wax dewax ear drops -waxsolve eardrops etc are used, then the liquified wax is removed with probe or by ear wash (syringing).
- 7) Symptomatic treatment to reduce pain and inflammation.

10) KARNNA PAKA OR KARNNA PRAPAKA. (Otitis externa (furunculosis or diffused otitis externa)

Vitiated pitta dosha produces ulcerative lesions, tissue necrosis and discharge from the external auditory canal, is known as karna Paka.

The associated symptoms are pain, tenderness, burning sensation and fever. On examination the external auditory meatus appears inflamed with narrow canal and discharge.

Treatment :-

1) Pitta hara or pitta visarpa hara treatment should be given. 2) Cool applications and eardrops (shata dhoutha ghrittha). 3) Krimi hara chikitsa. 4) Karna Pramarjan and dhoopan to clean and dry the canal. 5) Shoola hara, shotha hara, Krimighna, nasya, dhooma pana, gandoosha and sweda has to do according to the condition. 7) Amrutadi guggulu, Nimbad guggulu, chandanadi vati, Lakshud guggulu, Triphala guuguulu, Kancha nara guuguulu, Rasnadi guggulu, Lagusuthasekara ras, sarbadi vati, Khadhiradi vati, Lakshmi vilas ras etc are beneficial.

NON SUPPURATIVE OTITIS MEDIA

The disease is characterised by accumulation of non purulent effusion in the middle ear cleft resulting in conductive deafness.

1) Secretory otitis media :-

Synonyms :- Serous otitis media, catarrhal otitis media, secretory otitis media, glue ear etc.

Aetiology :-

Not exactly known but following several factors may be concerned.
1) Obstructive cause :- Septal deviation, polyps in nose, enlarged adenoids, tubal occlusion, Nasopharyngeal tumours, Adhesions following adenoidectomy etc.

- 2) **Barotrauma :-**
Collection of serous effusion in the middle ear cleft following atmospheric pressure changes.
- 3) **Viral infective causes:-** It may produce effusion in middle ear cleft

4) **Allergic changes :-** Allergic disorders of Nose, paranasal sinuses, Nasopharynx may also cause Allergic changes in the middle ear mucosa (Because of anatomical continuity) and produce oedema and effusion.

5) Un resolved acute Otitis media :-

A.S.O.M. Infection is inactivated by the medication but resolution is not complete, sterile effusion present as residue.

- 6) Cleft palate or palatal Paralysis.
- 7) Disturbances in muco ciliary transport system and secretomotor mechanisms.

8) Vacuum Theory

Eustachian tube blockage produces negative pressure in tympanum leads to retraction of ear drum and extravasation of fluids into middle ear cavity from the vessels

9) Hypo gammaglobulinaemia.

10) Radiotherapy of head and neck region.

It is a low grade inflammatory condition of middle ear. Though exact cause is not known it is understood that above factors play an important role in the production of non purulent effusion in the middle ear.

Clinical Features :-

Deafness, earache, feeling of fluid in the ear, tinnitus, retracted dull lustreless pinkish ear drum with congested vessels and fluid levels (hair line)

Diagnosis By :- 1) Clinical features 2) Tuning fork test BC>AC denotes conductive deafness. 3) Pure tone audiometry 4) Tympanometry. 5) Radiotherapy.

Treatment :- 1) Medical treatment by decongestant nasal drops, and oral medicine, Anti histamines, steroids, mucolytic agents etc. 2) Inflation of eustachian tube by valsalva's manoeuvre politzerisation or Eustachian catheterisation may prove helpful.

3) Surgical Treatment :-

Myringotomy and suction of glue with the insertion of grommet (plastic tube) for the aeration of the tympanum.

Surgery for underlying predisposing factor like artral lavage, polypectomy, sub mucous resection of septum, adeno tonsilectomy etc.

2) ATELECTASIS OF THE TYMPANUM - AND ADHESIVE OTITIS MEDIA :-

Collapse and medial retraction of tympanic membrane following long standing non suppurative otitis media, should pass through various stages like the following.

1) Effusion or evidence of fluid in the tympanum 2) Medial retraction of postero superior quadrant of ear drum 3) Atelecatic ear drum :- the entire posterior half of ear drum collapses and drags the ossicles towards medial wall of middle ear 4) Adhesive otitis media - The entire tympanic membrane (fibrous layer) undergo degeneration and becomes thin, Adhesions are formed between eardrum, ossicles and middle ear.

Treatment :-

- 1) Unhealed tympanic perforation is corrected by myringoplasty.
- 2) Atelecatic ear can be corrected by myringotomy and grommet insertion.
- 3) In adhesive changes, Tympanoplasty, ossiculoplasty etc can be tried but results are not encouraging.

3) Tympano Sclerosis :-

It is the lesion of the middle ear cleft where there is chalky calcareous deposits on the ear drum and middle ear mucosa with fixation of ossicular chain.

Hyaline degeneration of the fibrous layer of the middle ear mucosa which undergoes calcification and appears like snow flakes, symptom is the conductive deafness.

Treatment :-

- 1) Tympanoplasty including ossiculoplasty, 2) Stapedectomy 3) Hearing aids.

11) KARNA PRATINAH

According to sushruta it can be co-related to Tympanic perforation with meningeal Non meningeal complications following Chronic suppurative otitis media.

2) According to vagbhata can be co-related to Eustachian catarrh)

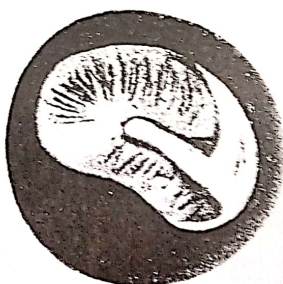
According to Sushruta :-

The liquified ear wax or other exudate reaches the mouth and nose, producing severe headache and other complications, is known as karna pratinaha

Unless the tympanic membrane gets ruptured the exudates or wax of external auditory canal can not reach the oropharynx or nasopharynx, so the disease can be correlated to tympanic perforations. It may occur due to traumatic causes or due to otitis media. Sushruta also explained the severe headache and other complications, these may be the meningeal and Non meningeal complications of chronic suppurative otitis media.

According to vagbhata :-

The vitiated Kapha dosha is dried by the vitiated vata and sticks to the Karna strotas, produces earache, heaviness and deafness, is known as karna pratinaha. It can be correlated to eustachian catarrh.



Normal tympanic membrane



Acute otitis media



Kidney shaped perforation



Small central perforation



Posterior marginal perforation
(with granulations)



Attic perforation
(with cholesteatoma)

Treatment :-

1) Oleation (snehā Karma), sudation (Sweda karma) and shiro virechana. 2) Karma gothā Nirharan (cleaning of ear wax). 3) Karma pramarian (drying/mopping with cotton buds). 4) Pratishtaya Chikitsa 5) Dusta Vrana Chikitsa (for healing of tympanic perforation). 6) Karma srava and poothi Karma Chikitsa. 7) Teekshna Gandoosha and dhoorna pana.

12-13) KARNA VIDRADI (ABSCESS IN THE EAR)

It is of two types

- | | |
|---|---|
| 1) Doshaja vidradhi
(1) Vataja, (2) Pittaja, (3) Kaphaja,
(4) Sanni pathaja | 2) Aaganthujaya vidradhi
1) Kshataja 2) Abhigataja |
|---|---|

1) Doshaja vidradhi is of 4 types, occurs by the vitiation of vata pitta kapha and tridoshas.
2) Aaganthujaya Vidradhi is of 2 types occurs due to scratching of external auditory canal (kshataja) and injuries (Abhigataja)

Clinical Features :-

1) Either due to doshic vitiation or due to traumatic lesions, the ear canal is irritated and exhibits different coloured exudations (Reddish, Yellowish etc.) through the ear.

2) Associated symptoms are severe and different types of pain, burning sensation, itching sensation, headache, etc.

It can be correlated to suppurative otitis media and otitis externa. (Vrana shophā of middle C.S.O.M. and external ear) mastoid abscesses which formed as the complication of A.S.O.M. or C.S.O.M.

Treatment :-

1) Vidradhi treatment should be given

- a) In Non suppurative stage with Alepa etc "1" treatment principles.
- b) In Suppurative stage (Pakwa) Incision and drainage should be done for the irrigation of impure exudations.
- c) In Exudating stage vrana chikitsa should be done.
(Like Karma srava and poothi Karma).

14-17) KARNA ARSHA

(Polyps of ear)

It is of 4 types 1) Vataja 2) Pittaja 3) Kaphaja 4) Paktaja.

In shalakya tantra the description is not given and explained that the aetio-pathology and treatment principles are as like Guda arshas of General medicine.

Polyps in the external and middle ear occur due to stenosed chambers with improper ventilation, constant irritation and chronic collection of exudates. The mucosa is stimulated and gives an elongated mass like structure known as arshas or polyp.

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It causes earache, otorrhoea, discomfort and deafness

- 1) Vataja Arsha - Blackish red, dried rough polyp with pain.
- 2) Pittaja Arsha - Yellowish red polyp with pain and burning.
- 3) Kaphaja Arsha - Whitish or pale polyp sticky with severe itching.
- 4) Paktaja Arsha - Dark red coloured polyp with pain, burning sensation and bleeds on touch.

Treatment :-

- 1) Medical 2) Surgical 3) Kshara karma
(Chemical cauterisation) 4) Agni karma
(Electric cauterisation)
5) Treatment like Nasa arsha.

1821) KARNA SHOPHA (AURAL OEDEMA)

It is 4 types 1) Vataja 2) Pittaja 3) Kaphaja 4) Sannipathaja (General description as like in Kaya chikitsa).

It causes pain, discomfort, otorrhoea, and deafness.

Treatment :- 1) Like aural polyp or Nasal polyp. 2) Pratishtaya, Karma srava, Poothi Karma and Vrana chikitsa should be done.

22-28) KARNA ARBUDA

(Tumours of ear)

Vitiated vataadi doshas by deranging twak, raktha, mamsa etc dhatus produce 7 types of arbudus, they are,

- 1) Vataja 2) Pittaja 3) Kaphaja 4) Raktaja 5) Medaja 6) Mamsaja 7) Siraaja.

"Description is as like in Kaya Chikitsa."

Clinical features :- earache, discomfort, otorrhoea, deafness, vertigo and meningeal, non-meningeal complications.

"Arbudus are commonly non suppurative in nature (Apakwa) due to the predominance of Kapha and medo dhatu

Treatment :-

- 1) In Non Suppurative stage should treat like shophā.
 - 2) If suppurates should treat by incision and drainage.
 - 3) Vrana chikitsa.
 - 4) Hard non suppurative compulsive tumour should be excised.
- Note :-** These can be correlated to benign and malignant tumours of middle ear.

BAHYA KARNA ROGAS

(Diseases of Auricle) by Vagbhata

Additionally vagbhata explained 10 diseases of external ear.

- 1) Diseases of karna Shaskuli are 3
- 2) Diseases of Karna Pail are 7
- Total = 10

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1) Kuchi Karnika :-

It is an incurable, congenital abnormality of the auricle (Karna Shaskuli), affects during the pregnancy by the vitiation of vata dosha in which the auricle becomes smaller or contracted, is known as Kuchi Karnika.

Treatment :- It is Asadya vyadhi (Uncurable).

2) Karna Pippali :-

It is also an incurable, congenital disease of the ear, affects during the pregnancy by the vitiation of vata dosha, in which a painless immobile growth resembling the Pippali develops on auricle (Karna Shaskuli), is known as Karna Pippali.

Treatment :- It is also Asadya vyadhi (Uncurable)

3) Karna Vidarika :-

It is also an incurable congenital as well as acquired disease of the auricle (Karna shaskuli), affects by the vitiation of tridoshas, in which a painful same coloured suppurative oedema develops with itching sensation, if not treated in time discharges foul exudate resembling sarshapa taila and causes structural deformity after healing.

Treatment :- Asadya vyadhi (uncurable) But can try like Karna vidradi.

4) Pali sosha :-

The vitiated vata dosha causes atrophy of the Karna Pali (ear lobule).

Treatment :- 1) Like the treatment of Vatai Karna shoola.

2) udvarthana (rubbing at the lesion) with the powders of Tila, priyala beeja, yashtimadu, Ashwagandha, Yava etc.

3) Abhyanga with Brumhana snehas (Oil prepared with shatavari ashwagandha, jeevani, Jeevaka, erenda, cow milk and Tila taila) 4) Sweda 5) Lepas 6) nasya 7) Surgery :- The fresh part of the lobule should adjoin to the atrophic part.

5) Tankrika :-

The vitiated Vata dosha changes the Karna Pali into a thin hard wire (Tantri) So named as Tankrika.

Treatment :- 1) It is Yappa vyadhi 2) Abhyanga and mardana with Valahara Brumhana snehas to nourish the lobule (Karna pali)

6) Pari Pota :-

Conducting Karna vyadana to the aged instead of children causes inflammation of the lobule (cracking redness oedema and pain) due to the vitiation of Vata dosha, is known as paripota.

Treatment :- 1) Valahara Chikitsa. 2) Abhyanga and mardana with Brumhana snehas. 3) Sholahara, shoolahara chikitsa.

7) Uthpaata :-

It is an inflammatory condition of the lobule (pita and raktha vitates) occurs by putting heavy ornaments to the ear lobule. The clinical features are pain, burning sensation, blister formation, blackish discoloration and suppurative oedema with discharge.

Treatment :-

1) Jalauka mokshana to remove impure blood from the lesion.
2) Cool applications to the site.
3) Application of medicated pastes, oils, ghee etc which reduce the Raktha and pita vitiation.

4) Abhyanga with Jambwadilali (the oil is prepared with jambu, amra pallava, Kanji and Tila taila.)

5) Anti inflammatory and wound healing therapy should give.

8) Unmantha Or Gallira :-

Vitiated Kaptha and Vata produces a painless, immobile, same coloured oedema on Karna pali with itching sensation is known as unmantha.

Treatment :- 1) Abhyanga with the snehas which reduce the vitiation of Kaptha and vata (Godhaa Karka Vasadi taila).

2) Nasya with Katphaladi Choorna Or with the oil prepared with Tulasi, Langali, Taila.

9) Dukkha vardana :-

Tridoshas vitiate due to improper Karna Vyadana and improper widening of the hole of the lobule causes pain, oedema, burning sensation, itching sensation and discharge.

Treatment :- 1) Laksha Vidangadi taila abhyanga.

2) Vrana Chikitsa (Wound healing therapy)

10) Lehya or Parilehika :-

Vitiated Kaptha Raktha doshas and krimi causes inflammation of the lobule (Pustules pain, itching and exudation) if it is not treated in time causes destruction of the lobule.

Treatment :-

1) Vidangadi Lepa with Avi mutra. 2) Application of the paste of kutaja, ingudee, karanja Aogwada valkala + Avi mootra (sheep's urine) 3) Application of the Oil prepared with above drugs + Nimba Patra, maricha, madan phala and sarshapa taila. 4) Sudation (Swedan) with cow's faecal material. 5) Krimighna treatment therapy.

TREATMENT OF INJURED AND BLEEDING LOBULE :-

- 1) Setting of the lobule without irregularities.
- 2) Application of Honey and ghee to the lesion.
- 3) Dusting the powders of gyrika and Yashtimadu.
- 4) Bandage (Yaugika bandana) upto 7 days.
- 5) After healing, Lengthening of the lobule should be done by the application of Karma vardana taila

6) Karma Vardana sneha :-

The medicated ghee is prepared with, jala shooka (algae), swayam gupta, Haridra dwayam, Bruhati dwaya, Ashwagandha, Bala, Gaja pippli, Swetha sarshapa, karaveer, Atka, Saptha parni, the mud house of chuchundari and madhukaree, Lakshna, Jalauka, Rasana, Hasti and Ashwa Mootra, Tila taila and Mahisha gritha.

Karma Vyadana Vidhi :-

It is done not only for wearing ornaments but also for prevention of the diseases. It is done in the children at 6th or 7th month of age, in a good day dhatri should hold the child and the doctor while pulling the ear with his left hand has to do karma vyadana with his right hand at Diva krutha chidra. Karma vyadana should do first to the right ear in male child and to the left ear in female child.

In samyak (proper) Karma vyadan pain and bleeding is minimum.

If Karma vyadana is improperly done it causes 1) Kalika sira viddha (wara, dala shoola shochha) 2) Marmatika sira viddha (jawara shool and vrana) 3) Lohitika sira viddha (manyas stamba, apatanak, shirograh and karma shoola) etc complication.

Karma Bandhan :-

While wearing the heavy ornaments to the ear or widening the ear lobule or by the punctishments of rings to the victims there were ear abnormalities, for correcting those problems 15 types of Karma bandhanas were explained by sushruta. They are.

- 1) Nemi sandhanak :- The ear lobule is equally cut but becomes lengthy and thick.
- 2) Uthphala bhedak :- The ear lobule is equally cut but becomes round and thick.
- 3) Vallurak :- The ear lobule get atrophied, but both the halves are equal in size.
- 4) Asangima :- Among the 2 halves of cut lobule only inner lengthy part is existing (outer half gets atrophied).
- 5) Ganda Karma :- Among the 2 halves of cut lobule only outer lengthy part is existing (inner half gets atrophied).
- 6) Aaharya :- Both halves of cut lobule mostly destructed.
- 7) Nirvedak :- Complete lobule get atrophied so karma vyadhan should be done to karma putika, then karma vardana has to do.

8) Vyayojima :- Among the 2 halves of cut lobule one is normal and the other is smaller and irregular.

9) Kapat Sandhik :- Among the 2 halves of lobule inner half is lengthy and outer half is smaller.

10) Artha Kapat Sandhik :- Among the 2 halves of cut lobule, the outer half is lengthy and inner half is smaller.

11) Samkshepitha :- Among the 2 halves of cut lobule, outer half is atrophied and inner half becomes smaller.

12) Heena karma :- Complete atrophy of lobule with the base.

13) Valle Karma :- Very small thin and irregular lobule.

14) Yasti Karma :- Hard vascularised very small lobule.

15) Kakaustak :- Emaciated constricted small lobule like the beak of crow.

Treatment for above (15 types of abnormalities).

SANDHANA KARMA

A) 1st, 2nd, 3rd types - Both the halves of lobule are in same size so proper setting and bandhana should be done.

B) a) 4th (Asangima) The inner lengthy half should be cut and joined to the outer half.

b) 5th (Ganda Karma) The outer lengthy half should be cut and joined to the inner half

C) 6th (Aaharya) - Lobule mostly destructed so the tissue is collected from the cheeks and grafted to the lobule.

D) 7th (Nirvedak) complete lobule gets atrophied so Karma vyadan should do to the karma patika then Karma Vardana should do.

E) 8th, 9th, 10th, -- In these 3 types one half is lengthy than other- so the lengthy part should adjoin with shorter.

F) 11 to 15 Asadya.

After proper adjoining therapy the irregularities are corrected by

- 1) Ulsadan Karma 2) Avasadan karma 3) Mrudu Karma 4) Daruna Karma 5) Krishna karma 6) Pandu Karma 7) Roma Sanjanan Karma 8) Romapaharan karma etc.,

NASA ROGA DISEASES OF THE NOSE

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नासारोग

कारण

संधारणाजीर्णरजोतिभाष्यक्रोधतुलैषम्यशिरोभितापैः।
प्रजागरातिस्वपनाम्बुशीतैरवश्यायमैथुनवाष्पभूमै ॥
संस्थानदोषे शिरसि प्रवृद्धो वायुः प्रतिश्यायमुदीरयेत्।

(च० चि० २६)

नारीप्रसङ्गः शिरसोभितापो धूमोरजः शीतमतिप्रतापः
संधारणं मूत्रपुरीषयोश्च सद्यः प्रतिश्यायनिदानमुक्तम्

(सु.उ.अ.२४)

अवश्यायानितरजोभाष्यातिस्वप्नजागरैः।
नीचात्पुच्छोपधानेन पीतेनान्येन वारिणा ॥
अत्युम्बुपानरमणच्छर्दिबाष्पग्रहादिभिः।
कुब्जा वातोल्वणा दोषा नासायां स्थानतांगताः ॥
जनयन्ति प्रतिश्यायं वर्धमानं क्षयप्रदम् ॥

(अ.ह.उ.अ.१९)

नासा रोग संख्या

अपीनसः पूतिनस्यं नासापाकस्तथैव च।
तथा शोणितपित्तं च पूयशोणितमेव च ॥
क्षवशुभ्रं शशुर्दीप्तो नासानाहः परिरक्तवः।
नासाशोषेण सहिता दशैकाश्चेतिता गदाः ॥
चत्वार्यर्शांसि चत्वारः शोफाः सप्तार्बुदाणि च।
प्रतिश्यायाश्च ये पंच वक्ष्यन्ते सचिकित्सिताः।
एकत्रिंशन्मितास्ते तु नासारोगाः प्रकीर्तिताः ॥

(सु.उ.अ.२२/३,४,५)

प्रतिश्याय सम्प्रति

चयं गता मूर्धनि मारुतादयः पृथक् समस्ताश्च तथैव शोणितम्।
प्रकोप्यमाणा विविधैः प्रकोपणैर्नृणां प्रतिश्यायकरा भवन्ति ॥

(सु.उ.अ.२४/४)

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प्रतिशयाय का पूर्वरूप

शिरोगुरुत्वं क्षवधोः प्रवर्तनं तथाङ्गमर्दः परिहृष्टरोमता ।
उपद्रवक्षायपरे पृथग्विधा नृणां प्रतिशयायपुरःसराः स्मृताः ॥

(सु.उ.अ. २४/५)

1. वातिकप्रतिशयाय लक्षण

अनङ्गा पिहिता नासा तनुस्त्रावप्रवर्तिनी ।
गलताल्वोष्ठशोषश्च निस्तेदः शङ्खयोस्तथा ॥
स्वरोपघातश्च भवेत् प्रतिशयायेनितान्मके ।

(सु.उ.अ. २४/६)

तत्र वातात् प्रतिशयाये मुखशोषो भृशं क्षवः ॥
घ्राणोपरोधानिस्तोदन्तशङ्खशिरोव्यधः ।
कोटिका इव सर्पन्तीर्मन्यते परितो भ्रुवौ ॥
स्वरसादश्चिरात् पाकः शिशिराच्छकफफ्रुतिः

(अ० ह० उ० अ० १९)

2. पैंतिक प्रतिशयाय

उष्णः सपीतकः स्रावो घ्राणात् स्रवति पैंतिके ॥
कृशोतिपाण्डुः सन्तप्तो भवेत्पृष्णानिपीडितः ।
सधूमं सहसा वह्निं वमतीव च मानवः ॥

(सु.उ.अ. २४/७,८)

पित्तपृष्णज्वरघ्राणपिटिकासम्भवभ्रमाः ॥
नासाग्रपाको रक्षोष्णताम्रपीतकफफ्रुतिः

अ. ह. उ. अ. १९

3. कफज प्रतिशयाय

कफः कफकृते घ्राणाच्छुक्लः शीतः स्रवेन्मुहुः ।
शुक्लावभासः शूनक्षो भवेद् गुरुशिरोगुहः ॥
शिरोगालौष्ठतालूनां कण्डूयनमतीव च ।

(सु.उ.अ. २४/९)

कफात् कासोसचिः श्वासो वमधुर्गार्गकौरवम् ॥
माधुर्यं वदने कण्डुः स्निग्धशुक्लकफफ्रुतिः ।

(अ० ह० उ० अ० १९)

4. त्रिदोषज प्रतिशयाय

भूत्वा भूत्वा प्रतिशयायो योकस्माद् विनिवसते ॥
संपक्वो वापक्वो वा स सर्वप्रभवः स्मृतः ।
लिङ्गानि चैव सर्वेषां पीनसानां च सर्वजे ॥

(सु.उ.अ. २४/१०, ११)

सर्वजो लक्षणैः सर्वैरकस्माद् वृद्धिशान्तिमान् ॥

(अ० ह० अ० १९)

5. रक्तजप्रतिशयाय

रक्तजे तु प्रतिशयाये रक्तास्त्रावः प्रवर्तते ।
ताम्राक्षश्च भवेज्जानुरोधातप्रपीडितः ॥
दुर्गन्धोच्छ्वासवदनस्तथा गन्धान्न वेति च ।
मूर्च्छन्ति चात्र कृमयः श्वेताः स्निग्धास्तथाणवः ॥
कृमिमूर्धविकारेण समानं चास्य लक्षणम् ।

(सु.उ.अ. २४/१२, १३)

दुष्टं नासासिराः प्राप्य प्रतिशयायं करोत्यसृक् ।
उरसः सुप्तता ताम्रनेत्रत्वं श्वासपूतिता ॥
कण्डुः श्रोत्राक्षिनासासु पित्तोक्तं चात्रलक्षणम् ।

(अ० ह० उ० अ० १९)

दुष्टप्रतिशयाय

प्रकृताद्यति पुनर्नासा पुनश्च परिशुष्यति ॥
मुहुरानहते चापि सुहृर्विचित्रते तथा ।
निःश्वासोच्छ्वासदौर्गन्ध्यं तथागन्धान्न वेति च ॥
एवं दुष्टप्रतिशयायं जानीयात्कृच्छ्रसाधनम् ।

(सु.उ.अ. २४/१४, १५)

प्रतिशयाय के उपद्रव

सर्व एव प्रतिशयाया नरस्यापत्तिकारिणः ॥
कालेन रोगजनना जायन्ते दुष्टपीनसाः ।
बाधैर्मनाभ्यन्मन्त्राणां घोरैश्च नयनामयात् ॥
कासाग्निनासदशोर्नाशे वृद्धाः कुर्वन्ति पीनसाः ॥

(सु. उ. अ. 24/16, 17)

6. अर्पणस या पीनस

आनहते यस्य विधूयते च प्रकृतिघाते शुष्यति चापि नासा ।
न वेत्ति यो गन्धरसांश्च जनुर्जुष्टं व्यवस्ये तमपीनसेन ॥
तं चानिलश्लेष्मभवं विकारं ब्रूयात् प्रतिशयायसमानलिङ्गम् ।

(सु. उ. अ. २२/6)

कफः प्रवृद्धो नासायां रद्ध्वा स्तोतैर्यपीनसम् ।
कुर्यात् समुर्ध्वश्चासं पीनसाधिकवेदनम् ॥
अवेरिव स्तवन्त्यस्य प्रस्त्रिन्ना तेन नासिका ।
अजस्रं पिच्छिलं पीतं पक्वं सिङ्गाणकं घनम् ॥

(अ० ह० उ० प्र० १९)

आम वा अपक्वपीनस

अलविर्विरसं वक्त्रं नासास्तावो रज्ज्वरतिः ।
शिरोगुरुत्वं क्ष्वशुर्ध्वश्चामस्य लक्षणम् ॥
पक्व पीनस
तनुत्वमालिङ्गानां शिरोनासास्यलाघवम् ।
घनपीतकफत्वं च पक्वपीनसलक्षणम् ॥

7. पूतिनास या पूतिनस्य

दोषैर्विदग्धैर्गताद्युभूते संवासितो यस्य समीरणस्तु ॥
निरति पूतिर्मुखनासिकाभ्यां तं पूतिनासं प्रवदन्ति रोगम् ॥

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(सु. उ० अ० २२/7)

तालुमूले मलैर्दुष्टैर्मारुतो मुखनासिकात् ।
श्लेष्मा च पूतिर्निच्छेद् पूतिनासं वदन्ति तम् ॥

(अ० ह० उ० अ० १९/23)

8. नासापाक वा नासिकापाक

घ्राणाश्रितं पित्तमरुणेषु कुर्याद् यस्मिन् विकारे बलवांश्च पाकः ॥
तं नासिकापाकमिति व्यवस्येद् विकलेदकोशवापि यत्र दृष्टौ ॥

(सु. उ० अ० २२/8)

पक्वेनासापुटे पितं त्वङ्मांसं दाहशूलवत् ॥

(अ० ह० उ० अ० १९)

9. नासागत रक्तपित्त

चतुर्विधं द्विभवं द्विभागं वक्ष्यामि भूयः खलु रक्तपित्तम्

(सु. उ०)

10. पूयरक्त

दोषैर्विदग्धैरश्ववापि जन्तोर्लाटादशेभिहतस्य तैस्तु ।
नासा स्तवेत् पूयमसृग्विमिश्रं तं पूयरक्तं प्रवदन्ति रोगम् ॥

निचयादिभघाताद्वा पूयासृङ् नासिका स्तवेत् ।
तत् पूयरक्तमाख्यातं शिरोदाहरजाकरम् ॥

(अ० ह० उ० अ० १९)

11. क्ष्वशु

दोषज क्ष्वशु

घ्राणाश्रिते मर्मणि संप्रदुष्टे यस्यानिलो नासिकया निरेति ॥
कफानुयातो बहुशः सशब्दस्तं रोगमाहुः क्ष्वशुं विधिज्ञाः ॥

(सु. उ० २२/अ०)

आगन्तुक्ष्वशु

तौक्ष्णोपयोगादतिजघ्रतो वा भावान् कटून्कनिरीक्षणाद्वा ॥
सूत्रादिभिर्वा तरुणास्त्रिमर्षयुद्घाटितेभ्यः क्ष्वशु निरेति ॥

(सु. उ. अ. 22)

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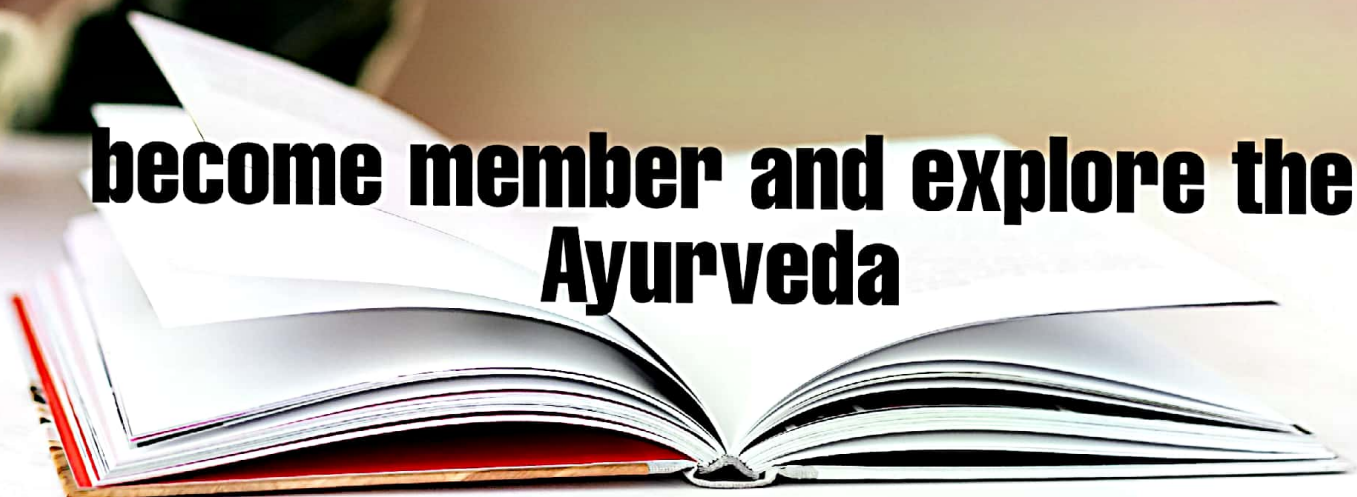
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भृषक्षव

तीक्ष्णप्राणोपयोगकरश्मिसुत्रतृणादिभिः ।
वातकोपिभिलरन्वेर्वा नासिकातरुणास्थनि ॥
विवाट्टितेनिलः कृद्धो रुद्धः शृङ्गाटकं ब्रजेत् ।
निवृत्तः कुस्तैर्यथं ज्वयं स भृशज्वः ॥

(अ० ह० उ० १९ अ०)

12. भ्रंशशु

भ्रश्यते नासिकयैव यश्च साद्रो विदधो लवणः कफस्तु ॥
प्राक्संचितो मूर्धनि पित्ततप्तस्तं भ्रंशशुं व्याधिमुदाहरन्ति ॥

(सु० उ० अ० २२)

13. दीप्त

घ्राणे भृशं दाहसमन्विते तु विनिःसरेद् धूम इवेह वायुः ॥
नासा प्रदीप्येव च यस्य जन्तोव्याधिं तु तं दीप्तमुदाहरन्ति ॥

(सु० उ० अ० २२)

रस्ते नासा दग्धेव बाह्यान्तःस्पर्शनासहा ।
भवेद् धूमोपमोच्छ्वाससा सा दीप्तिर्दहतीव च ॥

(अ० ह० उ० अ० १९)

14. नासानाह वा नासा प्रतिनाह

कफावृत्तो वायुरुदानसंज्ञो यदा स्वमार्गो विगुणः स्थितः स्यात् ॥
घ्राणं वृणोतीव तदा स रोगो नासाप्रतीनाह इति प्रदिष्ट ॥

(सु० उ० अ० २२)

नासानाहे तु जायते
नद्धत्वमिव नासायाः श्लेष्मरुद्धेन वायुना ॥
निःश्वासाच्छ्वाससंरोधात् स्रोतसी संवृते इव ।

(अ० ह० उ० अ० १९)

15. नासास्त्राव

अजस्रमच्छं सलिलप्रकाशं यस्याविवर्णं स्रवतीह नासा ॥
रात्री विशेषेण हि तं विकारं नासापरिस्त्रावमिति तं व्यकस्येत् ॥

(सु० उ० अ० २२)

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स्त्रावस्तु तत्संज्ञः श्लेष्म संभवः
अच्छोजलोपमोजस्रं विशेषान्निशि जायते ॥

(अ० ह० उ० अ० १९)

16. नासा शोष या नासा परिशोष

घ्राणाश्रिते श्लेष्माणि माकृतेन पित्तेन गाढं परिशोषिते च ॥
समुच्छ्वसित्यूर्ध्वमधश्च कृच्छ्राद्यस्तस्य नासापरिशोष उक्तः ॥

(सु० उ० २२ अ०)

शोषयन्नासिकाश्लेताः कफं च कुरुतेनिलः ।
शूकपूर्णाभनासात्वं कृच्छ्रादुच्छ्वसनं ततः ॥

(अ० ह० उ० अ० १९)

पुटक रोग

पित्तश्लेष्मावरुद्धोन्तर्नासायां शोषयेन्मरुत् ।
कफं, स शुष्कः पुटतां प्राप्नोति पुटकं तु तत् ॥

(अ० ह० उ० अ० १९)

17 से 23) अर्बुद

स्त्रोताः पथे यद्विपुलं कोशवच्चार्बुदं भवेत् ॥

(सु० उ० अ० २२)

24 से 27) शोफ

शोफास्तु शोफविज्ञाना नासास्त्रोतो व्यवस्थिताः ।
निदानेशीसि निर्दिष्टान्येवं तानि विभावयेत् ॥

(सु० उ० अ० २२)

28 से 31) अर्श

नामार्शः के लक्षण साधारण अर्शः की तरह हैं । इसके भेद 4

(सु० उ० अ० २२)

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NASA SHAREERA

In Ayurvedic sciences the detailed description of NASA SHAREERA is not available like in Netra shareera. But the following points are explained in brief.

Gharandhūm is one among pancha Gyanendriya. It develops to the fetus in the 3rd month of intra uterine period.

Indriya Gharandhūm (only one)

Indriya adhishtana

Nasa (2 nostrils)

Indriya dravya

Pruthwi Precoincident

Indriya dhatu

Gandha

Indriya buddhi

Ghrana buddhi

The finalisation of smell sense is by the Indriya buddhi

1) Nasa Pura pramanam $1 \frac{1}{3}$ or $2 \frac{2}{3}$ Angula

2) It contains Tarunasti (Cartilage) and 3 bones.

3) It contains 2 Balya srotas

4) It contains 2 Peshi (muscles)

5) It contains 2 ghana marma and shringgatak marma

a) Piana marmas are Sira marma, Vikalya Kara marmas

Atirangula pramana. If damaged causes loss of smell sensation.

b) shringgatak marma nourishes the nose, if damaged causes immediate death.

6) It contains 24 Sivas (6 Vata vahini, 6 pitta Vahini

6 Kapha Vahini, and 6 Raktha Vahini.)

Among 24 Sira 4 are avechhya .2 are for smell sensation.

7) It contains 2 Damani for smell sensation.

SOME WORDS RELATED TO NASA

1) Masa, ghrana, nasika are synonyms

2) Masa nadi, nasa srotas, ghrana marga, means nasal cavity.

3) Masa tarunasti = Nasal cartilage

4) Ghrana asti = Nasal Bone.

5) Nasagra = Tip of the nose.

6) Grana moola = Root of the nose.

7) Nasaasti danda = Bridge of the nose.

8) Ghrana randra = Anterior nares

9) Nasa Pashchaath randra = Posterior nares.

10) Ganda vah damani = Olfactory nerves.

11) Balya Masa = External nose.

12) Nasa guha = Nasal cavity.

13) Ganda ghrana = Olfaction.

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ANATOMY OF NOSE

External Nose :-

The external nose is pyramidal in shape composed of bone, cartilage, and soft tissue. The base of pyramid is perforated by two orifices, called anterior nares or Nostrils. They are separated by a median partition called columella. The root of the nose is the junction of it with forehead, the tip of the nose is called the apex, the dorsum of the nose is the anterior border joining the root with Apex, the upper bony portion of the dorsum is called the bridge of the nose, the rounded eminence at the lower end of the sides are named ala nasi.

The Bony portion of the Nose is formed by a) Nasal bones, b) Nasal process of maxillae and c) Nasal process of frontal bone. The cartilaginous portion is formed by paired and unpaired cartilages. Paired cartilages are a) upper nasal cartilages b) Lower nasal cartilages or greater alar cartilages c) Lesser alar cartilages or Accessory alar cartilages. d) Vomer nasal cartilages. and unpaired cartilage is the septal cartilage.

1) upper nasal cartilages are 2 in number triangular in shape attached above to the lower borders of the nasal bones and medially to the dorsum of the septal cartilage.

2) Lower Nasal cartilages or greater alar cartilage are bend around to form the contour of the ala and the nasal tip, the medial crus of this cartilage joins with it's opposite to form the columella

3) smaller alar cartilage situated posterior to the lateral crus of Lower Nasal cartilage.

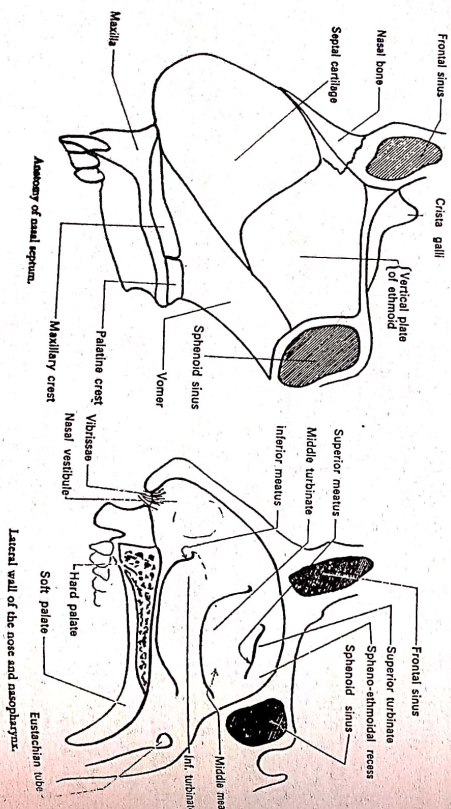
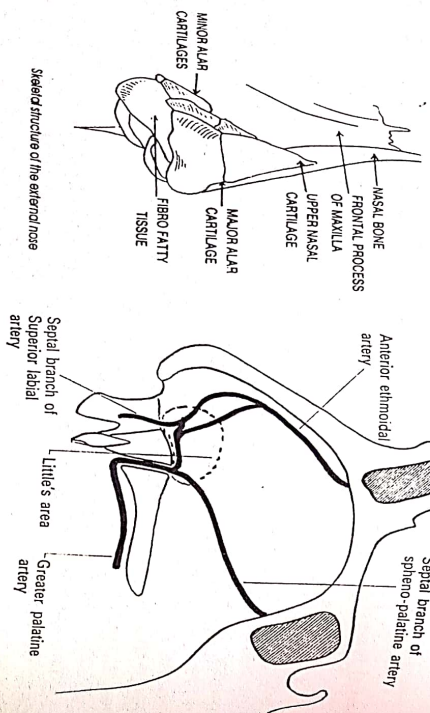
4) Vomer nasal cartilage lie on either side of the postero inferior edge of the septal cartilage and are attached to the vomer bone.

5) Septal cartilage- septum divides the nasal cavity in to two halves. Anterior Quadrilateral part is septal cartilage and posterior portion is the bony septum.

Muscles of the external Nose.

- 1) Dilators and Compressors of the nostrils
- 2) Depressors and elevators of the alaenasi

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Blood Supply of external Nose:- Facial and Ophthalmic arteries.

venous drain :- In the anterior facial and Ophthalmic veins.

Lymphatics :- Drain into sub mandibular and preauricular lymph glands.

Nasal Cavity :-

It lies below the cranial cavity, above the oral cavity and in between the orbits. Nasal cavity is divided into two halves by Nasal septum. Each Nasal cavity communicates with nasopharynx posteriorly through posterior nares or choana and anteriorly to the atmosphere through anterior nares or choana. it also communicates with paranasal sinuses and nasolacrimal duct.

The Nasal cavity is bounded by 1) Lateral Wall 2) Medial Wall 3) Roof

4) Floor.

1) Lateral Wall :-

It is mainly formed by medial wall of maxilla, lateral mass of ethmoid, other smaller parts are formed by Ascending process of maxilla, perpendicular plate of palatine bone and medial pterygoid process of sphenoid bone.

It contains ridges (Turbينات or choncha) and depressions (meatus below to the turbinates.) There are 3 turbinates and 3 meatus superior middle and inferior respectively. Superior and middle turbinates are the part of ethmoid bone while the inferior turbinate is the separate bone.

Anterior part of the lateral wall is formed by the inner aspect of Nasal bones, anterior part of body of maxilla, frontal process of maxilla and a portion of inferior turbinate. Middle part of the lateral wall is formed by the medial surface of ethmoid labyrinth, superior and middle turbinates and the pterygoid plates. In the upper part is the sphenopalatine foramen.

Meatus is the depression area below the turbinates, 3 in number - superior middle and inferior meati, various ducts opens in to meati they are as follows.

- 1) Naso Lacrimal duct opens into inferior meatus.

2) Into Middle Meatus.

- a) Frontal sinus, Anterior ethmoidal cells open into anterior part of the meatus.
- b) Middle ethmoidal cells open into middle meatus above the hiatus semilunaris.
- c) Maxillary sinus opens in the posterior part of the hiatus semilunaris (in the middle meatus there is a bulge known as Bulla ethmoidalis and hiatus semilunaris is the semilunar gap below it).

3) Into Superior Meatus :-

Posterior ethmoidal cells open. Above and behind the superior turbinate a small depression known as spheno ethmoidal recess present in which the sphenoid sinus opens.

II) Medial Wall :-

Nasal septum form the medial wall of the Nasal cavity, it has bony (Posteriorly) and cartilaginous (Anteriorly) parts.

1) Bony part of the septum is formed by

- a) *Postero - inferiorly by the vomer bone.*
- b) *Postero superiorly by perpendicular plate of ethmoid.*
- c) *Nasal spine of frontal bone joins the ethmoid plate.*
- d) *Postrium of sphenoid between the vomer and ethmoid plate.*
- e) *Nasal crest of two maxillae and palatine bones.*

2) Cartilaginous part of nasal septum :-

It is quadrilateral cartilage attached postero superiorly to the perpendicular plate of ethmoid bone, posteriorly to the antero-inferior border of vomer, inter nasal crest superiorly and to the nasal crest of the maxilla and anterior nasal spine inferiorly.

III) Floor :-

The floor of the nasal cavity is formed by palatine process of maxilla and two horizontal plates of palatine bone.

IV) Roof :-

The roof of the nasal cavity is formed by 2 nasal bones, under surface of nasal spine of frontal bone, cribriform plate of ethmoid bone and under surface of body of sphenoid bone.

Blood Supply of Septum & Nasal Cavity :-

- (From External and internal carotid artery).
- 1) Long speno palatine branch of the internal maxillary artery (Main blood supply to septum).
 - 2) Anterior and posterior ethmoidal branches of the ophthalmic artery - supplies to upper part of lateral wall and upper and posterior part of septum.
 - 3) Terminal branches of greater palatine artery supplies to antero inferior part of septum, floor and Lateral Wall.
 - 4) Superior labial artery branch of facial artery supplies to septum and nasal alae.

Note :- Most of Blood vessels get anastomosed at antero inferior part of septum called (Keissel-bach's plexus) Little's area. This is the common site of Nasal bleeding.

Venous drainage :- Anteriorly into facial vein posteriorly into pharyngeal plexus of veins and middle part into pterygoid plexus. of veins.

Nerve Supply :-

Respiratory Portion :- Is supplied by

- 1) Anterior ethmoidal branch of nasociliary nerve
- 2) Spheno palatine Nerve
- 3) Greater palatine Nerve
- 4) Anterior superior dental nerve
- 5) Sympathetic and parasympathetic nerve fibres.

From the olfactory portion filaments pass through foramina of cribriform plate of ethmoid and end in the olfactory bulb.

Lymphatic drainage :-

External and anterior part of Nose into sub mandibular lymph nodes. Rest of the nose into deep cervical lymph nodes.

Paranasal Sinuses :-

Paranasal sinuses are the spaces filled up with air in certain skull bones in relation to nose, they are divided into 2 groups as follows

1) Anterior group :- a) Maxillary Sinuses (Antium of high more)

- b) Frontal sinuses.
- c) Anterior group of ethmoidal sinuses. these sinuses drains into middle meatus.

2) Posterior group :-

- a) Posterior group of Ethmoidal sinuses. drains, into superior meatus.
- b) Sphenoidal sinuses. drains into spheno ethmoidal recess.

All these sinuses are lined with respiratory epithelium (pseudo stratified columnar ciliated epithelium) The movement of the cilia in the paranasal sinuses is directed towards the nasal cavity.

1) **Maxillary sinus** (Antrum of Highmore) This is pyramidal cavity in the maxilla, sinus cavity may be divided into small spaces by bony septa. It is the largest of the paranasal sinuses with 15CC capacity. Base lies medially and Apex lies in the zygomatic portion of maxilla. It has 5 walls. 1) Medial wall - Or base of the antrum is the part of lateral wall of Nose. Opening lies beneath the roof of the antrum medially so only unfavourably placed for the drainage of cavity 2) Roof of the sinus is formed by the floor of the orbit It is grooved by Infraorbital Nerve. 3) Floor of the sinus lies about 1cm below the level of nasal cavity and is formed by alveolar process of maxilla - so there is every possibility for spreading of infection from pre molar and molar teeth roots. 4) Anterior lateral wall :- It is formed by anterior part of body of maxilla it containing Infra orbital foramin. 5) Posterior wall is formed by posterior surface of maxilla, it separates the sinus from pterygo palatine fossa.

The opening of maxillary sinus is in the posterior part of the hiatus semilunaris between bulla ethmoidalis and the uncinate process of ethmoid bone, on the lateral wall of nose. below the middle turbinate.

Blood Supply :- Infra orbital facial and greater palatine arteries.

Nerve Supply :- Infra orbital Nerve and anterior posterior alveolar nerves

Lymphatic drainage - sub mandibular and Retro pharyngeal Nodes.

Frontal Sinuses :-

Frontal sinus capacity is 1cc, it has 3 walls, the 2 sinuses are unequal in size and are separated by medial wall.

1) **Anterior wall** Formed by the outer table of frontal bone 2) **Posterior wall** is thin and separates the sinus from cranial fossa. 3) **Floor** is formed by a thin bone separating the sinus from the orbit.

Frontal sinus is drained by the fronto nasal duct which opens in the anterior part of the middle meatus.

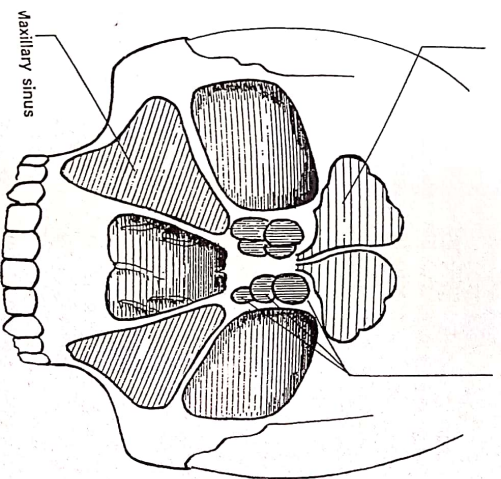
Blood Supply :- Supra orbital artery.

Nerve Supply :- Supra orbital nerve.

Lymphatic drainage :- Sub mandibular lymph nodes.

Ethmoidal sinuses :-

There are 3 groups of ethmoidal sinuses having approximately 15 to 20 ethmoidal cells on either sides. They occupy the ethmoidal bone. Anterior, middle They occupy the ethmoidal bone. Anterior, middle ethmoidal cells drains in the middle meatus and posterior ethmoidal cells drains into the superior meatus.



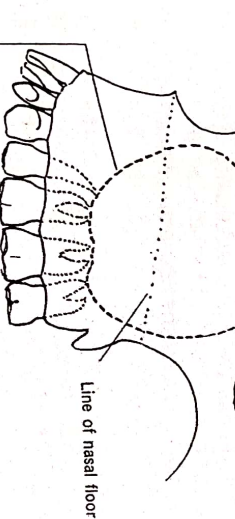
Relationship of nasal sinuses (anterior view)

Maxillary sinus

Ethmoidal sinuses

Sphenoidal sinus

Line of edge of middle turbinate



Line of maxillary sinus

Relationship of nasal sinuses. Note relation of tooth roots to maxillary antrum.



Testing for tenderness of maxillary sinus



Acute frontal sinusitis causing cellulitis of the eye lids

Relations :-

Superiorly - Cranial fossa, laterally orbit, optic nerve and naso lacrimal duct, medially Nasal cavity, superior and middle turbinates, inferiorly maxillary sinus, posteriorly sphenoidal sinus. Anteriorly external nose.

These sinuses are supplied by anterior and posterior ethmoidal Nerves and vessels.

The Sphenoidal Sinus :-

Sphenoid sinuses develop in the body of the sphenoid bone, the two sinuses are unequally divided by a septum, the capacity of each sinus is about 1cc. The opening of the sinuses is situated in the upper part of the anterior wall, it drains in the superior meatus through the sphenoidal recess.

Superiorly :- The sinus is related to the frontal lobe olfactory tracts, optic chiasma, pituitary body and pons. **Lower part of anterior wall** is related to vessels and nerves from the sphenopalatine fossa. **The floor** is related to nasopharynx with vidian nerve. **Posterior wall** or basipheneoid is related to the basilar artery and brain stem. **Lateral wall** is related to the cavernous sinus with internal carotid artery and optic nerve. **anteriorly** related to Nasal cavity.

PHYSIOLOGY OF NOSE AND PARANASAL SINUSES

Functions of the Nose :-

- 1) **Respiration** - Inspired air passes upwards in a narrow stream medial to the middle turbinate and then down wards and back wards in the form of an arc, mouth breathing is an acquired lesion due to the nasal obstruction.
- 2) **Olfaction** :- The olfactory mucosa is located in roof of the nasal cavity adjacent area to superior turbinate and upper part of septum. Olfactory cells are distributed in the olfactory mucosa. The exact theory of olfaction is still unknown But the odoriferous material reaches the olfactory area by diffusion, the olfactory cells are stimulated and carries the smell sensation to the olfactory bulb of brain.
- 3) **Purification of (Filtration)** inspired air carried out by vibrissae (Nasal hair) of nasal vestibule (filter the coarse particles), cilia (remove the smaller particles) and by lysozyme enzyme of nasal mucosa (Anti bacterial property).
- 4) **Warming and moistening** of cold and dry inspired air (Air conditioning occurs) before reaching the lungs by the highly vascularized Nasal mucosa, if not causes damage to the respiratory tract.

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5) **Resonance** is added to the voice by the nasal cavity and paranasal sinuses and there are also responsible for pronouncing the nasal consonants like M. and N.

6) The Nose acts as the out let (Drainage cavity) for paranasal sinuses and lacrimal apparatus.

7) Nose acts as the ventilating shaft for the Eustachian tube for the equalisation of pressure of air between the external atmosphere and the middle ear cavity through the eustachian tube.

8) Reflexes like sneezing have a protective function on exposure to irritants the respiration may be stopped temporarily to protect the respiratory tract.

FUNCTIONS OF PARANASAL SINUSES

The exact functions of the paranasal sinuses are uncertain. But perform the following functions.

- 1) Protection to the orbit
- 2) Reducing the skull weight (lightening)
- 3) Resonance of Voice.
- 4) Respiratory and air conditioning function up to some extent.
- 5) Rapid growth of face due to formation of sinuses.
- 6) Sinus mucosa acts as donor site for reconstructive procedures. Ex. implantation of maxillary sinus mucosa into nasal cavity in atrophic rhinitis
- 7) Increase surface area for teeth eruption.

NASA PAREEKSHA

Examination of Nose according to Ayurvedic texts.

According to Ayurveda there is no special description of Nasa pareeksha. But in general the description is available like.

- 1) Bahir srotopareeksha (Nose and nasal canal)
- II) Ghvana indria Pareeksha (one among panchendria)

1) Bahir sroto pareeksha includes the common examination of Nose for its size shape position function in this most of points will be covered except nerve perception.

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Ex :-

- 1) Nasal secretory lesions (Rhinitis) pratishyaya, peenasa, pulhi nasya, Puyaraktha etc.
- 2) Obstructive lesions, Nasa pratihana, Arsha, grandhi, vidradi, atbuda
- 3) Inflammatory lesions - (Nasa paka, deepthi)
- 4) Atrophic lesions - (Nasa sosha)
- 5) Asatmyaja (Allergic) - (kshavathu)
- 6) Abhigataja - Traumatic lesions etc.

1) Ghraha indria pareeksha (test for olfaction)

- a) Normal smell sensation
- b) Reduced smell sensation (Hena yoga) (Hyposmia)
- c) Unpleasant change in smell (Mithyayoga) (Parosmia)
- d) Exaggerated smell sensation (Atiyoga) - (Hyperosmia)
- e) Loss of smell sensation (Ayoga) (Anosmia)

So Indria vikar is explained according to hena midhya Ati and Ayoga but the exact etiological factors and methods of examination are not explained.

EXAMINATION OF THE NOSE AND PARANASAL SINUSES

An accurate history of the patient is essential for the correct diagnosis, so the origin duration and progress of each of the following nasal symptoms should be enquired and examined to get a fair idea about the disease; among the following symptoms few or total may present according to the condition of the disease they are,

- 1) Rhinorrhoea (Nasal discharge) 2) Blocking of Nose.
- 3) Sneezing 4) Epistaxis 5) Head ache 6) Disorders of olfaction
- 7) Post nasal drip 8) Speech defects 9) Nasal pain
- 10) Symptoms due to extension of the disease.

1) **Rhinorrhoea :-**

Discharge from the nose may be unilateral or bilateral, it may be watery, mucoid, muco-purulent, purulent or Blood stained.

- a) Watery discharge is usually found in the early stages of common cold, vaso motor rhinitis and C.S.F. Rhinorrhoea.
- b) Mucoid discharge is usually a feature of allergic rhinitis.

- c) Muco purulent discharge is a feature of infective rhinitis and sinusitis.
- d) Purulent discharge is a feature of atrophic rhinitis, furunculosis and foreign bodies in the nose.
- e) Blood stained nasal discharge usually indicates malignancy, old foreign body, rhinolith, nasal diphtheria, rhinosporidiasis etc.

AETIOLOGY OF NASAL DISCHARGE

- | | |
|---|-------------------------------------|
| Unilateral causes | Bilateral causes |
| 1) Old foreign body in the nose in children | 1) Nasal allergy-Vasomotor rhinitis |
| 2) Unilateral sinusitis | 2) Bilateral sinusitis |
| 3) Unilateral choanal atresia | 3) Bilateral choanal atresia |
| 4) Antro choanal Polyp | 4) Ethmoidal polyp |
| 5) Rhinosporidiasis | 5) Atrophic Rhinitis |
| 6) C.S.F. rhinorrhoea | 6) Enlarged adenoids |
| 7) Neoplasms | 7) Diphtheritic rhinitis |
| 8) Rhinolith | 8) Specific Rhinitis |

2) BLOCKING OF NOSE

The following points should be enquired and examined.

- a) Onset is whether congenital (By birth), or acquired (Polyp - DNS Allergy)
- b) If persistent obstruction (Adenoids, D.N.S. polyp) or Temporary obstruction (Allergy)
- c) If unilateral or Bilateral

AETIOLOGY OF NASAL OBSTRUCTION

- | | |
|--|--|
| Unilateral obstructive causes | Bilateral obstructive causes |
| 1) Congenital - unilateral choanal atresia, Atresia of Anterior nares. | 1) Congenital - Bilateral choanal atresia. |
| 2) D.N.S. | 2) Ethmoidal polyp |
| 3) Antro choanal polyp | 3) Nasal allergy (vasomotor rhinitis) |
| 4) Foreign body or Rhinolith | 4) Acute rhinitis and sinusitis |
| 5) Unilateral sinusitis | 5) Chronic sinusitis (Bilateral) |
| 6) Synechia | 6) Diphtheritic rhinitis |
| 7) Hypertrophy of inferior turbinate | 7) Atrophic rhinitis |
| 8) Rhinosporidiosis (unilateral) | 8) Enlarged adenoids |
| 9) Neoplasms | 9) Neoplasms |
| | 10) Rhinosporidiosis (Bilateral) |
| | 11) Antro choanal Polyp (rarely) |
| | 12) Septal abscess |
| | 13) Specific infection. |
| | 14) Rhinitis medicamentosa. |

2) Sneezing :-

Sneezing is the normal nasal reflex to clear the secretion from the nose but some times due to constant nasal mucosal irritation with infection, allergy exposure to cold, heat, polluted air, noxious gases etc., causes the abnormal sneezing.

4) Epistaxis :- Bleeding per Nose occurs due to so many causes, the common causative factors are injury to head or Nose, hypertension Blood dyscrasias, nasal picking due to nasal irritation, sunstroke etc., The bleeding may be unilateral or Bilateral (The little's area of nose due to its high vascularity (multi vessels anastomosis) prone to bleeding due to irritative factors)

5) Headache :-

Head ache due to nasal and paranasal diseases commonly associate with cold, nasal discharge, nasal obstruction etc symptoms

Ex:- 1) Vacuum head ache, due to nasal obstruction in which the air is packed in the sinuses and causes pain.

2) In frontal sinusitis in the early morning fore head pain present that reduces after sunrise.

3) Sphenoidal sinusitis causes head ache at occiput
4) maxillary sinusitis and ethmoidal sinusitis causes head ache at their site.

6) Disorders of Olfaction :-

a) Hyposmia :- Diminished smell sensation due to old age, menopause, tobacco habit etc causes.

b) Anosmia :- Loss of smell sensation due to obstructive lesions of nose, central lesions of brain and Lesions of mucosa, and due to trauma etc.

c) Parosmia - Unpleasant change in smell sensation due to skull fracture, streptomycin therapy etc causes.

d) Hyperosmia - Exaggeration of the olfactory sensitivity due to Epilepsy, pregnancy, hunger, strychnine poisoning etc causes.

e) Cacostmia - perception of foul smell due to the internal causes like maxillary sinusitis, dental sepsis, pus in the middle ear and lung abscess etc.

7) Post nasal drip and Hawking -

It is common in adenoids sinusitis (Allergic and Infective lesions of Nose and para nasal sinuses) and produces pharyngeal symptoms.

8) Speech defects :-

Disorders of nose and para nasal sinuses may cause loss of resonating function leads to Nasal voice (Nasal Intonation or Rhinolalia.)

AETIOLOGY OF RHINOALALIA

Rhinolalia clausa

1) It is due to lesions of Nose, Naso pharynx, & paranasal Sinuses.

2) Nasal obstruction occurs due to

Nasal polyp, Hypertrophied turbinates, DNS, Rhinitis medicamentosa, growths

3) Nasopharyngeal obstruction due to

Adenoids, Nasopharyngeal fibroma, Nasopharyngeal mass.

4) Choanal atresia

9) Nasal Pain - due to vestibulitis, trauma furunculosis, cellulitis of Nose, Neuralgia and caries teeth.

10) Symptoms due to extension of the disease to the adjacent regions like orbit, cranium, cavernous sinus etc. and produce symptoms of respective parts.

EXAMINATION OF EXTERNAL NOSE

Inspection & Palpation :-

Normally Nose appears pyramidal in shape, nasal bridge should be straight, centrally placed on the dorsum of the nose. (bilateral symmetrical) with centrally placed septum, equal size of Anterior nares and nasal cavities But due to congenital developmental traumatic and inflammatory causes it may become Asymmetrical or deformed, ex:- depressed, bridge, Broadened nose, swellings, polyps, scars and sinus etc.

Ex :-

a) Broadened nose - due to congenital developmental Traumatic and due to nasal polyps and malignancy

b) Deformed Nose - Due to congenital, traumatic causes and also due to leprosy

c) Depressed Nasal bridge - due to Congenital traumatic and due to syphilis.

d) Woody feeling of Nose due to Rhinoscleroma

e) Potato nose in Rhinophyma

f) Stenosed anterior nares in Rhino scleroma



-Deviation of the Septum



Anterior rhinoscopy with Thudicum nasal speculum



Pus discharge from various paranasal sinuses

- Scars - Traumatic and surgical
- a) A sinus in mid line of Dorsum of Nose is congenital
 - b) Vestibule should be carefully examined for swellings, furuncle, ulcer, crust etc.
 - c) Displaced Anterior end of septum may be projecting in to vestibule due to traumatic causes.
 - d) By Crepitations of Nasal bones fracture can be detected.

Examination Nasal Cavity

Anterior Rhinoscopy :-

Examination of Anterior part of the Nasal vestibule is usually done (without a nasal speculum) by raising up the tip of the nose for inspection of redness, swelling as in furunculosis and dislocated anterior end of the septum projecting into vestibule.

While the examination of Anterior part of Nasal cavity with nasal speculum, the following structures can be seen (by Anterior rhinoscopy)

- 1) Vestibule of the nose
- 2) Nasal septum and Little's area
- 3) Inferior and middle turbinates and meatus (superior turbinate and meatus cannot be seen)
- 4) Floor of the nasal cavity.

Note :- Initial examination of nasal vestibule without nasal speculum is necessary otherwise the blades of speculum may injure the papillomas, cysts and bleeding points of the region if any.

The Anterior Rhinoscopy is carried out using a head mirror, Light source and Thudicum's speculum or stclair Thomsons speculum with a handle. The speculums are in different sizes. The speculum must be held in left hand keeping the right hand free for Manipulations.

The Thudicum's speculum is held with the thumb and forefinger of left hand, the middle finger rests on one side and ring finger on the other side to control the spring of the speculum. The closed speculum should be introduced in to nasal canal and the blades of the speculum are gradually opened to permit proper examination of the nose. The floor, lateral wall, septum and posterior portions of nasal cavity are viewed.

The colour of the nasal mucosa should be examined. In normal it is dull red but in inflammatory lesions becomes congested, pale or bluish mucosa in Allergic conditions and dry mucosa with crusting is seen in atrophic rhinitis etc.

Septal deviations or spurs and perforations of septum should be examined.

Inferior and middle turbinates appear as prominent fleshy, firm and red projections on the lateral wall, these do not move on probing, the turbinates get shrunken or dried in atrophic rhinitis and grossly hypertrophied in chronic rhinitis, vasomotor rhinitis and in allergic rhinitis. The inferior and middle meati should examine for redness, polypi and for discharge, A postural test may be done to note the probable site of origin of discharge, A postural test may be done to note the probable site of origin of discharge (clean pus is coming from the middle sinus, if the patient's head is turned to the normal side and kept for some time if pus reaccumulates at middle meatus that is coming from maxillary sinus).

The floor of the nasal cavity is seen as a concave tunnel

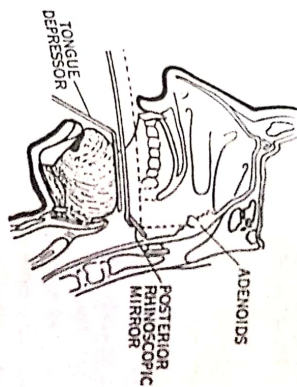
Nasal cavity is examined whether the space is equal on both sides or obstructed. Assessment of airway is done by Keeping a cold glass slide or metallic tongue depressor just in front of the nostrils. on expiration the warm air produces an area of condensation on the surface, the difference on the two sides is an indication of nasal obstruction. the air blast can also be compared by watching the degree of movement of wisp of cotton wool held in front of the nostril

Abnormal findings in Anterior Rhinoscopy :-

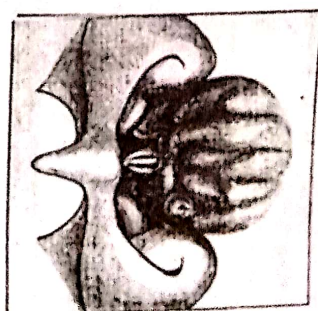
1) DNS, 2) Septal perforation 3) Polyps 4) cyst or tumours 5) Congested or Atrophied or Hypertrophied or pale mucosa 6) Watery or mucoid, or mucopurulent or purulent or blood stained, or foul nasal discharge 7) foreign bodies or Rhinoliths. 8) unilateral or bilateral lesions 9) probing should be performed gently for polyps, pedunculated masses, foreign bodies and Rhinoliths. 10) Obstruction of the air way (Rhinomanometry). 11) In hypertrophied nasal mucosa for better examination topical decongestant drops are instilled.

Examination of Oral Cavity in Relation to Nasal Paranasal diseases

- a) Gingio buccal sulcus should be inspected for oro antral fistula (communication between oral cavity and maxillary sinus)
- b) Soft palate should be examined for bulging down wards due to mass in the naso pharynx like tumour, antrochoanal polyps.



The Posterior Rhinoscopy



Posterior rhinoscopic view of adenoids and Eustachian cushion

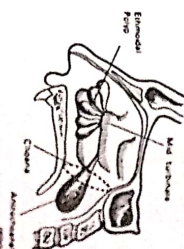


Diagram of nasal polypi



Technique of removing a nasal foreign body



Structures seen by Posterior Rhinoscopy

Posterior Rhinoscopy :-

Examination of posterior parts of Nasal cavity is known as posterior rhinoscopy.

Posterior rhinoscopy is performed with the help of posterior rhinoscopic mirror, it is slightly difficult method need co operation of the patient and experience to perform.

Method :- The patient is asked to open the mouth, a tongue depressor is used with left hand to depress the anterior 2/3 of the tongue, patient is advised to breath quietly through the nose and relax. A warmed post nasal mirror is held in the right hand and passed into oropharynx between the posterior pharyngeal wall and soft palate without touching (if the mirror touches the soft palate, palatal arches posterior 1/3 of tongue or posterior pharyngeal wall it causes reflex gagging) light is focussed on the mirror then the reflected image of post nasal cavity and nasal pharynx will be seen, the following points can be seen as the reflected image.

- 1) The Posterior end of free margin of septum.
- 2) On either sides to septum posterior choanae are seen.
- 3) Posterior ends of turbinates, superior, middle meati, maxillary, posterior ethmoidal and sphenoidal sinus secretions are seen.
- 4) Antro choanal polyp may be seen as a greyish pale smooth swelling coming from choanae into Naso pharynx ..
- 5) Superior surface of soft palate is seen with secretions, newgrowths, polyps, foreign bodies etc
- 6) Laterally Eustachian, choanal openings, Pharyngo tympanic tubes with tubal tonsils, the site is behind the posterior end of inferior turbinates on either sides.
- 7) Fossa Rosen muller is the frequent site of malignancy is seen behind the eustachian tubes.
- 8) Inflamed adenoids in children may be visualised as a pinkish mass at the junction of roof and posterior pharyngeal wall.
- 9) Roof of Nasopharynx can be seen.

Children cannot give co-operation for this examination.

Electrical Nasopharyngoscopy :-

Electrical Nasopharyngoscope is passed through nasal cavity and Nasopharynx and the lesions can be seen directly.

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Digital Palpation of the Post nasal space and Naso Pharynx :-

The cheek of the patient is pressed in between the jaws (after the mouth has been opened) with the left hand of doctor so as to prevent the biting or closure of the jaw the examiner should stand on the right side of the patient then pass the fingers of the right hand behind the soft palate into the Naso pharynx (It is needed in doubtful cases of malignancy of Naso pharynx and in children for adenoids.) to palpate the lesions, if any.

Examination of Nasopharynx with retracted soft palate :-

Rubber catheter should insert into oropharynx from the nose and the two ends tied together this retracts the soft palate and thus allows a direct view of the Naso pharynx.

Trans illumination test for sinuses :-

It is specially for maxillary and frontal sinuses. It is conducted in a dark room by illuminating the oral cavity with low voltage torch when the mouth is closed the light transmitted if seen through the walls of sinus, they are normal. if not diseased. No body is following this technique Now a days due to the availability of X-ray.

Palpation for tenderness of the para nasal sinuses :-

- a) In maxillary sinusitis tenderness is elicited on the canine fossa at the cheek.
- b) In frontal sinusitis tenderness is elicited just above the inner canthus of the eye (medial portion of floor of the sinus)
- c) In Anterior ethmoidal sinusitis tenderness is elicited at the midway between inner canthus of eye and Nose.
- d) Rest of the sinuses are deeply seated so tenderness cannot be palpated.

Posture test :-

It is for the differential diagnosis of frontal sinusitis and maxillary sinusitis

Pus should be cleaned at the middle meatus if it reaccumulates quickly that is coming from **frontal sinus**. If the patient's head is turned to the normal side and Kept for some time, if pus accumulates that is from **maxillary sinus**.

Radiography - Sinogram sinoscopy confirms the diagnosis.

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NASA ROGA SAMANYA NIDANAM : (Common Aetiology of Nasal diseases)

* NASENI SUTHECO CHAKRAM *

Nose is only the gate way for the drug administration or for the elimination of dusts from the head, so only having utmost importance among the all.

Two nostrils are exposed to the atmosphere for smell sensation and respiration so only prone to attacks of bacteria, virus, fungus, allergic reactions, degenerative changes, injuries etc.

The few common aetiological factors are here under.

- | | | |
|------------------------------------|---|---|
| 1) Vegava rodha | - | Suppressing the natural urges. |
| 2) Ajeerna | - | Indigestion |
| 3) Rajo sevana | - | Exposing to dust |
| 4) Aji bhasya | - | more talking |
| 5) Pralapa | - | Irrelevant talking. |
| 6) Uochhir bhadrana | - | Loud talking. |
| 7) Krodha | - | Anger |
| 8) Putu Viparyaya | - | Seasonal changes or Apatya in the seasons |
| 9) Shirobhaga | - | Head Exposing to sun stroke. |
| 10) Nisri jagara | - | Awakening (not sleeping) at night |
| 11) Diwa swapna | - | Sleeping in the day time. |
| 12) Sheela ambu panam | - | Drinking cold water, cold drinks, ice etc. |
| 13) Aashrya | - | Exposing to snow or Moisture |
| 14) Aji mithuna | - | Indulging more sex. |
| 15) Bhraspa Sevana | - | Exposing to vapours or Fumes |
| 16) Dhooma sevana | - | Exposing to Vapours or fumes |
| 17) Uochitha shira shayana | - | Resting the head in height during sleeping. |
| 18) Neecha shira shayana | - | Resting the head down wards while sleeping. |
| 19) Pravasa | - | Change of place or atmosphere by tours |
| 20) Abhigaththa | - | Injury to Nose or head |
| 21) Krimi | - | worm infestation or infection |
| 22) Diving in impure water | - | |
| 23) Inhaling the poisonous flowers | - | |
| 24) Nasal picking. | - | |

- | Nasal Foreign bodies | |
|---|---|
| 25) Aji vyayama | - |
| 26) Snoka | - |
| 27) Systemic infections (TB syphilis leprosy etc.) | - |
| 28) Pericharal infective lesions like tonsils, Adenoids, Pharyngitis etc. | - |
| 29) Inhaling teekshna vidaha dravyas | - |
| 30) Beeja dosha - Hereditary causes | - |
| 31) Congenital causes | - |
| 32) Congenital causes | - |
| 33) Cranial neuralgia | - |
| 34) Malnutrition and Hypo vitaminosis | - |
| 35) Idiopathic causes. | - |
- By above causes vatai doshas vitiate and accumulate in the head and causes Nasa rogas.

Common Predisposing factors of Nasa rogas in brief :-

- 1) ill health
- 2) General debility
- 3) Chronic systemic diseases like TB syphilis leprosy etc.
- 4) Head and Nasal injuries
- 5) Allergic factors like, Dust smoke vapour cold exposures, inhaling poisonous flowers, seasonal changes etc
- 6) Inflammatory lesions by bacteria or virus or fungus
- 7) Peripheral infective focus like tonsillitis Adenoids contagious eye infections
- 8) Irritative factors other than allergy, like Nasal picking or foreign bodies.

Classification of Nasal Diseases :-

- 1) According to sushruta Nasal diseases are 31
 - 2) " Bhavanishra and yogaratnakar 34 diseases.
 - 3) " Vagbhata 18 diseases
 - 4) " Charak - no specific number is mentioned.
- 1) Sushruta's Classification of nasal diseases = 31 they are.
- 1) Apeenasa or peenasa (Atrophic rhinitis)
 - 2) Puthi nasya or puthi nasa (Ozaena Or atrophic rhinitis)
 - 3) Nasa paka or Ghrana paka (furunculosis or vestibulitis)
 - 4) Shonitha pitta or Raktha Pitta (Epistaxis)
 - 5) Puya shonitha or puya raktha (Lupus in the nose, chronic rhinitis)
 - 6) Kshavathu or kshaya (Vasomotor rhinitis or Allergic rhinitis)
 - 7) Bramshathu (Mucoid discharge from the thickened mucosa of sinus.
 - 8) Dheeptha or Deepthi (burning irritation in the nose)
 - 9) Nasanaha or prathinaha (Deviation of Nasal septum).
 - 10) Paristrava (rhinorrhea)
 - 11) Nasa sosha (Atrophic rhinitis or Rhinitis sicca)
 - 12 to 15, 4 types of Nasa arsha (Polyps of the nose)
 - 16 to 19, 4 types of sopha (Oedema in nasal cavity)
 - 20 to 26 7 types of arbuda (Tumours or growths of the nose)
 - 27 to 31, 5 types of pratishtaya of the nose (Rhinitis)

2) According to Bhava mishra and yogaranakar 34 Nasal diseases, they are,

Nasa Raktha pitta is 4 types According to these authors - but only one according to sushruta so 3 diseases more than sushruta ie - $31 + 3 = 34$.

3) According to Vagbhata 18 diseases.

Bhavamishra	Vagbhata
1) Ashta 4 types	One type so 3 less
2) Shoola 4 types	Note explained so 4 less
3) Arbuda 7 types	one type so 6 less
4) Raktha Pitta 4 type	not explained so 4 less
5) Branshatru 1 type	not explained so 1 less.

Vagbhata reduced = 18 diseases

so, $24 - 18 = 16$, then he added

- 17) Dusta Pratishtaya
- 18) Putaka.

Total List the diseases of nose as per Vagbhata

- 1) Apeenasa 2) Putinasaya 3) Nasa Paka 4) Brusha kshaya 5) Deepthi
- 6) Nasanata 7) Parisrava 8) Puya shoanitha 9) Nasa sosha 10) Nasa arsha
- 11) Nasa arbuda 12) Dusta Pratishtaya 13) Putaka, (14 to 18), 5 types of pratishtaya.

4) According to Charak

He has not mentioned the total list of the diseases but explained more than 20 diseases.

Definition :-

1 to 5) PRATISHYAYA (Rhinitis)

A) 1) "Valam Prati abhinukham shrayo gamanam Kaphadeenam yatra sa pratishtayah"

Prati = Opposite direction (means to out side)
Shraya = Moment of the doshas (elimination of dosha)

i.e. - Kaphadi doshas are eliminated out through the nose, is known as pratishtaya.

2) "Prati kshanam shrayathi tili Pratishtayah"
Kaphadi doshas are Continuously eliminated out through the nose so only called as Pratishtaya.

B) Importance of Pratishtaya :-

It is explained as the most important disease among the nasa roga. Charaka explained that if the disease is not treated properly or neglected, causes so many complications of Nose, ear, throat, head, eye and other parts of the body.

Ex :- Dusta Pratishtaya, kshavathu, Nasa sosha, Pratirahata, Parisrava, Puthi nasa, apeenasa, Nasa Paka, shoitha, arbuda, puyaraktha, Aroonshika, shiro roga, Karma roga, Netraroga, Khalithya, Arjuna, swasa, Kasa, Jwara, Raktha pitta, swarabhedha, sosha, Andhatwa, Bhadriya, agnimandya, Aghranatwam (Anosmia) etc.,

C) Nidana (Aetiology) :-

The common aetiological factors of Nasa roga are really explained for pratishtaya only, this shows the importance of pratishtaya among the nasa rogas, once again the aetiological factors are given in brief.

1) Tridosha vitiating factors
ex in take of cold things, exposure to rain, snowfall, swimming in water, taking in-compatible food etc.

2) Mano dosha vitiating factors.
ex Excessive Anger, fear etc.

3) Abhignataj Karana (injuries)
shiro abhignata - nasa abhignata etc.

4) Irritative factors or Allergic factors
ex exposure to dust, smoke, exposure to cold wind or sunstroke etc.

5) Because of other chronic diseases (specific infections)
ex Tuberculosis, Leprosy, syphilis etc.

6) Debilitative factors :-
ex ill health, weak personality, loss of immunity, low socio economic status, living in unhygienic surroundings etc.
7) peripheral lesions (due to mucosal continuity) pharyngeal, laryngeal, oral, auricular, blood borne infections etc.

Note :- "The Description is given at common aetiological factors (samyaya Nidana) of Nasa roga.

Poorna roopa of Pratishtaya :-

1) Shiroguruvam (heaviness of the head) 2) Kshavathu (Sneezing) 3) Angamarda (Body pains) 4) Romaharsha (Horripulations) 5) Jwara (Fever) 6) Anuchi (Tastelessness) 7) Shirashoola (Head ache) 8) Ashrustrava (Lacrimation) 9) Netra Kandu (itching sensation at inner canthus especially) 10) Burning or itching sensation in nasal cavity 11) Taludarana (Dryness and crackings in the palate) 12) Lala srava (salivation) 13) Dryness of throat etc.

E) Samprapthi of Pratishtaya :-

The vitiated vatadi doshas either individually or together accumulates in the shiras, then propagates to the nose and causes the Pratishtaya etc diseases.

F) Bhedas :- Types of pratishtaya, 5 types they are :-

- 1) Vataj Pratishtaya
- 2) Pittaja Pratishtaya
- 3) Kaphaj Pratishtaya
- 4) Raktaj Pratishtaya
- 5) Samnipathaj Pratishtaya.

1) Vataja Pratishtaya (Sub acute Rhinitis)

Clinical Features :-

1) Nasal obstruction 2) Watery, cold, fresh, nasal discharge 3) Dryness in the throat Lips and Palate 4) Pain and discomfort in the nose 5) Increased sneezing. 6) Pricking pain at teeth, Temporal region and in head 7) Chirapaka (Delayed suppuration of doshas) 8) Distaste in the mouth 9) Hoarseness of the voice 10) Charaka explained these symptoms under vataj peenasa - so according to charak pratishtaya and peenasa are one and same.

2) Pittaja Pratishtaya (Acute Rhinitis)

Clinical features :-

- 1) Yellowish or reddish hot nasal discharge.
- 2) The person becomes weak and anaemic
- 3) High temperature (Fever) causes severe burning pain in the nose mouth and throughout the body
- 4) Thirst
- 5) Nasal furunculosis or ulceration
- 6) Giddiness
- 7) Becomes inactive tired and weak.

3) Kaphaj Pratishtaya (Chronic or Hypertrophic rhinitis)

Clinical Features :-

- 1) Cool whitish thick nasal discharge comes from nose .
- 2) Heaviness in the mouth and head .
- 3) Anaemia (Pale or whitish skin)
- 4) Oedema of eye and its appendages
- 5) Severe itching sensation in the head throat- Palate and lips.
- 6) Cough 7) Sweet taste in the mouth 8) Difficulty in respiration
- 9) Heaviness of the body 10) Vomilings (vomits the Kapham).

4) RAKTAJ PRATISHYAYA

(Acute Rhinitis Or Acute Influenza)

Clinical Features :-

- 1) Hyperaemia of eye (Conjunctiva)
- 2) Blood stained nasal discharge or bleeding from the nose.
- 3) Foul smell through nose and mouth .
- 4) Loss of smell sensation (Anosmia)
- 5) Manifestation of small magots in the nose 6) Chest Pain 7) Fever
- 8) Cough 9) Severe discomfort and itching sensation
- 10) Signs and symptoms of Krimija shiro roga.

5) Sannipathaja Pratishtaya :-

or Tridoshaja Pratishtaya

Clinical Features :-

- 1) Frequent attacks of Common cold.
- 2) Kaphadi doshas some times suppurates and some times doesn't suppurate (Apakwa or Pakwa) .
- 3) Severe Pain in the Nose and head.
- 4) The symptoms are like peenasa
- 5) All the symptoms of three doshas present.
- 6) It is explained as Asadya (incurable).

DUSTA PRATISHYAYA

Sushruta explained it as the complication of pratishtaya so not counted separately But vagbhata explained it in addition to the 5 types of pratishtaya.

Clinical Features :-

- 1) Some times nasal discharge comes and some times nose get dried.
- 2) some times nose obstructed and some times normal .
- 3) Foul smell exhibited while respiration
- 4) Anosmia loss of smell sensation)
- 5) Kasta sadya vyadhi (difficult for cure)

Charaka described it in detail, according to him it occurs as a complication of pratishtaya, the clinical features are sneezing, dryness of nose, Nasal obstruction Phimorhoea, foulsmell from nose and mouth, Rhinitis, furunculosis, oedema of Nasal mucosa, tumours of nose, blood stained mucopurulent discharge, ulcers, shiro roga (diseases of head), ear diseases, eye diseases, Bald head (Khalitrya), Grey hair (Phalitha), thirst, Tiredness, cough, fever, Bleeding disorders, Hoarse Voice and Dehydration (sasha) etc.,

Sushruta also explained that if Pratishtaya is not treated in time leads to Dusta Pratishtaya and associated with Deafness, Blindness, Anosmia cough, Loss of appetite and oedema etc.,

So for having so many complications it is said as Kasta sadya (difficult for cure) vyadhi.

PEENASA - APEENASA - PRATISHYAYA

1) Most of the acharyas said that peenasa and apeenasa are same with wording difference and also said this is the chronic or progressive stage of pratishtaya.

2) Vagbhata said peenasa and apeenasa are different but these two are chronic or progressive stages of pratishtaya.

3) Vagbhata said that Apeenasa contain pain, ghur ghur noises in the nose and sticky nasal discharge more than peenasa.

ie. Symptoms are more complicated with more obstructive lesions in nose as follows.

The order of severity is -- "Apeenasa > Peenasa > Pratishtaya".

- 1) Pratishtaya Contain less complications and with running nose (no sensory loss).
- 2) Peenasa contain more complications than pratishtaya with sticky nasal discharge .
- 3) Apeenasa contain more complications and more obstructive lesions than peenasa (Anosmia and other Indria vikara are observed).

But according to sushruta above peenasa and Apeenasa are one and same and said it is as the complication of pratishtaya (sannipathaja pratishtaya symptoms are equalant to peenasa).

6) APEENASA ACCORDING TO SUSHRUTHA :-

1) Symptoms of pratishtaya present, additionally following points are observed .

- 2) Vitiated Kapha causes stickymasal discharge .
- 3) Vitiated Pitta causes dryness, burning sensation and nasal obstruction
- 4) Vitiated Vata causes lesion of sensory organs (Indriavikar.) Like Anosmia (loss of smell sensation) and pain.

Apeenasa According to Vagbhata.

Vitiated Kapha causes nasal obstruction, ghur ghur noises in the nose, difficulty in respiration, yellowish sticky discharge oozes (Singhanakam) continuously and also causes loss of smell sensation, is explained as Apeenasa, the severity is more than peenasa and Pratishtaya.

Other Authors :-

The Kapha dosha of mastishka get dried or burnt by pitta and produces blood stained nasal discharge with pain itching and burning sensation.

Kantheek:-

Apeenasa and peenasa are one and same but samprapthi (Aetiopathology) is different.

Bhavamishta - yogaratnakar :-

Pratishtaya if infected by Krimi produces the similar symptoms of Krimija shiro roga in Apeenasa.

APAKWA PEENASA OR NAVA PRATISHYAYA OR AMA PEENASA (According to Vruddha sushrutha)

Clinical features :-

- 1) Aruchi (taste lessness) 2) Vairasya (Un pleasant taste in the mouth)
- 3) Nasa srava (Rhinothoea)
- 4) Body Pains 5) Arathi (restless ness)
- 6) Shiro gurutwam (Heaviness of head) 7) Kshavathu (sneezes) 8) Jwara (Fever) 9) Amam 10) Symptoms of Nava or Taruna pratishyaya or Acute Rhinitis are present.

11) According to madhavakar- Hoarse or reduced voice, and Nishteeyana (Spitting) Explained additionally to the above.

Pakwa Peenasa or Pakwa Pratishyaya

According to Vruddha sushrutha .

- 1) Tastelessness and un pleasant taste, reduces.
- 2) Body pains reduces.
- 3) Lightness in the head.
- 4) Normal tone of the voice.
- 5) Nasal discharge becomes sticky and yellowish .

Note :- The knowledge of Ama & Pakwa stages of peenasa is essential for the treatment.

PRATISHYAYA SAMANYA CHIKITSA

(Common treatment principles of pratishyaya)

While giving treatment for pratishyaya it is very important to know whether the disease is in Ama stage (nava Pratishyaya) or in pakwa stage (jeerna pratishyaya)

Nava Pratishyaya or Ama pratishyaya Chikitsa

- 1) Langhana for 3 to 5 days
- 2) Swedana
- 3) Administration of Deepan pachan drugs.
- 4) " " Amla ushna teekshna drugs or diet.
- 5) Usage of Hot water for drinking and bathing.
- 6) Oral usage of milk + Ardraka swarasa
- 7) " " shunti + guda or sharkar.

- 8) Oral usage of Anupamamsa, curd, masha, kulutha, Lavana, katudrayva, Amla, mulaka and medicated alcoholic preparations (madya)
- 9) Phooma Narya with Ghrittha Sakthu
- 10) Ghrittha pana and snehan Nasya is contra indicated.

Pakwa Pratishyaya or Jeerna Pratishyaya Chikitsa

- 1) Ghrittha pana gives rasayana effect .
- 2) Swedana with Amla dravyas.
- 3) Vaman Karma with the yooosha prepared with milk + tila + masha + vamaaka drugs.
- 4) Virechana
- 5) Teekshna dhooma Pana
- 6) Kavalagrah or gandoosha
- 7) Shiro virechan nasya
- 8) Aasthapan vasi
- 9) Resting in a perfect room where there is no pollution of the air, dust and smoke (nivatha sthana)
- 10) Covering the head with hot and thick clothes .
- 11) Oral in take of :-

Jangala mamsa, Guda, Goksheera, chanak, Trikatu, Yava, Godhuma, Dadhi, Dadima, Dasha moola Kashaya, Aardraka, shunti, Yastimadu, Hareetaki, Katphala, chitra moola, Vasa, Tulasi, Kantakari, Haritra dwayam tankan and ikshurasa, amla Katu Tikta Kashaya Lavana sneha shrungbhasma, Trijathaka, pancha kola, pancha vaikala, vidanga, Abhraka, Talisa patra, Triphala, Ajamoda, pudina, Varthaka, Patola, Masha, Tila, kulutha, mudga, ushnodaka, Ghrittha and ksheera etc are beneficial either single remedy or selected drugs are taken for the treatment.

- 12) Usage of Hareetaki preparations like chitraka hareetaki or agasty a hareetaki etc.
- 13) Usage of guda dadhi and maricha compound (Bhavanishra)
- 14) Drinking of cool water while going to bed at night (chakradatta)
- 15) Usage of Katphaladi churma
- 16) Oral usage of Panchamoola ksheera
- 17) Oral usage of Sarpi guda. (ghee + guda)
- 18) Oral usage of shadanga yooosha
- 19) Oral usage of Vyoshadi churma or vati (Trikatu, Talisa patra, Chavya, Tintidika, Amla vetas, chitra moola, Jeeraka - each 2 phala; Lavanga, Ela, Japatri each 1 phala; purana guda 50 phala.

20) Usage of

Lakshmi vilas ras, Maha lakshmi vilas ras, Naradeeya Lakshmi vilas ras, Lagusutha sekar ras, Sanjeevani vati, Trichuvan Keerthi ras, Mut yunjaya ras, Rama bana ras, Godanti bhasma, Pancha Kola kwatha, chyavan prasha, panchamruta ras, Talisadi churna, sitnophaladi churna, Trijata Kadi vati, Karpooradi vati, Trikatu churna, Khadriradivati, Yastimadichurna, Pushakara moola churna, Tarkan bhasma, Kanchanara guggulu, Triphala guggulu, Nimbadi guggulu, Triphala ghrita, vasaoghrita, patoladya ghrita, Vasavalehya etc drugs are beneficial, in different types of pratishtaya.

21) Nasya Yogas :-

- Kalpala, Apamarga, maricha, pippli, shunti, vidanga, manashila, vacha, Hingu etc drugs can be used for pradaman Nasya
- Tulasi, vasa, Kantakari, Trikatu, choraka, Ardraka, Tarkari, vacha, Jeerak, etc drugs can be used for Avapeedan Nasya.
- Katu Teekshna ghrita, Navana Nasya
- Bharangyadi taila Nasya (Bharangi, Madan Phala, Tarkari, Tulasi, gomutra shodhana (should boil in Gomutra) then add sarshapa taila, vacha, Lamba, vidanga, Kushta, pippli, Karanja,) cha-chi-26
- Trikatu, saindhava lavan, kutaja, jeerak, should be grinded in Avimutra and used for Nasya .
- Medicated oil prepared from Bala, Atibala, Bruhathi, vidanga, Kantakari, Vishnukrantha, mudgaparni, Rasna, punarnava, Tila taila, nasya.
- Chorak, Tarkari, Vacha, Jeerak, Krishna Jeerak, Avapeedan Nasya.

22) Dhooma Pana :-

- Devadaru, Apamarga, Danthee moola, Ingudee, Varthi should be prepared, for dhooma Pana.
- Shatahwa, Twak, maricha, ela, bala moola, Shyonaka moola, Erenda moola, chitra moola, bilwa, Aragwada.
- Dhooma pana with Ghrita sakthu .

23) Contra Indications of pratishtaya :-

- The following things or restricted for the usag
- Cool water in take, or Bathing, b) Coitus c) Sleep d) Worries e) Suppression of natural urges f) Fresh alcoholic Preparations g) Oil less items. h) Weeping i) Anger j) Exposure to dust smoke etc k) Frigged items j) Kaptha Vruddhi kara Ahara vihara should not take.

VATAJ PRATISHYAYA VISESHA CHIKITSA (Special treatment for Vataj Pratishtaya)

- 1) Snehakarma** (Shiro Abhyanga and Sneha pana)
a) If pain present, head massage is advised with Luke warm vata hara oleus medicines .

- Oral administration of Vata hara ghrilas like Rasnadi ghrita, vidarigandhadi ghrita, pancha lavan ghrita, pancha moola ghrita, Yava kshara + ghrita, mamsa rasa and Luke warm milk etc..

2) Sweda Karma :-

- Pani sweda and upanaha sweda when associated with pain at Temporal frontal and vertex regions of head .
- Sneha and Sankara sweda is advised when Nasa Srava Kshavathu and Nasanaha are associated.

3) Niruha vasti with Vatahara dravya.

4) Snigda dhuma Pana (dhooma Nasya)

- Shatahwaadi dhuma pana (Shatahwa, Twak, Bala moola shyonaka, Erenda, Bilwa, Aragwada, Madhushchista, Vasa and ghrita)
- Dhooma Pana with Ghrita + Sakthu
- Inhalation of the powders of Rohisha, jaji, vacha, Tarkari, choraka etc
- Inhalation of the powders of Twak, Patra, maricha, Ela and jeerak.

5) a) Sneha Nasya like in Arditha vata :-

- Sneha Nasya with the oil prepared with Tila + Aja ksheera + yastimadu churna, Tila oil, Rasna, Yastimadu, saindhava lavana kalaka; Dasha moola Kashaya - Oil should be prepared and used for Nasya.

- Taking of Light, Luke warm, oleus, Vata hara diet, Hot water for drinking and for bath, Resting in Hot and perfect room without the polusion of dust and smoke.

- Patient should be free from Tensions, worry, exercise, irrelevant Talking and coitus. etc.

PITTAJA PRATISHYAYA VISESHA CHIKITSA

(Special treatment for Pittaja Pratishtyaya)

- 1) Treatment of Pittaja and Rakthaja pratishtyaya is merely similar.
- 2) Cool applications (Lepa- Seka) with chandana, usheera, Aamalaki etc drugs.
- 3) Cool items for eating and for drinking.
- 4) Oral intake of Tiktha Yoosha, Jangala mamsa, Godhuma, Yava, shali, ksheera, ghrita and sheetha veerya Aushadha.
- 5) snigda madhura virechana
- 6) Gandusha or Kavala with Padmaka, sarja rasa, Chandana, Priyanga Patranga, madhu, sharkara, Draksha, madhulika, Gojee, shrepamee, Yastimadu.
- 7) a) Oral intake of Kakolyadi ghrita
b) Shunthi + milk + ghee.
c) Madhura and Tiktha ghrita.

8) Nasya Karma :-

- a) Nasya with the oil prepared with patha, Haridra, Daru haridra moorva, pippali, Jathri pallava, danthi etc.
- b) Nasya with the oil prepared from Tila tail 1 part Milk 10 parts.
- Other Kalpa dravyas - Dhava twak, Triphala, Shyama, shree parni, Yasti madu, Bilva, Haridra etc.
- c) Nasya with Brungaraj swarasa.

3) KAPHAJ PRATISHYAYA VISESHA CHIKITSA

(Special treatment for Kaphaj pratishtyaya)

- A) If heaviness of head and Anorexia are associated.
1) Langhana 2) Ghrita Abhyanga to shiras 3) Mrudu sweda 4) Vaman with Trikatu, Yava Kshara and ghrita 5) Nasya (charaka - chikitsa - 26th Chapter)

B) If doshas are Mild :-

- 1) Ghrita pana 2) Oral intake of Yavagu prepared with milk Tila and masha and vamaaka dravyas for vaman Karma to eliminate the Kapha dosha
- 3) Langhana (charaka chikitsa 26th Chapter)

Nasya Yoga :-

- c) 1) Bharangyadi taila - (Prepared with Bharangi, madan phala, Tarkari tulasi, boiled with Go mutra and add sarshapa taila, vacha, laksha, Lamba, vidanga, Kusta, pippali, Karanja) (Ch-Chi. 26)
- 2) Teekshna nasya (Pradamana Nasya with the powders of manashila Trikatu, Vacha, Vidanga, Hingu, Guggulu etc). (Ch. chi-26)
- 3) Nasya with Trikatu, Saindhava lavana, Kutaja, jeerak, vidanga, grinded in Avi mutra and used for Nasya (A.H.U. 20 -13).
- 4) Nasya with the oil prepared from Bala, Atibala, Bruhati, Vidanga, kantakari, vishnu krantha, mudga parni, Rasna, punarnava and Tila Taila.
- D) **Dhooma Pana :-** With the varthi prepared from Nishotha, Apamarga, Danthi, Devadaru, ingudee.
- E) Swetha Sarshapa Shiro Lepa
- F) Hot water usage for drinking and for Bathing etc.

4) SANNI PATHAJ PRATISHYAYA VISESHA CHIKITSA

(Special treatment for Sannipathaja Pratishtyaya)

- 1) Tridosha hara chikitsa.
- 2) Katu Tiktha ghrita for oral administration.
- 3) Teekshna dhooma pana.
- 4) Teekshna Kavala grah.
- 5) Katu rasa medicines and diet

6) Nasya :-

- a) Rasanjanadi taila nasya (rasanjanana, ativasa, musta, Bhadradaru and Taila).

b) Shiro Virechan Taila :-

(Medicated oil prepared from Musta, chavya, patha, Katphala, pippali, Pippali moola, Katuki, sarshapa, vacha, Tuttha, Karanja, saindhava lavana, Bhadradaru, Taila).

c) Jangala mamsa, ksheera, utphalaadi pushpa, Yata hara Aushada, Prakshapa dravya, Boiled according to ksheera paka vidhi, Ghree should be prepared from the above medicated milk, it can be used for Nasya in all types of Pratishtyaya

d) Tiktha taila or ghrita can be used for Nasya.

7) Kavalā graha :-

- 1) With the Tikṣha Kashaya
- 2) With the decoction of musta, chavya, patha, Katphala, Pippali, Pippali moḍa, katuki, sarshapa, vacha, tuttha, Karanja, saindhava Lavan, Bhadrādarū etc. drugs.

Dusta Pratiśhyaya :-

- 1) All the above treatments
- 2) Krimi hara treatment
- 3) Kṣhaya hara treatment
- 4) Rasayana therapy
- 5) It is Yapayā Vyadhi

6) Dhooma Nasya With

Trikatu, Ereṇḍa beeja, vidanga, Devadarū, Ativasa, Kusta, Ingudee, Kantakari, Nishotha, swetha sarshapa, puthi matsya, Agni mantha, peelu, shigru beeja, these should be grinded in Ashwa vit rasa, Ashwa and gaja mṛta . dip the kshouma Vastra varṭhi in above compound and is used for Dhooma Nasya.

- 7) vidangadi Nasya
- 8) Gomutra + go Pitta Nasya
- 9) Surasadi Krimi hara drugs
- 10) Luke warm water for Nasa and pana in the early morning.

APEENASA CHIKITSA

(Treatment of Apeenasa)

- 1) sneha 2) Sweda 3) Vaman 4) Virechan 4) Laghu Teekshna ushna ahara 5) Hot water in take 6) Dhooma Pana 7) Avapeedan Nasya.

1) Avapeedan Nasya

Hingu, Trikatu, Kutaja, shivati, Laksha, tulasi, Katphala, Vacha, Kusta, sarshapa, vidanga, Karanja, shigru.

2) The Medicated oil prepared from Above drugs + sarshapa taila +

Go mṛta, Tila taila, used as nasya.

3) Medicated oil prepared from Pathadi taila used as Nasya (patha, haridra dwayam, pippali, moorva, Jaji patra, taila)

4) Shigru taila Nasya.

5) Vyaghree taila Nasya.

6) Shatbindu ghritā Nasya.

7) Dhooma Nasya with Madhuschita + guggulu

8) Shatahwadi dhooma Nasya

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9)

Internal administration of

- a) Guda + dadhi + maricha
- b) Chitraka ksheera
- c) Pancha mooli Ksheera
- d) Vidanga Kwatha + Guda + Ghritā.
- e) Vidanga shaskuli or Godhuma Shaskuli,
- f) Katphaladi churna or Kashaya
- g) Vyoshadivati
- h) Pratiśhyaya chikitsa, especially Kaphaja Pratiśhyaya Chikitsa.

EXTERNAL NOSE

Congenital deformities :-

- 1) Choanal atresia - closure of the anterior nasal apertures and posterior nasal apertures
- 2) Congenital deformity in size shape of nose as Flattening, Blifid nose etc.
- 3) Dermoid cyst :- Occurs in the midline between the alar cartilages on the bridge of the nose.
- 4) Nasal glioma :- A solid tumour produce swelling on the bridge of the nose and is connected to meninges by a stalk but the swelling doesnot increase by straining coughing
- 5) Encephalocele :- Herniation of meninges and brain tissue through a dehiscence in frontal bone and the swelling increases by straining and coughing.
- 6) Cleft lip :- Failure of fusion of maxillary process and median nasal process.
- 7) Cleft palate - Failure of palatine process to fuse with each other and with nasal septum.

Diseases of External Nose :-

1) Furunculosis of the nose (Nasa Paka)

This is an acute infective condition of the root of the hair follicle or sebaceous gland in the nasal vestibule, caused by staphylococcus aureus, pre-disposing factors are nose picking or pulling of hair .

Clinical Features :- Localised redness, swelling, pain, tenderness, crust formation and nasal obstruction

Complications :- cellulitis of face and upper lip, and cavernous sinus thrombosis

Treatment :- 1) Local and systemic antibiotics.

- 2) Analgesics and antiinflammatory drugs.
- 3) Anti histamine drugs to relieve nasal irritation.
- 4) Local hot-fomentation.

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2) Vestibulitis :-

- Diffuse infection of the skin of the anterior nares may result from
- 1) Trauma as in nose picking, this produces ulceration and crust formation
 - 2) Persistent nasal discharge leads to excoriation and infection of the skin of the nasal vestibule

Clinical Features :- Ulceration, crust formation, pain and discomfort in the nasal vestibule.

Treatment :- 1) Local application of antibiotic or Hydrocortisone ointment

2) Treating the pre-disposing factors

3) Systemic antibiotics and Anti inflammatory drugs.

3) Erysipelas :-

It is an acute strepto coccil inflammation of the skin and subcutaneous tissue of the nose.

Clinical Features :- Redness, vesicles formation on the nose and face, headache, fever and malaise (no intra nasal signs and symptoms)

Treatment :- 1) Penicillin is drug of treatment

2) Symptomatic treatment.

4) Acne Rosacea :-

Enlarged superficial blood vessels in the skin of nose and cheeks, giving the skin a dusky red and shining appearance (commonly seen in men and women)

5) Lupus erythematosus :-

The skin of the nose and cheeks are affected with the butterfly shaped erythema patches with scaling followed by atrophic scars.

Herpes Simplex :-

Vesicular eruption around the nasal vestibule and lips caused by Herpes simplex virus

Treatment :- 1) Local antibiotics or Hydro cortisone

2) Symptomatic treatment.

6) Herpes Zoster :-

Vesicular eruptions along the cutaneous nerves of face heals by scaling and causes severe pain

7) Rhino Phyma :-

Hypertrophy of the sebaceous glands of the tip of the nose, produces bulbous projection called potato nose or Rhino phyma.

Treatment :- Surgical excision of the hypertrophy.

8)

Deformities of External Nose :-

- 1) Congenital flat or Blind nose
- 2) Developmental improper development of nose and septum along with face.
- 3) Traumatic lesions.
- 4) Infections - septal abscess syphilis and Leprosy.
- 5) Tumours may cause deformity and destruction.

Treatment :- Rhino Plasty.

6) Atresia of Anterior nares occurs congenitally and due to small pox Rhinoscleroma and Young's operation for atrophic Rhinitis.

9)

Fracture of Nasal Bones :- Symptoms are deformity, pain, swelling, Epistaxis and Nasal obstruction. Treatment depends upon the condition.

Treatment :- Anti inflammatory ; correction of deformity or Rhinoseptoplasty under general anaesthesia.

10)

Haematoma and abscess of Septum :-

The trauma may be followed by extravasation of blood and it causes a smooth round swelling on both sides of the septum it may be transformed into abscess after infection.

11)

Tumours of the external nose:- It may be benign or Malignant.

Benign tumours :- 1) Papilloma frequently occur in nasal vestibule and require surgical excision

2) Haemangiomas occurs in the skin of the nose and require diathermy coagulation or excision.

Malignant Tumours :-

1) Basal cell carcinoma or rodent ulcer occurs in the skin of the nose as a raised pigmented nodule which ulcerates, doesn't heal and destructs the nasal cartilages and adjacent facial tissue.

2) Squamous Cell Carcinoma :-

This lesion may occur in the nasal vestibule or on the skin of the external nose with progressive bleeding ulcer along with raised margins.

Treatment :- Radiotherapy and surgery.

RHINITIS (PEENASA OR PRATISHYAYA)

Rhinitis is the inflammation of the nasal mucous membrane owing to infection, Allergy and trauma. It may be classified as follows.

- I) **Infective Rhinitis :-**
 - A) **Acute Rhinitis :-**
 - a) Non specific acute Rhinitis - common cold
 - b) specific acute Rhinitis - Diphtheria.

B) Chronic Rhinitis :-

- a) Non specific chronic Rhinitis
 - 1) Simple Chronic Rhinitis,
 - 2) Hypertrophic Rhinitis,
 - 3) Atrophic Rhinitis,
 - 4) Rhinitis Sicca
 - 5) Rhinitis Cassosa,
 - 6) Malignant granuloma,

b) Specific Chronic Rhinitis :-

- 1) Rhino sporidiosis,
- 2) Rhino scleroma,
- 3) Syphilis,
- 4) Leprosy,
- 5) Tuberculosis, Lupus Vulgaris,
- 6) Fungus infections like Aspergillosis, actinomycosis, monilliasis,

II)

Non Infective Rhinitis :-

- a) Allergic Rhinitis (Seasonal Perennial)
- b) Vasomotor Rhinitis.

I/A/a) Common Cold (coryza)

Acute inflammation of nasal mucosa is called Acute Rhinitis. Primary infection is by virus and secondary infection is by bacteria

The Causative Organisms :-

Virus :- Rhino Virus, Influenza virus, adeno virus, calarhalis, pneumo coccus, staphylo coccus, Haemophilus influenzae etc.

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Clinical Features :-

These are in 4 Stages :-

- 1) **Ichaemic stage :-** Burning sensation in the naso pharynx, irritation, dryness in the nose, sneezing paroxysmally, swelling and malaise may develop.
- 2) **Hyperaemic Stage :-** Profuse rhinorrhoea (Watery discharge), blockage of nose, anorexia, fever and head ache.
- 3) **State of Secondary Infection :-** The watery nasal discharges thickens with yellow or greenish colour due to secondary infection.
- 4) **Stage of Resolution :-** It occurs commonly in 5 to 10 days.

Complications :- Naso pharyngitis, pharyngitis, sinusitis, Acute otitis media, Laryngitis, Bronchitis, Pneumonia etc.,

Treatment :- There is no specific treatment but following treatment principles prevent the secondary infection, complications and give relief symptomatically.

A) General Treatment :- (Systemic treatment)

- 1) Analgesics and Anti pyretics reduce pain and fever.
- 2) Antibiotics controls secondary infection.
- 3) decongestants reduce nasal congestion.
- 4) Anti histamines reduce nasal irritation.
- 5) Vitamines, B, complex, C, etc protects mucosal hygiene.
- 6) Warmth and rest restores the health.

B) Local Treatment :-

- 1) Menthol steam inhalation.
- 2) Decongestant Nasal drops.
- c) Surgical correction of septum, hypertrophic turbinates tonsils and adenoids etc, and contact should be avoided.

I/A/b) Nasal Diphtheria :-

It is an infective specific acute Rhinitis usually occurs in children, the causative organism is corynebacterium diphtheriae. It may be the primary disease or secondary to faucial diphtheria.

Clinical Features :-

- 1) Blood stained nasal discharge on one or both sides.

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- 2) Excoriation of the skin around the nose.
- 3) Greyish white colour membrane formation on septum or inferior turbinates which bleeds on removal.

Diagnosis :- By clinical features, and by Bacteriological examination.

Treatment :-

- 1) Anti toxin - 10000 units of the serum
- 2) Antibiotics like erythromycin and penicillin.
- 3) Symptomatic treatment.
- 4) Rest.

B) Infective Chronic Rhinitis

1/B/a) Non Specific chronic Rhinitis.

1) Simple chronic Rhinitis.

Aetiology :-

- a) Recurrent attacks of acute Rhinitis may lead to chronic Rhinitis.
- b) Pre-disposing factors are sinusitis, tonsillitis vasomotor rhinitis, Nasal obstructions, Atmospheric pollution, over usage of nasal drops. smoking, alcoholism, general debility and hypothyroidism.

Clinical Features :-

- 1) Ischaemic stage and Hyperaemic stage of Acute Rhinitis present but less severe.
- 2) post Nasal drip and Nasal blockage is more marked.
- 3) The Nasal secretions are thick and viscid.

Treatment :- 1) Elimination of predisposing factors

- 2) Alkaline Nasal douchings
- 3) Symptomatic treatment like in acute Rhinitis.

2) CHRONIC HYPERTROPHIC RHINITIS

It is due to chronic nasal, paranasal infection and due to nasal allergy. The aetiological factors, are like chronic simple Rhinitis. Rhinitis medicamentosa (over usage of Nasal decongestants) is the often responsible factor for this condition.

Clinical Features :-

- 1) Hypertrophied, Congested nasal mucosa with enlarged turbinates is the main finding.

- 2) Nasal obstruction
- 3) Rhinorrhoea - thick viscid nasal discharge.
- 4) Development of Polyps in the further aggravation of the symptoms.

Diagnosis -

- 1) Hypertrophied turbinates, congested mucosa
- 2) Posterior Rhino scopy reveal the mulberry like posterior ends of inferior turbinates.

Treatment :-

- 1) Topical nasal decongestants gives relief temporarily
 - 2) a) Electro cautery b) Submucous diathermy
 - c) Cryo surgery d) Partial tubinectomy etc.
- are beneficial in hypertrophied turbinates.

3) ATROPHIC RHINITIS (OZAENA)

This is a chronic inflammatory condition of the nose characterised by atrophic changes of the nasal mucosa and turbinates, expell foul smell from the nose and causes anosmia. It may be primary or secondary to some other diseases.

a) Primary atrophic Rhinitis :-

Causative factors :-

- 1) Cocco bacillus of peretz, Klebsiella foididis ozaenae and diphteroid organisms etc.
- 2) Hereditary, Hormonal, Nutritional deficiencies vitamin deficiencies (A & D), Infection, Broad nasal cavities and due to other factors

b) Secondary Atrophic Rhinitis :-

Atrophic changes are produced due to chronic specific infections like syphilis, leprosy, lupus vulgaris, tuberculosis and Rhino scleroma; extensive Nasal surgery and chronic sinusitis etc.

Pathology :-

As a result of chronic inflammatory changes the ciliated columnar epithelium of nasal cavity and turbinates atrophies and shows squamous metaplasia, blood circulation reduced, secretions stagnated and result in secondary infection and crust formation, due to loss of sensation and foetor attracts the flies (maggots) and patient loses the sense of smell and touch of air.

Clinical Features :-

1) Dryness in the nose 2) wide nasal cavities with crust formation. 3) The nose emits foul smell 4) Anosmia (merciful anosmia) - the patient doesn't feel his foul smell which is coming out and he doesn't smell the other things also. 5) Head ache 6) Epistaxis 7) Atrophic changes in the mucosa and turbinates. 8) Nasal obstruction 9) Depressed bridge of the nose (due to atrophic changes.)

Complications :-

- 1) sinusitis
- 2) Middle ear infections.
- 3) Atrophic pharyngitis
- 4) Psychological

Complications like depression and may become an introvert.

Investigations :-

- 1) Xray for the detection of sinusitis and tuberculosis etc.
- 2) VDRL for detecting syphilis.
- 3) Haemogram for detecting anaemia.
- 4) Dermotological examination for detecting Leprosy.
- 5) Nasal smear for detecting leprosy and tuberculosis.
- 6) Biopsy
- 7) Clinical findings.

Treatment :-

- 1) The cause should be treated.
- 2) Improving the nasal hygiene by preventing the crusting by putting antibiotic nasal drops. alkaline douche, ex: nasal drops 25% glucose in glucerine, and by local infiltration of placental extract (Placentrex) etc.
- 3) Systemic antibiotics, nutrients, vitamins, vasodilators.
- 4) Surgical treatment.

4) Rhinitis Sicca :-

It is a mild form of atrophic Rhinitis occurs usually in dry hot dusty environment.

The main feature is drying and crusting in the anterior one third of the nasal cavity.

Clinical Features :-

- 1) Drying and crusting of anterior 1/3 of nasal cavity.
- 2) Nasal irritation.
- 3) Ulceration in the Nasal mucosa. and leads to epistaxis.
- 4) Septal perforation in deep ulcerations.

Treatment :-

- 1) Lubrication of Nose with vaseline ghee or oil etc.
- 2) Alkaline nasal douching.
- 3) Care from dry hot dusty environment.

5) Rhinitis Caseosa (Nasal Cholesteatoma)

This is a rare chronic inflammatory condition of the nose associated with formation of granulation tissue and a cheesy epithelial debris (caseous material) in the nose, this may result from chronic sinusitis, presence of foreign body or due to disintegration of nasal polyp.

Treatment :- 1) Removal of caseous material 2) Improving of Nasal hygiene 3) Should treat the underlying cause.

6) Malignant granuloma :-

This is of two types.

- 1) **Stewart's granuloma** :- is a localised progressive ulceration of the tissues of the nose sinuses and pharynx, produces destructive lesions in the bones, cartilages and soft tissues.

Treatment :- Radio therapy

2) **Wegener's granulomatosis** :-

It is a necrotizing granuloma affecting the nose lungs and kidney.

Treatment :-

- 1) Cytotoxic drugs.
- 2) Steroids.
- 3) Antimetabolites.

I/B/b) SPECIFIC CHRONIC RHINITIS

1) **Rhino Sproidiosis** :-

The diseases is caused by the fungus "Rhino sporidium seeberi" or "R. Kinealyi" (Spore-bearing fungus). It is usually limited to coastal states. Like Kerala, Andrapradesh, madras, Karnataka, Maharashtra.

It occurs mostly to farmers and is predisposed by trauma. The mode of infection is thought to be the dust from the dung of infected cattle, the nasal mucosa affects, but lesions are seen in Naso pharynx, pharynx bronchi and skin, clinically characterised by formation of bleeding papillomatous and polypoidal lesions which have a strawberry appearance.

The clinical features are Rhinorrhoea, Nasal blockage epistaxis and protrusion of extra growths. The disease spreads to lungs, liver, spleen, eyes and genitalia.

Treatment :-

1) Excision of the growth and cauterisation of the base or cryosurgery or laser surgery may be beneficial.

2) Rhino Scleroma :-

It is a progressive granulomatous disease of respiratory tract caused by *Klebsiella Rhinoscleromatis* (Frisch bacillus).

It is a chronic infection of the nose characterised by sclerosis and stenosis of the nasal passage.

Clinical features can be explained in four stages.

- 1) **Prodromal stage Or catarrhal stage:-** Rhinorrhoea present.
- 2) **Atrophic stage :-** Atrophic changes in the nasal mucosa.
- 3) **Nodular Stage :-** Bluishred nodules appear at the mucocutaneous junction of septum.
- 4) **Stenotic or fibrotic or cicatrising stage -** stenosis of nose and nasopharynx develops.

Diagnosis - History, - Clinical examination and biopsy confirm the disease.

Treatment :-

- 1) Antibiotics like streptomycin, chloramphenicol, rifampicin steroids, tetracyclines may prove helpful.
- 2) Surgery to re-establish the airway.

3) Syphilis :-

Primary and secondary stages of syphilis are rarely seen in the nose. In the tertiary stage Gummatous ulcer (ulcerative nodule) develops in the bony part of the septum. The associated symptoms are bony septal perforation, depression of the nasal bridge, pain and headache particularly during night, marked tenderness and offensive nasal discharge.

If the disease aggravates causes complications like stenosis of the nasal cavity collapse of the nasal bony frame, perforation of the palate and atrophic rhinitis etc

Treatment :-

- 1) Anti Syphilitic treatment
- 2) Symptomatic treatment.

4) Leprosy :-

The causative organism is *Mycobacterium leprae*. Nasal lesions are commonly seen in lepromatous leprosy, affected part is Antero inferior part of nasal septum. Initially a nodule forms which leads to ulceration and perforation of the nasal septum with deformity of nose. Later the palate and the larynx may be involved. The patient complains of nasal obstruction, crust formation, blood stained nasal discharge, nodular thickening of mucosa of inferior turbinate, atrophic rhinitis changes and stenosis of anterior nares.

Diagnosis :-

- 1) Clinical Picture
- 2) Nasal smear test for A.F. Bacilli
- 3) Biopsy of granuloma

5) Tuberculosis :-

It is secondary to pulmonary tuberculosis, it rarely affects the nose, it may form a granuloma at the cartilaginous septum resulting in destruction and perforation.

The clinical features are nasal obstruction, discharge, crusting, pain and On examination ulcerative nodular granulomatous lesion with septal perforation is seen.

Treatment :- Anti tuberculous treatment.

6) Lupus Vulgaris :-

It is a tuberculous infection of low virulence, usually involves the mucocutaneous junction at the vestibule of the nose, with ulceration and apple jelly nodules formation. The nasal septum may perforate and the nose may be deformed. Symptoms of atrophic rhinitis follow, the disease spreads to pharynx larynx and lungs.

Treatment :- Anti tuberculous treatment

Note :- Other chronic specific rhinitis are uncommon.

II) NON INFECTIVE RHINITIS

1) Allergic Rhinitis :-

It is a common disorder which is usually characterised by spasmodic attacks of severe sneezing and rhinorrhoea, occurs due to altered reactivity, of the nasal mucosa to certain allergens like.

a) **Exogenous allergens :-** Inhalants (dust pollens, animal odour, feathers, moulds, house dust and mites), ingestants (food like eggs, fish milk citrus fruits etc),

Contactants (cosmetics and powders), **irritants** (fumes and smoke), **drugs** (aspirin, hypotensive drugs, iodides, and nasal drops), **infections** etc.,

b) Endogenous allergens :-
Intestinal helminths, tissue proteins, etc.

Predisposing factors :- a) Hereditary factors, b) Hormonal effects during puberty or pregnancy, c) climate - change in Humidity and atmospheric pollution d) Emotional factors etc.

Pathology :-
Antigen (allergen) + mucosa --- Histamines released, causes vaso dilatation, increased capillary permeability, copious secretions from mucosal glands, leads to congestion oedema and swelling of mucosa, there is cellular infiltrations of mucosa by Eosinophils, plasma cells, and lymphocytes. Because of oedema and swelling secondary bacterial infection occur, as the disease progresses there are chances for polyp formation in the nose and sinuses. other complications are serous otitis media, suppurative otitis media, Bronchial asthma etc.

Clinical Types :- 2 types are

- 1) Seasonal - Due to inhalant allergens, climate environmental changes
- 2) Perennial - affects through out the year.

Signs & Symptoms :-

1) Symptoms :-

Nasal irritation, paroxysmal sneezing, watery copious rhinorrhoea, nasal obstruction and anosmia.

2) Signs :-

- a) **Acute stage :-** Pale nasal mucosa with excessive secretions
- b) **Chronic stage :-** Bluish or purplish mucosa due to venous stasis.
- c) **Infection :-** Secondary bacterial infection is added.
- d) **Polyps:-** may be present.

Concomitant Allergy :-

- a) **Eyes :-** Itching and watering of eyes is often present.
- b) **Ears :-** Eustachian tube blockage may leads to middle ear problems.
- c) Allergic Pharyngitis.
- d) Allergic bronchial asthma.

Diagnosis :-

- 1) Clinical features & History
- 2) Nasal secretion may contain Eosinophils.
- 3) Haemogram shows Eosino philia
- 4) Stools for helminths.
- 5) Intra dermal skin test,
- 6) Nasal provacation test.
- 7) Elimination test for food.
- 8) RAST (Radio allerge sorbent test)

Treatment :- 1) Avoidance of the allergen 2) Desensitization 3) Anti histamines 4) Steroids 5) Nasal decongestants. 6) Symptomatic treatment 7) Surgical correction of the predisposing diseases like deviated nasal septum, hypertrophied turbinates etc.

2) Vasmotor Rhinitis :-

It is a non infective condition occurs due to vaso motor disturbances consequent to autonomic dysfunction. Various factors play a part in its causation like psychogenic instability, emotional conditions, hormonal changes, climate variations antihypertensive drugs Anti depressants and decongestants.

The Aetiological factors are merely similar to allergic Rhinitis. except allergens.

Clinical Features :-

- 1) Sneezing is less than Allergic Rhinitis .
- 2) Symptoms appear more frequent than Allergic rhinitis.
- 3) Lacrimation is occasional
- 4) Nasal obstruction and Rhinorrhoea are more marked.
- 5) Eosinophilia is less marked.
- 6) Nasal mucosa is markedly swollen
- 7) Skin tests for Allergy are negative.
- 8) Anti histamine response is variably.
- 9) Vidian neurectomy is helpful.

Treatment :- Except desensitization, rest of the treatment is similar to Allergic rhinitis.

SINUSITIS (Dusta Pratishtaya)

(Shirashoola can be co-related to sinusitis)

The mucosal inflammation of the paranasal sinuses, may be acute or chronic, commonly associate with rhinitis, is known as sinusitis. Commonly one or two sinuses affect, if all sinuses are involved resulting in pansinusitis.

1) Maxillary sinus :- is most commonly involved due to inadequate drainage of this sinus owing to the position of the ostium which is situated near the roof of its medial wall and due to its relation to the upper premolar and molar teeth which present at the floor of the sinus **2) Frontal sinusitis** is very less frequency **3) Ethmoidal sinusitis** and **4) Sphenoidal sinusitis** are very rare.

ACUTE SINUSITIS (MAXILLARY)

Predisposing Factors :-

1) Nasal infections :- common cold, influenza, deviated nasal septum, hypertrophic turbinates, polyps, tumours etc causes stagnation of sinus secretions and infection follows.

2) Nasal Allergy :- Leads to nasal obstruction and inadequate drainage of sinus secretions.

3) Forceful blowing of nose.

4) Swimming and diving, cold exposure .

5) Barotrauma.

6) Dental infection - especially upper premolar and molar teeth.

7) Trauma to the sinus.

8) Blood borne infection

9) Peripheral infections like Tonsillitis adenoids etc.

10) Lowered resistance

11) Atmospheric Pollution

12) General diseases like influenza Measles, whooping cough and other specific diseases like tuberculosis, leprosy etc.

13) Chronic suppurative lung diseases,

14) Viral infections.

15) Bacterial infection by strepto cocci, pneumo cocci, micro coccus catarrhals, staphylo cocci, Haemophilus- influenzae, Bacillus pyocyaneus, Bacillus coli, Bacillus necrodentalis, Bacillus Pfeiffer, Bacillus friedlanders.

pathology :-

a) Catarrhal stage - Congestion and oedema of mucosa and hypertrophy of mucous glands.

b Exudation :- Due to increased glandular activity, secretions collect in the sinus which are mucoid initially.

c) Purulent Stage :- Infection Progresses and there is thick mucopurulent discharge - some times comes out through the ostium or produce empyema of the sinus.

4) Stage of Complication :-

Pan-sinusitis , middle ear infections, pharyngitis, laryngitis, tracheo-bronchitis, ophthalmic problems, osteo myelitis of maxilla, Asthma, mucocoele, pyocoele and oro antral fistula .

5) Stage of Resolution :-

It depends upon the virulence of virus, resistance of the body and antibiotics administered .

symptoms :- 1) Discomfort at naso pharyngeal region.

2) Pain at maxillary region, may radiate to eyes teeth ear and frontal sinus - aggravate on bending down, coughing and sneezing .

3) Nasal discharge mucoid or purulent or blood stained (foul smelling discharge suggestive of dental origin .

4) Blocking of Nose due to oedema of mucosa.

5) Nasal resonance due to blocking of nose

6) Dry cough due to post nasal drip.

7) Epistaxis is due to congestion of mucosa.

8) Fever headache, malaise etc.

Signs :-

1) Slight oedema at the affected area

2) Tenderness over the cheek and Floor of the sinus.

3) Anterior rhinoscopy reveals the congestion of Nasal mucosa and turbinates especially at middle turbinate.

4) Posterior Rhinoscopy may reveal purulent discharge trickling down through the choana .

Investigations :-

1) Posture test

1) Patient is asked to be in sitting position then discharge in the nose is wiped out if discharge reappears in middle meatus that is from frontal sinus.

2) Patient is asked to lie down on an affected side if discharge reappears that is from maxillary sinus.

2) Transillumination test :-

In dark room a lighted bulb is placed in the oral cavity, if the sinus is translucent infra orbital crescent appears if not absent.

- 3) Radiography of paranasal sinuses.
- 4) Bacteriological examination of Nasal smear for culture and sensitivity.
- 5) Endoscopy of nose and para nasal sinuses.

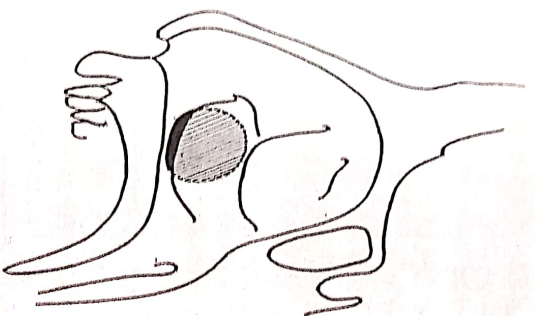
Treatment :-

1) Antibiotics 2) Decongestants 3) Analgesics 4) Antihistamines. 5) Rest 6) Local decongestant drops 7) Steam inhalation. 8) Antral puncture is advised if medical treatment fails (it is conducted either in Local or general anaesthesia, the Procedure consist of inserting of trocar with cannula in to the maxillary sinus through inferior meatus to wash the sinus with lukewarm water to irrigate the exudates out.

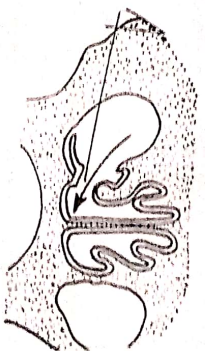
2) Acute Frontal Sinusitis :-

It is less common than maxillary sinusitis, aetio-pathology is similar to maxillary sinusitis except the following.

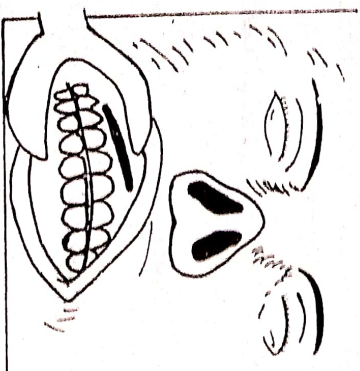
- 1) Dental infection cannot cause frontal sinusitis
- 2) Maxillary sinusitis may cause secondary frontal sinusitis via fronto nasal dust
- 3) Pain in the frontal region and may radiate to the temporal and parietal regions, it is maximum in the morning and gradually subsides during the course of the day.
- 4) Tender ness present at the medial part of the floor of sinus above the inner canthus.



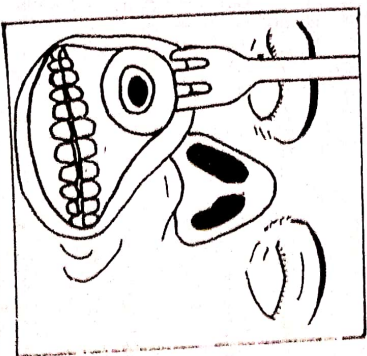
Site of intranasal antrostomy



Intranasal Antrostomy (right).



Sublabial incision for Caldwell-Luc operation



Opening in cribriform wall of maxillary sinus

Antal puncture cannula in the maxillary antrum inserted through the inferior meatus.

Lateral wall of the nose with the inferior turbinate removed to show the site for antral puncture

5) The discharge from the frontal sinus appears in the middle meatus in upright position of the patient.

6) Complications are osteomyelitis, orbital complications, cavernous sinus thrombosis and intra cranial complications.

7) Treatment is similar, in addition trephening the floor at the medial end of frontal sinus done for washing the sinus with antibiotic solution.

3) Ethmoidal and sphenoidal sinuses are rare, ethmoidal sinusitis causes pain in the eyes or behind the eyes, sphenoidal sinusitis may produce occipital or central headache.

4) Chronic Frontal Sinusitis :-

Similar to acute infection but pain and tenderness is less severe.

Treatment :- 1) Elimination of pre-disposing factors

2) Surgical drainage of frontal sinus.

3) An operation of frontal sinus similar to Caldwell - Luc operation should be performed occasionally.

5) Chronic Maxillary Sinusitis

It is similar to acute infection but pain and tenderness are mild or absent, Hawking and dry Cough present due to post nasal discharge, Hyposmia or cacosmia may occur occasionally.

Treatment :-

1) Conservatory treatment is like Acute maxillary sinusitis.

2) Antial Puncture with trochar and canula. at anterior end of inferior turbinate to irrigate the maxillary sinus.

3) Nasal obstructing lesions should be treated.

4) Dental infection should be treated.

5) Intranasal antrostomy.

6) Caldwell - Luc, operation is advisable, if repeated purulent secretion is found during antial wash - in this a sub-labial incision is given through canine fossa.

NASAL FOREIGN BODIES

Nasal foreign bodies are common in children and infants. The common foreign bodies are buttons, seeds, beads, peas, papers, rubber, plastic materials and maggots (in poor hygienic and suppurative diseases of Nose and Paranasal sinuses)

Parents bring the child to the hospital for the following reasons .

1) With the history of insertion of foreign bodies.

2) Foul smell (unilateral) with nasal discharge.

3) Pain, headache, crawling sensation and worms coming out of the nose in the case of Maggots.

Removal of foreign bodies :-

Foreign bodies like buttons, sponges, papers etc should be removed with forceps. round objects such as peas, beans etc should be removed with hook.

The child should be held properly by an assistant, the tip of the hook is introduced along the roof of the nose and placed behind the foreign body, the foreign body is lodged in the angle of the hook and brought out. In a non co-operative child General anaesthesia will be necessary .

For Maggots, Nose is irrigated with chloroform water or Packed with gauze soaked in ether, this stupifies the maggots which are washed out in large numbers. Then Nose is packed with turpentine for 24 hours, and Nasal douching is repeated with antibiotics.

Rhinolith :- Calcareous mass often found in the nose The deposits of carbonates and phosphates of calcium and magnesium formed around a foreign body, blood clot or mucous and leads to blackish or Brownish calcareous mass formation.

Clinical features :- Pain, Nasal obstruction, Nasal discharge and epistaxis. **Treatment :-** Removal of mass and anti-inflammatory therapy should be given.

7) POOTHI NAASA OR POOTHI NASYA Atrophic Rhinitis Or Ozaena or Frontal sinusitis

Vitiated pitta Raktha and Kapha Produces vitiation at Gala and Talu moola and expel foul smell (Vitiation of Vata) Through nose and mouth is known as poothi Nasa (Sushruta. U. 22).

Vitiated doshas by deranging the tailu modala expel foul smell with Kapha through Nose and mouth (Vagbhata. A.H.U. 19)

It can be correlated to atrophic rhinitis.

Videha :- Vitiated pitta Raktha and Kapha accumulates in shiras, get burnt by Pittoshma, causes pain in the eyes and temporal region, expel foul smell, blood stained Yellowish nasal discharge with itching sensation and fever, it is known as poothi nasyam, it can be co-related to frontal sinusitis.

Treatment :-

1) Like Apeenasa (Su) and Kaphaja peenasa (Vag)

2) Sneha, sweda, vaman, mruudu virechan, ,
dhooma pana. Avapeedan Nasya-sneha nasaya. Langan, teekshna ahara and hot water utility for daily needs.

3) **Avapeedan Nasya :-**

Hingu, Trikatu, sweitha puramava, Vatsak, Laksha, shireesha beeja, Katphala, Vacha, Kusta, shigru, vidanga, Karanja - Swarasa Nasya.

4) **Snehan Nasya :-**

Medicated oil prepared with the Above drugs, sarshapa taila and gomatra is used for Nasya.

5) **Vyaghree taila Nasya or Vyaghree swarasa** (The medicated oil prepared from Vyaghree, danthi beeja, vacha, shigru, trikatu, saindhava lavan and Taila).

6) **Shatbindu ghrittha Nasya.** (The medicated ghee prepared from

Bringaraj, Lavanga, yasimadu, Kusta, shunthi - Ghrittha).

7) Oral in take of guda + Maricha + dadhi.

8) " Vidanga cnurma + godhuma pista, Shaskuli should be prepared.

9) " godhuma pista + guda + ghrittha.

8) NASA PAKA OR NASIKA PAKA

(Nasal furunculosis or Herpes or Dermatitis of the Nasal vestibule.)

a) vitiated Pitta dosha causes acute inflammatory changes by the eruption of small plicae (Vesicles) in the nasal cavity, the plicae suppurates and discharges sticky secretion with atrophic changes (Su. u. 22).

b) Vitiated Raktha and pitta produces furuncles in the nose, associated with pain, burning sensation, redness and oedema, is known as Nasa paka (cha- chi - 26).

c) Vitiated Pitta dosha causes vitiation in twak and mamsa of nose and leads to eruption of furuncles associated with pain, burning sensation and oedema, is known as ghtrana paka (A.H.U. 16)

Treatment :-

1) **Pitta hara Chikitsa**

2) **External :-**

- Application of ghrittha or shathadhoutha ghrittha
- Seka with the decoction of ksheeri vrushka (Pancha vaikala
- jalouska Mokshana.

3) **Internal :-**

- Pitta hara Ahara - Vinar
- Oral intake of ghrittha + ksheera
- " Jangala Mamasa rasa
- " Kiishora guggulu
- " Manjistadi quath, chandanasaav.
- " Shadanga paneeya, usheerasav, Tandulodak etc
- " Praval, Muktha, shukti, gryika etc.,
- Sneha, mruudu sweda, Lepa, seka, sneha dhooma, mruudu virechan and nasya (Anuttaila nasya).

9) POOYA SHONITHA OR POOYA RAKTHA

(Frontal sinusitis, Hypertrophic or chronic Rhinitis)

It is of 2 types 1) Doshaj or Nija 2) Aaganthaja or Abhignataja.

1) **Nija or doshaj :-** due to pitta and Rakta vitiation

2) **Aaganthuja or abhignataja :-** Due to injury to frontal region.

Either due to pitta Rakta doshas vitiation or due to injury to frontal region of head, blood stained pus discharge comes through Nasal cavity is known as pooya Raktha .

Vagbhata Added the symptoms like pain and burning sensation in the head.

Treatment :-

1) Vaman 2) Avapeedan nasya (Rechana nasyam) 3) Teekshna dhooma pana 4) In mild case Raktha peenasa chikitsa should be done 5) In severe case Nadi vrana chikitsa should be done.

Note :- Nasa arbuda, Kshayarbuda, Abhignata, Phiranga, nasal Paranasal chronic diseases, Nasa arsha etc may lead to pooya Rakta.

10) KSHAVATHU

(Allergic rhinitis or Vaso motor Rhinitis)

It is of 2 types - 1) Doshaja 2) Aaganthuja

1) Doshaja Kshavathu :-

Vitiated vatadi doshas affects the shrungataka marma of Nasal cavity, and so the vitiated vata and kapha dosha forcibly eliminated through nose with sounds frequently, is known as doshaja kshavathu, (sushrutia)

2) Aaganthuja Kshavathu.

The Nasal shrungataka Marma is stimulated by the following causes and produces sounds through nose with nasal discharge Frequently, the irritative factors are inhalation of katu Teekshna items like maricha tobacco and chillies, nasal picking with sticks, direct exposure to sun rays etc.,

Vagbhata :- Explained above two types as one in the name of Bhruhshakshava

Charaka - Vitiated Vata by irritating shrungataka marma causes the Kshavathu.

Treatment :-

- 1) Ghrita pana 2) ghrita abhyanga 3) Shiro vasti. 4) mrudu Sweda to shiras 5) Snigda dhooma 6) Nasya 7) Pratisnyaya chikitsa 8) Avoiding the allergic factors. 9) Pradaman Nasya with 10) Avapeedan Nasya with Pippali, shunthi, maricha, vidanga, sighru beela, 11) Shatbindu taila Nasya. 12) Sneha nasya prepared with Shunthi, kusta, pippali, vell, draksha, Tila taila.
- 13) Oral intake of agastyaa hareetaki
- 14) " Chitraka hareetaki
- 15) " Maha Lakshmi vilas ras
- 16) " Sheleshma shilendra ras
- 17) " Rasayan chikitsa
- 18) " Anti allergic treatment Preventive as well as curative.
- 19) Rest.

11) BRAMSHATHU

Hypertrophic or chronic rhinitis, frontal sinusitis

The accumulated Kapha of shiras (Because of repeated sneezes the nasal mucosa becomes inflamed or get hypertrophied) dissolved, burnt by pittoshma and expels sticky salty mucus discharge through the nasal cavity is known as Bramshathu. It is secondary to the kshavathu and the treatment is as like Kshavathu.

DEEPTHA OR DEEPTHI (ACUTE CATARRHAL RHINITIS)

It is due to pitta and Raktha vitiation, associated with Burning sensation in the nose, smoky feeling, un-tolerable pain and tenderness.

Treatment :-

- 1) Pita Raktha hara chikitsa
- 2) Cool applications, (Lepa seka) ex - shatadautha ghrita
- 3) Modhura Tiktha kashaya (Ahara)sheeta veerya Aushada and sheetala vihara.
- 4) The following remedies can be given for external and internal usage.

Chandana, usheera, Nagakesara, musta, muktha, ghrita, shunthi, pravala pisti, chandanadi vati, Chandanadi loha, Lagu Sahasekara ras, Triphala guggulu, Nimbadi guggulu, shadanga paneeya, Ksheeri sarpi chandanasaav, usheerasav etc. drugs are useful.

- 5) Brumhana or shamana Nasya should be given ex 1) Rasanjana Nasya
- 2) Ksheeri sarpi Nasya.

13) GHRANA SRAVA & NASA SRAVA OR NASA PARISRAVA (Acute or chronic Rhinorrhoea)

The kapha (mucosa) of shrungatak area of the nose is affected and discharges colourless watery secretions from the nose continuously and more severe at nights, is known as nasa srava or parisrava.

Charak - Solid, yellowish, pakwa, Nasasrava comes by the vitiation of masthishka.

Bhavamishra & Yoga ratnakar :-

Some times solid discharge and some times watery discharge comes through the nose, is known as Nasa srava.

Treatment :-

- 1) Shiro virechan
- 2) Hingu, Vyoshadi Teekshna Avapeedan Nasya.
- 3) Teekshna dhooma pana (Devadanu, chitramoola)
- 4) Aja mamsa sevana
- 5) Gandak rasayana usage
- 6) Pratisnyaya Chikitsa.

14) NASA SOSHA (Atrophic Rhinitis)

Vata and Pitta causes dryness of nasal mucosa, leads to difficulty in olfaction and respiration, is explained as Nasa sosha.

Charaka :- Vitiated vata causes dryness of nasal mucosa and shrungataka marmma, is explained as Nasa sosha.

Treatment :-

- | | |
|-----------------------|-----------------|
| 1) Ghee + Milk - | for oral intake |
| 2) Kseera Sarpi | " |
| 3) Jangala Mamsa | " |
| 4) Anutaila Nasya | |
| 5) Sneha | 6) Mrudu sweda |
| 7) Sneha dhooma pana. | |

15) NASA GATHA RAKTHAPITTA (Epistaxis)

Bleeding from and through the nose is called as Nasagatha Raktha Pitta, it comes under the Classification of urdwagatha Raktha pitta .

1) According to dosha it is 4 types , they are.

a) Vataj b) Pittaja c) Kaphaj d) sannipathaj
(madhavkar explained Dwandaja Ratapitta also)

2) Dwi Prabhavam :-

- A) a) Yakruith (Liver) b) Pleeha (spleen)
B) a) Aamashayaja b) Pakwashayaja
C) a) Snigdoshna b) rukshnoshna

3) Dwi marga

- a) Urdwa gatha b) Adhogatha
(others explained Tiryakgath as 3rd, some body ubhaya gatha as 3rd)

Samprapthi :- 1) Doshaj 2) Aaganthuja.

1) The Pitta, Raktha predominant vitiated doshas while propagating in the body moves in 3 directions a) upward b) Downward c) Both or irregular, if doshas passes in upward direction there are chances for nasal bleeding.

(Madhava kara explained that in Kapha Predominance doshas moves in upward direction, vata predominance doshas moves in downward direction and in vata Kapa Predominance doshas moves in Both the direction)

- 2) Sniro or Nasa Abhignata (Injury) causes nasal bleeding

CLINICAL FEATURES OF NASAL BLEEDING

Based on Doshas :-

- 1) Vataj Raktha Pitta :- Thin, rough, foamy, black Nasal bleeding.
- 2) Pittaja Raktha Pitta :- The blood is blackish, Decoction like, smoky, and resembles like Agaru and anjana.
- 3) Kaphaja Raktha Pitta :- Blood appears bulk, oily, sticky and in whit colour
- 4) Tridoshaja Raktha Pitta :- All the symptoms of tri-doshas present.

Treatment :- 1) Shodhana therapy in strengthly patients

- 2) Shamana or Stambana therapy in weak patients.
 - 3) Pitta - Raktha hara treatment should be given.
 - 4) Sandhanam - Adjoining the margins or suturing the lesion
- Skandana** - Processing of blood coagulation by dusting medicated powder.
- Pachana** - Medical cauterisation
- Dahana** - Electric Cauterisation.

5) Cool applications, drops, and dusting the powders of, ex: musta, usheera, Naga kesara, chandana, doorva etc.6) Cause should be treated whether Local or systemic 7) Nasya with milk and sugar 8) Nasya with doorva swarasa or ghrittha or draksha or ikshurasa or ksheera or dadima puspaswarasa or spatika + shankara or pancha ksheeri kashaya or Hreberadi kasaya or palaandu moola swarasa or vasa swarasa or Yasati ghrittha or babula patra swarasa, or Aparnaga patra swarasa, or Aamalaki swarasa etc.9) Oral administration of Vasa swarata, Avaleha or ghrittha. 10) Oral administration of Chandanasav usheerasava etc drugs. 11) Ghrittha Pichu. 12) Internal usage of the drugs. Like swarna gyrica, sutasekara ras, Pravala Pisti, mukta pisti, shankha bhasma, chandanadivati, lakshadi guggulu, Kamaduda ras, shubra bhasma, Rakta bandini vati. 13) Santarpana chikitsa.

EPISTAXIS

The Bleeding from the nose (unilateral or bilateral) occurring due to local or systemic causes is known as epistaxis .

- 1) Anterior
- 2) Posterior
- 1) spontaneous
- 2) induced.

Causes of Epistaxis :-

- A) Local causes -
- 1) Congenital :- Multiple telangiectasis or Osler's disease.

2) **Traumatic:-** Trauma to the nose, para nasal sinuses or head, nose picking (especially at little's area), surgical trauma, Barotrauma etc.

3) **Inflammatory :-** Nasal diphtheria, Acute vestibulitis, acute Rhinitis, Acute sinusitis, Adenoids, Chronic Rhinitis, chronic sinusitis, Rhinitis sicca, atrophic rhinitis, Rhino sporidiosis, Tuberculosis, syphilis, leprosy, lupus, etc.

4) **Neoplastic :-** Benign and malignant tumours.

5) Idiopathic

6) **Miscellaneous :-** Foreign bodies, maggots, rhinoliths, vicarious menstruation.

B) General Causes :- or systemic causes

1) Hypertension. 2) Bleeding disorders like leukaemia, haemophilia, Purpura, agranulocytosis, Hodgkin's disease, anaemia etc 3) Increased pressure in superior vena cava due to mitral stenosis, superior mediastinal tumours, whooping cough, pneumonia, Bronchitis, tumours of mediastinum and neck 4) drugs - salicylates, quinine, phosphorus etc 5) Debilitative disorders infective viral fevers, measles, varicella, erysipelas, influenza, Rheumatic fever, endocarditis. 6) Chronic renal failure, uraemia, Toxaemia 7) Miscellaneous - Caisson disease, high altitudes. Vicarious menstruation 8) Idiopathic causes.

Pathology :- 1) 90 % of the cases the bleeding point is Little's area or Kiesselbach's plexus for the rich blood supply due to the anastomosis of many vessels like Anterior ethmoidal, sphenopalatine, posterior ethmoidal, greater palatine and superior labial arteries, it is situated about 6 to 8 mm within the vestibule and 6 mm above the floor of the nose.

2) The area above the middle turbinate receives blood supply from anterior ethmoidal artery, Bleeding chances or there

3) Woodruff's plexus - behind the posterior end of the inferior turbinate (venous anastomosis present here) it is also a site for bleeding per Nose.

Clinical Features :-

1) Quantity may vary from Little to profuse, the symptoms depends upon the quantity of blood loss.

2) Bleeding if anterior, can be seen; if post nasal may be swallowed by the patient or he may spit it out or come as Haemoptysis or Haematemesis. And the other symptoms are 3) Anxiety 4) Discomfort 5) general debility 6) shock 7) If cause is systemic the Local symptoms may appear.

Investigations :-

- 1) Blood pressure
- 2) Haemogram
- 3) Coagulation test
- 4) Radiography
- 5) CT Scan
- 6) Endoscopy 7) Biopsy.

Treatment :-

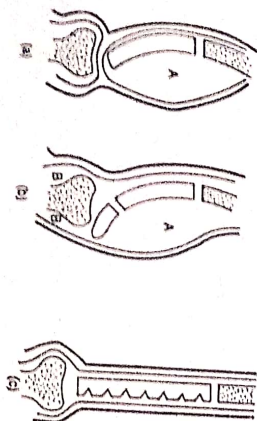
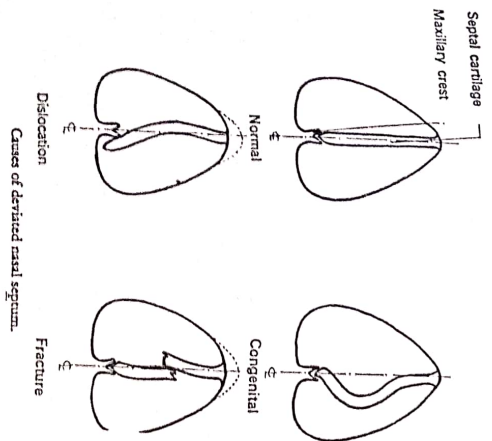
- 1) If there is any specific cause that should be treated.
- 2) First aid
- a) Ice or cold pack application on the bridge of nose to arrest the bleeding by reflex vasoconstriction
- b) Pinching the nose at Little's area for 2 to 3 minutes.
- 3) Anterior nasal packing with a gauze soaked in liquid paraffin or other lubricants.
- 4) Posterior nasal packing is advised if bleeding does not stop by anterior nasal packing
- 5) If the bleeding is due to Local atrophic causes - Lubricant ointment should apply
- 6) If bleeding point is Visible that should be cauterised.
- 7) sedation should be given in suitable doses.
- 8) Blood transfusion if blood Loss is severe
- 9) Calcium vitamins C, K and other haemostate may be given
- 10) Antibiotics to prevent the infection following nasal packing.
- 11) Ligation of the external carotid artery distal to lingual artery or Ethmoidal arteries in the pterygo maxillary fossa.

16) NASANAH OR NASAPRATINAH (Deviated nasal septum)

The udana vayu is get encircled (Aavruttha) with Kapha and causes vitiation in its own place (swa marga vigunya), leads to Nasal obstruction and difficulty in respiration, is known as Nasanaha or Nasa Pratiraha. It can be co-related to deviated Nasal septum, Nasal polyp or cyst or tumour of Nasal cavity those causes nasal obstruction and difficulty in respiration.

Treatment :-

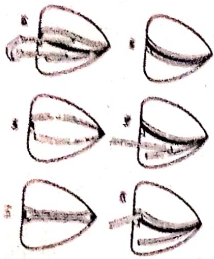
- 1) Intake of Oleus substances after meals
- 2) meal with mamsa rasa
- 3) Ghritaha pana 4) Snigdha dhooma
- 5) Shiro vasti 6) Nasya with Anu taila or shatbindu taila. For oral, massage nasya and for shiro vasti 7) Usage of bala taila
- 8) Nasa sosha chikitsa 9) Brumhana chikitsa.



Septoplasty i) Creation of anterior tunnel (A) ii) Creation of inferior tunnels (B) and excision of inferior strip of cartilage iii) Criss-Cross incisions on cartilage to break spring.



Incision for the submucosal resection of the nasal septum



Steps of the SMR operation (a) Incision; (b) Elevation of the mucoperichondrial flap on one side; (c) Elevation of the mucoperichondrial flap on other side; (d) Use of Kilian long bladed speculum for separating the mucosal flaps from the nasal skeleton; (e) Excision of the deviated nasal septum leaving behind the framework; (f) The end result.

DEVIATED NASAL SEPTUM (D.N.S.)

Deviated Nasal septum is a common and frequent abnormality, requires the treatment when it produces the symptoms.

Aetiology :-

- 1) Hereditary causes
- 2) Congenital causes - compression of nose and upper jaw in the intra uterine period due to abnormal posture.
- 3) Defective development of septum
- 4) Rapid Growth of septum in relation to face so septum buckled to accommodate it self.
- 5) High arch of palate may cause buckling of cartilaginous septum
- 6) Excessive development of middle and inferior turbinate.
- 7) D.N.S. is secondary to the nasal tumours polyps and masses.
- 8) Trauma to the Nose or upper jaw
- 9) Recurrent Nasal Paranasal infections.
- 10) general debility and un hygienic condition.

Clinical features :-

- 1) Asymptomatic - there may be no symptoms
- 2) Blocking of the nose either unilateral or bilateral
- 3) Headache due to sinusitis, Vacuum head ache, Neuralgic head ache etc.
- 4) Recurrent cold due to stagnation of fluids and infection.
- 5) epistaxis - due to stimulation of little's area
- 6) Anosmia 7) Deformity of external nose 8) Dryness of mouth and pharynx 9) On examination of nasal cavity septum appears as deviated either in C shape or S shape or in irregular shape and the turbinates appears as hypertrophied.

Complications :-

- 1) Recurrent Sinusitis.
- 2) Middle ear infections.
- 3) Mouth breathing
- 4) Asthma
- 5) Atrophic rhinitis.

Treatment :- It is required when patient has persistent or recurrent symptoms due to deviated nasal septum permanent relief is obtained by the submucous resection of nasal septum (S.M.R. operation) or septoplasty.

In the early stage decongestant drops and antibiotics gives relief but when there is gross deflection surgical correction is only the choice of treatment.

S.M.R. (SUB MUCOUS RESECTION) OPERATION

The Nose is Locally anaesthetised by packing the nose (on both sides) with a solution of 4 % Lignocaine with 1:100000 adrenaline, further anaesthesia is achieved by submucosal infiltration of 2% Lignocaine with 1:100000 adrenaline (General anaesthesia is advocated in an uncooperated patient).

Patient is operated in a semi sitting position under Local anaesthesia and in supine position under general anaesthesia.

Method :- 1) An incision is made usually in the deviated side through the mucoperichondrium upto the cartilage, just beyond and parallel to the mucocutaneous junction.

2) The mucoperichondrium is then elevated from the deviated portion of the septum by a suitable elevator.

3) Then the cartilage is incised along the first incision this should be carefully done to avoid injury to the mucoperichondrium of opposite side, then the opposite mucoperichondrium should be elevated by introducing a suitable elevator.

4) With the long bladed nasal speculum the mucosal flaps are separated from septal cartilage, then with the help of Ballenger swivel knife and luc forceps the deviated cartilaginous and bony parts of septum should be removed but care should be taken to preserve some part at roof and columella to avoid deformity of external nose

5) Suturing of the flaps is usually not necessary but nose is packed with veselline ribbon gauze to prevent the sticking of mucosa and injury.

Post Operative Care :-

- 1) Anti biotics Analgesics and Antiinflammatories are given 5 to 7 days
- 2) Nasal packs are removed after 48 hours then Nasal decongestants should use for few days
- 3) Application of ointment or oleus things to the nose to loosens crusts or clots.
- 4) Forceble blowing of nose should be avoided .
- 5) Rest for a week.

Complication :-

Haemorrhage 2) Septal haematoma 3) Septal abscess 4) Septal perforation 5) Adhesions of septum with lateral wall 6) Saddle nose 7) flappy septum 8) Neuralgic pain a) Intra cranial complications.

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(17 to 20) NASA ARSHA (NASAL POLYP)

The Twak (Skin), Mamsa (muscle), medas (fat tissue) are vitiated by vatadi doshas and produce polyp like growth is called arsha.

It is of 6 types in general (for guda arsha) they are 1) Vataj 2) Pittaj 3) Kaphaj 4) Raktaj 5) Sannipataj 6) Sahaj

But in Nasa rogas Nasa arsha are explained as 4 types they are 1) Vataj 2) Pittaj 3) Kaphaj 4) Sanni pataj.

Clinical Features :-

1) Difficulty in respiration 2) Sneezing 3) Rhinitis 4) Foul smell from nose 5) headache 6) Nasal Speech.

Treatment :-

It can be correlated to Nasal Polyps, treatment is excision of the polyps, in shalya tantra 1) Aushada 2) Shashtra 3) Kshara 4) Agni Karma are explained for the treatment of Arshas.

21-24) NASA SHOPHA :-

It is an oedema like thing that does not contain any sac in side like tumour. it may occur due to infection, Allergy and trauma. .

It is of 4 Types :

1) Vataja 2) Pittaja 3) Kaphaja 4) Sanni pataj

Symptoms :- Like arshas.

Treatment :- Shotha hara, shoola hara, Vrana ropana, pratishtaya chikitsa should be given.

25-31) ARBUDA (TUMOURS)

The Raktha and mamsa are vitiated by vatadi doshas and produces a round hard and deep rooted growth is known as arbuda.

a) Madhava kara explained 6 types.

1) Vataj 2) Pittaja 3) Kaphaj 4) Raktaj 5) Mamsaja 6) Medoja.

b) According to Shalakyta tantra 7 types in the nose.

1) Vataj 2) Pittaja 3) Kaphaj 4) Raktaj 5) Mamsaja 6) Medoja 7) Sannipataj.

It produces obstructive inflammatory irritative symptoms in the nose. It can be co-related to tumour of the nose.

Treatment :- 1) Aushada 2) Shashtra 3) Kshara 4) Agni Karma according to the condition of the tumour.

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Nasal Polyp :-

Polyp is a pedunculated hypertrophied oedematous mucosa of nose or para nasal sinuses. The Nasal polyps are inflammatory in origin but not Neoplastic - polypoidal swellings are shaped like polyp but not polyps.

Types :- Usually 2 types.

1) Antrochoanal Polyp it arises from the maxillary antrum, grows towards the back of nose (Posterior nares) and reaches Naso pharynx and oropharynx, commonly single doesn't recur after perfect excision.

2) Ethmoidal polyp, multiple, bilateral, arises from ethmoidal sinus and grows towards anterior nares.

Pre-disposing factors :-

- 1) Allergy
ex: Ethmoidal polyp
- 2) Vasomotor
Due to imbalance between sympathetic and Para sympathetic nerves of nose
- 3) Infection
Long Standing bacterial and viral infection
- 4) Mixed causes
- 5) Bernoulli's phenomenon - (Negative pressure in the sinuses) ..
- 6) Polyp saccharide changes in the ground substance.

Pathology :-

Macroscopic Pathology :-

a) **Antro choanal Polyp :-** Prolapsed mucosa hangs from the roof of the antrum, becomes oedematous, through the ostium of maxillary sinus and hiatus semilunaris reaches the choana then to the Naso pharynx and oropharynx.

b) **Ethmoidal Polyps :-** Multiple, Bilateral, the prolapsed mucosa swells and hangs downwards and forwards in the nasal cavity.

Microscopic Pathology :-

The Nasal polyp consist of Soft smooth bluish white masses. The ciliated columnar epithelial covering undergo squamous metaplasia due to chronic irritation, the stroma is fibroillar and oedematous, Lymphocytes, Eosinophils and plasma cells are included. The blood vessels and nerves are scanty so only polyp is painless and avascular.

Clinical Features :-

1) Nasal obstruction which is not relieving with nasal decongestant.

2) Sneezing and watery nasal discharge present in Allergic cases.

3) Mucopurulent discharge in infected cases. 4) Broadening of nose in Ethmoidal polyp 5) Snoring and mouth breathing. 6) Headache epiphora and post nasal drip 7) In anterior Rhinoscopy ethmoidal polyp look like a bunch of grapes, smooth oval pale blue pink or reddish in colour and pain less. 8) In posterior Rhinoscopy Antro choanal polyp looks rounded smooth greyish bluish in colour.

Investigations :- 1) Nasal secretion contain Eosinophils 2) Radiography of sinuses 3) Biopsy.

Treatment :-

- 1) Removal of the causes
- 2) Anti histamines - decongestants - Antibiotics.
- 3) Excision of the polyps.
- 4) Ethmoidectomy in recurrent ethmoidal polyp
- 5) Removal with cold well- luc operation, in recurrent Antro choanal polyp.

Differential Diagnosis of Polyp :-

1) **Hypertrophied turbinate :-**

It is pink in colour, tender, firm to feel, probe cannot passed around the tubinate and it shrink with decongestant drops.

2) **Rhinosporidiosis :-**

Mass arises from septum, strawberry like in appearance, arises to people of costal area due to fungus infection.

3) **Malignancy :-** Contain granulomatous bleeding polypoidal swelling - Histopathology confirms the disease.

4) **Angioma of Nasal septum**, single red smooth and bleeds readily

5) **Meningo cele :-** Prolongation of meninges into nasal cavity as polyp like swelling, aspiratin of fluid and Histopathology confirm the disease

6) **Hamartoma :-** It is developmental malformation consisting of tumour like growth of tissue - Benign in origin but rarely becomes malignant.

7) **Adenoids -** Radiography of Naso pharynx confirm the adenoids locating at the junction of roof and posterior pharyngeal wall.

8) **Naso pharyngeal malignancy :-** In posterior Rhinoscopy irregular growth is seen with lymph node metastasis.

Note :- So after excision of Polyp- Histopathology in necessary to confirm the disease.

Tumours of the Nose and Paranasal Sinuses :-

The benign tumours are not so common in the nose and para nasal sinuses. the following are rarely observed.

Benign Tumours :

1) Papilloma 2) Adenoma 3) Haemangioma 4) Fibroma 5) Osteoma 6) chondroma 7) Osteoclastoma 8) Chordoma 9) Rhinophyma etc.

1) **Papilloma :-** Single or multiple, sessile or pedunculated tumour mostly arises from the skin of vestibule or anterior part of septum - Surgical excision is treatment of choice.

2) **Adenoma :-** It is rare but may become malignant.

3) **Fibroma :-** It is rare, commonly arises from septum and turbinates.

4) **Haemangioma :-** 3 types capillary cavernous and multiple telangiectases (Osler's disease). The commonest is capillary types occurs at septum, osler's disease occurs at Little's area and causes bleeding, excision, and cautery is the treatment.

5) **Osteoma** 3 types.

a) Compact osteoma occurs in frontal sinuses

b) Cancellous osteoma occurs in maxillary and ethmoidal sinuses and

c) Fibrous dysplasia - maxillary and ethmoidal bones are deformed. Excision of the excessive tissue is the choice of treatment for cosmetic purpose.

6) Chondroma 7) Chordoma 8) Osteoclastoma and Rhinophyma are rare.

Malignant tumours :-

Malignant tumours of nose and para nasal sinuses occurs 0.2% of the malignancy of total body (Very less when compared to other parts of body). Rare in the nasal cavity, more frequent in maxillary sinus, less frequent in Ethmoidal sinus, Rare in frontal and sphenoid sinus.

a) **Squamous cell carcinoma** is the commonest type involving the nose with eruption of bleeding polypoidal mass- causes Nasal obstruction and bleeding.

Treatment :- wide surgical excision and Radio therapy

b) **Adeno carcinoma** occurs in maxillary sinus.

c) **Melanoma :-** Rare blackish mass develops inside the nose.

d) **Chondro sarcoma** & meta static tumours are very rare.

e) **Inverted papilloma** develops in the lateral wall of nose as red or greyish mass, it is known as Fingeretz's tumour.

f) Olfactory neuroblastoma develops from sensory olfactory epithelium at cribriform plate of ethmoid bone.

The common clinical features are 1) Nasal obstruction. 2) epistaxis 3) Blood stained nasal discharge 4) Pain and head ache 5) Peripheral lesions like proptosis, epiphora, Toothache swelling of cheek and palate etc.

Diagnosis :- 1) Xray

2) Biopsy

Treatment :- Excision, radio therapy or chemotherapy etc.

CYSTS OF NOSE AND PARANASAL SINUSES

Sinuses :-

Cysts are of different types.

1) Congenital cysts

2) Cystic odontomes

a) Cyst of eruption - Bluish swelling on unerupted deciduous tooth or permanent tooth.

b) **Dentigerous Cyst :-** Arises from the follicle around an unerupted tooth. the tooth is seen in the cyst cavity on xray -Treatment is to remove cyst along with tooth.

c) **Dental cyst :-** The infected tooth produces apical granuloma which forms cyst.

Treatment :- Excision along with carious tooth.

d) **Adamantinoma :-** A diffuse swelling on mandible with eggshell cracking - treatment is radical excision.

3) **Mucocele :-** A cystic swelling of sinus (mostly Frontal some times ethmoid) due to blockage of sinus ostium resulting in thinning and expansion of sinus wall.

Treatment :- Excision and re establishment of drainage.

4) **Dermoids :-** Occurs midline of the nose and extend into septum and inner outer margins of orbit.

5) **Haemorrhagic :-** Bone cysts found in the mandible may be due to trauma.

MUKHA ROGA (DISEASES OF THE ORAL CAVITY & THROAT)

मुख रोग संख्या

“मुखरोगाः पंचषष्टिर्भवन्ति सप्तस्वायतनेषु । तत्रायतनानि-ओष्ठौ, दन्तमूलानि, दन्ताः, जिह्वा, तालु, कण्ठः, सर्वाणि चेति । तत्राष्टावोष्ठयोः पंचदश दन्तमूलेषु अष्टौ दन्तेषु पंच जिह्वायां, नव तालुनि, सप्तदश कण्ठे, त्रयः सर्वेस्वायतनेषु ॥

(सु० नि० अ० 26)

यथा-ओष्ठे गण्डे द्विजे मूले जिह्वायां तालुके गले ॥

वक्त्रे सर्वत्र चेत्युक्तः पंचसप्तातिरामयाः ।

एकादशैको दश च त्रयोदश तथा च षट् ॥

अष्टावष्टादशष्टौ च क्रमात्

(अ० ह० उ० अ० १७)

मुखस्वरूप

ओष्ठौ च दन्तमूलानि दन्ता जिह्वा च तालू च ।

गालो मुख्यादि सकलं सप्ताङ्गं मुखमुच्यते ॥

मुखरोग-संख्या

स्युरष्टावोष्ठयोर्दन्तमूले तु दश षट् तथा ।

दन्तेष्वष्टौ च जिह्वायां पंचस्युर्नवतालुनि ॥

कण्ठे त्वष्टादश प्रोक्तास्त्रयः सर्वेषु च स्मृतः ।

एवं मुखामयाः सर्वे सप्तषष्टिमाता बुधै ॥

(भा० चि० म० ४)

वग्भट के मत से मुखरोग निदान

मात्स्यमाहिषवाराहपिशितामकमूलकम् ।

माषसूपदाधिक्षीरशुके क्षुरसफाणितम् ॥

अवाक्शय्यां च भजतो द्विषतो दन्तधावनम् ।

धूमच्छर्दनगण्डूषानुचितं च सिराव्यधम् ॥

कुम्भः श्लेष्मोत्प्लवा दोषाः कुर्वन्त्यन्तर्मुखान् गदात् ।

(अ० ह० उ० अ० 21)

ANATOMY AND PHYSIOLOGY OF ORAL CAVITY (MUKHA)

The mouth or the oral cavity consists of two parts, a smaller anterior vestibule and a bigger posterior mouth proper, these are separated by teeth and gums and having connection from beyond the last molar teeth when mouth is closed, parotid glands and mucous glands of lips and cheeks are open into the vestibule of mouth. The mouth proper has a floor roof and communicates posteriorly with the pharynx by the Oropharyngeal isthmus. The vestibule of mouth is bounded externally by the lips and Cheeks and internally by the upper and Lower teeth.

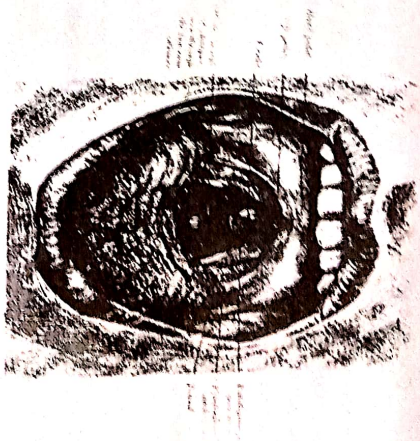
Lips :- (Osta)

Lips are, Two, soft movable structures which surround the oral aperture. By incisivus superioris and inferioris lips attached to the bone (Maxilla and mandible) and also attached by the respective median fold of mucous membrane, known as frenulum. It contains free border, attached border and adjoining angle (Angle of mouth), a shallow median groove present at the centre of upper lip, known as philtrum. It is having two surfaces - cutaneous surface (Externally) and mucosal surface (Internally). The layers of lips from out to inwards are as follows. 1) Cutaneous layer 2) Muscle Layer (Orbicularis Oris) 3) Sub mucous layer (contain labial salivary glands) 4) Mucosa (Reddish pink transparent layer).

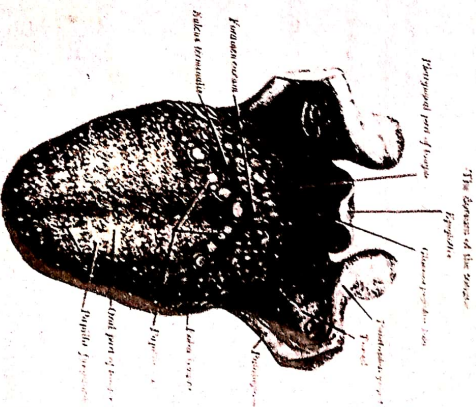
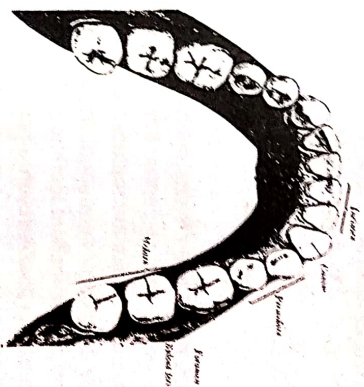
Muscle Attachments of the Lips :-

- 1) **Levator Labii superioris alaeque nasi :-**
Raises and everts the upper lip and dilates the nostrils.
- 2) **Levator labii Superioris :-**
Elevates the upper lips slightly laterally.
- 3) **Zygomaticus minor :-** Elevating upper lip.
- 4) **Levator anguli Oris :-** Raises the angle of lips.
- 5) **Zygomaticus Major :-** Raises the lips upwards laterally as in laughing
- 6) **Mentale :-** Raises and Protrudes the lower lip.
- 7) **Depressor Labii Inferioris :-**
Depress the lips downwards little laterally.
- 8) **Depressor anguli oris :-** Angle of mouth is depressed down wards and laterally.

Note :- The 8 Muscles are supplied by facial Nerve only.



The prominent teeth of the lower dental arch. Superior incisors form an original gingival arch. (Illustration from the text)



B) Gums (Dantha Moola) :-

Gums Or gingivae is a fold of dense Vascular fibrous tissue, covered by mucous membrane, being lined by lightly keratinised squamous epithelium, which is continuous with the mucosa of cheek - it is having two parts, Attached part is firmly adherent to alveolar process of maxillae and mandible, free part surrounds the neck of teeth like a collar.

Nerve Supply :-

Maxillary and mandibular nerves, branches of Trigeminal Nerve.

C) Teeth (Dantha)

The Oral cavity is divided into vestibule and mouth proper by teeth and gums. Teeth are useful to cut, tear and grind the food into small pieces. Teeth are classified into.

1) Deciduous teeth Or Temporary teeth Or milk teeth and .2) Permanent teeth. Deciduous teeth are 20 in number, 2 incisors, 1 canine and 2 molars, in each half of the alveolar arch, the dental formula for deciduous teeth is.

M	C	I	I	C	M
2	1	2	2	1	2
-	-	-	-	-	-
2	1	2	2	1	2

(No premolar teeth)

The eruption of deciduous teeth starts from 6 to 9 months of child age and completes upto 2 or 2 1/2 Years. Then these are replaced by permanent teeth. During the eruption of permanent teeth, the deciduous molars are replaced by permanent pre-molars then posterior to pre-molars eruption of permanent molars takes place (Extra 3 in each half of alveolar arch, so only permanent teeth are 32 : 2 incisors, 1 canine, 2 premolars, and 3 molars in each of alveolar arch.

DENTAL FORMULA

M	PM	C	I	I	C	PM	M
3	2	1	2	2	1	2	3
-	-	-	-	-	-	-	-
3	2	1	2	2	1	2	3

The eruption of permanent teeth starts from 6 Years to 12 Years of age (But the eruption of Last molar teeth from 17 to 25 Years of age). The following charts denote the time of eruption of each tooth.

Eruption of Deciduous Teeth :-

Sl.No.	Name of Tooth	Age of the Child.
1.	Lower Central incisors	6 to 9 months of child age
2.	Upper Central incisors	8 to 10 Months.
3.	Upper Lateral incisors	15 to 21 Months.
4.	Lower Lateral incisors	15 to 21 Months.
5.	First Molar	15 to 21 Months.
6.	Canine	16 to 20 Months.
7.	Second Molar.	21 to 24 Months.

Eruption of Permanent Teeth :-

Sl.No.	Name of Tooth	Age of the Child.
1.	1st Molar	6 Years.
2.	Medial Incisor	7 Years.
3.	Lateral incisor	8 Years.
4.	1st Pre-molar	9 Years.
5.	2nd Pre-molar	10 Years.
6.	Canine	11 to 12 Years.
7.	2nd molar	12 Years.
8.	3rd molar (Wisdom teeth)	17 to 25 Years.

Discription of the Teeth :-

The tooth has root, a crown and a neck. The portion buried within the jaw is called as root, while the portion projecting beyond the gum is called crown, and neck is the constricted portion situated at the junction of above two parts. At the apex of the each root has a pin point aperture known as apical Foramen For the transmission of the vessels and nerves.

Structure of the Teeth :-

Each tooth is composed of Enamel, cement Dentine, and pulp.

- 1) Enamel is white in sensitive substance that covers the crown of the tooth.
- 2) Cement is bony and covers the roots of the teeth.
- 3) Dentine is the yellowish basis of the tooth which is Extremely sensitive which covered by Enamel (at crown area) and cement (at root area).

- 4) **Pulp :-** Dentine contain a cavity within known as pulp cavity that usually opens at the tip of the root through a Foramen known as apical foramen that gives transmission for vessels and nerves.

Each tooth contained in a conical bony socket ; between the root - and bony socket a vascular layer know as peridental membrane present which is covered by gum and attached by an epithelial Layer which may destructed by age and leads to Exposing of cement.

Description of the Structure of Teeth :-

Incisors :- 8 in number , 4 in each jaw. It is chisel shaped with an incising margin, upper incisors are bigger than lower and medial incisors are bigger than lateral. The two labial tubercles of the crown Form the cutting margin and one lingual tubercle remains rudimentary - The root is single, conical with lateral curvature.

Canine :- 4 in number 2 in each jaw, it is longest of all teeth. 2 labial tubercles of the crown are fused to Form a large cone and one lingual tubercle is well defined. the root is single & elongated.

Premolars :- 8 in number, 4 in each jaw, 2 labial tubercles of crown and lingual tubercles appear in pyramidal shape (cusp-like) and have single root (The root of first upper pre-molar is bifurcated).

Molars :- 12 in number, 6 in each jaw. The crown contain 2 labial and 2 lingual tubercles in upper jaw and 2 labial and 1 Lingual tubercles in lower jaw. 3 roots present in upper molars and 2 roots in Lower molars.

Blood Supply :-

Upper Jaw :- Molars and premolars - by posterior superior alveolar branches of maxillary Artery.

Incisors and canine - by Anterior superior alveolar branches of inferior orbital artery.

Lower Jaw :-

All the teeth are supplied by inferior alveolar branches of maxillary artery.

Nerve Supply :-

Upper Jaw :- Molars and pre molars by maxillary nerve and canine and incisors by Infra orbital nerve, lower jaw by the mandibular nerve.

TONGUE (JIHWA)

The Tongue is a mobile organ, bulges upwards From the floor of the mouth, it is covered by stratified squamous epithelium and consists of a mass of straited muscle. Interspersed with little fat and numerous glands. It consists of

- root of tongue
- Apex or tip of tongue
- Dorsum
- Inferior surface
- Right and Left margins Or borders.

a) Root of Tongue :-
It is attached to the hyoid bone and mandible and in between the attachments it comes in contact with Genio hyoid muscle and Myelohyoid muscles. it transmits the nerves and vessels which supply it.

b) Apex or tip of Tongue :- It is free anterior end of tongue, that resists against the incisor teeth.

c) Dorsum of Tongue :- The dorsum of tongue extends from the tip of tongue to the anterior surface of the epiglottis. It is separated into Oral part (Palatine Part) and pharyngeal part by a "V" shaped sulcus terminalis, the apex of which points posteriorly and is marked by a pit the foramen caecum, A shallow median groove extends from the tip of tongue to the foramen caecum. The mucosa of Oral part is rough and thick due to presence of papillae (Most of papillae contain taste buds) where as pharyngeal part or mucosa is smooth thin and nodular in appearance due to the presence of small lymph follicles (Lingual tonsils) in sub mucosa. Posteriorly the mucosa is continuous with anterior surface of epiglottis and the glosso epiglottic fold connects the tongue with the epiglottis.

Inferior surface and sides of Tongue :-

The inferior surface and sides are covered with thin smooth mucosa. in the middle a raised fold of mucosa joins the inferior surface to the floor of mouth known as frenulum Linguae. on each side of Frenulum Linguae deep Lingual veins present, on lateral sides of Lingual veins there is fringed Fold of mucosa known as plicae fimbriata and in the floor the openings of sub mandibular ducts, present on sub lingual papillae .

Actions of Tongue :-

- Organ of Taste.
- Helps in deglutition.
- Helps in speech
- Helps in mastication of food.

Muscles of Tongue :-

(Extrinsic Muscles :-)

1) **Genioglossus :-** The anterior fibres of the muscle, depress the tongue to enlarge the Oral cavity and the postero- inferior fibres help to protrude the tongue, it is supplied by Hypoglossal Nerve.

2) **Hypoglossus :-** It depress the sides of the tongue to enlarge the Oral cavity, it is supplied by Hypoglossal Nerve.

3) **Styloglossus :-** It pulls the tongue postero superiorly as in swallowing, it is supplied by Hypoglossal Nerve.

4) **Palatoglossus :-** It draw the soft palate inferiorly on to the posterior part of the dorsum of the tongue (elevation of tongue) it is supplied by pharyngeal plexus formed by glossopharyngeal and vagus complex,

5) **Chondro Glossus :-** It is a part of hypoglossus, it inserts into intrinsic muscles, in between Hyoglossus and genio glossus.

Intrinsic Muscles :-

- Superior longitudinal muscle curls the tip of tongue upwards and roll it posteriorly.
- Inferior longitudinal muscle curls the tip of tongue inferiorly, with superior longitudinal it retract and widen the tongue.
- Vertical muscle :- Increases the length of tongue for protrusion.
- Transverse muscle :- Narrow the tongue and increases its height.

Motor Nerve Supply :- All the above muscles except palatoglossal are supplied by Hypoglossal nerve.

Note :- Actions of the individual muscles is explained above and others also occurs by the complex combinations.

Sensory Nerve Supply :-

- 1) **Lingual nerve**, branch of Trigeminal, for general sensation of Anterior 2/3 of tongue.
- 2) **Chorda tympani**, branch of facial, for taste sensation of Anterior 2/3 of tongue.
- 3) **Glossopharyngeal**, :- Nerve for posterior 1/3 of tongue for general and taste sensation.
- 4) **Superior laryngeal** - nerve, branch of vagus, supply to the small area adjacent to epiglottis.

Vessels of Tongue :-

- 1) Lingual and deep artery of tongue, to the anterior 2/3 part.
- 2) Dorsalis linguae artery, to the posterior.

Veins :-

- 1) Deep vein and Lingual vein follow the corresponding arteries.

Physiology of Tongue :-

The sense of Taste and smell are closely interrelated, sense of taste does not evolve solely, in the absence of olfaction (Smell sensation) taste sensation is remarkably altered. Primary taste sensations are 4 - a) Sweet (From the tip of tongue) b) Sour (From the sides of tongue) c) Bitter (From the back of tongue) d) Salt (Dorsum of tongue Anteriorly), and other tastes are e) Metallic f) Alkaline.

Tongue is mainly concerned with taste sensation (Other functions speech, mastication and deglutition) Taste buds are the end organs of taste, located in the mucosa of the epiglottis, pharynx, under surface of palate and lateral walls of papillae which present in the Anterior 2/3 of Tongue.

Papillae of the Tongue :- Thickly distributed over the Anterior 2/3 of tongue, these are modifications of mucosa, visible to the naked eye and designed to increase the surface area of mucosa.

- 1) **Vallate Papillae :-** 8 to 12 in number, large in size present in front and parallel to the sulcus terminalis, these are encircled by trench like Furrow (Vallum) and so only named as vallate papillae.
- 2) **Fungi Form Papillae :-** More numerous at sides and apex of tongue, round in shape and appears as bright red spots.
- 3) **Filiform Papillae :-** Numerous in number, present at Anterior 2/3 of dorsum of Tongue, conical cylindrical in shape, run parallel to vallate papillae and at the apex run transversely.

- 4) **Papillae Simples :-** These cover whole of mucosa of tongue, consist of closely set microscopic elevations of corium.

Taste Buds (Gustatory Calyculi)

These are modified neuro epithelial cells, arranged in flask shaped groups in the epithelium of tongue, inferior surface of palate, oro pharynx etc., (Taste buds absent in the mid dorsum of tongue). Broad base resting on corium and its neck opening between the cells of epithelium by an orifice known as gustatory pore. 2 types of cells a) Gustatory cells and. b) Supporting cells present. gustatory cells occupy the central portion of taste bud, spindle shaped with spherical nucleus, the peripheral processes (gustatory hair) ends at the gustatory pore, nerve fibres enter the base of the taste bud, loose their myelin sheath and either invaginate the gustatory cell or lie between them. The substance that should be tasted must be in solution - Normally saliva acts as solvent.

Factors influence the taste Sensation :-

- 1) **Area :** If bigger wider area is stimulated, taste sensation perfectly carried out, if not negligible.
 - 2) **Temperature :-** Taste sensation is modified with temperature - at 30° to 40° c maximum Taste sensation is observed.
 - 3) **olfaction :-** Taste sensation have link with olfaction, if olfaction sensation is poor, Taste sensation also poor.
 - 4) **Individual variation:-** Changes person to person as per their taste preferences.
 - 5) **Adaptation :-** Taking Tea after eating of Sweets, sweet sensation of Tea reduces.
 - 6) **Acceptance and rejection of Foods.**
- Ex :-** Sweets mostly accepted, Acid and salts in higher concentration is rejected.

Pathway of Taste Impulses :-

From Anterior 2/3 of Tongue Taste fibres to Lingual Nerve, to Chorda tympani, to facial Nerve, to Geniculate ganglion, to Dorsal nucleus of facial Nerve (Upper part of nucleus of tractus solitarius) to posterior ventral nucleus of thalamus, to inferior part of post central gyrus of cerebral cortex.

From Posterior 1/3 of Tongue :-

Taste fibres to glossopharyngeal Nerve - to petrous ganglion - to Dorsal nucleus of glossopharyngeal Nerve (Lower part of nucleus of Tractus solitarius) - to posterior ventral nucleus of Thalamus, to inferior part of post central gyrus of cerebral cortex.

Note :- 1) The General sensation From Anterior 2/3 through lingual Nerve, branch of Trigeminal Nerve.

2) Superior laryngeal Nerve branch of Vagus Nerve supply to the small area adjacent to Epiglottis.

SOFT PALATE (TALU)

The soft palate is a flexible muscular flap which extends postero inferiorly from the posterior edge of the hard palate into the pharyngeal cavity. It forms an incomplete septum between mouth and pharynx. the Uvula is hanging down from the middle of its free posterior border which is continuous with palato - pharyngeal arches on each side.

Upper or Dorsal Surface :-

It is convex and is continuous with the floor of nasal cavity. Lower or Anterior surface is concave and an elevated smooth ridge named median raphe present at its median plane. posterior or inferior surface is free margin and contain Uvula centrally. Superiorly attached to the lower border of hard palate and on each side it is attached to the pharynx with palato pharyngeal arches. The dorsal surface is lined with columnar ciliated epithelium where as ventral surface is lined with stratified squamous epithelium. The soft palate contain double fold of mucus membrane which contains the following structures in between them.

A) Palatal Muscles :-

- 1) 2 Levator Palatini muscles (elevates the soft Palate)
- 2) 2 Tensor Palatini Muscles (it make the anterior part of soft palate rigid).

Note :- By the action of these 2 muscles soft palate is elevated and drawn posteriorly against posterior pharyngeal wall and shuts off Nasal part of Pharynx thus permits swallowing without regurgitation of Food into Nose. etc.,

2) 2 glosso Palatini Or Palatoglossus muscles (Draw the soft Palate inferiorly on to posterior part of tongue by that it cuts off mouth against pharynx thus permitting respiration to continue during sucking Or chewing).

4) Pharyngo palatini muscle Or Palato Pharyngeous muscle (it prevents the soft Palate From being Forced into pharynx while blowing through mouth.)

- 5) Musculus Uvulae (Shortens and tenses the uvula).

B) Palatal Aponeurosis :-

Thin fibrous lamella not only supports the muscles but also strengthens them.

C) Palatal Glands.

D) Arteries :-

- 1) Ascending Palatine from facial artery.
- 2) Palatine branch From ascending pharyngeal, artery.
- 3) Lesser Palatine, branch of descending palatine, branch of maxillary artery.
- 4) Dorsal branches of Lingual artery.

E) Nerves :-

- 1) Greater and Lesser Palatine nerves From pterigo palatine ganglion.
- 2) Pharyngeal plexus (Glossopharyngeal + Vagus Nerves)

HARD PALATE

Hard palate is formed by the palatine process of two maxillae and Horizontal palates of palatine bones. Its upper surface forms the floor of the nasal cavity and is lined by columnar ciliated epithelium and Lower surface Forms the roof of mouth which is lined by stratified squamous epithelium, its mucosa - perosteum is much thicker and contains a large number of mucous glands, greater palatine vessels nerves and naso palatine nerves, posteriorly it is attached to soft palate, on either sides it is continuous with the alveolar arches formed by two maxillae.

CHEEKS

The cheeks are directly continuous with lips and have 6 (Six) layer they are 1) Skin 2) buccal pad of Fat 3) Bucco pharyngeal Fascia 4) Buccinator muscle. 5) Molar glands 6) Mucous membrane.

Buccal pad of Fat is more in infants to increase the rigidity of cheeks and assists in sucking process, parotid duct passes above the buccal pad of fat, pierces buccinator and its fascia and enters the mouth opposite to the second upper molar teeth, and molar glands open into mouth at opposite last molar teeth by piercing Buccinator muscle.

Zygomaticus major risorius and platysma muscles also come in the formation of cheek Naso labial sulcus forms a demarcation line between lips and cheeks. Buccinator muscle helps in mastication of Food.

Masseter, Temporalis and medial pterygoid helps to close the mouth and lateral pterygoid to open the mouth.

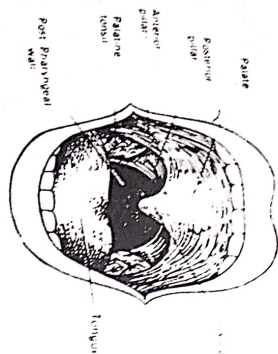
PHARYNX (GALA)

Pharynx is a wide muscular tube. 12 to 14 cm long which is lined throughout with mucous membrane, it extends from the base of the skull to the level of the body of the 6th cervical vertebra (Lower border of cricoid cartilage) where it is continuous with Oesophagus. Widest part of pharynx corresponds to the level of the base of the skull about 3.5cm. and narrowest part is at the Oesophageal Orifice about 10.5 c.m.

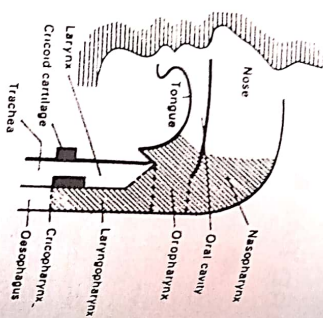
Pharynx is divided into 3 compartments they are as follows : 1) Naso pharynx

- 2) Oropharynx 3) Laryngeal pharynx .

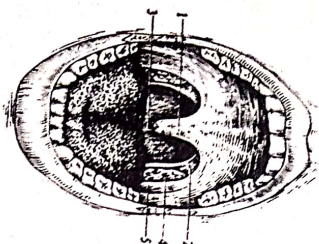
1) **Naso Pharynx :-** Extends from the base of skull to the soft palate, it lies posterior to the nasal cavities and septum. pharyngeal bursa and pharyngeal tonsils (adenoids) present in the mucosa and sub mucosa at the junction of roof and posterior pharyngeal wall, naso pharyngeal isthmus present at the floor, 2 Posterior nasal apertures present in its anterior surface, and openings of auditory tubes and tubal tonsils present in the lateral wall.



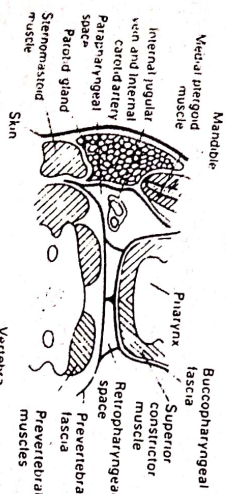
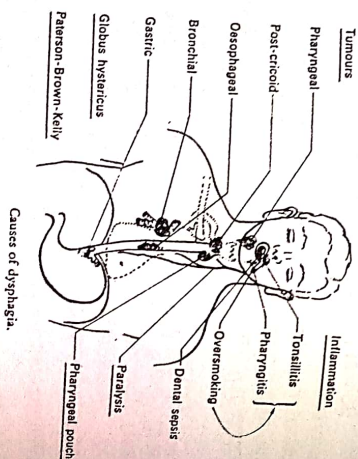
Structures seen on opening the mouth



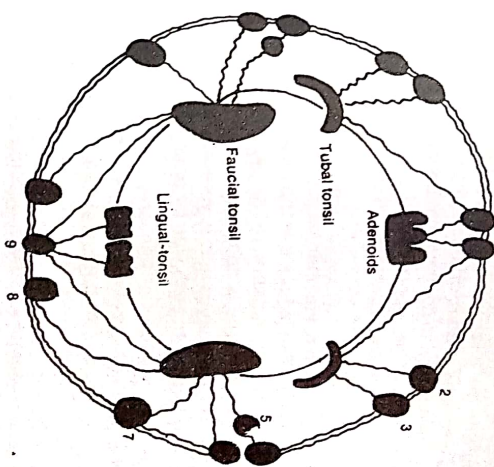
Three parts of the pharynx



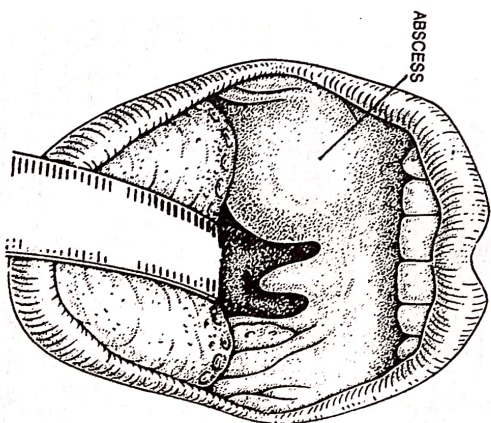
Oropharynx:
1—uvula, 2—palatopharyngeal arch, 3—posterior pharyngeal wall, 4—palatine tonsil, 5—palatoglossal arch



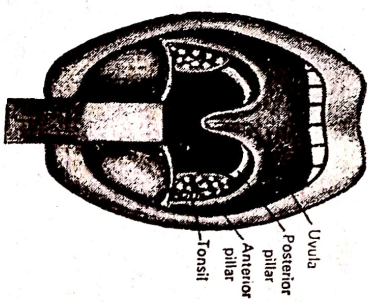
Retropharyngeal and parapharyngeal spaces.



1. Retropharyngeal
2. Styloid
3. Lateral pharyngeal
4. Behind sternomastoid
5. Bifurcation of carotid
6. In front of sternomastoid
7. Angle of jaw (lingulo-diagnostic)
8. Hyoid
9. Sub-mental



Acute peritonsillar abscess



Examination of the tonsils

2) Oropharynx :- It lies opposite the level of the second to fourth cervical vertebrae, superiorly it is continuous with naso pharynx through pharyngeal isthmus and inferiorly with laryngopharynx. Anteriorly having communication with Oral cavity through oropharyngeal isthmus, posterior wall lies opposite the second to Fourth cervical vertebrae in the lateral wall in between palato glossal and palato pharyngeal arches palatine tonsils present.

3) Laryngo Pharynx :- The laryngeal part of the pharynx is continuous above with Oral part of the pharynx and below with the Oesophagus at the level of the lower border of cricoid cartilage, opposite the 6th cervical vertebra. Dorsal wall or Posterior wall lies opposite 5th and 6th cervical vertebrae and is continuous with the dorsal wall of Oropharynx above and dorsal wall of Oesophagus below, ventral wall or anterior wall is formed by larynx. Lateral wall is formed on each side by pharyngo epiglottic fold and by piriform fossa.

Pharyngeal Wall :- The wall of Pharynx contain 5 layers 1) Muscular membrane 2) Sub-mucosa 3) Pharyngo basilar fascia 4) Pharyngeal muscles 5) Bucco pharyngeal fascia.

Bucco pharyngeal fascia covers the external surface of buccinator and pharyngeal muscles and pharyngo basilar fascia covers the internal surface of pharyngeal muscles.

The muscles of pharynx are 3 constrictor muscles (Superior middle and inferior), stylo pharyngeus, Salpingo pharyngeus and palato pharyngeus muscles.

Blood Supply :- 1) Ascending pharyngeal branch of external carotid, Ascending palatine and Tonsillar branches of facial, greater palatine and pharyngeal branches of maxillary artery.

Nerve Supply :- Pharyngeal plexus formed by glossopharyngeal and vagus nerves. External and recurrent laryngeal nerves.

LARYNX(SWARA - YANTRA)

The larynx is the Organ of Voice, Forms the upper part of the respiratory passage and Extends from the root of the tongue to the lower border of cricoid cartilage - opposite the level of 6th cervical vertebra where it becomes continuous with trachea. Superiorly it open into laryngo pharynx and inferiorly into trachea. Anteriorly it is covered by skin, superficial fascia, deep fascia and posteriorly related to ventral surface of Laryngo pharynx, on either sides it is related to the sternohyoid, superior belly of Omohyoid, sternothyroid and thyrohyoid muscles.

Measurements :-

	Male	Female
Length	44 mm	36 mm
Transverse Dia meter	43 mm	41 mm
Antero posterior Diameter.	36 mm	26 mm.

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The structure of larynx contain 9 cartilages, 3 paired cartilages and 3 single cartilages, they are as follows which are connected with ligaments and membranes.

Paired cartilages	Single Cartilages
1) Arytenoid Cartilages	1) Thyroid Cartilage
2) Corniculate Cartilages	2) Cricoid Cartilage
3) Cuneiform Cartilages	3) Epiglottis.

i) Epiglottis :-

It is a leaf like thin cartilage present in between the base of tongue and inlet of larynx. It consists of upper Lower and 2 lateral borders and 2 surfaces (Anterior lingual surface and posterior laryngeal surface). Upper border is free and convex, Lower border is attached to posterior surface of thyroid cartilage a little below to thyro notch by **Thyro epiglottic ligament**. Upper part of lateral borders is free but lower part of lateral border is attached to **Ery epiglottic membrane**. Upper part of anterior surface is free but lower part of anterior surface is attached to the Dorsum of tongue by **Glosso epiglottic fold**, sides by **Pharyngo epiglottic Fold** and to the Hyoid bone by **Hyo epiglottic ligament**, Posterior surface or laryngeal surface is concave at sides and concavo convex from above down wards. The convex lower surface of epiglottis is known as **Tubercle**.

Thyroid Cartilage :-

It is the largest of all cartilages. Consists of two lamina which are fused anteriorly to form an angle and makes a sub cutaneous prominence known as **laryngeal prominence (Adam's apple)**. Superiorly two lamina forms V shaped notch known as **Thyroid notch**. The cartilage is convex anteriorly and concave posteriorly. It contain superior and inferior horns. Superior horn articulates with Hyoid bone by **Thyro hyoid membrane**. Inferior horn articulates with cricoid cartilage. Inferior border gives attachment to **crico thyroid membrane and muscle**. Outer surface (lateral) gives insertion to sternohyoid, thyrohyoid and inferior constrictor of pharynx. Inner surface gives attachments to **Vestibular and Vocal ligaments**. Thyro arytenoidus thyro epiglotticus and vocal muscles. The angle gives attachment to **Thyro epiglottic ligament**.

Chicoid Cartilage :- It is situated below the thyroid cartilage, its lower border forms the lowest limit of larynx and becomes continue as trache. It consist of quadri lateral plate posteriorly and an anterior arch by which it resembles signet ring.

In posterior surface a vertical ridge present that gives attachment to longitudinal fibres of Oesophagus., on either sides gives Origin to crico arytenoidus posterior. Anteriorly on either sides crico thyroideus, posteriorly inferior constrictor of pharynx and From the junction of 2 surfaces inferior horn of thyroid articulates. In Upper border towards the anterior surface cricovocal membrane and crico arytenoidus lateralis arises and the lower border is attached to trachea by Crico tracheal ligament.

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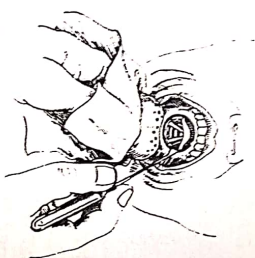
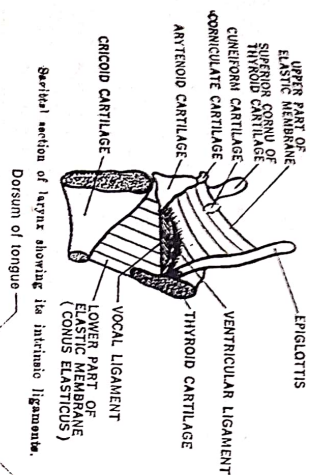
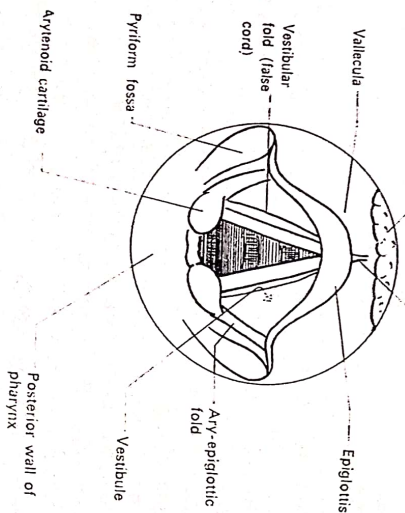
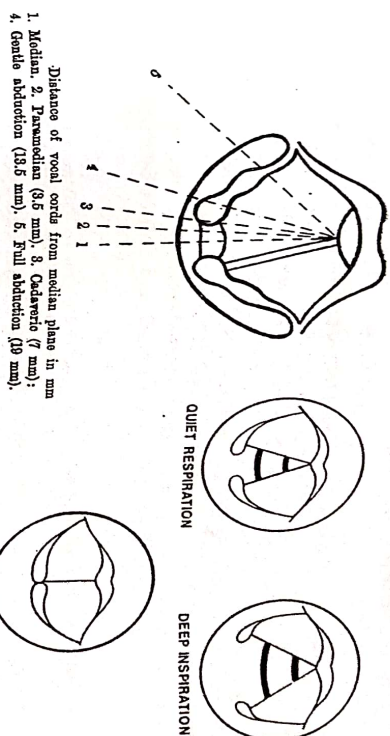


Fig. 81. Indirect laryngoscopy



The Larynx on mirror examination (indirect laryngoscopy)

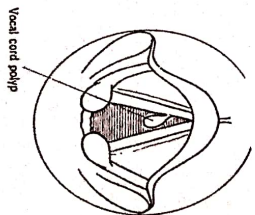


PARALYSED CORD

PHONATION
Various positions of vocal cords

A. UNILATERAL ABDUCTOR PARALYSIS B. BILATERAL ABDUCTOR PARALYSIS

C. UNILATERAL PARALYSIS WITH COMPENSATION BY UNIPARALYSED
Positions of paralysed vocal cords: (a) Unilateral abductor paralysis, (b) Bilateral abductor paralysis, and (c) Unilateral paralysis with compensation by uniparalysed



Arytenoid Cartilage :-

These are placed at the upper border of lamina of cricoid cartilage on the posterior part of the larynx, pyramidal in shape and consists of 3 surfaces a base and an Apex.

The Base articulates with the upper border of lamina of cricoid, posteriorly gives insertion for crico arytenoides lateralis in front and crico arytenoides posterior from behind. Anteriorly a short process known as vocal process present that gives attachment to vocal ligament. The Apex articulates with corniculate cartilage. **Posterior Surfaces** is concave and is covered by Arytenoides transversus, **Antero Lateral surface** is convex and contain irregular ridges, to the upper area vestibular ligament and to the lower area vocal ligament and crico Arytenoides lateralis are attached. The **Medial surface** is smooth and covered by mucous membrane.

4) Corniculate Cartilages :-

These are two small conical nodules of Yellow elastic cartilage present within the Ary epiglottic fold being placed at the Apex of arytenoid cartilage.

5) Cuniliform cartilages :-

These are also two small nodules of Yellow elastic cartilage contain within Ary epiglottic fold, superior lateral to the corniculate cartilages.

Cavum Laryngis (Cavity of Larynx)

It extends from laryngeal inlet (Communicates with pharynx) to the lower border of the cricoid cartilage where it communicates with trachea.

It is incompletely divided into 3 compartments by two pairs of mucous folds, the upper pair of mucous folds are vestibular folds and the lower pair of mucous folds are vocal folds. The portion in between inlet of larynx and vestibular folds is upper division, the portion in between vestibular and vocal folds is middle sub division and the portion below the vocal folds is lower sub division.

In the middle sub division, the fissure in between 2 vestibular folds is known as **Rima Vestibuli** and the fissure in between 2 vocal folds is known as **Rima glottidis**, the packet like sinus on the lateral wall of the larynx between vestibular and vocal folds is known as **sinus of the larynx**. The sacculi of larynx present in between vestibular fold and thyroid cartilage that contain numerous glands which pour out secretions by which larynx always kept lubricated.

Rima glottidis is the narrowest part of larynx and fissure changes its shape and form during phonation and respiration. When two vocal folds are adducted high pitch sounds are produced and when two vocal folds are abducted low pitch sounds are produced. (lower range of pitch in the male voice than female due to greater length of vocal folds 2.5 cm than female, 1.7 cm.)

Muscles of Larynx :-

a) **Extrinsic Muscles :-** These concerned with upward and down ward movements of larynx.

1. Supra hyoid for elevating the larynx and trachea.
2. Infra hyoid for depressing the larynx and trachea.

b) Intrinsic Muscles :-

Regulates the condition of Rima glottidis.

1. Adductors of Vocal folds (closure of glottidis)

- A) Crico arytenoides lateralis.
- B) Arytenoides transversus.
- C) Crico thyroid.
- d) Thyro arytenoid.

2) Abductors of Vocal Folds (Opening of glottidis)

- A) Crico arytenoides posteriores.

3) Tensors of Vocal Folds.

- A) Crico thyroidei muscles.

4) Relaxation of Vocal Folds

Thyro arytenoides and Vocalis muscles.

5) Closure of inlet of larynx.

Oblique arytenoids.

6) Widening of inlet of larynx.

Thyro epiglotticus.

Blood Supply :-

Superior and inferior laryngeal arteries (Branches of superior thyroid artery and inferior thyroid artery respectively). superior and inferior laryngeal veins opens into superior and inferior thyroid veins respectively.

Nerve Supply.

Motor Nerve Supply :-

The recurrent laryngeal Nerves supply all the muscles of larynx except crico thyroideus which is supplied by external laryngeal nerve branch of superior laryngeal Nerve. (Arytenoides having double nerve supply a) Recurrent laryngeal Nerve and internal laryngeal Nerve branch of superior laryngeal Nerve.)

SENSORY NERVE SUPPLY :-

Above the Vocal folds By :- Internal laryngeal Nerve.

Below the Vocal Folds By :- Recurrent laryngeal Nerve.

MUKHA ROGA VARGEEKARANAM

Classification of diseases of Mukha.

Mukha is formed by the combination of following

7 parts.

1) Osta (Lips) 2) Dantha moola (Gums) 3) Dantha (Teeth) 4) Jihwa (Tongue) 5) Talu (Palate) 6) Gala (Throat) 7) Mukhadi (the total)

CLASSIFICATION OF DISEASES OF MUKHA

1) According to sushruta Mukha Rogas	65
2) " " Vegbhata	75
3) " " Bhava Mishra	67
and yoga	
ratnakar	
4) " Charaka	64
5) " Sarangdhar	74

Sl. No.	Affected part	Sushruta	Bhava Mishra	Sarang dhar	Vagbhat
1.	Osta roga (diseases of Lips)	8	8	11	11
2.	Dantha Moola (diseases of gums)	15	16	13	13
3.	Dantha roga (diseases of teeth)	8	8	10	10
4.	Jihwa roga (diseases of tongue)	5	5	6	6
5.	Talu roga (diseases of palate)	3	3	2	2
6.	Gala roga (diseases of Throat)	17	13	13	13
7.	Mukhadi (Total)	3	3	2	2
8.	Ganta roga (Disease of Vishkambha)	-	-	-	1
9.	Total	85	87	74	75

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1. वातिक ओष्ठ-प्रकोप

कर्कशौ परुषौ स्तब्धौ कुण्ठौ तीव्ररुगिचतौ ।
दाल्येते परिपाद्यते ह्योष्ठी मारुतकोपतः ॥

(सु नि अ 16/5)

ओष्ठकोपे तु पक्वात् स्तब्धावोष्ठी महारुगौ ।
दाल्येते परिपाद्यते परुषासितकर्कशौ ॥

(अ ह उ अ २१)

तत्र खण्डौष्ठ इत्युक्ते वातेनोष्ठी द्विधाकृतः ॥

(अ ह उ अ २१)

2. पित्तिक ओष्ठप्रकोप

आचितौ पिटकाभिस्तु सर्षपाकृतिभिर्युग्मम् ।
सदाहपाकसंस्त्रावी नीलौ पीतौ च पित्ततः ॥

(सु नि अ 16/6)

पित्तातीक्ष्णसहौ पीतौ सर्षपाकृतिभिश्चतौ ।
पिटिकाभिर्बहुकरोदावगुण्ठाकौ

(अ ह उ अ २१)

३. कफज ओष्ठप्रकोप

सवर्णाभिस्तु चोदंते पिटकाभिर्करोदंते ।
कण्डूमुन्तौ कफाच्छूनां पिच्छिलौ शीतलौ गुरु ॥

(सु नि अ 16/7)

शीतासहौ गुरु शूनौ सवर्णापिटकाचितौ ।

(अ ह उ अ २१)

4. सान्निपातिक ओष्ठप्रकोप

सकृत् कुण्ठौ सकृत् पीतौ सकृच्चैतौ तथैव च ।
सान्निपातेन विज्ञेयवर्णैर्कफपिटकाचितौ ॥

(सु नि अ 16/8)

सान्निपातवर्णैर्कफौ दुर्गन्धयुक्तौ पिच्छिलौ ॥
अकस्मान् पलाशसंयुक्तौ विषमवर्णकौ ।

(अ ह उ अ २१)

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5. रक्तुष्ट ओष्ठप्रकोप

छत्रुं कलत्राभीभः विडकाभिः समीचिर्तौ ।
रक्तुं सृष्टौ तथैवं कवतः शोणितप्रभा ।

रक्तुं सृष्टौ तथैवं कवतः शोणितप्रभा ।

रक्तुं सृष्टौ तथैवं कवतः शोणितप्रभा ।

6. मेघेदुष्ट ओष्ठप्रकोप

मेघमा धृतमगडाभी कपटुमन्तौ स्थितौ मृदु ।
अच्छं स्रष्टुं कपटुमन्तौ कवतौ गुरु ।

मेघमा धृतमगडाभी कपटुमन्तौ स्थितौ मृदु ।

7. मांसदुष्ट ओष्ठप्रकोप

मांसपिण्डौ गुरु स्थूलौ मांसपिण्डवदुदात्तौ ।
नन्तश्चात्र मूर्च्छन्ति सूक्ष्मभयतो मुखत् ।

8. क्षतन वा अभिघातन ओष्ठप्रकोप

क्षतनाभौ विदोषते पाट्यते चाभिघाततः ।
ग्राथितौ च समाख्यातावोपौ कपटुसमन्वितौ ।

नलावृद्ध

नलावृद्धवद् वातकफादौष्टं नलावृद्धम् ॥

गण्डरोग-गण्डालजी

गण्डालजी स्थितः शोफो गण्डे दाहश्चान्वितः ॥

(सु नि अ 16/9)

(अ ह उ अ २१)

(सु नि अ 16/11)

(अ ह उ अ २१)

(सु नि अ 16/10)

(सु नि अ 16/12)

(अ ह उ अ २१)

(अ ह उ अ २१)

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Osta Rogas (Diseases of Lips)

According to sushruta Osta rogas are 8 and according to Vagbhata osta rogas are 11. They are as follows :

A) Sushruta's Classification (8 Diseases)

- 1) Vataj Osta Prakopa (cracked Lips)
- 2) Pittaj Osta Prakopa (Herpes labialis - aphthous ulcer)
- 3) Kaphaj Osta Prakopa (Herpes Labialis)
- 4) Rakthaj Osta Prakopa (Lip granuloma)
- 5) Sannipathaj Osta Prakopa (aphthous ulcer-carcinoma)
- 6) Mamsaj Osta Prakopa (Epithelioma of Lips)
- 7) Medoj Osta Prakopa (Hypertrophy of Lips)
- 8) Abhigathaj Osta Prakopa (Hare - Lip)

B) Vagbhata's Classification. (11 Diseases)

- 1 to 8 diseases are same as above, and the additional 3 diseases are.
- 9) Khandausta (hare-lip)
- 10) Jalaaubuda (Soft Cyst in lip appearing like water bubble)
- 11) Grandhi (Cyst in lip)
3. Osta rogas - 1) Sannipathaj 2) Mamsaj 3) Rakthaj Osta Prakopa are Asadyam)

1) VATAJA OSTA PRAKOPA (CRACKED LIPS)

Vata dosha vitates and Osta (lip) becomes stony hard (Karkasha), rough (Parusha), stiff (stibda), blackish (Krishna vama), Painful (Atiruk), and with crackings Or Fissures (Sputanam). This condition also visible in cold wind exposure, infection and injury. " If osta (lip) is bifurcated by the vitiation of Vata it is named as Khandausta", and " In abhigathaj Osta Prakopa also lips bifurcates but the following differences are there.

Vataja Osta Prakopa	Abhigathaj Osta Prakopa
1) Only vata vitates	Vata - Kapha and raktha vitates.
2) No history of injury	History of injury present.

Treatment of Vataj Osta Prakopa :-

- 1) a) Abhyanga :- with chathur snehas + madooschista (wax) and also with Yasminadu + Lodhra + Sariba + Shravani + Neeolophala + Patola +Kakamachi+ tailam.
- 2) Nadi Sweda :- With vata Hara dravya Kashaya.
Ex. (Erenda Patra + Ksheera - Pakwa Kashaya).

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2) Lepanthra sweda :- (Saliventre Swedant)

1) Shiro Vasti :- With Vata hanta talle

2) Shiro Vasti :- With Vata hanta talle

3) Vasti :- With Vata hanta talle. Ex :- 1) Shiro talle.

4) Vasti :- With Vata hanta talle. Ex :- 1) Shiro talle.

5) Vasti :- With Vata hanta talle. Ex :- 1) Shiro talle.

6) Vasti :- With Vata hanta talle. Ex :- 1) Shiro talle.

7) Vasti :- With Vata hanta talle. Ex :- 1) Shiro talle.

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12) Vasti :- With Vata hanta talle. Ex :- 1) Shiro talle.

13) Vasti :- With Vata hanta talle. Ex :- 1) Shiro talle.

14) Vasti :- With Vata hanta talle. Ex :- 1) Shiro talle.

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41) Vasti :- With Vata hanta talle. Ex :- 1) Shiro talle.

42) Vasti :- With Vata hanta talle. Ex :- 1) Shiro talle.

43) Vasti :- With Vata hanta talle. Ex :- 1) Shiro talle.

Treatment :-

1) Kaola hanta Chikitsa 2) Raktha Moksha 3) Shiro vishodhana 4) Kaola hanta

5) Swedana 6) Kava or Gandoocha (with Kaola hanta decoctions)

7) Pratisara :- Trikatu + Saja Kshara + Vata Kshara + Vishavara + madhu.

8) Internal Yogas (Shodha hanta, Shoola hanta, Shoola hanta, Kaphagna).

9) Kaola hanta guggulu Or Triphala guggulu.

10) Triphala kadi Vaso or Lavangadi Vaso or Kaola hanta Vaso.

11) Sava or Marjasa Or Khatra Asava Or Anisa.

12) Sava or Marjasa Or Khatra Asava Or Anisa.

13) Sava or Marjasa Or Khatra Asava Or Anisa.

14) Sava or Marjasa Or Khatra Asava Or Anisa.

15) Sava or Marjasa Or Khatra Asava Or Anisa.

16) Sava or Marjasa Or Khatra Asava Or Anisa.

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34) Sava or Marjasa Or Khatra Asava Or Anisa.

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36) Sava or Marjasa Or Khatra Asava Or Anisa.

37) Sava or Marjasa Or Khatra Asava Or Anisa.

38) Sava or Marjasa Or Khatra Asava Or Anisa.

39) Sava or Marjasa Or Khatra Asava Or Anisa.

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42) Sava or Marjasa Or Khatra Asava Or Anisa.

43) Sava or Marjasa Or Khatra Asava Or Anisa.

44) Sava or Marjasa Or Khatra Asava Or Anisa.

45) Sava or Marjasa Or Khatra Asava Or Anisa.

46) Sava or Marjasa Or Khatra Asava Or Anisa.

8) KSHATHAJA OSTA PRAKOPA

(Hare lip)

It is due to injury to lips in which cracking Or fissures Or bifurcation of lips takes place. It associates with pain and itching sensation.

Treatment :- 1) Like pittaaja osta Prakopa.
2) If injury is deeper.

Lekhana and Seevana has to do (Osta sandhana by suturing).

1) KHANDAUSTA (BY VAGBHATA).

(Hare lip)

It is due to vata vitiation in which the lips bifurcates.

Treatment :- a) Medical treatment b) Surgical treatment.

a) **Medical Treatment :-** 1) Vata hara Chikitsa, 2) Vataja osta prakopa chikitsa.

b) **Surgical treatment :-** 1) Sneha 2) Sweda

3) Lekhana :- The bifurcated surfaces should be scraped with vreehi mukha shastra to have bleeding surfaces for proper healing after suturing.

4) **Sevana Vidhi :-** 5) **Pratisaran :-** Application of Shata dautha ghrita Or Yastimadhu kadi taila (Yastimadu + Jyothismathi + Lodhra + Mundi + sarba + Kamala + Patola + Kakamachi + Taila).

6) **Bandhana** (bandaging) 7) Vata hara shamana taila nasya.

2) GRANDHI (CYST)

The Vitiated kaphadi doshas produces a cyst on lips known as grandhi, it associate with itching sensation.

3) JALARBUDA

(Cyst in the lips)

It is due to the vitiation of Vata and Kapha in which a cyst resembles water bubble appears on the lips, known as jalarbuda.

Chikitsa :-

a) If the cyst or abscess is superficial (utthana) :- Bhedhana -dosha nirharana and pratisarana (Katuki, shunti Kaseesa, Kshara, lavan, Pippali, maricha, + madhu) should be done for. Vana ropana.

b) If the cyst Or abscess is deep rooted (Gambheera) Kshara and Agni karma should be done.

GANDALAJI

(Cellulitis of the Cheek.)

It is a single disease develops in Ganda sthala in which an immobile cyst Or swelling (Sthira shopha) develops in the Cheeks (ganda Sthala), and it associates with fever and burning sensation.

Treatment :-

1) Vana hara Chikitsa. (Vana shopha Chikitsa should be given.)

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OSTA ROGAS (DISEASES OF LIPS) BY SUSHRUTHA

Sl. No.	Name of Disease	Vitiated dosha	Signs and Symptoms	Treatment Principle.
1.	Vataja Osta Prakopa (Cracked lips)	Vata	Lips become hard rough stiff painful blackish & with crackings.	1) Osta abhyanga 2) Sweda 3) Pratisarana 4) Shirovasti 5) Snehan Nasya.
2.	Pittaja Osta Prakopa (Herpes Labialis)	Pitta	Bluish Or Yellowish papules resembling Sarshapa beeja appears on lips, associate with burning sensation, ulcers and patient desires cool applications.	1) Pitta, or Raktha, or Vidradi Chikitsa has to give 2) Raktha Mokshan 3) Sheeta lepa.
3.	Kaphaja Osta Prakopa (Herpes labialis)	Kapha	Same coloured small papules erupt on Lips and the lips become stout heavy sticky with itching sensation.	1) kaphahara Chikitsa 2) Raktha mokshan 3) Teekshna Pratisaran 4) Kavala.
4.	Sannipathaja Osta prakopa (Apthous ulcer, carcinoma)	Tridoshas	Lips are spread with multiple papules appears in black or Yellow Or white. symptoms are irregular and uncertain.	Asadya.
5.	Rakthaja Osta Prokopa (Lip granuloma)	Raktha	Red coloured papules resembling kharjura phale erupts on lips, bleeds and a red tumour develops on lips.	Asadya.
6.	Mamsaja Osta pra-Kopa (Epithelioma of lips)	Mamsa.	Hard stout inflamed lips with maggots at the angles of lips.	Asadya.

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Sl. No.	Name of Disease	Vitiated dosha	Signs and Symptoms	Treatment Principle.
7.	Medoja Osta Prakopa (Hyper trophy of lips)	Medodhathu	Lips become stout soft heavy sticky with itching and discharges fluid resembling ghritha manda.	1) Ruksha sweda 2) Bhedhan 3) Shodhan 4) Agni Karma 5) Prathi saran.
8.	Kshataja osta Prakopa (Hare lip)	Abhighata	Fissures or cracks appear on lips due to injury and associate with pain burning sensation	1) Pitta hara chikitsa 2) Lekhana 3) Seevana 4) Pratisarana 5) Bandana.
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ADDITIONAL 3 DISEASES OF LIPS- BY VAGBHATA				
9.	Khandausta (hare Lip)	Vata	Lips bifurcates - assoicate with pain and burning sensation.	1) Pitta hara Chikitsa 2) Lekhana-seevana-Bandhana
10)	Jalaarbuda (water bubble like cyst)	Vata, Kapha	A cyst resembling water bubble appears on lips.	1) Bhedhan and malanirharan 2) Kshara karma 3) Agni Karma
11.	Grandhi (Cyst)	Kapha	Cyst. erupt on lips due to the vitiation of Kaphadi doshas	1) Sneha 2) Sweda 3) Chedan 4) Pratisaran.

दन्तमूल नात रोग

1. शीताद

शीणितं दन्तवेष्टेभ्यो यस्याकस्मात् प्रवर्त्तते ।
दुर्गन्धीनि सकृष्णानि प्रकलेदीनि मृदूनि च ॥
दन्तमांसानि शीर्यन्ते पचन्ति च परस्परम् ।
शीतादो नाम स व्याधिः कफशोणितसम्भवः ॥

(सुं नि अ 16/14,15)

श्लेष्मरको पूतीनि वहन्त्यसमहेतुकम् ॥
शीर्यन्ते दन्तमांसानि मृदुक्लिन्नासितानि च ।
शीतादोसौ-

(अ ६ उ अ २१)

2. दन्तपुण्डक या दन्तपुण्ड

दन्तयोस्त्रिषु वा यस्य श्वयधूः सरुजो महान् ।
दन्तपुण्डको ज्ञेयः कफरक्ताग्निमित्तजः ॥

(सुं नि अ 16/16)

दन्तयोस्त्रिषु वा शोफो बदरास्थानिभ्यो घनः
कफास्त्रातीव्ररुक् शीघ्रं पच्यते दन्तपुण्डः ।

(अ ६ उ अ २१)

3. दन्तवेष्टक

स्ववन्ति पूयशिरं चलदन्ता भवन्ति च ।
दन्तवेष्टः स विज्ञेयो दुष्टशीणितसम्भवः ॥

(सुं नि अ 16)

4. उपकुश

वेष्टेषु दाहः पाकश्च तेभ्यो दन्ताश्चलन्ति च ॥
आघाटिताः प्रस्रवन्ति शीणितं मन्तवेदनाः ।
आध्मायन्ते स्फुते रक्तेमुखं पूति च जायते ॥
यस्मिन्नुपकुशः स स्यात् पित्तकृत्तो गदः

(सुं नि अ 16/21,22)

दन्तुः शकः नितान्तदुःखः ॥
 दन्तानां नितान्तदुःखः ॥
 कण्डूनां लक्षणं दन्तदुःखं नितान्तदुःखं ॥
 कण्डूनां लक्षणं दन्तदुःखं नितान्तदुःखं ॥

(अ० ह० उ० अ० २१)

5. दन्तवेदं

दन्तुः दन्तदुःखं नितान्तदुःखं ॥
 दन्तुः दन्तदुःखं नितान्तदुःखं ॥
 दन्तुः दन्तदुःखं नितान्तदुःखं ॥
 दन्तुः दन्तदुःखं नितान्तदुःखं ॥

(सु० कि० अ० 16/23)

6. वधेन

दन्तुः दन्तदुःखं नितान्तदुःखं ॥
 दन्तुः दन्तदुःखं नितान्तदुःखं ॥
 दन्तुः दन्तदुःखं नितान्तदुःखं ॥
 दन्तुः दन्तदुःखं नितान्तदुःखं ॥

(अ० ह० उ० अ० २१)

7. अधिमांस

दन्तुः दन्तदुःखं नितान्तदुःखं ॥
 दन्तुः दन्तदुःखं नितान्तदुःखं ॥
 दन्तुः दन्तदुःखं नितान्तदुःखं ॥
 दन्तुः दन्तदुःखं नितान्तदुःखं ॥

(सु० नि० अ० 16/25, 26)

प्रतिदन्तदुःखं नितान्तदुःखं ॥

(अ० ह० उ० अ० २१)

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8. शोषिर वा सुषिर

दन्तुः दन्तदुःखं नितान्तदुःखं ॥
 दन्तुः दन्तदुःखं नितान्तदुःखं ॥
 दन्तुः दन्तदुःखं नितान्तदुःखं ॥
 दन्तुः दन्तदुःखं नितान्तदुःखं ॥

(सु० नि० अ० 16/18)

9. महाशोषिर

दन्तुः दन्तदुःखं नितान्तदुःखं ॥
 दन्तुः दन्तदुःखं नितान्तदुःखं ॥
 दन्तुः दन्तदुःखं नितान्तदुःखं ॥
 दन्तुः दन्तदुःखं नितान्तदुःखं ॥

(अ० ह० उ० अ० २१)

(सु० नि० अ० 16/19)

10. परिदर

दन्तुः दन्तदुःखं नितान्तदुःखं ॥
 दन्तुः दन्तदुःखं नितान्तदुःखं ॥
 दन्तुः दन्तदुःखं नितान्तदुःखं ॥
 दन्तुः दन्तदुःखं नितान्तदुःखं ॥

(अ० ह० उ० अ० २१)

11 से 15) दन्तनाडी

दन्तुः दन्तदुःखं नितान्तदुःखं ॥
 दन्तुः दन्तदुःखं नितान्तदुःखं ॥
 दन्तुः दन्तदुःखं नितान्तदुःखं ॥
 दन्तुः दन्तदुःखं नितान्तदुःखं ॥

(सु० नि० अ० 20/9)

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DANTHA MOOLA VYADHIES Diseases of Gums.

- (A) According to sushruta 15 diseases.
(B) " " Bhavamishra 16 diseases.
(B) " " Sarangdhara 13 diseases.

They are as follows :-

A) SUSHRUTHA'S CLASSIFICATION - 15 DISEASES.

- 1) Shoethada (Spongy gums or Bleeding gums)
- 2) Dantha Puppataka (Gingivitis - Gumboil-Alveolar abscess)
- 3) Dantha Vostak (Pyorrhea alveolaris)
- 4) Upakusha (Pyorrhea alveolaris - stomatitis)
- 5) Dantha Vyadhabha (Allergic gums)
- 6) Vardana (Extra tooth eruption)
- 7) Adhnamasa (Impacted wisdom tooth)
- 8) Saushtira (Apical abscess or Gingivitis)
- 9) Maha Saushtira (Concurem Oris)
- 10) Paridhara (Concurem Oris-Gangrenous stomatitis)
- 11) Vataj Dantha nadi (Sinuses of gums)
- 12) Pittaj " -do-
- 13) Kaphaj " -do-
- 14) Samnipathaj " -do-
- 15) Abhigataj " -do-

B) Bhavamishra's Classification - 16 Disease.

1 to 15 - same as sushruta and the additional 16th disease is **Dantha Vidradi**.

C) Vagbhata's Classification - 13 Diseases.

3 diseases are not explained by vagbhata from the above classification (16-3=13). The omitted 3 diseases are 1) Dantha Vestak 2) Vardhana. 3) Paridhara

Rest of the Classification is as like above.

Among the diseases of gums.

2 diseases are **asadya**, they are

1) **Samnipathaj Danthanadi** 2) **Saushtira**.

Note :- Maha saushira is more complicated than saushira. so maha saushira may also Asadya like saushira - and Bhoja said " maha saushira " is Tridosha and causes death within 7 days.

1) Sheethaada :-

Spongy gums Or Bleeding gums.:-

It is a disease in which Kapha and Raktha doshas vitiate the gums and the following abnormal changes are manifested.

- 1) Gums become soft 2) bleeding from gums. 3) blackish dis colouration with accumulation of debris on gums 4) foul smell from mouth 5) Severe pain and finally gums are destructed Or emaciated.

This condition is commonly observed due to 1) Vitamin-C, deficiency (Scurvy), 2) Injury to gums due to recurrent Oropharyngeal infections. Oral unhygienic conditions, improper brushing of teeth and improper mouth wash etc 3) allergic changes in gums (allergy to tooth paste, very hot or cold liquids.).

Treatment :-

General Principle :- Swedana, Raktha mokshana, pratisarana, Gandoosha and Nasya

1) **Rakthamokshana :-** Alabu and Gati are commonly used Or jalauka or gums are rubbed with coarse powders (Dantha gharshana choorna). The main idea behind Raktha Mokshana is to remove impure blood from the affected area.

2) **Pratisarana yogas** (Application of Medicine to the lesion)

a) Priyangua Triphala and musta. b) Musta, Arjuna twacha, Triphala, Priyangu, Shunti, Rasanjan + Madhu. c) Kaseesa Lodra Pippali Manashila Priangu Tejohwa + Madhu (Pratisarana Or Kavala). d) Dadima twacha, Triphala, rasanjan, shunti, saindhava lavana, musta + honey. e) Lavana and Sarshapa talia as tooth powder.

3) Gandusha Or Kavala Ghata.

Gandoosha should do with the decoctions of

a) Musta, Arjuna twacha, Triphala, Priyangu, Rasanjan, and shunti. b) Shunti and parpataka. c) Vataghna talia and ghrittha. d) Ksheeri Vrunksha Kashaya e) Shunti, Sarshapa, Triphala. Musta. and rasanjan. f) Babula twak kwalla.

4) Nasya :-

a) If vata is associated snehana nasya. b) If kapha associated madukadi Triphala talia nasya. (yastimadu, utphnala padmaka triphala + talia) c) If Raktha associates :- Triphala ghrittha Nasya.

5) Internal Yogas :-

Shoola hara, shotha hara, Raktha stambhana, vrana ropana yogas should give ex 1) Triphala guggulu, Kanchanara guggulu Laksyadi guggulu etc. Anti inflammatory analgesic drugs 3) Lagu suthasekara ras, tabs (Anti allergic) 3) Sarivadi vati Or Trijathakadi vati Or Khadhiradi vati (mukha shodhana) etc; are very useful to reduce the inflammation of gums.

Note :- (Brushing should be avoided and Fine powders of Tiktha Kashaya ras should use for dantha dhavana.)

2) DANTHA PUPPUTAKA

(Gingivitis - gum boil- alveolar abscess)

It is a disease in which the kapha and Raktha dosha vitiate and cause pain and Oedema (hard cystic swelling resembling Badari Phala) in 2 or 3 gums (root of teeth) and suppurates quickly.

Treatment :-

a) According to Sushruta .

- 1) Raktha mokshana then application of Kshara, pancha lavana and Madhu (Pratisarana)
- 2) Shiro Virechan
- 3) Kavala
- 4) Snigdha bhojana.

B) According to Vagbhata :-

Sneha, Sweda, Chedan, or Bhedan, or Lekhana. Then application of Yashtimadu Sarjakshar shunti and saindhava Lavana to the affected area.

C) Modern :-

If gum is totally infected and root of the tooth also effected, extraction of tooth, incision and drainage to irrigate of pus (Bhedan) and anti inflammatory treatment should be given.

**3) DANTHA VESTAK
(Pyorrhoea alveolaris)**

It is due to Raktha vitiation in which the root of the tooth is infected impure blood and pus discharges, and leads to destruction of the root of tooth following tooth decay.

(Foul breath, coated tongue, Pigmented teeth, (tartars) and collection of debris at the neck of the tooth, causes infection and leads to above condition.)

Treatment :-

1) Raktha mokshana.

2) Prathisarana :- Local application of the medicated powder prepared with Lodra Yashtimadu, Laksha, Chandan + Honey. **3) Arogya vardini vati** with cow milk - Local application. **4) Gandoosha :-** Ksheeri Vruksha Kashaya + Honey + Ghee. **5) Nasya :-** with medicated ghee prepared with Kakolyadi dravya, Dashaguna Ksheera, 6) Sweha manjan & Dashan samskar choorna for brushing **7) Khadhiradi vati** for Chewing. **8) Irimedadi taila** or sarshapa taila, application to the gums then gargling with Luke warm water **9) Raktha** and pitta hara Chikitsa should be given.

4) UPAKUSHA

(Pyorrhoea alveolaris - stomatitis.)

It is pitta Raktha prakopaja Vyadhi, in which Gums ulcerate (Paka), bleeds and bulges again, associated with burning sensation, pain, itching sensation, foul smell (from mouth), and tooth decay.

General Treatment Principle :-

- 1) Vaman 2) Virechan 3) Shiro virechana 4) Raktha mokshan 5) Prathisarana 6) Kavala 7) Nasya. 8) Raktha Pitta hara Chikitsa .

1) Raktha Mokshana :- With Goghwa Patra or madalagrashastira

2) Prathisarana :- a) Triketu, Lavan, + Madu.

b) Laksha, Priyangu, Patanga, Kusta, Saindhava Lavana, Gyrika, Kusta, Shunti, Maricha, Yashtimadu Rasanjana, + Ghrithamanda or Madhu.

Kavala :-

- 3) A) Pippali, Sweha, Sarshapa Shunti, Velasa with Hot water.
- B) Ghrittha prepared with Kakolyadi Madhur. dravya.
- C) Ksheeri Vruksha Kashaya + Madhu
- D) Pancha Pallava kashaya + Madhu + Ghrittha + Shankara.
- E) Sahacharadi taila.
- F) Irimedadi taila.

4) Nasya :- Ghrittha Prepared with kakolyadi madura draya.

**5) DANTHA VYADARBHA.
(Allergic gums)**

It is a traumatic disease of gums occurs by improper usage of tooth brush Or & Sticks (Dantha Kaasta) while brushing the teeth. The associated symptoms are pain, swelling of gums and tooth decay.

Treatment :-

- 1) Shodhana with Mandalaagra shastra and application of Sarja kshara. 2) Cold applications. 3) Sheetha gandooosha. 4) Sheetha Nasya.

6) VARDANA (EXTRA TOOTH)

Madhavakara called it as Khalii vardan and vagbhata called it as Adhidantha.

Extra tooth erupt due to the vitiation of vata, during the eruption severe pain associates and get relief after complete eruption.

Treatment :-

- 1) Extra tooth should be removed and agni karma has to do at the site. 2) Krimi dantha Chikitsa. 3) Vrana Chikitsa.

7) ADHI MAMSA

(Impacted Wisdom tooth) (Tooth ache during the eruption of wisdom tooth).

It is kaphaj vyadhi, The disease occurs at the site of last molar teeth; due to the stricture, oedema of gum, narrow place, tooth eruption becomes late, severe pain swelling of gums, salivation, discomfort and itching sensation present upto the completion of the teeth eruption

Additional Points By Vagbhata :- Causes pain in the ear, Maxilla and mandible.

Treatment :-

1) Adhimamsa chedan and Prathisarana with Vacha, Chavya, Patha, Sarja Kshara, Yava Kshara + madhu. 2) Kavaia :- Pippali + madhu. 3) Mukhadhavana :- With the decoction of patola, Triphala, Nimbatwak. etc. 4) Shiro Virechana. 5) Virechana dhooma.

8) SAUSHIRA OR SUSHIRA

(Apical abscess Or Chronic gingivitis.)

The Kapha and Raktha doshas vitiate and causes a painful swelling in the gums, associated with salivation and itching sensation, is named as saushira (sushruta), and according to vagbhata the vitiated Pitta and Raktha doshas causes pain, Oedema and destruction of gums and tooth is explained as saushira.

Treatment :-

- 1) Faktha mokshana (Sushruta), Su. Chi. 22 chapter)
- 2) Chedhan and Lekhan (Vagbhata) Ah. Uth. 22 Chapter)

3) a) Pratisarana :- With Lodra musta, Rasanjan + Madhu (Sushruta)

b) Pratisarana :- With Lodra, musta, shata pushpi, Triphala, Rasanjan, Palang, phalasha pushpa, Katphala + Madhu (Vagbhata)

4) a) Gandoosha :- With the decoction of above drugs (Vagbhata)

b) Gandoosha with Ksheeri Yruksha Kashaya (Sushruta)

5) Nasya :- With medicated ghrita prepared with sariva, Neela Kamala, Yastimadhu, Lodra, Agar, Chandan (for Kaika). 10 times milk, Ghrita.

9) Maha Saushira (Concrum Oris)

The Tridoshas vitiate and causes pain swelling ulceration and destruction of gums, and associate with tooth decay, cleft palate and pain in the oral cavity. (Sushruta)

Vagbhata :- Bleeding pus discharge from the gums with Fever, due to the vitiation of Tridoshas and Raktha dosha.

Bhoja :- Herelp, Cleft palate and cracked teeth are also associated and kills the patient within 7 days.

Treatment :-

Like in saushira.

10) PARIDHARA (Concrum Oris Or Gangrenous stomatitis)

The Pitta Raktha and Kapha doshas vitiate, gums are destroyed and bleeds while spitting. (Su. Ni. 16th Chapter).

Treatment :-

Like in Sheetada (Su. Chi. 22nd Chapter)

11-15) DANTHA NAADI (SINUSES OF GUMS)

It is of 5 types, they are.

- 1). Vataja Dantha Naadi 2) Pittaja Dantha Naadi 3) Kaphaja Dantha Naadi 4) Shalyaja Dantha Naadi . 5) Tridoshaja Dantha Naadi.

If gum abscess is not drained in time and is neglected, the pus Or infected fluid propagates into the deeper structures and vitiate the twak Raktha mamsa and asthi of gums and causes sinuses (cavities) which are filled with pus and infected fluids that causes severe complications, even the maxilla and mandible are destroyed.

Treatment :-

- 1) Upanaha Swedam (Hot applications) 2) Nadi Vidarana (incision of sinus)
- 3) Puya nirharana (pus drainage) 4) Prakshalana (Cleaning the gum cavity) 5) Pura Or pratisarana (Application of medicine) (Sushruta), Su. Chi. 22 chapter) 6) Nadi Vrana Chikitsa. (Ulcer therapy).

Special Treatment :-

1. Dantha Nirharan (Tooth Extraction) 2. Lekhana (Scraping at the site to remove pus and impure blood) 3) Kshara Or Agni Karma. (cauterisation) . 4) Pratisarana. (Application of medicine)

COMMON YOGAS

Following tooth powders are helpful in the inflammatory conditions of gums.

1. Babbula, Bakula, Jamun Sticks, used for brushing the teeth .
2. Application of Swetha Manjan :- Katika 1kg, Saindhava Lavana 1/2 Kg. spatika 250 grm. Maricha 25 gr. and kapur 12 grm. the fine powder is used as tooth powder.
3. Jeerakadya Choorna :- application of fine powder (Tooth powder) of Jeerak, Saindhavalana Hareetaki, shalmali kantak (Yoga ratnakar).
- 4) Kanadya Choorna :- Regular application of fine powder of pippali - saindhava lavana and jeera to the gums (Yoga ratnakar).
- 5) Dashamoola taila Or ghrita + Madhu (Honey). Gundoosha for treating the chala dantha

6. Sahacharadi talia gandoosha for treating the Chala Dantha.

7. Bhadra mustadi Vati - Kavalā to treat the Chala dantha (Yoga Rathnakar) (Bhadra musta, Hareetaki, Trikatu, vidang, Nimbapatra, grinded with gomutra and used for chewing).

8. Fine Powder of Tejibala beejā and Twacha, Haridra dwayam, Kusta, Patha, Katuki, Lodra, marjista and Nagar musta, is used as tooth powder.

9) The tablets prepared from Trikatu, Yavakshar, Manahshila, Haritaki, saindhava lavana, Daruhardra, is used for chewing.

Pratisarana - Kavalā and Gandoosha with the drugs prepared with Kashaya Tiktha Dravya, is very useful in the disorders of gums and teeth.

DISEASES OF GUMS (DANTHA MOOLA VYADHEIS)

Sl.No.	Name of the Disease	Doshas	Signs and symptoms	Treatment Principle.
1.	Sheetada (Bleeding gum)	kapha Raktha	Gums become Painful, soft, black with foul smell, debris Collection on gums, and finally destructed and bleeds.	Swedana, Rakthamokshana Pratisarana Gandoosha and Nasya.
2.	Dantha Puppata (Gingivitis-gum boil)	Kapha Raktha	Pain and Oedema at the roots of 2 or 3 gums and suppurates quickly.	Raktha mokshana, Kshara Pratisaran, Gandoosha & Nasya.
3.	Dantha Vestak (Pyorrhoea alveolaris)	Raktha	The Root of teeth are infected, accumulation of pus and blood causes destruction of teeth and follows tooth decay.	Raktha mokshan, Pratisaran, Gandoosha, and Kavalā.
4.	Upakusha (Stomatitis)	Pitta Raktha.	Gums ulcerates, bleeds and bulges again associated with pain, burning sensation and itching	Shodhan-Raktha mokshan, Prathisanan, gandoosha and Nasya.
5.	Dantha Vydarbha (allergic gums)	Abhighatha	It is a traumatic condition of gums. associated with pain Oedema and Tooth decay.	Shodhan, Kshara, Prathisanan, Cold applica- tions, Sheetha Nasya, and gandoosha.
6.	Vardhan (Extra tooth)	Vata	Extra tooth erupts, during eruption pain, Oedema, itching, associates (Pain subsides after eruption of tooth).	Extra tooth should remove then Agni Karma and Vrana Chikitsa.

Sl.No.	Name of the Disease	Doshas	Signs and symptoms	Treatment Principle.
7.	Adhimamsa (impacted Wisdom tooth)	Kaphaja	It occurs at the site of last molar tooth, during eruption pain Oedema salivation associates after eruption symptoms get controlled.	Adhimamsa Chedan, Prathisarana, Kavala, Vrana Chikitsa.
8.	Saushira (Ch-gingivitis)	Kapha-Raktha Pitta or Raktha	Painful swelling at gums associates with Salivation and itching	Raktamokshana, Gand- oosha, Pratisaranand nasya.
9.	Maha Saushira (Concum Oris)	Tridoshas	Gums inflame and suppurate, associates with tooth decay, cleft palate and stomatitis.	Like Saushira.
10.	Paridhara (Gangrenous stomatitis)	Pitta Raktha Kapha.	Gums destructed and bleeds while spitting	Like Sheetada.
11.	Vataj Dantha nadi.	Vata	If gum abscess is not treated perfectly in time, the pus propogates into deeper Structures and vitiate Twak, Raktha, mamsa and asti and causes Severe complications.	Incision and drainage of sinus, Prakshalana, Pratisaran, gandoosha.
12.	Pittaja Dantha nadi	Pitta		
13.	Kaphaj Dantha nadi	Kapha		
14.	Sannipataj Dantha Nadi	Tridosha		
15.	Abhigataj Dantha (Sinus in gums).	Trauma.		

दन्त रोग

1. दातन

दातन्यन्ते बहुधा दन्ता यस्मिन्स्तीव्ररार्दितः ।
दातनः स इति श्लेषः सदागतिनिमित्तजः ॥

(सु नि अ 16/२८)

वातादुष्णसंहा दन्ताः शीतस्पर्शीधकव्यथाः ॥
दातन्यन्ते इव शूलान् शीताच्छ्रो दातनश्च सः ।

(अ ह उ अ २९)

2. दन्तहर्ष

शीतमुष्णं च दशनाः सहन्ते स्पर्शनं न च ।
यस्य तं दन्तहर्षं तु व्याधिं विद्यात् समीरणात् ॥

(सु नि अ 16/३०)

दन्तहर्षे प्रवाताम्लशीतभक्षा क्षमाद्वाजाः
भवन्त्यभ्याशनेनेव सरुजा श्चलितता इव

(अ ह उ अ २९)

3. दन्तशर्करा

शर्करेव स्थिरीभूतो मलो दन्तेषु यस्य वै ।
स दन्तानां गुणहरी विज्ञेया दन्तशर्करा ॥

(सु नि अ १६/३२)

4. कपालिका

दलान्ति दन्तवल्कलानि यदा शर्करया सह ।
श्लेया कपालिका सैव दशानां विनाशिनी ॥

(सु नि अ 16/३३)

साप्युपेक्षिता
शातयत्यणुशौ दन्तात् कपालानि कपालिका ।

(अ ह उ अ २९)

5. भञ्जनक

वक्त्रं वक्त्रं भवेद्यस्मिन् दन्तभङ्गश्च तीव्ररक् ।
कफवातकृतो व्याधिः स भञ्जनकसंज्ञितः ॥

(सु नि अ 16/३१)

6. कृमिदन्तक, कृमिदन्त

कृष्णशिखरी चलाः स्वावी ससंभो महारजः ।
अनिमित्तरजो वातात् विज्ञेयः कृमिदन्तकः ॥

सु. नि. अ. 16/29

समूलं दन्तमाश्रित्य दोषैरुत्पन्नमारतैः ।
शोषिते मज्जि सुषिरे दन्तेनमलपूरिते ॥
पूतित्वा कृमयः सुक्ष्मा जायन्ते ततः ।
अहेतुतीव्रतिशमः ससंभोसितश्चलः ॥
प्रलूनः पूयकश्च स चोक्तः कृमिदन्तकः ।

(अ० ह० उ० अ० २१)

7. श्यावदन्त

योसुद्धिमिश्रेण पितेन दग्धो दन्तस्त्वशेषतः ।
श्यावतां नीलतां वापि गतः स श्यावदन्तकः ॥

(सु० नि० अ० 16/34)

8. हनुमोक्ष

वातेन तैस्तैर्भावैस्तु हनुसन्धिविसंहतः ।
हनुमोक्ष इति ज्ञेयो व्याधिरदन्तलक्षणः ॥

(सु० नि० अ० 16/35)

1. कराल

करालस्तु करालानां दशनानां समुद्रगमः ॥

(अ० ह० उ० अ० २१)

2. दन्तवाल

वालश्चलादिदर्शनैर्भक्षणाधिकव्यथः ॥

(अ० ह० उ० अ० २१)

3. दन्तविद्रधिः

दन्तांसे मलैः सासैर्बाह्यान्तः श्वयधुर्गुरुः ।
सरादहः स्वेदं भिन्नः पूयासं दन्तविद्रधिः ।

(अ० ह० उ० अ० २१)

DANTHA ROGAS (Diseases of Teeth)

According to :-

Sushruta		8 Diseases only
Bhavamishra		
Madhava Kara		
Vagbhata	=	10 Diseases

A) SUSHRUTHA AND BHAVAMISHRA'S CLASSIFICATION OF DANTHA ROGAS.

8 Diseases, they are as follow :-

- 1) Dalana (Tooth ache or Odontina or Cracked tooth)
- 2) Krimi Dantha (Caries tooth)
- 3) Dantha harsha (Sensitivity of tooth due to exposed nerve Filament).
- 4) Bhanjanka (Broken teeth or falling of Teeth)
- 5) Dantha sharkara (Tartars)
- 6) Kaplika (Tooth Enamel separation)
- 7) Shyava dantha (Black or bluish teeth)
- 8) Hanu Moksha (mandibular dislocation)

B) MADHAVA KARAS CLASSIFICATION OF DANTHA ROGAS = 8
1 to 7 diseases are same as above; 8) dantha Vidradi (Alveolar abscess Or gumboil)

C) VAGBHATA'S CLASSIFICATION OF DANTHA ROGAS (10)

1 to 7 are same as above (except few wording differences they are as follow.

- 1) Dalana (sushruta) sheetha dantha (Vagbhata)
 - 2) Bhanjanaka (sushruta) = Dantha bheeda (Vagbhata)
 - 3) Karala (ill formed teeth).
 - 4) Chala dantha (loose teeth)
 - 5) Adidantha (eruption of extra tooth).
- Note :- Vagbhata and Madhava Kara were not explained Hanu moksha.

1) DALANA

(Tooth ache or Odontina or Cracked Tooth)

The Vitiated Vata causes intolerable cutting type of pain in the teeth, is known as dalana.

Vagbhata called it as sheetha danttha why because the patient cannot able to eat or drink cold items. (Sheetha asahishnutha).

This condition commonly observed in the Old, caries teeth, cracked teeth, in which the nerve filament of teeth is exposed.

Treatment :-

As per sushrutha it is Asadya Vyadhi. But Vagbhata explained the following treatment principles.

1) Sweda with hot water (Hot water gargling) 2) Danttha pali lekhan (Scraping of external coating on tooth (Lekhana with vireehi mukha shashtra) 3) After lekhan, Agni Karma with hot Oils (ushna taila), 4) Danttha Pali Gharshan or pratisarana with, fine powders of Musta, saindhava lavana, dadima, twacha, Triphala, Rasanjana, Piyangu, jambuasti, Shunti + Madhu. 5) Kavala with Kseeri Vrushka Kashaya. 6) Nasya with Anutaila.

2) Danttha Harsha :-

(Odonitis due to exposed Nerve filament Or due to caries teeth).

The vitiated vata causes (Vata + Pitta + Other Acharyas) the disease in which the patient cannot able to take hot or cold things (sour things also - Vagbhata) "Sheetha - Ushna-Amia asahishnutha "

This condition commonly observed in Krimi danttha or Danttha kshaya (caries teeth) in which due to cracking or perforation of teeth the nerve filament is exposed and causes sensitivity to cold or hot things.

Treatment :-

1) Kavala Or Gandoosha :-

a) With Lukewarm Oils (Chathur Sheha sarpi - taila vasa and Majja), b) Trivuth ghrittha Or with Vatagha Aushadas. c) Yastimadu, Tila and Kseera (Ksheera Paka Aushada). d) Sarshapa taila Or Narayan taila Or Vishnu taila or prasarini taila.

2) Nasya :- Snehan nasya. 3) Dhoma Pana :- Snehika dhooma pana. 4) Shiro Vasthi - with vatagha taila. 5) Snigdha bhojan Like mamsasasa, Kseera - Navaneetha and ghrittha. 6) Vatahara Chikitsa.

3) Danttha Sharkara (Tartars)

It is due to improper cleaning of mouth and teeth by which vitiated vata dr, the Kapha and danttha mala (The waste Precipitations on teeth) and so the teeth appears with yellow or brown coloured precipitations and foul smell. If it is not treated in time leads to tooth decay and other complications.

Treatment :-

1) Nidana Parivarjana (Proper brushing and gargling etc). 2) Shareera shodhana (Vamana Virechana etc.). 3) Danttha mala Lekhana without injuring the enamel and gums (scraping of the yellow pigment). 4) Pratisarana with Kshara + Madhu. 5) Poorana with Laksha + Madhu (filling). 6) Kavala Or Gandoosha like in Danttha harsha.

According to modern science also the principle is Lekhana Prakshalana and purana only (Scaling - washing and filling)

4) Danttha Kapalika :-

(Enamel separation due to caries tooth Or injuries)

The disease Danttha Sharkara if not treated in time, causes injury to the enamel of teeth (the outer strong covering of teeth) and fall in small pieces and leads to destruction of teeth, is known as Kapalika. Signs and symptoms are pain, burning and sensitivity to hot and cold things.

Treatment :- It is Kasta Sadya Vyadhi but advised to treat like Danttha Sharkara and Danttha harsha.

5) Bhanjanaka :-

(Cracked Or fissured teeth).

Vagbhata called it as 'Danttha bhedha.' it is Kapha vataj disease in which teeth fall down or broken due to facial paralysis (mukha vakratra) and associate with severe pain.

Treatment :- 1) kapha Vatagha Chikitsa 2) Ardhitha Vata Chikitsa 3) Abhyanga with Narayan taila 4) Swedan 5) Vasti 6) Gandoosha with Yastimadu, tila-kshera paka 7) Kavala with Aakara Karavadi Yoga 8) Erenda taila panam.

6) Krimi Danttha :-

(Dental Caries.)

It is Vataj, tooth destructing disease (affecting the teeth due to oral unhygienic conditions like improper brushing of teeth, improper washing of mouth, biting the hard items, Taking very hot or very cold items, picking of teeth with needles neglecting the Danttha moola rogas, Danttha sharkara, Kaphalika, Shyava vadantha etc.) in which tooth becomes black, perforate, become loose, discharges foul fluid and associate with pain swelling etc.

Vagbhata :- Explained the aetio pathology more descriptively as follows :-

Vata Vitiaton	—£	Danttha moola Shodha	—£
Danttha Kshatha	—£	Sushira (Perforation)	—£
- Danttha Majja sosha	—£	Production of Krimi -	—£
- Danttha Shoola, Srava	—£	Chala danttha -	—£
- Puya Raktha Srava	—£	Tooth decay.	—£

Vagbhata's description is merely equal to modern dental science.

Treatment :-

A) If tooth is not moving

1) Swedana 2) Raktha Mokshan 3) Vataghna Avapeedana nasya 4) Sneha Gandoosha 5) Bhadradi daavyadi Lepam (application) 6) Snigdha bhojan. etc.

B) If tooth is moving at the site :- Extraction of tooth and cauterisation (Agni Karma).

C) If tooth is perforated :- a) Filling the gap with Guda Or madhuschista and dahi Karma b) Filling the gap with the milk of Saphracchada or Arka.

D) For Pain Relieving :-

1) Dhoopana with the seeds of Kantakari. 2) Keeping the vat in mouth, prepared with - Hingu Katphala, Kaseesa, Sarja Kshara, Kusta and Vidanga. 3) Sariva Kalka, Mukha Dhara (chewing) as Kimighna. 4) Archraka + Krishna Lavana, Mukha dhara (chewing) as Kimighna. 5) Vataghna taila, ex :- Narayana taila for Gandoosha 6) Brahatyadi Gandoosha. 7) Medicated oil prepared from Hingu, Katphala, Kaseesa, Sarja Kshara, Kusta, vidanga, oil-gandoosha. 8) Application of Clove Oil at the site. 9) Sarshapa taila Nasya. 10) Medicated oil prepared from Vidari, Yasitimadu, Kasheruk, Shrungatak, 10 times of milk-taila, Nasya.

"If pain is not relieved by above treatments, the tooth should be extracted."

The tooth should not extract in children, Old, weak vatarogi, If comulsoy care should be taken for extraction to prevent complications. (Upper teeth should not remove) after extraction snigdha sheetha madura Chikitsa should give (A.H.U. 22-26).

Apathya :- Dantha rogi should not take sour, cold, Rough hard items.

7) Shyava Dantha (Black Tooth)

It is due to Vata, pitta and Raktha vitiation (Vagbhata); Pitta and Raktha vitiation (Sushruta). Due to the vitiation of doshas the enamel (Dantha twacha) is burnt and becomes black or blue, is known as shyava dantha.

Treatment :- Asadya Vyadhi.

(It is asymptomatic and so no need of any treatment).

8) Hanu Moksha :-

(Dislocation of Mandible).

It is not related to dantha rogas, but contain dantha shoola so sushruttha added it in dantha rogas. Due to head injury, Loud talking, biting hard substances, and lifting the heavy weights, Vata dosha vitiates, deranges the Hanu sandhi and causes the disease.

Treatment :-

1) Arditha Vata Chikitsa. 2) Shiro Vasti. 3) Nasya 4) Dhooma 5) Upanaha Sweda.

Additional Diseases of Vagbhata :-

1) Karala :- (ill formed teeth)

Irregular shape, size and positioned teeth is explained as Karala. It may be due to adenoids, chronic naso pharyngeal catarrh, congenital abnormalities, Malnutrition, Oral unhygein, chronic debilitative diseases, recurrent dental disorders and caries. etc.

Treatment :-

1) Cause Should Treated :-

ex improving immunity powder, supplementing the required vitamins and minerals, treating the chronic naso pharyngeal and oro pharyngeal infections etc.

"In modern dental medical science different techniques are there to treat irregularities of teeth."

2) Chala Dantha :- (Loose tooth)

Really it is a symptom arises by neglecting caries teeth, cracked tooth, tartars, gum diseases etc..

Loose teeth causes pain and discomfort during eating Or drinking it causes so many complications even the healthy teeth and mandible Or maxilla also affected.

Treatment :-

1) Sneha and Dasha moola quath Gandoosha. 2) Gharshana (Rubbing) with Tuttha, Lodra, Pippali, Triphala, Raktha Chandan saindhava lavana. etc. 3) Snigdha nasya. 4) Snigdha Kavaala. 5) Snigdha bhojana

3) Adidantha (Explained in Dantha Moola Rogas)

1) Dantha Vidradi (Alveolar abscess or gum boil)

Explained By :- Madhavakara.

Vitiated Raktha causes burning painful Oedematous gums that discharges blood stained pus when suppurates.

Treatment :-

A) In Ama Stage :- a) shamana Chikitsa b) Katu Teekshna ushna Kavaala and Lepa. c) Katuki, Kusta, Punarnava, Mesha Shrunji, Yava- For rubbing at the site.

B) In Patwa Stage :-

a) Bhedhan. b) Puya nitharana c) Shothahara Vrana ropana Chikitsa.

C) If Gambhreera (deep rooted) :- Agni Karma should be done.

DANTHA SHOOLA.

Chikitsa :-

1) Hingu, Katphala, Kaseesa, Sarjakshara, Kusta, Vidanga, Pratisaran.

2) Hingwadi taila gandoosha.

3) Erenda, Bruhati dwaya, mundi, siddha taila gandoosha.

4) Kantakari beela dhoopana.

5) Clove Oil application.

If pain is not under control and tooth is moving with pus discharge, tooth extraction has to do and then following medication should given.

1) Yasitimadu + taila has to apply to the site.

2) Vidari, Yasitimadu, Shrungataka, Kasheru, Ksheera Siddha taila Nasya.

DISEASES OF TEETH - (DANTHA ROGA) (BY SUSHRUTHA - 8 DISEASES)

Sl.No.	Name of the disease	Dosha	Sign - Symptoms	Treatment Principle
1.	Dalan (SU) Sheeta dantha (Vag) (Odontina-Toothache)	Vata	Severe intolerable cutting pain in the teeth and cannot bear the cool things (Sensitivity to cool things - Sheetahasahishnutha)	Sushruta - Asadya Vagbhata :- Swedan - Lekhan Pratisarana - gandoosha
2.	Dantha harsha (Exposed nerve filament of tooth)	Vata (Pitta)	Due to vitiated Vata patient cannot take cool or hot things (Sheeta - Ushna Asahishnutha)	1) Sukoshna gandoosha 2) Nasya 3) Dhooma Panam 4) Vata hara Chikitsa.
3.	Dantha Sharkara (Tartars)	Vata Kapha	Due to improper mouth wash or brushing of teeth Kapha and Ama accumulates on teeth and get dried by vitiated Vata and teeth appears with Yellowish brown preceipitations.	1) Dantha mala Lekhan 2) Kshara + Madhu Pratisaran 3) Gandoosha 4) Nasya.
252 4.	Kapalika Enamel separation	Vata Abhignata	If dantha sharkara is neglected, the tartars. and enamel speparated in small pieces.	1) Asadya 2) Like dantha Sharkara.
5.	Bhanja naka (SU) Dantha bheda (Vag)	Kapha Vata.	Teeth fall down or broken due to mukha Arditha Vata chikitsa. Vakratha (Facial Paralysis) assoiated with pain.	
6.	Krimi Dantha (Dantal carious)	Vata	Tooth becomes loose, black, perforated and discharges foul fluid, assoicate with pain and oedema- causes tooth decay.	1) If tooth is strong : Lepa Gandoosha. 2) Moving :- Extraction of Tooth and agni Karma. 3) Perforated :- Filling.

7.	Shyava Dantha (Blackish tooth)	Vata Pitta Raktha.	Due to Vitiation of doshas the enamel is burnt and tooth become black.	Asadya.
8.	Hanu Moksha (Dis location of Mandible.)	Vata	Due to Loud talking biting hard things, Lifting heavy weight, Vata, vitiates and deranges the Hanu Sandhi and causes the disease.it causes tooth ache.	Arditha Vata Chikitsa.

ADDITION 3 DISEASES OF VAGBHATA

1.	Karala	Vata	Irregular size shape position of teeth	Nidana Parivarjana
253 2.	Chala Dantha (Loose tooth)	Doshaj Aganthaja	Loose tooth causes pain and discomfort during eating and drinking	Prathisarana Gandoosha, if not controlled. extraction of tooth is must.
3.	Adidantha (Extra tooth)	Vata	Extra tooth eruption is called adidantha and during the eruption pain assoicates and after eruption pain subsides.	1) Dantha Nirharan 2) Agni Karma. 3) Gandoosha.
4.	Extradisease of madhavakara 1) Dantha vidradi (Alveolar abscess)	Raktha	Gums are vitiated by Raktha and get inflammed with pain and oedema, after suppuration discharges blood stained pus	1) Shaman Chikitsa. 2) Bhedan 3) Prathisaran.

जिह्वागत रोग

1. वातिक कण्ठक

जिह्वानिलेन स्फुटिता प्रसुप्ता भवेच्च शाकच्छदनप्रकाशा ॥

शाकप्रवक्षरा सुप्ता स्फुटिता वातदूषिता ॥

2. वैतिक जिह्वाकण्ठक

पित्तेन पीता परित्क्षालते च चित्ता सरकैरपि कण्ठकैश्च ॥

जिह्वा पित्तात् सदाहोषा रसैर्मांसकुंरैश्चिता ॥

3. श्लैष्मिक जिह्वाकण्ठक

कर्फन गुर्वी वहला चित्ता च मांसोद्गमैः शाल्मलिकण्ठकाभैः

शाल्मलीकण्ठकाभैस्तु कर्फन वहला गुरुः ॥

4. अलास

जिह्वागत यः श्वयथुः प्रगाढः सोलाससंज्ञः कफरक्तमूर्तिः ।

जिह्वां स तु स्तम्भयति प्रवृद्धो मूले तु जिह्वा भृशमेति पाकम् ॥

कफपित्तादथः शोफो जिह्वास्तम्भकुन्दनतः ।

मत्स्यगन्धिभवेत् पक्वः सोलसो मांसशान्तनः ॥

5. उपजिह्वा वा उपजिह्विका

जिह्वाग्ररूपः श्वयथुर्ह जिह्वामुन्नम्य जातः कफरक्तमोनिः ।

प्रसेककण्डूपरिदहयुक्तं प्रकथ्यतेसावुजिह्विकेति ॥

प्रबन्धनेधो जिह्वयाः शोफो जिह्वाग्रसन्निभः ।

साङ्कुरः कफपित्तसैर्लातोषस्तम्भवान् खरः ॥

अधिजिह्वः सरक्कण्डूर्वक्याहारविधातकृत् ।

तादृगोवोपजिह्वस्तु जिह्वया उपरिस्थितः ॥

JIHWA GATHA ROGAS (Diseases of Tongue)

A) According to sushruta Jihwa rogas are 5, they are

- 1) Vataja Jihwa kantaka (Chronic glossitis)
- 2) Pittaja Jihwa kantaka (Acute glossitis)
- 3) Kaphaja Jihwa Kantaka (Chronic glossitis - Leuco Plakia)
- 4) Aitasa (Sub lingual cyst or abscess)
- 5) Upajihwak (Ranula or Cystic swelling)

B) According to vaughnata Jihwa rogas are Six (6) they are. 1 to 5 are same as sushruta - and 6) Adhijihwak.

1) Vataja Jihwa Kantaka.
(Chronic glossitis)

The Vata vitiation changes the smooth regular surface of tongue into rough dry thorny and cracked with loss of taste perception, loss and sensation, discomfort, pain and burning sensation.

Treatment :-
Like Vataja Ostia Prakopa.

1) Abhyanga with (Chatur snehas) 2) Nadi Or Upanaha sweda. 3) Sneha Pratisarana. 4) Snehan Nasya. (Vata hara, Vrana ropana, Shothahara, Chikitsa has to give.)

2) Pittaja Jihwa Kantaka (Acute Glossitis).

Vitiated Pitta causes inflammatory changes in tongue, the tongue appears in red or Yellow colour with, red thorny buds. The symptoms - pain, burning sensation discomfort and loss of taste perception.

Treatment :-

1) Raktha Mokshana :- By rubbing the surface of tongue with the leaves of Gojiwa or shephalika. (Impure blood is removed.) 2) Sira Vyadana. 3) Pratisarana with Kakolyadi Madhura sheetha dravyas. 4) Kakolyadi dravya Kwatha Gandoosha. 5) Kakolyadi dravya Milk + Sneha Siddha, Sneha Nasyam. 6) Pitta hara ahara and vihara.

3) Kaphaj Jihwa kantaka.
(Chronic glossitis - Leukoplakia)

Vitiated kapha causes the Jihwa as heavy, thick, wide and is scattered with thorny buds resembling shalmali Kantaka and associated with pain discomfort itching sensation and sticky salivation.

Treatment :-
1) Lekhana Or Gharshana with the leaves of Gojihwa Or Shephalka to remove impure blood. 2) Raktha mokshana. 3) **Pratisarana :-** Trikutu Sarshapa and move impure blood + Madhu = for lepa gandoosha and Nasya. 4) Kavala grah with Sandhava lavana + Sandhava lavana 5) **Yusha Sevana :-** Food + Yusha prepared with Sarsapa + Sandhava lavana. 6) Yava Kshara etc., with patla Nimba twak, Varthaka, Yava Kshara etc.,

4) **Alasa :-**
(Sub lingual cyst Or abscess).
Tridosha (Kapha Raktha Or Pitta predominantly) Vilate and causes a dreadful swelling underneath the tongue by which immobilisation of tongue and suppurative root of tongue occurs, it is known as Alasa, after suppuration it causes destruction of muscles of tongue and Expels Matsya gandam.

Treatment :-
Asadyam. But can try with the following treatment Principles.

1) Virechan 2) Raktha mokshan 3) Kavala 4) Shiro Virechan 5) Dhooma 6) Vaman 7) Nasya.

The disease with short duration is sadyam. chronic Or with long duration is Asadyam.

5) **Upa Jihwa :-**
(Ranula Or Cystic swelling of tongue :-

Vilated Kapha and Raktha doshas causes a cystic swelling resembling tip of tongue (jihwaagra), and pushes the tongue upwards, associated with itching sensation salivation and burning sensation. (Vagbhata called it as adhi jihwaka).

Treatment :-

A) Raktha Mokshana Lekhana - Pratisarana - Nasya - Gandoosha and Dhooma Panam.

B) Chedan and Teekshana dravya Pratisaran (Vagbhata) **Pratisarana dravyas :-** Katuki, Pippali - Nimba etc

6) **Adijihwa :-**

Sushruta explained it in Kantha rogas, the description of Adijihwaka is equal to the sushruta's Upajihwaka and Vagbhata said the cyst arises below the tongue and pushes it upwards. (According to vagbhata Upajihwaka arises above the tongue and adijihwaka arises below the tongue)

Treatment :-
Chidan Lekhan Pratisarana.

Note :- Among the jihwa roga Alasa is only Asadya.

DISEASES OF TONGUE (JIHWA ROGAS).

Sl. No.	Name of the Disease	Dosha	Signs and symptoms	Treatment Principle.
1.	Vataj Jihwa Kantak (Chronic glossitis)	Vata	Dry rough thorny appearance of tongue with Crackings and loss of Sensation	1) Abhyanga 2) Sweda 3) Sneha Pratisaran 4) sneha gandoosha 5) Sneha Nasya.
2.	Pittaja Jihwa Kantak (Acute glossitis)	Pitta	Inflamed tongue (Red Or Yellow colour) ulceration, thorny appearance of mucosa with pain and burning sensation.	1) Raktha Mokshan 2) Sheetha Pratisaran 3) Sheetha Kavala Nasya.
3.	Kaphaj Jihwa Kantak (Chronic Leucoplakia)	Kaphaj	Thicky bulky heavy tongue with thorny appearance of mucosa of tongue (like shalmali Kantaka) associated with itching and salivation	1) Raktha Mokshan 2) Teekshna Pratisaran 3) Shodhan Nasya 4) Teekshan Gandoosha.
4.	Alasa (Sublingual abscess Or Carcinoma)	Tridosha and Raktha	A dreadful swelling underneath the tongue that causes immobilisation and suppuration of tongue.	Asadya.
5.	Upajihwaka (Cystic Swelling)	Kapha Raktha	A Cystic swelling resembling the tip of the tongue, pushes the tongue upwards (Vagbhata called it as adijihwa)	1) Lekhan 2) Pratisarana 3) Gandoosha 4) Nasya
6.	Adijihwak (Cystic swelling)	Kapha Raktha	A cyst arises on the dorsum of the tongue (Vagbhata called it as upajihwaka)	1) Lekhan 2) Pratisaran 3) Gandoosha 4) Nasya.

तालुगत रोग

1. गलशुण्डिका या कण्ठशुण्डी

रुलेष्मासुभ्यां तालुमूलात् प्रवृद्धो दीर्घः शोफोभ्मावस्तिप्रकाशः
तृष्णाकासश्वासकृत् सम्प्रदिष्टो व्याधिवैद्यैः कण्ठशुण्डीतिनाम्ना ॥

तालुमूले कफात् साक्षात् मत्स्यवस्तिभो मुटुः ।
प्रलम्बः पिच्छलः शोफो नासयाहारमीरयन् ॥

कण्ठोपरोधवृद्धकासवामिकृद् गलशुण्डिका ।

(अ० ह० उ० अ० २१)

2. तुण्डिकेरी

शोफः स्थूलस्तोददाहप्रपाकी प्राणुकाभ्यां तुण्डिकेरी मता तु ॥

(सु० नि० अ० 16/42)

3. अक्षुष

शोफः स्तब्धो लोहितस्तालुर्दंश रक्तज्वेयः सोक्षुषो रुक्चराढ्यः ॥

(सु० नि० अ० १६)

4. कच्छप वा तालुकच्छप

कूर्मासन्नो अवेदनोशीघ्रजन्मारक्तजेयः कच्छपः श्लेष्मणा स्यात् ॥

(सु० नि० अ० 16/43)

कच्छपः कच्छपाकारिश्रवृद्धिः काफादरकः ॥

(अ० ह० उ० अ० २१)

5. अर्बुद

पद्माकारं तालुमध्ये तु शोफं विद्याद्रक्तदर्वुदं प्रोक्तलिङ्गम् ॥

(सु० नि० अ० 16/43)

पद्माकृतिस्तालुमध्येरक्तच्छव्यशुरर्वुदम् ॥

(अ० ह० उ० अ० २१)

6. मांससंघात

दुष्टं मांसं श्लेष्मणा नीरुजं च तान्वन्तःस्थं मांससङ्घातमाहुः ॥

(सु० नि० अ० 16/44)

दृष्टं मांसं नीरुजं तालुमध्ये कफाच्छूनं मांससङ्घातमाहुः ॥

(मा० नि०)

7. तालुपुष्ट

नीरक् स्थायी कोलमात्रः कफात् स्यात् मेदेषुक्तं पुष्टस्तालुदेशे ॥

(सु० नि० अ० 16/44)

कोलाभः श्लेष्ममेदोभ्यां पुष्टो नीरुजः स्थिरः ॥

(अ० ह० उ० अ० २१)

8. तालुशोष

शोषोत्पद्य दीर्यते चापि तालुः श्वासो वातातालुशोषः सपित्तात् ॥

(सु० नि० अ० 16/45)

वातपित्तज्वरायासैस्तालुशोषस्तदाह्वयः ॥

(अ० ह० उ० अ० २१)

9. तालुपाक

पित्तं कुर्यात् पाकमस्यन्तधोरं तालुभ्येनं तालुपाकं वदन्ति ॥

(सु० नि० अ० 16/45)

पित्तेन पाकः पाकाढ्यः पूयास्त्रावी महारुजः ॥

(अ० ह० उ० अ० २१)

TALU ROGAS

Diseases of Palate

- A) 9 diseases according to sushruta
B) 8 diseases according to Vagbhata.

A) Sushruta's Classification (9 diseases)

- 1) Gala Shundi (Elongated Uvula Or Uvulitis)
- 2) Tundikeri (Tonsillitis)
- 3) Adhrusha (Palatitis)
- 4) Kacchapa (Adenoma of Palate)
- 5) Talu arbuda (Epithelioma or Carcinoma of Palate)
- 6) Mamsa Sanghatha (Adenoma or fibroma of Palate)
- 7) Talu Puppita (Epulis or fibroma or Cyst of Palate)
- 8) Talu sosha (Atrophy of Palate)
- 9) Talu Paka (ulceration of palate)

B) Vagbhata's classification (8 diseases)

He has not explained tundikeri in Talu rogas but explained it in Kantha roags. So only 8 diseases according to him. he added Talu plicca in Place of Adhrusha.

Note :- Among 9 diseases Talu Arbuda is only Asadya - Talu sosha aushada Sadya, remaing chedan sadya Vyadhis (chedan and Bhedan for tundikeri and Talu Puppita)

1) Gala Shundi (Kantha Shundi)

(Elongated Uvula Or Uvulitis)

The vitiated Kapha and Raktha doshas produces soft lengthy bulk swelling in palate (Talu moola), Resembles swollen bladder (Admaatha Vasti Prakasnam- Matsya Vasti nibham) and manifest the symptoms like, Obstruction while swallowing the food, irritation in the throat, dry cough, dyspnosa, thirst, Vomiting through nose and fever.

Treatment :-

1) shaman Chikitsa :-

1) Kavaala Gandusha Nasya and Dhooma panam 2) If the disease is not controlled chedan karma is advised.

2) Chedan Karma :-

Gala shundi has to firmly handled with samdamsha Yantra and with mandalagra shashtra the lower 1/3rd part should cut by leaving the upper 2/3. Excessive cutting causes bleeding complications, and improper cutting causes complications like salivation Insomnia and aggravation of the disease.

Pasthyath Karma (Post chedan therapy regimen):-

1) Pratisarana with maricha, Ateesa patha, Vacha, kusta Shyonak, rasna, saindhava lavana + madhu.

- 2) nimba.
- Dhooma Pana :-** With Panchangee Vartthi prepared by lngudi, Kinthe, dantni, trivruth and Devadaru.
- 3) Kshara Siddha mugda Yoosha bhogan
- 4)

Uvulitis :-

It is an inflammatory condition of Uvula (the free central posterior border of soft palate). The disease occurs due to

- 1) Recurrent or Chronic Oropharyngeal Or Upper respiratory tract infections
 - 2) Dust smoke and cold allergy (cold wind Or cold items allergy)
- elongated Uvula causes irritation at Posterior dorsum of tongue, Oro pharynx and produces irritative dry cough thirst, pain during deglutition, fever and pharyngitis etc.

Treatment :-

- 1) Broad spectrum antibiotics.
(Ex. Erythromycin)
- 2) Anti inflammatory and Analgesics.
Ex. Ibuprofen Or Diclophenac sodium.
- 3) Anti histamines and cortisones
(Betamethasone and Dexamethosone, Phenaramine maleate and chore phenaramine maleate).
- 4) Lukewarm salt water gargling.

If the disease is not controlled the lower 1/3 parts should excise under local anaesthesia.

2) Tundikeri (Tonsillitis)

The Vitiated Kapha and Raktha doshas causes a bigcystic swelling resembling the fruit of Vana Karpasa, the associated symptoms are Burning sensation, Pricking pain in the throat and with suppurative cyst.

(Note :- Vagbhata explained it in gala rogas)

Treatment :-

A) Shamana Chikitsa

Kavaala Gandusha Dhooma and Nasya.

B) If the disease is not controlled by shamana chikitsa, Shashtra Chikitsa like galashundi has to do (chedan)

" According to modern also it is Chedana sadya Vyadhi (Tonsilectomy) But Dalhana explained it as Bhedan sadya vyadhi.

Pratisarana :- with Gruha dhooma + Katu Varga dravyas.

Nasya :- Talia Prepared with Apamarga beele, Vishnukantha, dantni, Vidanga, Saindhava lavana and Tila Kalka.

Note :- Shoola, shotha, grandhi hara, Aushada's should give **Ex :-** - Kanchanara guggulu Or Triphalaguggulu, Gandak rasayan, Chopa cheniyadi churna, Knadhitradi vati, Sarivadvati etc., are helpful to reduce the inflammation of the tonsils.

TONSILLITIS

The palatine tonsils are subepithelial lymphoid collections situated in between faucial pillars. These help in protecting the respiratory and alimentary tracts from bacterial invasion and are thus prone to frequent attacks of infection.
* The inflammation of tonsils is known as Tonsillitis.

A) Acute Tonsillitis :-

Aetiology :- It may occur as a Primary infection of tonsil, Or secondary to upper respiratory tract viral infections. The causative organisms are, Haemolytic streptococcus, staphylococcus, haemophilus influenzae, and pneumococcus. Poor oral hygiene, Poor nutrition and congested surroundings are important predisposing factors.

Pathology :-

- 1) Tonsils are inflamed and lymphoid follicles convert into small abscesses which discharge into crypts known as **catarrhal tonsillitis**.
- 2) Multiple white spots of exudative collections in crypts on an inflamed tonsillar surface is known as **Follicular Tonsillitis**
- 3) Some times exudation from crypts form a membrane over the surface of Tonsil, is known as **membranous tonsillitis**.
- 4) Whole tonsil if uniformly congested is known as **Parenchymatous tonsillitis**.

Clinical Features :-

Symptoms :- Sore throat 2) Fever 3) Painful deglutition 4) Malaise 5) Headache, 6) Anorexia 7) Body pains. 8) Earache, 9) Constipation 10) Tachycardia.

Signs :- 1) Enlarged congested tonsils 2) Raise of temperature 3) Tonsils are stubbed with yellowish spot 4) Surrounding part of Pharynx are often inflamed (Soft palate and uvula) 6) Enlarged Tonsillar lymph nodes with tenderness (Jugulo digastric lymph nodes).

Treatment :- 1) Bed rest 2) Giving plenty of fluids. 3) Administration of Broad spectrum antibiotics (Erythromycin, Ampicillin, penicillin etc.). Analgesics Antipyretics and Anti inflammatory drugs 4) Salt Water (Lukewarm) gargling.

Complications :- 1) Chronic Tonsillitis 2) Peri tonsillar abscess (Quinsy) 3) Parapharyngeal abscess 4) Acute otitis media 5) Acute nephritis 6) Rheumatic fever.

Chronic Tonsillitis :-

Chronic inflammatory changes in the tonsils are usually the result of recurrent acute infections treated inadequately. It is of two varieties 1) Chronic Parenchymatous tonsillitis 2) Chronic fibrotic tonsillitis.

Clinical Features :-

Symptoms :- 1) Recurrent sore throat 2) Difficulty in deglutition 3) Discomfort in throat 4) Unpleasant taste (cacosmia) and bad smell in mouth (Halitosis) 5) Change of Voice.

Signs :- 1) Hypertrophic tonsils and protruding out of the pillars 2) Congested tonsils, crypts appear open from which epithelial debris may be squeezed on pressure 3) Enlargement of jugulo digastric lymph nodes.

Treatment :- 1) Treatment should give to control the infection of Tonsils Nasal and para Nasal sinuses

- 1) Broad spectrum antibiotics.
- 2) Analgesics and anti-inflammatories.
- 3) Anti histamines.
- 4) Surgery of Nasal and Paranasal abnormalities
- 5) Ex septal deviation (DNS), Adenoids, Nasal Polyps etc.,
- 6) If the disease is not responding to medical treatment, surgical excision of Tonsils is must (tonsilectomy).

Complication :-

- 1) Peritonsillar abscess 2) Para Pharyngeal abscess
- 3) Intra tonsillar abscess 4) Tonsillophs.
- 5) Rheumatic fever 6) Acute nephritis.

Tonsilectomy :- Excision of tonsils, is known as tonsilectomy.

Indications :- 1) Failure of conservative treatment 2) Chronic tonsillitis 3) Repeated attacks of acute follicular tonsillitis 4) After the attack of peritonsillar abscess (Quinsy) 5) Huge enlargement of tonsils causing mechanical obstruction for swallowing and respiration. 6) Chronic enlargement of regional lymph nodes with sore throat 7) weight loss 8) Persistent carrier to streptococcus haemolyticus and Diphtheria bacilli. 9) Carcinoma of tonsil 10) Benign tumours of tonsils.

11) Tonsillitis if causes secondary effects in other organs ex Rheumatic fever, Acute glomerulo nephritis, chronic suppurative otitis media. etc.,

Contra Indications :-

1) Severe diabetes 2) Gross Hypertension 3) blood dyscrasias (Bleeding Coagulation defects, aplastic anaemias and Purpura) 4) Allergy - asthma 5) During epidemic of polio 6) Systemic infections 7) Debilitative diseases 8) presence of acute local infection 9) During menstruation 10) During pregnancy.

Investigation Needed :-

1) C.B.P. 2) Hb% 3) Bleeding and coagulation time 4) Blood sugar - Cholesterol, uric acid levels etc., 5) Urine examination to know kidney damage and other metabolic disorders 6) Blood pressure 7) General examination of Heart & ECG 8) Enquiry about menstruation, pregnancy, Allergy and other past medical history.

3) Adrusa (Palatitis)

The Vitiated Raktha dosha causes red coloured hard Oedema in Talu, associated symptoms are pain and fever.
"Vaghnata not explained this diseases."

Treatment :- 1) Shamana Chikitsa :

Abhyanga, pratisarana, kavala, gandusha, dhooma pana, nasya and sweda

(Rakta dosha hara chikitsa should be given.

" Now a days for palatitis only shamana chikitsa (Anti inflammatory treatment) is practicing. "

2) If the disease not responds to shamana chikitsa, shashtra chikitsa (Like gala shundi) is advised i.e. sneha - sweda - chedan and prathisarana.

4) Talu kachhapa (Adenoma of Palate) :-

The vitiated Kapha dosha causes a painless, slowly developing and slowly suppurating whitish or pale coloured oedema (Arakta vruddhi) which resembles kachhapa (Dorsum of Tortoise) originates in Talu.

Treatment :-

1) Shamana Chikitsa :-

Abhyanga, Sweda, Pratisarana, Kavala Gandoosha, Dhooma and Nasya.

2) Shashtra Chikitsa - Chedana, if Shamana Chikitsa get failure Chedana is advised like Galashundi.

5) Talu Arbuda :-

Epithelioma Or Cancer of Palate

The Vitiated Raktha doshas causes Red coloured Arbuda in middle part of Talu, resembles Raktha padma (Red lotus)

Treatment :- Asadhya Vyadhi. (Rejected for treatment)

Note : (If Arbuda is newly developed, can try with the following treatment principle.) 1) Chedana and 2) Pratisarana with sarjakshara, shunti + Honey 3) Talia + Mmadhu - Gandoosha 4) Teekshna talia nasya.

6) Mamasa Sanghatha (Fibroma of Palate)

The Vitiated Kapha dosha causes painless Oedema in the Talu Mamasa. (Sushruta).

Vagbhata :- Kapha + Raktha, doshas Produces painless swelling in the middle part of talu is known as talu samhati.

Treatment :- 1) Shaman Chikitsa 2) Chedan Chikitsa like Galashundi

7) Talu Puppata

(Epuils Or Fibroma Or Cystic Swelling)

The vitiated Kapha dosha and Medo dhatu causes painless fixed swelling at Talu, resembles kola phala (Badari phala), is known as Talu pupputa. (It is a non specific cystic swelling (Fibroma) commonly arises due to trauma).

Treatment :- Sushruta :- Like Galashundi (Chedan - Pratisaran)

Vagbhata :- Lekhana, Prathisarana, Kavala and nasya.

8) Talu Sosha . (Atrophy of Palate - Cleft Palate.)

It arises Due to 1) vata and Pitta vitiation 2) Pipasa nigraha (suppressing the thirst urge) 3) Vata Pitta Jwara 4) Parishrama (Exersion), The talu get dried, some times bifurcates and associates with swasa (Dyspnoea).

Treatment :-

1) Nidana Parivarjanam (Treat the cause) 2) Vata Pitta hara Chikitsa. 3) Ghee should take after meals. 4) Pippali shunti - Pakwa jala panam (boiled water with pippali, shunthi) 5) Pippali shunti - Pakwa ghrita panam (ghee prepared with pippali, shunthi) 6) Amla dravya Or Sneha drava Gandoosha 7) Snigdha Jangala mamasa rasa sevana. 8) Ksheeri sarpi Nasya (Nasya with Ghee prepared from milk) (ghrita or snehapanam is contra indicated in Thirst).

9) Talu Paka (Palatitis Or ulceration of Palate).

The vitiated pitta causes severe dreadful ulceration (Talu Paka) in Talu- (painful pus discharging ulcer in Talu) (vagbhata).

Ulceration of palate may be classified as follows :-

1) Simple ulceration 2) Syphilitic ulceration (phirangaja) 3) Lupoidal ulceration (Charmakeelaja) 4) Epithelioma (malignant carcinoma - Ghatakaarbuda).

Treatment :-

1) Nidana Parivarjanam 2) Pitta - Visarpa hara Chikitsa 3) If Talu is not suppurated (Apakwa) a) Kaseesa Madhu and rasanjan - should be applied at the site b) Kavala with sheetha Kashaya, and Madhura dravyas like Kakolyadi etc., 4) If Talu get suppurated (Pakwa) a) Asta Pada Vatha Bhedan (eight limbed incision) b) Teekshna Ushna Pratisarana c) Kavala with Vasa, Nimba twak, and patola etc., dravyas.

Talu Pitika :- - Explained by only vagbhata in which vata dosha vitlates and produces painful, rough, hard and exudating piticas (Polyps) in Talu, known as Talu pitica

Treatment :- - 1) Shaman Chikitsa
2) Shashtra Chikitsa.

DISEASES OF PALATE (TALU ROGAS)

Sl. No.	Name of the Disease	Dosha	Signs and Symptoms	Treatment .
1.	Gala shundi (Elongated Uvula)	Kapha Raktha	Doshas vitiate the root of Talu and Produces a soft lengthy bulky swelling resembling vasti of matsya, it obstructs the throat and causes irritation thirst cough and dyspnoea.	1) Shaman Chikitsa, if get failure 2) Chedan, Pratisaran.
2.	Tundikeri (Tonsillitis)	Tridosha	A swelling resembling the fruit of Vana Karpasa develops at Talu, that causes pain burning and obstruction of throat	1) Shaman Chikitsa if get failure. 2) Chedan /bhedan & Pratisaran.
3.	Adhrusha (Palatitis)	Raktha	Red Coloured hard Oedema develops in talu, assoicated with pain and fever	1) Shaman if get failure 2) Chedan, Pratisaran
4.	Kacchapa (Adenoma of Palate)	Kaphaj	Painless slowly growing Oedema develops resembling the dorsum of tortoise, in talu	1) Shaman chikitsa, if get failure. 2) Chedan, Pratisaran.
5.	Talu arbuda (Epithelioma Or Carcinoma of Palate)	Rakthaj Karnika,	Red Coloured arbuda resembling padma develops in Talu	Asadya (Rejected for treatment)
6.	Talu Puppata (Cystic swelling)	Kapha, Medo dhathu	Vitiated doshas causes painless swelling resembling Kola Phala develops in talu	1) shaman Chikitsa 2) Bhedan/Chedan 3) Pratisaran 4) Kaval.

Sl. No.	Name of the Disease	Dosha	Signs and Symptoms	Treatment .
7.	Talu Sosha (Atrophy of Palate)	Vata Pitta	Talu get dried, bifurcates and associate with dyspnoea, due to suppressing the urge of thirst, Exertion and fever etc.	1) Nidana Parivarjan 2) Vata Pitta hara. Bumhana Chikitsa.
8.	Mamsa Samghatha (fibroma of Palate)	Kapha Raktha	Painles Oedema in Palate	1) Chedan 2) Pratisaran.
9.	Talu Paka (Ulceration of Palate)	Pitta	Vitiated Doshas causes ulcer in Palate	1) Pitta hara Chikitsa 2) Asta pada Bhedan 3) Pratisaran
10.	Talu Pitica (Polyp)	Vataj	Painful rough hard exudating piticas (Polyp Or follicles) erupts in Talu	1) Shastra Chedan Pratisaran.

कण्ठगत रोग

1. रोहिणी

गलेनिलः पित्तकफौ च मूर्च्छितौ पृथक्समस्ताश्च तथैव शोणितम् ।
प्रदूष्य मांसं गलरोधिनोऽङ्कुरान् सृजन्ति यान् सासुहरा हि रोहिणी ॥
जिह्वं समन्ताद् भृशवेदना ये मांसाङ्कुराः कण्ठरोधिनः स्युः ।
तां रोहिणी वातकृतां वदन्ति वातात्मकोपद्रवगाढयुक्तम् ॥

(सु नि० अ० 16/48)

जिह्वाप्रबन्धजाः कण्ठे दारुणमार्गरोधिनः ॥
मांसाङ्कुराः शीघ्रवया रोहिणी शीघ्रकारिणी ।

2. पित्तज रोहिणी

क्षिप्रोद्गमाक्षिप्रविदाहपाका तीव्रज्वरा पित्तमित्तजा स्यत् ।
स्त्रोतीनरोधिन्यपि मन्दपाका गुर्वी स्थिरा सा कफसम्भवा वै ॥

(अ० ह० उ० अ० २१)

पित्ताज्वरोषाणुण्मोहकण्ठधुमानान्विता ।
क्षिप्रजा क्षिप्रपाकातिरागिणी स्पर्शनासहा ॥

(सु नि० अ० 16/49)

3. कफज रोहिणी

स्त्रोतीरोधिन्यपि मन्दपाका गुर्वी स्थिरा सा कफसम्भवा वै ॥

(अ० ह० उ० अ० २१)

कर्फन पिच्छला पाण्डुः

(सु नि० अ० 16/49)

4. त्रिदोषजा रोहिणी

गन्धोरपाकाश्रितवारवीर्या त्रिदोषालिङ्गा त्रयसम्भवा स्यात् ।

(अ० ह० उ० अ० २१)

गन्धोरपाका निचयात् सर्वलिङ्गसमन्विता ।

(सु नि० अ० १६)

(अ० ह० उ० अ० २१)

5. रक्तज रोहिणी

स्फोटोचिता पित्तसमानालिङ्गासाध्या प्रदिष्टा रधिपत्तिकेयम् ॥

(सु नि० अ० 16/50)

असृजा स्फोटकाचिता ।
तत्प्राज्ञारनिभा कर्णरक्करी पित्तजकृतिः ॥

(अ० ह० उ० अ० २१)

6. कण्ठशालुक

कोलास्थिमात्रः कफसंभवो यो ग्रन्थिर्गले कण्ठकशूकभूतः ।
खरः स्थिरः शस्त्रनिपातसाध्यस्तं कण्ठशालूकमिति ब्रुवन्ति ॥

(सु नि० अ० 16/51)

दोषैः कफोत्पन्नैः शोफः कोलवद् ग्रन्थितोन्नतः ॥
शुककण्ठकवत् कण्ठे शालूको मार्गरोधनः ।

(अ० ह० उ० अ० २१)

7. अधिजिह्विका

जिह्वाग्ररूपः श्वयथुः कफात्तु जिह्वाप्रबन्धोपरि रत्नमश्रात् ।
त्रेयोधिजिह्वः खलु रोग एष विवर्जयेदागतपाकमेने ॥

(सु नि० अ० 16/52)

प्रबन्धनोधो जिह्वायाः शोफो जिह्वाग्रसन्निभः ।
सांकुरः कफफित्ताश्लैर्लातोषास्तम्भवान् खरः ॥
अधिजिह्वः सरकण्डूवार्क्याहारविधातकृत् ।
तादृगेवोपजिह्वस्तु जिह्वाया उपरिस्थितः ॥

(अ० ह० उ० अ० २१)

8. वलय

बलास एवायतमुन्नतं च शोफं करोत्यन्नातिं निवार्य ।
तं सर्वशैवाप्रतिवारवीर्यं विवर्जनीयं वलयं वदन्ति ॥

(सु नि० अ० 16/53)

वलयोनातिरक्शोफस्तद्वदेवायतोन्नतः ॥

(अ० ह० उ० अ० २१)

9. वलास
गले तु शोफं कुरुतः प्रवृद्धौ श्लेष्मानिलौ श्वासरुजोपपन्नम् ।
मर्मच्छिदं दुस्तरमेतमाहुर्वलाससंज्ञं निपुणा विकारम् ॥

(सुं नि० अ० 16/54)

10. एकवृद्ध
वृत्तान्तो यः श्वश्रुः सदाहः कण्ठवन्वितोपाक्यमुदगुरुश्च ।
नानैकवृद्धः परिकीर्तितोसौ व्याधिर्वलासक्षतजप्रसूतः ॥

(सुं नि० अ० 16/55)

11. वृद्ध
समुन्नतं वृत्तममन्ददाहं तीव्रज्वरं वृद्धमुदाहरन्ति ।
तं चापि पितृक्षतजप्रकोपाद् विद्यात् सतोद पवनसृजं तु ॥

(सुं नि० अ० 16/56)

वृद्धो वृत्तेन्नती दाहज्वरकृद् गलपार्श्वगः ॥

12. गिलायु
ग्रन्थिगले त्वामलकास्थिमात्रः स्थिरोत्पस्करः स्यात् कफरक्तमूर्तिः
संलक्ष्यते सत्त्वभाशनं च स शस्त्रसाध्यस्तु गिलायुसंज्ञः ॥

(सुं नि० अ० 16/58)

मांसकीलोगले दोषै रेकोनेकोशवात्पस्करः
दृच्छ्योच्छ्वासाभ्यवहतिः पृथुमूलो गिलायुकः

13. गलविद्रोधि

(अ० ह० उ० अ० २३)

सर्वं गलं व्याप्य समुत्थितो यः शोफो रुजो यत्र च सन्ति सर्वाः ।
स सर्वदोषो गलविद्रोधिस्तु तत्सर्वं तुल्यः खलु सर्वजस्य ॥

(सुं नि० अ० 16/59)

व्याप्यसर्वगलः शीघ्रजन्मपाको महारुजः ॥
पूतिपूयनिभस्वावी श्वश्रुर्गलविद्रोधिः ।

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(अ० ह० उ० अ० २३)

14. गलौघ
शोफो महान्नजलावरोधी तीव्रज्वरो वातगतोर्निहन्ता ।
कर्फनं जातो रधिपरिवृत्तेन गले गलौघः परिकीर्तयतेसौ ॥

(सुं नि० अ० 16)

बाह्यान्तः श्वश्रुपथोरौ गलमार्गान्तोमः ।
गलौघो मूर्धगुरुतातन्त्रालालाज्वरप्रदः ॥

(अ० ह० उ० अ० २३)

15. स्वरघ्न
योतिप्रताभ्यन् श्वसिति प्रसक्तभिनस्वरः शुष्कविमुक्तकण्ठः ।
कफोपदिग्धेष्वनिलायनेषु श्रेयः स योगः श्वसनात् स्वरघ्नः ॥

(सुं नि० अ० 16/61)

श्लेष्मरुद्धानिलगातिः शुष्ककण्ठो हतस्वरः ।
ताभ्यन् प्रसक्तं श्वसिति येन स स्वरहानिलात् ॥

(अ० ह० उ० अ० २१)

16. मांसतान
प्रतानवान् यः श्वश्रुः सुकण्ठो गलोपरोधं कुरुते क्रमेण ।
स मांसतानः कश्चितोत्पन्नी प्राणप्रणुत् सर्वकृतो विकारः ॥

(सुं नि० अ० 16/62)

17. विदारो
सदाहतोदं श्वश्रुं सरकमन्तगते पूतिविशीर्णमांसम् ।
पित्तेन विद्याद् वदने विदारो पार्श्वविशेषात् स तु येन शेते ॥

(सुं नि० अ० 16/63)

गलार्बुद
जिह्मवसाने कण्ठादावपाकं श्वश्रुं मलाः ।
जनयन्ति स्थिरं रक्तं नीरुजं तद् गलार्बुदम्

(अ० ह० उ० अ० 21)

गलगण्ड के सामान्य लक्षण
वातः कफश्चैव गले प्रवृद्धौ मन्ये च संसृत्य तथैव मेदः ।
कुर्वन्ति गण्डं क्रमशः स्वलिङ्गैः समन्वितं तं गलगण्डमाहुः ॥

(सुं नि० अ० 11/22)

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पवनरुलेष्ममेदोभर्गालगाण्डो भवेद् बहिः ।
वर्धमानः स कालेन मुष्कवल्गाम्बते नीरक् ॥

(अ० ह० उ० अ० २१)

निबद्धः श्वश्रुयस्य मुष्कवल्गाम्बते गले ।
महान् वा यदि ह्रस्वो गलगण्डं तमादिशेत् ॥

(सु० नि० अ० ११/२९)

वातज गलगण्ड

तोदाचितः कृष्णसिरानद्धः कृष्णोरुणो वा पवनान्मकस्तु ।
मेदोविवृतश्चेपाचितश्च कालाद्धवेदतिस्निग्धतरोरुजश्च ॥

(सु० नि० अ० ११/२३)

पारुष्ययुर्लक्ष्यैरवृद्धयपाकौ यदुच्छ्रया पाकमिमात् कदाचित् ।
वैरस्यामास्यस्य च तस्य जन्तोर्भवेत्तथा तालुगलगण्डप्रशोषः ॥

(सु० नि० अ० ११/२४)

कृष्णोरुणो वा तोदाद्यः स वातात् कृष्णराजिमान् ।
वृद्धस्तालुगले शोषं कुर्याच्च विरसास्यताम् ॥

कफज गलगण्ड

स्थिरः सवर्णोत्पन्नग्राकण्डूः शीतो महांश्चापि कफात्मकस्तु ।
चयाभिवृद्धिं कुरुते चिराच्च प्रपच्यते मन्दरजः कदाचित् ॥

(सु० नि० ११/२५)

स्थिरः सवर्णः कण्डुमां शीतस्पर्शो गुरुः कफात् ।
वृद्धस्तालुगले लेपं कुर्याच्च मधुरास्यताम् ॥

(अ० ह० उ० अ० २१)

माधुर्यमास्यस्य च तस्य जन्तोर्भवेत्तथा तालुगलगण्डप्रलेपः ॥

(सु० नि० अ० ११)

मेदोजगलगण्ड

स्निग्धो मृदुः पाण्डुरनिष्ठगन्धो मेदःकृतो नीरुगशतिकण्डूः
प्रलम्बतेलावुवदलमूलो देहानुरपक्षयवृद्धियुक्तः ।
स्निग्धास्यता तस्य भवेच्च जन्तोर्गतेनुशब्दं कुरुते च नित्यम् ॥

(सु० नि० अ० ११/२६, २७)

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DISEASES OF THROAT (Gala Or Kantha Rogas.)

1)	According to	Sushruta	17	Diseases.
2)	"	Bhava mishra	18	"
3)	"	Vagbhata	18	"
4)	"	Sarangdhara	18	"

They are as follows :-

Sl.No.	Name of the Disease	Modern Name.
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1.	Vatai Rohini	Diphtheria
2.	Pittai Rohini	
3.	Kaphai Rohini	
4.	Raktai Rohini	
5.	Sannipathai Rohini	
6.	Kantha Snaaluka	
7.	Adijihwa	
8.	Valaya	
9.	Balasa	
10.	Ekavruna, Vruna	
11.	Gilaya	
12.	Shathagnhee	
13.	Gala Vidradi	
14.	Gala ugha	
15.	Swaraghna	
16.	Mamsatana	
17.	Vidari	
		Adenoida
		Epiglottitis
		Tumour in throat
		Benign tumour
		Benign tumour
		Benign tumour
		Retropharyngeal abscess
		Retropharyngeal abscess
		Retropharyngeal abscess
		Paralysis of larynx
		Malignant tumour
		Malignant tumour.

Note :-

1) Shushruta counted Eka Vruna and Vruna as a single disease because of similarity. So only according to him Gala rogas are only 17

Sl.No.	Vagbhata not explained	Vagbhata Explained. Additionally
1.	Adijihwa	1. Vatai Gala ganda
2.	Eka Vruna	2. Kaphai Galaganda
3.	Balasa	3. Medoja Galaganda
4.	Mamsa Tana	4. Galabudra
5.	Vidari	5. Tundikeri.

Among 18 diseases vagbhata not explained the 5 diseases of Sushruta and added extra five diseases which are given in above chart.

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Note :-
Sustitute explained Tundikari in Talurugas (Diseases of Palate) and Adijivak in Galatugas (Diseases of Throat). But Vagopara explained Tundikari in Galatugas and Adijivak in jivva rugas (Diseases of Tongue).

ROHINI (Diphtheria)

It is a complicated, trouble some and poor prognostic disease of throat. The Tridoshas (Vata, Pitta, Kapha) and Rakta either separately or together vitiate and produces a hard quickly spreading, crecful and throat obstructing swelling (Single or multiple) that causes difficulty in Respiration and food intake, is known as ROHINI.

It is of 5 types
1) Vataj Rohini 2) Pittaj Rohini 3) Kaphaj Rohini
4) Rakthaj Rohini 5) Samipathaj Rohini

Sl. No.	Name of the Disease	Fatal time.
1.	Vataj Rohini	Causes death in 7 days
2.	Pittaj Rohini	Causes death in 5 days
3.	Kaphaj Rohini	Causes death in 3 days
4.	Rakthaj Rohini	Causes death immediately (Asadya)
5.	Samipathaj Rohini	Asadya.

Note :-

The prognosis of the disease is very poor, Rakthaj and Tridoshaj Rohini are Asadya So treatment should be tied for the rest of the diseases (Vataj, Pittaj and Kaphaj) only

1) VATAJ ROHINI

The vitiated Vata dosha causes a painful throat obstructing swelling at the root of Tongue. The symptoms are Dryness of mouth and throat, pain in jaws and ears, obstruction for respiration and food intake and other general complications of Vata are also associated It is known as VATAJA ROHINI a very complicated disease that causes death in 7 days if proper treatment is not given in time.

Treatment :-

1) Bahya Abhyanga (massage) with Lukewarm Vatahara Oils (Chatur Sneha).
2) Oral intake of luke warm medicated Oils (Chatur snehas - Sarpi taila - Vasa - Majja). 3) Light fomentation (Mrudu Swedam) in General aswellas Local. 4) Vamana Karma (emesis therapy). 5) Raktha Mokshana :- with anguli shasira or Nakha (Nails), Lekhana has to do at the lesion. 6) Application of saindhava lavana (Prathisarana) to the lesion where Lekhana has conducted. 7) Lukewarm gargles (Gandoosha) with Chatur Snehas. 8) Lukewarm gargles (Gandoosha) with the decoction of Hareetaki with Madhu.

Lukewarm gariges (Gandoosha) with the decoction of panchnamool. 10) Gandoosha and Nasya, with the medicated Oil prepared from Ela, puranawa, Karakati, Knapitla, Godugda and Tila taila. 11) Nasya Karma with Tila taila. 12) Karpasapanam with Vatahara Aushada. 13) Shodha hara shodha hara, Krimighna Jwethara medicines, Local aswellas systemic can be given.

2) PITTAJA ROHINI

The vitiated pitta dosha causes quickly originating, spreading and suppurating swelling at the root of tongue. It is an unbearable, very painful, disease with severe burning and fever thirst vertigo drowsiness unconsciousness other complications of pitta dosha are also associated. It is known as PITTAJA ROHINI, a very complicated disease that causes death in 5 days if proper treatment is not given in time.

Treatment :-

1) Abhyanga (massage) with cold oils. 2) Sneha panam (Ghritha etc.). 3) Light fomentation (Mrudu Sweda) General and Local. 4) Vamana Karma (Emesis therapy). 5) Raktha Mokshan with anguli shasira Or Nakha (Nails) Lekhana Karma has to do, at the lesion. 6) Application of the paste (Prathisan) Prepared from Raktha Chandan, Lodra, Priyangu, sugar and Honey to the lesion where Lekhana has conducted. 7) Gargles (Kavala- Gandoosha) with the cold decoctions prepared from chandan, Lodhra, Priyangu Sharkara and Honey. 8) Gargles (Gandoosha) with the decoctions of Draksha and parroosha. 9) A medicine for Gargling, Nasya and for Oral intake of Ghritha Prepared From Triphala, Lodra Sarwa, Kashmani Yasimadu Milk and Ghee (Ghritha Paka Vidhi)

3) RAKTHAJ ROHINI

The vitiated Raktha Doshha causes a dreadful, Red coloured swelling in the throat with severe burning pain and earache (pain in ears). All the symptoms of pittaja Rohini are also associated.

Treatment :-

It is an incurable and highly complicated, disease that causes death immediately. But treatment can be given as like pittaja Rohini for suppressing the symptoms temporarily.

4) KAPHAJ ROHINI

The vitiated kapha dosha produces a whitish, immobile, sticky, bulk, throat obstructing and slowly suppurating swelling in the throat, associated with atropic changes pain and dyspnoea. If it is neglected kills the person within 3 days.

Treatment :-

1) Lekhan and Raktha Mokshan 2) Prathisarana with Ghruthadrooma + Katuki Powder. 3) Nasya and Gandusha with the Oil prepared from apamarga, aparajitha Vidanga danthi saindhavalavana and taila.

5) SANNIPATHAJ ROHINI

The Tridoshas vitiate and produces a dreadful, most complicated, deep rooted, incurable, quickly suppurative disease in the throat, all the symptoms of Tri-dosha appears in this variety.

Treatment :- Asadya. (Rejected for the treatment)

COMMON TREATMENT PRINCIPLES OF THROAT DISEASES.

- 1) Lekhan and Raktha Mokshan. 2) Prathisanan Or Lepa
- 3) Kavalu Or Gandoosha. 4) Nasya Karma. 5) Dhooma Panam.
- 1) Oral intake of decoction prepared with Daru Haridra, Nimba patra, Rasanjan, and Indrayava.
- 2) Decoction of Hareetaki with Honey.
- 3) Gandoosha & Prathisanan with Triphala Trikatu Yavakshara Daruharidra Chitraka Rasanjan Patha Tejobala and Nimba with shuktha Or gomutra.
- 4) Local application of Amlavetas Malkangini musta devadaru Shunthi. Vacha Danti and Moorra.
- 5) The yogas explained is Sarva Sara mukha rogas are also useful in gala rogas.

DIPHTHERIA

It is a dreadful contagious disease caused by Coryne bacterium diphtheria, a gram positive Organism, usually spread by droplet infection and its incubation period is 2 to 4 days.

It commonly occur in 5 to 12 Years of age group. It is mostly eradicated but still a problem in developing countries like India. The disease commonly occurs in the mucosa of Nose, Nasopharynx oral cavity, Oropharynx and larynx, etc., but rarely affects the conjunctiva and genital tract.

Clinical Features :-

Clinical features depends upon the site of infection

A) Nasal diphtheria :- The clinical features are, fibrinous rhinitis, chronic rhinitis, excoriation of anterior nares, blood stained mucopurulent nasal discharge, inflamed nasal mucosa, formation of greyish white thick layer on nasal mucosa which is not separable and bleeds when try to separate it, finally it causes nasal nasopharyngeal obstruction and systemic toxemia (infection also spread to other mucous membranes of body and vital organs).

B)

Faucial diphtheria - Clinical Feature :-

Faucial diphtheria may be primary disease Or secondary to Nasal diphtheria, infection spreads to oral cavity and oropharynx.

The greyish white layer develops on tonsils Uvula soft palate and posterior pharyngeal wall. pain in the throat, difficulty in deglutition, mild Fever, head ache, Tachycardia, cervical lymphadenopathy (bull's neck appearance), Throat Obstruction and systemic toxemia are associated.

C) Laryngeal Diphtheria :- Clinical features . Diphtherial infection spreads to larynx and produces Greyish white layer on vocal cords, laryngeal vestibule, subglottis and trachea. Due to inflammatory changes in larynx, causes dyspnoea and Asphyxia.

Complications :-

1) Throat Obstruction (Difficulty in deglutition of food and water), 2) Nose and Larynx if affected causes dyspnoea and Asphyxia. 3) Myocarditis and peripheral vascular problems. 4) Neuritis. 5) Kidney and Liver Problems.

Treatment of Diphtheria.

- 1) Identification of the disease by clinical (features) findings.
- 2) Deep intra muscular injection of Anti diphtheric. Serum 10000 I.U. to 50,000. I.U. should give to neutralise the toxins.
- 3) Administration of suitable antibiotics (By culture/Sensitivity).
- 4) Bed rest.
- 5) Symptomatic treatment.
- 6) The main complication of the disease is Breathing problem for that " Tracheostomy " Operation is only the alternative, in which an artificial hole is done in trachea, in between 3rd and 4th rings, and tracheostomy tubes are inserted. So antiinfective precautions should take to save from pulmonary complications.

6) KANTA SHAALUKA (ADENOIDS)

(Naso Pharyngeal Tonsil)

It is Kaphaj, Shastra sadya Vyadhi, vitiated, Kapha produces an immobile rough and hard cyst resembling the seed of Kola Phala (Badari Phala) in the throat, causes throat obstruction dis comfort pricking pain (Like pricking with thorn and hook) and sounds during respiration.

Treatment :-

1) It is Shastra Sadyam (only surgical treatment is needed). 2) Similar surgery is explained for "Kanta Shaaluka Tundikari Gilay and Vrunda, i.e. - Bhedan Or Lekhan. 3) Raktha Mokshana. 4) Ghee + Yavanna. 5) Kaphaj Rohini Treatment. 6) Shodhan Chikitsa. 7) Breathing exercises etc.,

Adenoids

Naso Pharyngeal Tonsils.

Hypertrophied Naso pharyngeal tonsils are called as adenoids.

As the child grows the size of naso pharyngeal tonsils diminishes and disappears by puberty, But due to recurrent upper respiratory tract infections (in 3 to 10 Years of age group) instead of atrophic changes, the nasopharyngeal tonsils get hypertrophied and causes nasal and aural complications.

Signs and Symptoms :-

Frequent attacks of Cold, persistent Mucopurulent nasal discharge, nasal obstruction, sneezing, nocturnal cough (due to post nasal discharge), infection of paranasal Sinuses (Sinusitis) headache, enlarged mass of adenoids on posterior surface wall of nasopharynx, pinched nostrils, dull look, mental instability, retracted upper lip protruding teeth, obstruction to nasal breathing, opened mouth (for respiration), extreme deafness, tinnitus, otorrhoea, loss of appetite and on palpation of Naso pharynx adenoids have a feel like bag of worms.

Diagnostic Criteria :-

1) Nasal obstruction and Open mouth. 2) Appearance of adenoid facies. 3) Posterior Rhinoscopic Examination. 4) Palpation of Naso pharynx. 5) Lateral view X-ray of Naso pharynx.

Complications :-

1) Recurrent attacks of Otitis media. 2) Sinusitis 3) Speech problems. 4) Chronic nasal changes (Pinched Nose etc.) 5) Adenoid Cysts.

Treatment

Conservative Treatment :-

1) Antibiotics (Erythromycin etc.) 2) Analgesics and anti inflammatory drugs. 3) Anti allergic drugs. 4) Nasal decongestants (Nasal drops and systemic drugs).

If the disease is not controlled by above treatment, surgical excision of adenoids (Adenoidectomy), is only the next alternative treatment. Commonly adenoidectomy is done along with tonsillectomy under general anaesthesia. St Clair Thomson adenoid curette with a guard is the instrument more commonly used for adenoidectomy.

The adenoid curette is held in the right hand and passed behind the soft palate to the end of the nasal septum. It is pressed against the roof of Naso pharynx to engage the adenoid mass, then with downward and forward movement the adenoids are curetted out and are held up in the guard of curette. A second stroke may be needed to clear the roof, post nasal cavity is packed for few minutes to arrest bleeding. Then Antibiotics, and inflammatory analgesics and anti histamines are prescribed.

ADIJIHWA

(Epiglottitis)

The vitiated Kapha and Raktha doshas produces a swelling above the tongue resembling the tip of tongue, is named as Adijihwa. It becomes incurable (Asadya) when suppurated.

Note :- According to Vagbhata Adijihwa and Upajihwa are the diseases of tongue, in which

Swelling above the tongue is "Upajihwa"
Swelling below the tongue is "Adijihwa"

Treatment :-

1) Lekhana and Pratisaran with Yavakshara. 2) Shiro Virechan Nasya. 3) Kapha and Raktha dosha hata Gandoosha. 4) Kapha Raktha hata dhooma panam.

It can be correlated to Epiglottitis (Inflammation of epiglottis), it is a rare condition. If it is not severe can be controlled with Antibiotics Analgesics, Anti inflammatory and Anti histamine drugs.

8) VALAYA

(Tumour in throat either benign Or Malignant)

"Charaka Called it as Bidalka.

The vitiated Kapha produces a lengthy, bulk complicative, round and throat Obstructing. Swelling that causes difficulty for food intake, it is named as Valaya.

It is Asadya (incurable) and said to be rejected for treatment.

Treatment :- Incurable disease.

9) BALASA.

(Benign Or malignant tumour of Throat)

The vitiated Kapha and Vata dosha produces a dreadful swelling that causes pain breathlessness and injury to vital parts (Marmabhighata), it is known as Balasa.

Treatment :- Incurable disease (Asadya Vyadhi)

10) EKA VRUNDA

Vagbhata not explained this disease.

The vitiated Kapha and Raktha doshas Produce a round bulk, hard, non suppurative cyst in the throat that causes pain, itching sensation burning sensation and throat obstruction, it is known as Eka Vrunda.

Treatment :-

1) Shodhan (Raktha Mokshan Nasya etc.) 2) Pratisaran (Local Application of the medicine) with Yava Kshara. 3) Gandoosha. 4) Dhooma Panam. 5) Kaphaj Rohini Chikitsa.

11 VRUNDA

The vitiated pitta and Raktha or vata and rakta, produce a bigger, painful, swelling in the throat (in the lateral side of throat by vagbhata) with fever and burning sensation, it is known as Vrunda.

Note :- (Vedana Daha Jwara are more severe than Eka Vrunda)

Note :- According to sushruta and Dalhana - Vrunda and Ekavruna are similar diseases. So only explained separately but counted as one and they explained that the severity of pain, burning sensation and fever are more in Vrunda than Ekavruna.

12 GILAYU (Benign Cyst of Throat)

The vitiated kapha and Raktha doshas produces a hard, immobile, painful cyst (Cysts- Vagbhata), resembling the seed of Aamalakī Fruit, in the throat that causes difficulty in deglutition of food (and have a feel that food bolus is obstructed in the throat) an breathing, it is known as Gilayu, need surgical treatment.

Treatment -
1) Surgical Treatment like Kantha shaaluka Tundikeri and Vrunda.
2) Kaphaj Rohini Treatment.
3) For Oral intake and for Gangling usag of Musta, Trikatu Ativisha, Devadaru, Go Mutra, Tikhaushadhas.

13) GALA VIDRADI. (Retropharyngeal abscess)

The Tridoshas vitiate and produces a painful, quickly originating spreading and suppurating abscess with foul pus discharge that completely obstructs the throat and teases by manifesting the symptoms of vitiated Tridoshas, like pain, burning sensation, oedema, itching sensation and discomfort etc.

Treatment :-
1) If the abscess is not at vital prats (marma sthana) Bhedhan, pooya nirharan, Shodhan, Ropana has to do (Incision and drainage).
2) Raktha mokshan- then prathisarana and Gandoosha.
With :-
Triphala Haridra, Rasanjani, Gyrika, Lodra, saindhava lavan, Raktha chandan and pippli.
Powder is for prathisarana and the decoction is for Gandoosha.

14 GALAUGHA (Retropharyngeal Abscess)

The vitiated kapha and Raktha doshas produces bigger oedema Or Cyst in the throat (oedema not only in throat but also externally Vagbhata), associated with fever and obstructs the respiration and food intake, other symptoms are salivation drowsiness heaviness of head and discomfort in throat.

Treatment :- Asadya Vyadhi (incurable disease) but can try as Rohini.

15) SWARAGHNA (Carcinoma Or Paralysis of Larynx.)

The vitiated Vata (Vata + Kapha - Vagbhata) by affecting shabdavaha srotas Or swara Yantra (Pharynx and larynx) deranges the function of Vata and produces the symptoms like breathlessness in ability to talk, dryness of throat and giddiness, it is known as Swaraghna which is incurable.

Treatment :-
Asadya Vyadhi (Incurable disease.)

16) MAMSA TANA (Cellulitis Or Carcinoma of Throat)

The vitiated Tridoshas produce an abnormal, spreading, throat obstructing, hanging, Cyst Or Polyp in the throat, it is known as mamsatana which is incurable and rejected for the treatment.

Treatment :-
Asadya Vyadhi.

17) VIDARI (Gangrenous Stomatitis Or Retro pharyngeal abscess).

The Vitiated pitta and Raktha produce a painful, burning type of red growth (Abscess) in the throat, the tissue of the abscess gradually get necrosed and extoliated, it is known as Vidari which is incurable and rejected for the treatment.

Treatment :- Asadya (incurable)

18) SHATHAGHNEE

The Tridoshas vitiate and produce multiple cysts or Polyps in the throat, that causes throat obstruction, severe pain, burning sensation, head ache, fever and said to be more dangerous and so it should be rejected for the treatment.

Treatment :
Asadya (Incurable)

ADDITIONAL DISEASES OF THROAT, EXPLAINED BY VAGBHATA.

- 1) 5 Diseases.
Galaarbuda 2) Tundikeri 3) Kaphaj Galaganda 4) Medoja Galaganda. 5) Vataj Galaganda.

- 1) **Galaarbuda (benign Tumour in Throat)**
The vitiated Vata di doshas produces a hard, immobile, painless, non suppurative, reddish tumour in the throat. It is known Galaarbuda.

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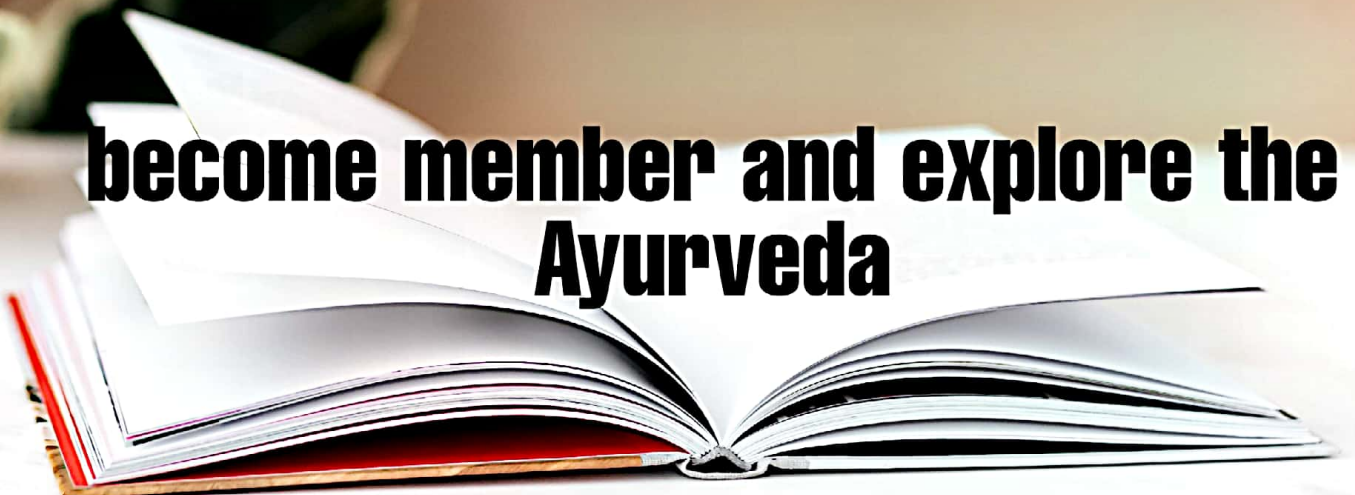
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Treatment :-

- 1) If the growth is smaller Chedan & Pratisarana should be done (Excision and application of Sarja Kshara shunthi and Honey).
- 2) Gangling (Gandooshan -With Giloya, Nimba Kashaya + Honey + Tila taila.
- 3) Nasya and achyanga.
- 4) With :- 1) Concentrated Sarshapa Taila. Usage of Yava as food (Yavanna Sevena)

2) 3) 4) , GALAGANDA (GOITRE)

- A) Sushruta expalined it in the chapter " Grandhi "
 B) Charaka " Shopa "
 C) Vagbhata " Gala roga.

It occurs by the vitiation of vata. Kapha and medas So only on the basis of vitiation it is of 3 types.

- 1) Vataj Gala ganda
- 2) Kaphaj Galganda.
- 3) Medoja Galganda.

Common Features of Galaganda :-

A painless slowly progressive movable (Hangs like scrotum,) cyst develops on the neck, the size of cyst is not uniform (changes time to time)

1) Vataj Galaganda :-

A slowly developing blackish red cyst develops on neck, it associates with pain and is encircled with black capillary net, some times suppurate and some times not. The other symptoms are Talu sosh, Gala Sosh and Virasya.

Treatment :-

1) Nadi Swedan with Vata hara drugs. 2) Raktha Mokshana 3) Upanah Swedan. 4) If Cyst suppuratives Vrana chikitsa should do with following external applications.

a) Shigru Tilwaka Tarkari (Arani), Gaja Pippali, Swetha punarnava, Neeli, Amrutha, Arka Moola, Trivuth and padmak should be grinded with sura Or Kanji and used as External application.

b) Guduchi Taila :- Oil prepared with Guduchi Nimba Kutaja Hamsapadi Pippali Devadaru and Baladwayam.

2) KAPHAJ GALAGANDA.

The vitiated Kapha dosha causes, a hard, painless, skin coloured, bigger cyst develops on the Neck with itching sensation, Coldness, formation of Sticky layer on palate and throat and with unpleasant sweetness of mouth.

Treatment :-

Like Vataj Galaganda But with more potent drugs.
 1) Sweda 2) Vimlapana, 3) Upanaha. 4) Raktha Mokshan 5) Yamana 6) Shoochan Nasya 7) Rechana Dhoonapana. 8) If the cyst suppurates Vrana Chikitsa with the following external applications.
 a) Ajaganda, Ativisha, vishalya, Gunja, Karkatata Shrunji, Alabu and Phalasha kshara - grinded with sura or Kanji and applied to the lesion.

9) Oral Administration of :-

- 1) Talia Prepared with the drugs of Vatsakadi group.
- 2) Jala Kumbhee Kshar + Gomutra
- 3) Taking of Kodrava diet.

3) MEDOJA GALAGANDA.

The signs and symptoms of Kaphaj Galaganda present, additionally abnormal noises in throat, abnormal (obstructed) Voice, Foul smell, and severe itching sensation associated. The size of the cyst increases and decreases along with body built (if the body built is perfect, cyst increases in size and if the body is emaciated cyst reduces in size).

Treatment :-

- 1) Like Kaphaj Galaganda Chikitsa.
- 2) Sira Vyadana.
- 3) The powder of the drugs of Aasanadi Group + Gomutra, for Oral intake.
- 4) Daha Karma with Vasa ghritta and madhu, then application of Gorochan + kaseesa + Tutta + Ropana taila (if the disease is not controlled ; incision, should be given to remove the fat, suturing then Healing therapy should be followed as an alternative method)

ADDITIONAL DISEASES OF THROAT, BY VAGBHATA .

Sl. No.	Name of the Disease	Modern Name	Vitiating of Dosha	Lakshanas	Treatment.
1.	Galarbuda	Benign Tumour in Throat	<u>Vatadi Doshas</u> Sadya	Hard, Painless, fixed non suppurative, red tumour develops in throat.	Chedan. Pratisaran.
2.	Tundikeri	Tonsillitis	<u>Kapha Rakthaja</u> Sadya	Red, bigger, painful swelling develops at Talumoola resembling Karpasa phala .	Bhedhan/Chedan Pratisaran.
284 3.	Vataj Galaganda	Goitre	Vataj/Sadya	Painful reddish black cyst with black vessels develops on neck.	Sweda, Raktha Mokshana, vana Chikitsa.
4.	Kaphaj Galaganda	"	Kaphaj/Sadya	Hard painless big cyst develops on neck with itching sensation.	-do-
5,	Medoja Galaganda	"	Medoja /Sadya	Kapha features, Swara Vikruthi, foul smell with itching sensation.	-do-

DISEASES OF THROAT GALAROGAS

Sl. No.	Name of the Disease	Modern Name	<u>Vitiating of Dosha</u> Sadya-asadhya	Lakshanas	Treatment
1.	Vataja Rohini	Diphtheria	Vathaj Kasta Sadya Vyadhi	Painful, throat obstructing Swelling develops in the throat with dryness of oral cavity, obstruct the food and . airway	Sneha -Sweda, Vamana. Raktha Mokshana, Pratisarana, Kavala. it kills the person in 7 days if neglected.
2.	Pittaja Rohini	"	Pittaj/Kasta Sadya	Spreading type of swelling develops in throat with burning pain, fever, thirst, vertigo and unconsciousness.	Treatment principles same as above and kills the person in 5 Days if neglected
285 3.	Kaphaj Rohini	"	Kaphaj/Kasta Sadya	Fixed, bulk sticky, throat obstructing swelling develops, with atrophic changes in throat	Treatment principles same as above and kills the person in 3 days if neglected.
4.	Rakthaj Rohini	"	Rakthaj/Kasta Sadya	Red swelling develops in throat with burning pain-and symptoms of pitta also present.	Treatment principles same as above and kills the person immediately.
5.	SanniPathaj Rohini	"	Tridoshaj/Asadya	Most complicated swelling with all the above symptoms develops in throat.	Asadya.

6.	Kantha Shaaluka	Adenoids	Kapha-Shastra Sadya	Fixed, hard cyst resembling Badari Phala Develops in throat with pricking pain and discomfort.	Bhedan/Lekhana and Prathisanan.
7.	Adijihwa	Epiglottitis	Kapha-Raktha sadya	A Swelling develops above the tongue resembling the tip of tongue	Lekhan-Prathisanana Nasya-Kavala, & dhoomapana.
8.	Valaya	Tumour of Throat	Kaphaja Asadya	Lengthy bulk, complicative throat obstructing swelling causes obstruction of air and Food way.	Asadya.
9.	Balasa	"	Vata Kaphaj Asadya	Dreadful, painful, throat obstructing swelling that causes injury to vital parts develops in throat.	Asadya.
10)	Ekavrunda	"	Kapha Rakthaj Sadya	Round fixed, bulk, hard, non Suppurative cyst with pain, burning and itching sensation develops in throat.	Raktha mokshan Prathisanan Kavala dhoom panam.
11)	Vrunda	"	Pitta Raktha Or Vata Raktha Sadya.	Bigger, painful burning swelling develops in throat, more complicated than ekavrunda.	Asadya.

12.	Gilayu	"	Kapha Raktha Shastra Sadya	Hard, fixed, painful swelling like Amalaki Seed develops in throat end and obstructs the air and food way	Bhedan/Lekhan Prathisanan Kavala-Dhoomapan
13.	Gala Vidradi	Retro Pharyngeal abscess	Tridoshaj Asadya	Painful, suppurating and throat obstructing swelling with features of Tridosha.	Bhedan Shodhan Ropana.
14.	Galaugha	"	Kapha Raktha Asadya	Bigger, painful, throat obstructing Swelling with fever, drowsiness and heaviness of head, develops in throat.	Asadya.
15.	Swaraghna	Paralysis of Larynx	Vata Asadya	Shabdavaha srotas is deranged and causes breathlessness, inability to talk, Dryness of throat and giddiness	Asadya.
16.	Mamsatana	Carcinoma of Throat	Tridoshaj Asadya	Abnormally spreading, throat obstructing swelling or polyp develops in throat	Asadya.
17.	Vidari	Gangrenous stomatitis	Pitta Raktha Asadya	Painful, burning type of red growth with necrotic Or atrophic changes, develops in Throat.	Asadya
18.	Shataghnee	Tumour of throat	Tridoshaj Asadya	Multiple cysts obstructs the throat with burning pain, fever and headache.	Asadya.

सर्वसर मुखरोग या सर्वसर मुखपाक

ब्रह्मः सर्वेष्वायतनेषु ॥
सर्वसरसु वातापित कफ शोणितनिमिता

(सु. नि. अ. १६)

स्फोटः सतोदैर्दन्तं समन्ताद्यस्याचितं सर्वसरः स वातात् ।
रक्तैः सदाहैस्तनुभिः समीतैर्यस्याचितं चापि स पित्तकोपात् ॥
कण्डूयुतैरत्सरजैः सर्वणैर्यस्याचितं चापि स वै कफेन ।
रक्तेन पित्तोदित एक एव कैश्चिद् प्रादिष्टो मुखपाकसंज्ञः ॥

(सु. नि. अ. १६)

करोति वदनस्यान्तर्भागान् सर्वसरोनिलाः ।
संचारिणोरुणान् रक्षानोष्ठौ ताम्रौ चलत्त्वचौ ॥
जिह्वा शीतासहा गुर्वी स्फुटिता कण्टकाचिता ।
विवृणोति च कृच्छ्रेण मुखं पाको मुखस्य च ॥

(अ० ह० उ० अ० 21)

पित्तज मुखपाक

मुखस्य पित्तजे पाके दाहोषे तिक्रमकत्रता ।
क्षरोक्षितक्षतसमा ब्रणाः, तद्वच्च रक्ते ॥

(अ० ह० उ० अ० 21)

कफज मुखपाक

कफजे मधुरास्यत्वं कण्डूमस्तिच्छिला ब्रणाः ।
अन्तःकपोलमाश्रित्य श्यावपाण्डुकफोर्बुदम् ॥
कुर्यात्तद् घट्टितं छिन्नं मृदितं च विवर्धते ।
मुखपाको भवेत् सास्त्रैः, सर्वैः सर्वाकृतिमलैः ॥

ऊर्ध्वगुद के लक्षण

अधः प्रतिहतो वायुरशौगुल्मकफादिभिः ।
यात्सूर्ध्व वक्रदौर्गन्ध्यं कुर्वन्ऊर्ध्वगुदस्तु सः ॥

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(उ० ह० उ० अ० 21)

पूतिवक्रता के लक्षण
पूत्यास्यतां तैरेव दन्तकाष्ठानि विविष्टिः ॥

असाध्य मुखरोग

रोगाणां मुखजातानां साध्यानां कर्म कीर्तितम् ।
असाध्या अपि वक्ष्यन्ते रोगा ये तत्र कीर्तिताः ॥
ओष्ठप्रकोपे वर्ज्याः स्युर्मांसरक्तत्रिदोषजः ।
दन्तमूलेषु वर्ज्याः तु त्रिलिङ्गयत्सौषिदैः ॥
दन्तेषु च न सिध्यन्ति श्यावदलनभञ्जनाः ।
जिह्वागतेष्वालासस्तु तालव्येष्वर्बुदं तथा ॥
स्वरध्नो वलघो वृन्दो विदार्यलस एव च ।
गलौघो मांसतानश्च शताध्नी रोहिणी च या ॥
असाध्याः कीर्तिता ह्येते रोगा नव दशैव च ।
तेषां चापि क्रियां वैद्यः प्रत्याख्याय समाचरेत् ॥

(अ० ह० उ० अ० २१)

(सु. वि. अ. 22/77 से 81)

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SARVA SARA MUKHA ROGAS (MUKHA PAKA)

According to Sushruta	3 Diseases
" Sarangdhara	5 "
" Vagbhata	8 "

CLASSIFICATION OF THE DISEASES OF MUKHA.

Sl. No.	Sushruta	Sarangdhara	Vagbhata
1.	Vataj Mukha Paka	Vataj Mukha Paka	Vataj Mukha Paka
2.	Pitaj Mukha Paka	Pitaj Mukha Paka	Pitaj Mukha Paka
3.	Kaphaj Mukha Paka	Kaphaj Mukha Paka	Kaphaj Mukha Paka
4.		Raktaj Mukha Paka	Raktaj Mukha Paka
5.		Sanni Pathaja Mukha paka	Sanni Pathaj Mukha Paka.
6.			Urdwa guda Mukhaarbuda
7.			Puthi Mukha.
8.			

Sarvasara Mukha rogas are named as " Mukha Paka ". occur by spreading completely in the Mukha so only named as Sarvasara mukha rogas.

NIDANA SAMPRAPTI OF MUKHA ROGAS.

Aetio pathology of mukha roga :-

Lose of appetite, Indigestion, constipation, eating of very hard, hot, cold items; improper cleaning of teeth and mouth intestinal worms, caries teeth, general weakness, Hypovitaminosis (deficiency of B. Complex, Vit C) Allergy to Tooth powder or paste, physical and chemical traumatic injuries to oral mucosa; pitta and Rakha, violating food intake. Due to above causative factors, vatadi doshas vitiate the oral mucosa and causes mukha paka.

Common Signs Symptoms of Mukha Paka.

- 1) Inflammation of Oral mucosa.
- 2) Ulceration in the mouth.
- 3) Altered taste.
- 4) Pain Burning Sensation and itching sensation in mouth.
- 5) Difficulty in mastication and deglutition
- 6) Headache and discomfort.

Common Treatment Principles of Mukha Roogas.

- 1) Sneha - Sweda (Oleation and Fomentation)
- 2) Shodhan (Vaman, Virechana Pratisarana (application of medicine)
- 3) Lekhana Or Bhedhana Or Chedan. therapies.
- 4) pana (medicated smoking.
- 5) Kavaala Or Gandoosha (Gargling)
- 6) Dhooma the causative factor)
- 7) Nasya (nasal drops)
- 8) Nidana Parivarjan. (Avoiding (Perfect mouth wash).
- 9) Dosha shamana chikitsa.
- 10) Samyak mukha prakshalana.

COMMON YOGAS FOR MUKHAPAKA

After shareera shodhan, Local treatments should give, among the Local treatments Kavaala Gandoosha and prathisarana are having utmost importance in the management of Mukha rogas.

Medicines for Gargling and for Oral Intake. :-

1) a)

Triphala Kashaya Or Aaragwadadi Kashaya
Or Pancha Pallava Kashaya Or panchakola Kashaya
Or Dashamoola Kashaya Or Pancha Valkala Kasathaya
Or Pancha tiktha Kashaya Or udumbara Kashaya.
Or Shigru Kashaya Or jathi Patra Kashaya.
Or Mutra Or Ksheera Or Madhu Or ghritha Or

Yastimadu Kashaya Or Pancha Lavanasa + Water Or Shubra Bhasma + Water or Tankan Bhasma + Water.

B)

1) Patoladi quath :- Decocion prepared with Patola shunti
Triphala Vishala, Karanja, Katuki, Haridra, Daruharidra, Guduchi + honey.

2) Khadhiradi Kashaya :- Decocion prepared with Khadhiira Agarua
Triphala, Arjunatwak, malathi, Babbula twak.

3) Kshudradi Kashaya :- Decocion Prepared with kantakari,
Guduchi Jathipatra, Daruharidra, Triphala + Honey..

4) Jathyadi Kashaya :- Decocion prepared with Jathipatra, Daruharidra, Triphala, Dadinapatra, Babbula twak, Badari moola twak - and add Tankan bhasma - shubra bhasma and use for Gargling.

5) Saphacchadadi Kashaya :- Decocion prepared with
Saphacchada, usheera, patola, Musta, Kiratha tiktha, Katuki,
Yastimadu, amlavetas, chandan.

6) Tiladi Kashaya :- Decocion prepared with Tila, Neelotphala,
Ghritha, Sugar, Milk and Lodra.

7) Dhaarvee Kashaya + Honey

8) Jathipatra kashaya + Honey .

9) Dhaarvee Ghana Kwatha + Gyrka + Honey

10) Patoladi ghana Kwatha + Gyrka + Honey.

(Patola, Nimba , Yastimadu, Vasa, Jathipatra, Babbula, Khadhiira sara, Triphala).

11) Gu mutra, Hareetaki + Sadapa, Kusta and usheera Kashaya.

- c) Haridraadi Taila, Tilai Taila, Arimedadi Taila, Irmedadi Taila, Khadhradi Taila etc., are used for gargling.

d) **Tablets and powders for chewing.**

- 1) Triphala, Dweepi, Kiratatiktha, Yashtimadu Sarshapa, Trikatu, Musti, Hardra dwayam, Yava Kshara, Vrukshami, Amlavetas Ashwattha twak, Jambu twak, Amla Twak, Arjuna twak, Dhanaajaya twak, Khadira sara, the fine powder, is prepared, half (1/2) medicine should be prepared for decoction, then remaining half should be added, heat it and prepared concentrated medicine, tablets are prepared and used for chewing.

- 2) a) Khadhradi Vati b) Lavangadivati c) Trijatha Kadi Vati d) Eladi churana e) Krishnaleera + Kusta + Indrayana should be used for chewing
3) Triphala small pieces or Powder, Yashtimadu small pieces Or powder, small pieces Or powder, jathi Patra, Tamala patra + Khadira + Pudeena + Lavanga + Karpooora, for chewing.

E) **Dantha Manjan :- (Pratisarana)**

- 1) Pathadi Manjan :- Patha, Daruharidra, Kusta, Musta Manjista, Katuki, Haridra, Lodra, Tejobala + Honey.
2) Kaalak churana manjan :- Grunadhooma, Rasanjana, Patha, Trikatu Triphala, Yavakshara, Loha bhasama, Tejobala, chikitrak + Honey.
3) Peetak Churana Manjan :- Daru haridra, Saindhava lavan, Manashila, Yavakshara, haritaka, Ghee and Honey
4) Tankan bhasma + Honey Pratisarana
5) Shubra bhasma + Honey pratisarana.
6) Saindhava Lavana + Honey Pratisarana.

II) **Nasya Karma :-**

Medicated ghee or oil or powder or liquid should be selected according to vitiation of doshas and used as nasal drops.

- Ex :- 1) Yashtimadivati Taila 2) Ksheera bala taila etc.
III) **Dhooma Pana:-** Medicine should select According to the vitiation of doshas and use for dhooma pana.

IV) If the disease is not controlled by medical treatment, surgical methods like LEKHANA BHEDHANA and CHEDANA has to do in association with Pratisarana.

V) **Same remedies useful in Mukha rogas.**

Lakshminivilasas, Maha Lakshminivilas ras, maha lakshminivilas ras with Gold, Naradeeya Lakshminivilas ras, Lagusuthasekara ras, Arogyavardini vati, sarvadi vati, Gandoak rasayan tab, Lavangadi Vati Trijathakadi vati, G. 32 tabs, Kanchanara guggulu, Triphala guggulu, Sapthamrutha Loha, khadhradivati, Haridra Khanda, Chopacheeriyadi Churana, Yashtimadu Churana, Triphala Rasmanjyana, vyadhiharan rasayan, Panchatiktha-guggulu-ghrita, Khadhrarista, Sarvadjarista, mahamanjistadi quath, Maha Rasnadi quatha, Bhasmas like mukhta ment of mukha rogas.

1) VATAJ MUKHA PAKA (Stomatitis)

The vitiated vata dosha causes a single Or multiple ulcers in the Oral mucosa with acute inflammatory changes. The disease is progressive in nature, very painful, mucosa becomes dry and rough. The associated symptoms are inflamed lips tongue and palate, difficulty in opening the mouth and sensitivity to cold items. etc.

Treatment :-

- 1) Sneha, sweda (Oleation and Fomentation) 2) Shodhan Karma (Vaman, virechan, Nasya, Raktha Mokshan) 3) Kavalagraha or Gandoosha (gargles) 4) Snehika dhooma pana (medicated smoking) 5) Snehana Nasya (Vata hara Nasal drops) 6) Nidana Parivarjan (Avoiding causative factors) 7) Lekhana and pratisarana.

Some Yoga of Gandoosha (Gargling)

- A) 1) Triphala Kashaya 2) Dashamoola Kashaya, 3) Rasnadi Kashaya 4) Pancha Pallava Kashaya 5) The decoction of Triphala, patha, Mrudweeka, jathi patra, the decoction + Honey 6) Vata hara taila or ghrita.

- B) **Nasya :-** With Vata hara taila or Ghrita.

- C) **Dhooma Pana :-** Snehika dhooma pana with shalaphaladi drugs. Sarja rasa Khadhradi vati etc., drugs.

- D) **Pratisarana :-** Local application of medicine 1) Pippali + Lavan + Ela + Honey, 2) Pancha lavana + Honey

2) PITTAJA MUKHA PAKA (Acute Stomatitis)

The vitiated pitta dosha causes inflammation and ulceration of oral mucosa. Smaller reddish yellow papules develop throughout the mouth. causes severe burning pain. altered taste (Bitter mouth), difficulty in mastication and deglutition.

Treatment :-

- 1) Sneha, sweda (oleation and Fomentation) 2) Shodhan Karma (Vaman, virechan, Nasya, Raktha Mokshan etc) 3) Kavalagraha Or Gandoosha (Gargling) 4) Shaman Nasya 5) Shaman Dhooma Pana 6) Nidana Parivarjana 7) Lekhana and Pratisarana.

A) **Some Yoga of Gandoosha :-**

- 1) Triphala Kashaya 2) Pancha valkala Kashaya 3) Vidari gandhradi or kakolyadi Kashaya 4) Pancha Tiktha Kashaya 5) Yashtimadu Kashaya 6) Chandana, Ushneera, mustadi Kashaya 7) Gargling with Milk Or Sugar cane juice Or Ghee.

B) **Nasya and Gandoosha :-**

With sheeta Veerya, Pitta hara taila, ghrita Or Kashaya.

- C) Pratisaran Yoga (Local application of the Medicine with the following drugs
1) Shunti Choorna + Ghrittha 2) Amalaki Churna + Water 3) Haridra Chandanadi Lepam 4) Nimba Pallava Kalka 5) Jathi Pallava Kalka etc.,

3) KAPHAJ MUKHA PAKA. (Sub acute Or Chronic, Stomatitis)

The vitiated Kapha dosha produces inflammation and ulceration in the oral mucosa. The mouth become sweet sticky with itching sensation and negligible pain. Small cysts Or tumours develop and become more severe by compression and excision.

Treatment :-

- 1) Sneha sweda (Oleation and Fomentation) 2) Shodhan Karma (Vaman Virechan Nasya Raktha Mokshan) 3) Kavalagraha and Gandoosha 4) Shodhana Nasya 5) Virechanika Dhooma Pana. 6) Lekhana / Bhedhan / Chedan and Prathisan 7) Nidana Parivarjana.

Some Yoga of (gargling) Gandoosha :-

- A) Ghrittha Or taila or madhu Or Ksheera
- B) Triphala Kashaya Or pancha valkala Kashaya Or Panchakola Kashaya Or Aaragwadadi Kashaya Or Trikatu Kashaya.
- C) Haridradi taila Or khadiradi taila.
- D) Khadiradi vati Or Trijathakadi Vati Or Lavangadi vati for chewing.
- E) Oral in take of
Ativisha, patha, musta, Devadaru, Katuki, Indrayava, with Gomutra.
- F) Oral intake of
Trikatu Or pancha Kola Kashaya.

4) SANNIPATHAJ MUKHA PAKAM.

All the symptoms of Tridosha and Raktha dosha are present in this disease.

Treatment :- Tridosha hara Chikitsa should be given.

Pratisaran with Haridra, Kaseesa, Kamkshi, Rasanjan, mocha ras + Madhu.

5) RAKTHAJA MUKHA PAKA.

Signs symptoms and treatment is like pittaja mukha paka

6) URDWA GCDA (Intestinal Obstruction)

The Annavaha srotas is obstructed due to Gulma Arsha and Kapha by which the Apana vayu is obstructed and propagates upwards and emits foul smell through the mouth

Treatment :- 1) Asadya
2) Symptomatic treatment.

7) (PUTHI VAKTRATHA) (Puthi Mukha)

The Vitiated dosha produces Foul smell in mouth due to improper cleaning of teeth (with dantha Kaasta) and mouth

Treatment :-

- 1) Sneha - Sweda
- 2) Vaman
- 3) Teekshna nasya
- 4) Teekshana Dhooma Pana
- 5) Brushing of teeth and gargling with manjista, Dhataki, Lodra, priyang, and Padmaka.
- 6) Sheetada Upakusha Chikitsa (these two are Dantha moola Vyadhis)
- 7) Gandoosha, with the decoction of Triphala, Jathi Patra, haridra Daruharidra, Guduchi, Nimba and patola etc.,
- 8) Imededdi taila Gandoosha.
- 9) Chewing of Khadiradi Vati Or Lavangadi vati.

8) MUKHA ARBUDA. (Tumours in oral cavity)

The Vitiated Kapha dosha produces blackish white colour tumour in the oral cavity (in the internal surface of Kapola i.e. cheeks.). By compression incision and excision the disease recurs and aggravates.

Treatment :-

- 1) If tumour is smaller
Chedan and prathisanana with Kshara + Shunthi + Madhu.
- 2) Gandoosha with the decoction of Guduchi + nimba + Tila taila + Honey.
- 3) Teekshna Nasya, Dhooma pana and abhyanga.
- 4) In take of food prepared with yava.
- 5) Kapha hara Picchu at Vrana. (Ulcer or lesion)

ASADYA MUKHA ROGA

Sl. No.	Name of the Group	Asadya Vyadhis.
1.	Osta Rogas	1) Mamsaja Osta prakopa 2) Rakthaja osta prakopa 3) Sannipathaja Osta Prakopa.
2.	Dantha Moola Vyadhis	1) Saushira 2) Sannipathaja Danthanadi
3.	Dantha Vyadhis	1) Shyava Dantha 2) Dhalana 3) Bhanjanaka
4.	Jihwa Roga	1) Alasa.
5.	Talu Rogas	1) Talu arbuda.
6.	Gala Rogas	1) Swaraghna 2) Valaya 3) Vrunda 4) Vidari 5) Balasa 6) Galaugha 7) Mamsatana 8) Shathagnhee 9) Rohini (Tridoshaj)

(In total 19 Disease are Asadya. in mukha roga)

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SARVA SARA MUKHA ROGA.

Sl.No.	Name of the Disease	Modern Name	Vitiatio of <u>Dosha</u> Sadya Asdya	Lakshana	Chikitsa.
1.	Vataja Mukha Paka	Stomatitis	Vataja Sadya	Dry - rough progressive Ulceration & inflammation of Oral mucosa associated with pain and sensitivity	Vata hara Chikitsa. Sneha, sweda, Sneha, Gandoosha Snehika dhooma.
2.	Pittaja Mukha Paka	Acute Stomatitis	Pittaja Sadya	Ulceration and inflammation of oral mucosa with severe burning pain and bitter taste	Pitta hara Chikitsa Sneha, Sweda, Gandoosha, (Tiktha Kashaya) Shamana dhooma and nasya.
3.	Kaphaja Mukha Paka	Chronic Stomatitis	Kaphaja Sadya	Ulceration and inflammation of oral mucosa with negligible pain, itching sensation and with unpleasent sweet taste	Kapha hara Chikitsa Sneha, sweda, Teekshna Nasya, Gandoosha, Dhooma, Lekhan and Pratisaran.
4.	Sanni Pathaj mukha paka	Acute Stomatitis	Tridoshaja Sadya.	All the symptoms of Tridosha present	Tridosha hara Chikitsa.

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Sl. No	Name of the Disease	Modern Name	Vitiatiion of Dosha Sadya Asadya	Lakshana	Chikitsa.
5.	Rakthaja Mukah paka	Acute Stomatitis	Rakthaja Sadya.	All the Symptoms of Vitiated Pitta present	Like pittaja muka paka.
6.	Urdwa guda	Intestinal Obstruction	Kaphaja Asadya	Apana Vayu is obstructed by kapha - gulma Arsha and emits foul smell thorough the mouth	Asadya.
298 7.	Puthi Mukha	Oral unhygienic Condition.	Vatadi Sadya	Foul smell comes from mouth due to improper brushing of teeth.	Sneha - sweda Kavala, Nasya, dhooma Mukha Prakshalana.
8.	Mukhaarbuda	Tumour in Oral cavity	Kaphaj Shastra Sadya	White tumour develops in mouth aggravates by excision	Chedan Kshara Pratisaran.

COMMON SIGNS AND SYMPTOMS OF PHARYNGEAL DISORDERS.

Symptoms :-

- 1) Pain (Odynophagia) :- Pain on Swallowing and may referred to ear.
- 2) Salivation :- it may increase due to infrequent swallowing due to pain, it may be blood stained and with foul smell in malignancy and dental sepsis.
- 3) Irritation or Foreign body Sensation in throat due to allergy Or post nasal discharge, foreign bodies inflamed mucosa and malignancy.
- 4) Nasal regurgitation due to improper functioning of soft Palate, cleft palate, short palate and palatal perforation.
- 5) Dysphagia :- Due to laryngopharyngeal or Oesophageal diseases.
- 6) Swellings of neck :- Lymphadenitis Or metastatic lymph nodes.

Signs :- The signs of the diseases depends upon the nature of the disease, but the common signs. are.

- 1) Congestion Or oedema Or inflammation of Pharyngeal mucosa,
- 2) Mucoid Or mucopurulent Or purulent secretions.
- 3) Inflamed glands, development of cysts Or tumours Or abscess or membrane formation Or lymphadenitis are observed.

Treatment - Principle.

- 1) Cause should be removed.
- 2) Culture and sensitivity of throat swab and using Broad spectrum antibiotics accordingly.
- 3) Anti inflammatory analgesics anti pyretics. and anti histamines. etc., drugs. should use.
- 4) Medicated hot gargles Or steam inhalations.
- 5) Supplementation of Vitamines - Nutrients (Vit-B.C.)
- 6) Excision of malignant tumours, Radiation, and usage of cytotoxic drugs.
- 7) Stopping the irritants.
- 8) Symptomatic treatments.

DISEASES OF BUCCAL CAVITY (ORAL CAVITY)

STOMATITIS :

Diffuse inflammation of the oral mucosa caused by the following local and systemic diseases.

Local Causes :-

1) Traumatic Stomatitis :-

It is due to ill fitting of dentures, incorrect brushing of teeth, hot and spiced food, medicaments, fumes, smoke and radio therapy, The epithelium of the palate cheeks and gums becomes eroded, producing painful shallow ulcers, sloughy base and with surrounding hyperaemia.

Treatment :-

- 1) Removal of primary cause
- 2) Oral dental hygiene
- 3) Antiseptic gargles
- 4) Supplementation of vitamines (especially B.Complex)
- 5) Antibiotics anti inflammatory and analgesics.

2) Infective Stomatitis :-

Inflammation of the oral mucosa with bacteria virus Or fungi.

a) **Viral infective stomatitis :-**
Herpes simplex, herpes Zoster etc., involve the mucosa of lips, buccal mucosa and palate and produces small painful vesicles which later ulcerates..

b) **Bacterial stomatitis :-**
Acute ulcerative stomatitis commonly caused by the staphylococcus, streptococcus Or Gonococcal infection.

c) **Fungal Stomatitis :-**
Stomatitis caused by candida albicans, etc. it is known as thrush Or Monilia-sis.

Treatment :- 1) Removal of causes 2) Antibiotics 3) Antiseptic Gargles 4) Oral dental hygiene 5) Vitamine supplementation 6) Application of 1% Gentian Violet Or nystatine in glucose etc.,

3) RECURRENT ULCERATIVE STOMATITIS - APHTHOUS ULCERS.

Aetiology is un known but various factors like viruses, endocrine disturbances, psychosomatic factors, habitual constipation, autoimmune reactions, and vitamine deficiencies etc. are suggested.

Single Or multiple small vesicles appear in Oropharyngeal mucosa, the vesicles soon ulcerate and surrounded by erythema. they are very painful and usually occur in gingibuccal groove tongue. or buccal mucosa.

Treatment :- 1) Cause should be ruled out 2) Vitamines and nutrients supplementation, 3) maintenance of Oral dental hygiene. 4) Local hydro cortisone usage. 5) Antibiotics - Anti inflammatories and analgesics. 6) Antiseptic gargles.

4) ANGULAR STOMATITIS

It is due to ill fitting of dentures and avitaminosis (Riboflavin deficiency) ulceration and cracking of the angles of the mouth is observed as the main sign of the disease.

Treatment :- 1) Supplementation of nutrients and Vitamines. 2) Oral dental hygiene 3) Removal of the cause 4) Local applications of 1% Gentian violet 5) Symptomatic treatment.

5) BEHCETS SYNDROME

This is a disease of un known aetiology characterised by ulceration of the oral cavity, External genitalia (Some times neurological problems like encephalitis and blindness) and conjunctivitis.

Treatment :-
1) Administration of Steroids. 2) symptomatic treatment.

6) LICHEN PLANUS

It is a pre malignant condition of unknown aetiology, the mucosal lesions are dull white, milky dots, appears like lacy striae, circular Or annular. Skin lesions usually co exist.

Treatment :- Symptomatic treatment

7) PEMPHIGUS

Bullus lesions without erythema on oral mucosa and skin, the bullae when rupture leaves a raw surface it is also with unknown aetiology.

Treatment :-
Administration of steroids and symptomatic treatment.

8) STOMATITIS DUE TO DRUGS.

Excessive doses of Bismuth lead iodides and mercury etc., causes the stomatitis.

9) STOMATITIS DUE TO SYSTEMIC CAUSES.

Stomatitis occur due to vitamine B. Complex, deficiency, pernicious anaemia, mal-absorption syndrome and haematological lesions (Agranulocytosis - leukemias, poly cythemia, mononucleosis etc.,)

10) LEUKOPLAKIA

It occurs as white patches in oropharyngeal mucosa, usually arises by heavy smoking, alcohol, spices, dental sepsis, syphilis and vitamin deficiency, it is a pre malignant lesion.

Treatment :-
Avoiding the irritating Factors and Biopsy to rule out malignancy.

11) ERYTHROPLAKIA

Red patches on oral mucosa. it is also a premalignant lesion.

12) SUBMUCUS FIBROSIS.

It is characterised by diffuse dense white patches on oral and pharyngeal mucosa, due to deposition of Fibrous tissue in submucosa, often associated with Trismus.

Predisposing Factors.

Exact cause is unknown but following factors may cause the disease.

1) Irritants- Chewing of paan, Tobacco, Beta nuts, and intake of Chillies and spicy foods. 2) Trauma _ Repeated mechanical and thermal trauma. 3) Nutrition :- Poor Nutrition and Vitamine deficiency. 4) Poor Oro dental hygiene. 5) Achlorhydria and hyperacidity.

Clinical Features :-

Trismus, Burning sensation in Oral cavity, recurrent ulcers in mouth, lymphadenitis, (submandibular) involvement of cheeks, leads to failure in blowing whistling and sucking etc., White patches are seen in the Oral cavity on the cheeks, retromolar area, hard palate and soft palate, it leads to difficulty in mastication and swallowing, poor oro dental hygiene, deafness and malignancy may supervene in some cases.

Treatment :-

1) Avoiding the irritants 2) Correction of dental hygiene. 3) Local injections of Hydro Cortisone Or Hyaluronidase. Once a week submucosally. 4) Surgery. 5) Physio therapy 6) Symptomatic therapy.

TUMOURS OF THE ORAL CAVITY .

A) Benign Tumours.

- 1) **Cyst** - Usually retention cysts develop in the Floor of the mouth or in tongue (Mucous cysts).
- 2) **Ranula** :- A cystic swelling develops in the Floor of mouth and under surface of tongue, commonly associate with sublingual salivary gland, appears bluish in colour and require surgical excision.
- 3) **Haemangioma** :-
It occurs usually on the tongue Or in the inner surface of cheek, it requires surgical excision.
- 4) **Papilloma** :-
It usually occurs on the tongue and other parts os oral mucosa, requires surgical excision.
- 5) **Pleomorphic adenoma**-
It Usually occur on the palate.

6) Epulis.

A swelling on gums, having different types a) Fibrous epulis b) Giant cell epulis c) Malignant epulis It is benign as well as malignant, require surgical excision and radio therapy.

7) Ludwig's angina :-

This is an acute inflammatory condition producing cellulitis of Floor of mouth. The patient appears toxic with swelling and Oedema of floor of the mouth and brassy induration of the sub-mandibular and submental region, causes difficulty in swallowing and breathing, the oedema may spread to larynx.

Treatment :- 1) Heavy doses of penicillin. 2) Symptomatic treatment. 3) may require tracheostomy.

8) Ameloblastoma :-

The tumour arises frequently from mandible - benign in nature and need surgical excision.

B) Premalignant Lesions.

Ex :- Leukoplakia and syphylitic ulcer.

C) Malignant Tumours :-

Squamous cell carcinoma is the commonest malignancy of tongue and inner aspect of cheek etc., the aetiology is uncertain but factors like tobacco, betel nut chewing, smoking, poor oral hygiene, thought to play a part for the origination of disease.

The lesions present as a slough covered ulcerated mass with raised margins which bleeds easily on touch, it also involve the adjacent areas and lymph node metastasis is common.

Treatment:- Surgery and Radio therapy

PHARYNGITIS

Inflammation of Pharynx is known as Pharyngitis.

A) Naso Pharyngitis :-

- 1) Acute Naso Pharyngitis.
- 2) Chronic Naso pharyngitis

- a) Simple
- b) Atrophic.

1) Acute Naso Pharyngitis :-

It may be Bacterial Or viral and it follows nasal Or sinus infection.

Clinical Features :-

Dry ness, burning sensation in naso pharynx, pain while swallowing, Fever, headache and body ache. etc.,

Treatment :-

Like acute Rhinitis and acute sinusitis.

2) a) Chronic Simple Naso Pharyngitis :-

Chronic Nasal Or Sinus Infections may extend and cause the disease.

Clinical Features :-

Post nasal irritation, inspiratory snoring and mucopurulent sticky discharge with granular pharyngitis.

Treatment :- 1) Cause should be treated. 2) Alkaline douches and gargles.

2) b) Chronic Atrophic Pharyngitis.

Similar to atrophic Rhinitis.

B) OROPHARYNGEAL AND LARYNGO PHARYNGEAL INFECTIONS.

It is of Two Types-

Acute and Chronic pharyngitis, again they are divided into two, specific and non specific

Pharyngitis :-	
Acute	Chronic
Specific - Non specific	Specific - Non specific.

Acute Pharyngitis :-

Acute Inflammation of pharyngeal mucosa is known as Acute pharyngitis.

1) Acute Simple Pharyngitis :-

It may occur because of so many Local and systemic causes. Common cold, dental sepsis, mouth breathing, after administration of certain drugs, like potassium iodide, mercury, Arsenic etc., It is common in other infections like measles Chicken pox, influenza, typhoid etc., inflammatory lesions may also occur after trauma by a Foreign body or after instrumentation.

Clinical Features :-

Sore throat, mild fever, head ache, body ache, cough dysphagia, slight hoarseness of voice. Examination reveals diffuse congestion of pharyngeal mucosa, tonsils with its pillars, palate, uvula may be swollen and Resolution usually occurs in 3 to 7 days (it depends on the severity of the infection)

Treatment :- 1) Bed rest 2) Plenty of fluids 3) Alkaline gargles 4) Giving of suitable Antibiotics, anti inflammatory and analgesics 5) Symptomatic treatment.

2) Acute Septic Pharyngitis :-

It is more acute nature than simple pharyngitis. Bacterial in Origin, organisms are streptococcus haemolyticus, staphylococcus aureus, pneumococcus etc.,

Predisposing Factors :-

1) Low body resistance 2) unhygienic condition. 3) Poverty (malnutrition) 4) Epidemic form in schools and hospitals.

Clinical Features :-

High Fever, rigor, dysphagia, sore throat, congested pharyngeal mucosa, tonsils and epiglottitis, Uvula is swollen and elongated, mucopurulent discharge is streaked to the posterior pharyngeal wall palate, tonsils and pillars, pulse is full and rapid at first then weak and thready, Features of toxæmia and enlarged and tender cervical lymph nodes are Visualised.

Complications :-

1) Oedema of Larynx 2) Ludwig's angina.

Treatment :-

1) Bed rest 2) C/S of throat swab to detect the infective organism then administration of broad spectrum antibiotics accordingly. 3) nutritious soft liquid diet. 4) Analgesics, Antipyretics, Anti inflammatory. 5) Tracheostomy in laryngeal Oedema.

3) Ludwig's Angina :-

This is cellulitis and eventually abscess formation in the floor of the oral cavity extending on to the neck, a brawny indurated swelling forms under the chin, there is acute dysphagia and sore throat.

Treatment :-

1) Incision and drainage of abscess if needed. 2) Broad spectrum antibiotics. 3) Symptomatic treatment.

4) Vincent's Angina :-

This is an acute ulcerative lesion of one or both tonsils due to fusiform bacilli and spirochaete. it spreads to soft palate and gums also

Predisposing factors :-

Carious teeth, pyorrhoea, - Malnutrition.

Clinical Features :- Acute pain in throat, high fever, dysphagia, greyish ulceromembranous patch on one or both tonsils, bleeds easily from mouth, patient appears toxic and with cervical lymphadenitis.

Treatment :-

1) High dose of penicillin injections. 2) Antiseptic mouth wash 3) Symptomatic treatment.

5) Acute Diphtheritic Pharyngitis :-

Diphtheria is an acute infection due to specific organism *Corynebacterium diphtheriae*, usually occur in the first decade of age, occurs by airborne or by direct contact.

Clinical Features :-

Child complains of sore throat, fever and discomfort in throat. There is raised pulse rate, that is disproportionate to the rise of temperature.

The characteristic feature is the greyish white membrane formation on faucial tonsils and extends to Uvula and soft palate. it cannot be easily removed and on removal leaves a raw bleeding surface. The child is often toxic, cervical glands are often enlarged and tender due to secondary infection. In advance cases the membrane formation may extend to the larynx causing respiratory obstruction. Neurological and cardiological complications like neuritis myocarditis etc., can occur.

Diagnosis :- Swab culture is confirmatory (Growth of *C. diphtheriae* or K.L.B.)

Treatment :-

1) Anti toxin :- Early administration of anti diphtheric serum (A.D.S.) is always advisable without waiting for bacteriological confirmation. usual dose is 20000 to 100000 units. 2) Systemic antibiotics (Penicillin is drug of Choice). 3) Nutritious soft liquid diet. 4) Bed Rest. 5) Tracheostomy may be necessary in diphtheritic laryngitis.

6) Agranulocytosis Or agranulocytic Angina :-

This condition is characterised by polymorpho nuclear Leukopenia (marked reduction of neutrophils) associated with Oro-pharyngeal ulceration, pyrexia and severe prostration.

Actiology :- Sensitivity to drugs like chloramphenicol sulphonamides, cytotoxic drugs and amidopyrine- These causes bone marrow destruction and non formation of neutrophils.

Clinical Features :-

Head ache, pyrexia, sore throat and malaise Pharyngeal ulcers develop on tonsils, pillars, palate, posterior pharyngeal wall and throughout The gastro intestinal tract. W.B.C. count falls below 3000 per C.M.M. and neutrophils are rarely seen.

Treatment :-

1) With drawal of the concerned sensitive drugs. 2) heavy doses of penicillin. 3) Pentnucleotide is the drug of Choice by injection to stimulate bone marrow. 4) Blood transfusion.

7) INFECTIOUS MONONUCLEOSIS OR GLANDULAR FEVER :-

It is a viral disease, Some times associated with oral lesions. The causative agent is Epstein-Barr-virus, where there is increase of large mononuclear cells.

Clinical Features :-
Sore throat, malaise, weakness, nausea, vomiting, fever, generalised lymphadenopathy and subconjunctivally.

Diagnosis :-
1) Paul - Jurnell test positive, differential count of W.B.C.

Treatment :- Symptomatic

8) Moniliasis (Thrush) :-

It is a fungal infection of mouth due to candida albicans. The lesions appear as white Or greyish white patches on Oropharyngeal mucosa surrounded by erythema. The membrane can be removed easily by leaving a raw area. It commonly occurs in the debilitated children.

Treatment :-

1) Local application of 1% gentian Violet Or Nystatin inglycerine Or Silver nitrate. 2) Good Nutrition Supplementation.

9) Leucemia :-

Acute lymphocytic leucemia some times associate with Oropharyngeal ulcerations with membrane formation.

10) Herpes Simplex :-

It is a viral infection causes small vesicles in themouth and Oropharynx, painful ulcers form after rupture of the vesicles.

Treatment :-

1) Antiseptic mouth wash. 2) Lignocaine 2% application to reduce pain 3) Antiviral drugs like acyclovir. 4) Symptomatic treatment.

11) Herpes Zoster :-

Vesicles occur unilaterally in a row on the pharynx Or palate. pain is severe and may referred to the ear.

Treatment :- Same as above.

CHRONIC PHARYNGITIS

Chronic inflammation of pharynx, may be due to specific Or non specific lesions.

1) CHRONIC NON SPECIFIC PHARYNGITIS.

Various aetiological factors (Exogenous endogenous etc) influence and causes the disease, those, predisposing factors are as follows.

1) recurrent nasal paranasal infections causes nasal block due to deviated nasal septum, hyper trophied turbinates, nasal polyps, cysts, tumours adenoids etc. So that the patient takes mouth breathing leads to dryness and inflammation of pharynx. 2) Allergic rhinitis 3) Allergic sinusitis 4) Chronic tonsillitis 5) chronic Orodental diseases.

6) Erythroid 7) Eosinophilia 8) intestinal parasites, 9) Tobacco betelnut chewing, 10) Smoking 11) in take of severe irritants like alcohol 12) atmosphere pollution and 13) emotional factors, causes prolonged irritation to the pharynx and causes diseases.

Clinical Features :-
Irritation and foreign body sensation in throat, dry cough, pain, Vocal Fatigue and blood stained spit.

Signs:-
1) chronic catarrhal pharyngitis :-

Diffuse congestion of pharyngeal mucosa.

2) Chronic Granular Pharyngitis :-

posterior pharyngeal wall appears to be studded with granules - pinkish red in colour (hypertrophy of lymph nodules).

3) Follicular pharyngitis :-

Single Or multiple Yellowish cysts develop in pharyngeal wall due to chronic inflammatory changes (mucous glands).

4) Lateral band pharyngitis :-

Manifest at the lateral portion of the pharyngeal wall along the track of post nasal discharge.

5) Atrophic pharyngitis :-

Atrophic changes in pharyngeal mucosa as a result of extension of atrophic Rhinitis. Examination reveals a dry thin glazed mucosa with wrinkles and crusts.

Treatment :-

1) Cause should be treated 2) Hawking should be avoided. 3) Medicated steam inhalation 4) Local alkaline gargles. 5) Chemical Or electric Caутery. 6) Symptomatic treatment.

Keratosis Pharyngitis :-

It is a condition of unknown aetiology which is characterised by whitish horny out growths on faucal tonsils, base of the tongue and posterior pharyngeal wall. It results from hypertrophy and keratinisation of superficial epithelium. The lesions are hard with no erythema peripherally.

No specific treatment require, subside within few months.

CHRONIC SPECIFIC PHARYNGITIS

1) Tuberculosis Of Pharynx :-

It is secondary to chronic pulmonary tuberculosis. Mucosal ulceration surrounded by area of congestion in Oro pharyngeal region. The Chief complaint is pain and dysphagia, anti tubercular Treatment should be given.

2) Lupus of Pharynx:-

It is secondary to Lupus of nose, tubercles appear on pharyngeal mucosa. The nodules break down, ulcerate and heal by cicatrization. Anti tubercular treatment should be given.

3) Syphilis of Pharynx :-

Pharynx is usually involved in the secondary stage of syphilis, with diffuse congestion, mucosal patches, snail track ulcers and lymphadenitis.

In tertiary syphilis the gummatous ulcer involve hard palate, soft palate and pharynx. Biopsy and serological tests confirm the diagnosis and penicillin is used as the drug of choice for the treatment.

4) Leprosy of Pharynx :-

The pharyngeal involvement is Secondary to nasal and skin lesions. Leprous nodules ulcerate, destruct and perforate the palate and heals with cicatrization.

PHARYNGEAL ABSCESSSES .

1) QUINSY (PERITONSILLAR ABSCESS).

In Quinsy Or peritonsillar abscess collection of pus outside the tonsillar capsule and medial to superior constrictor muscle, it originates in the peritonsillar tissue as peritonsillitis and culminates into peritonsillar abscess, it is usually unilateral.

Aetiology :- Recurrent Tonsillitis, Foreign Body embedded in tonsil, tonsillar tag left while tonsilectomy and recurrent Oropharyngeal infections, leads to Quinsy.

Clinical Features :-

1) Pain in throat which refer to ear and aggravate during swallowing 2) Trismus 3) Salivation 4) Rattling sound of saliva while speech. 5) Fever 6) Bodyache, on examination Anterior pillar of tonsil and uvula becomes inflamed, tonsil is congested, pushed medially and downwards by the abscess.

Treatment :

1) Antibiotics, anti inflammatory and analgesics to get relieve from pain inflammation and infection. 2) Oral hygiene. 3) Incision and drainage of the abscess, after 4 to 6 weeks tonsilectomy should also perform to prevent recurrence of quinsy.

2) Retropharyngeal Abscess.

It is of two types a) Acute b) Chronic.

a) Acute Retropharyngeal Abscess :-

It occurs due to suppuration of the retropharyngeal lymph nodes, usually affect the children, it is secondary to Oropharyngeal nasopharyngeal, traumatic and exanthematic lesions, etc.

Clinical Features :-

Fever, malaise, dysphagia, dyspnoea, cough, stiffneck, Oro naso pharyngeal infections, Acute lymphadenitis of jugulo digastric lymph nodes and nodes of upper part of posterior triangle.

Diagnosis :- soft tissue X ray of neck lateral view confirm the diagnosis.

Treatment :-

1) Broad spectrum antibiotics, steroids and symptomatic treatment 2) Incision and drainage of abscess transorally.

b) Chronic retropharyngeal abscess:- It is due to tuberculosis of cervical spine Treatment consist incision and Drainage and Tubercular treatment.

3) PARA PHARYNGEAL ABSCESS :-

The infection spreads to para pharyngeal space From infected tonsil, teeth, Oropharynx, parotid lesions and sub mandibular glands.

Clinical Features :-

Patient looks ill, toxic, Febrile, difficulty in swallowing and Trismus. Examination of neck shows a diffuse tender swelling below the angle of mandible on affected side.

Treatment :-

1) Broad spectrum antibiotics. 2) Incision and drainage. 3) Symptomatic treatment.

TUMOURS OF PHARYNX

A) Tumours of Nasopharynx :-

1) Benign tumours 2) malignant tumours.

1) Benign Tumours .

a) Nasopharyngeal Fibroma :- it is smooth lobulated red Or pink tumour, usually, arises from the root of the naso pharynx, causes nasal obstruction, epistaxis, nasal Voice (rhinolalia clausa), blocking of eustachian tubes, conductive deafness and by the extension of disease causes broadening of nose (Frog face deformity) proptosis, swelling of cheeks, neuralgic pain and intracranial extension.

Investigations :- 1) X ray of Naso pharynx, Base of skull and sinuses. 2) Biopsy. **Treatment :-** Surgery Or radio therapy.

OTHER BENIGN TUMOURS ARE.

b) Adenoma c) Papilloma d) salivary tumour e) Enchondroma. f) Angioma. etc.,

2) MALIGNANT TUMOURS OF NASOPHARYNX.

The commonest (60 to 75%) malignant tumour of Naso pharynx is squamous cell carcinoma. The commonest site of origin is fossa of Rosen muller.

Clinical Features :-

Metastasis in neck glands, conductive deafness, immobility of homolateral soft palate, Trigeminal neuralgia : 2,3,4,6,9, 10, 11, cranial nerves may involve, nasal obstruction, epistaxis. etc.

Diagnosis :- 1) X ray 2) Cytology and biopsy posterior rhinoscopy.

Treatment :- 1) Cytotoxic drugs. 2) Radiotherapy

The other malignant tumours of naso Pharynx are

1) Sarcoma 2) Lympho Epithelioma 3) Adeno Carcinoma 4) Chondroma etc.,

B) Tumours of Oropharynx:-

1) Benign 2) premalignant 3) Malignant tumours.

1) Benign Tumours :-

Benign tumours of Oropharynx are not so common, Papilloma, fibroma, adenoma, angioma, neurolioma and lipoma are rarely found. Large tumours produce difficulty in breathing, deglutition and have a sensation of lump in the throat.

Treatment :- Excision.

2) Premalignant Tumours :-

Leucoplakia is a condition potentially malignant, occurs due to chronic irritation by smoking, chewing of pan and betel nut. Biopsy should be done to exclude malignancy and irritating factors should be forbidden.

3) Malignant Tumours :-

Commonest malignant tumour is **squamous cell carcinoma** the site of origin is Tonsil, Lingual sulcus and may also originate in tonsils, Uvula, Palate and lower part of posterior pharyngeal wall. The other malignant Oropharyngeal tumours are **sarcoma, lympho epithelioma, and adeno carcinoma.**

The common clinical features are sore throat, dysphagia, difficulty in tongue movements, otalgia, altered speech and upper cervical metastasis.

The cytology and biopsy confirms the diagnosis.

Treatment :- 1) Cytotoxic drugs. 2) Radio therapy

c) Tumours of Hypo Pharynx Or Laryngo Pharynx :-

This part lies posterior to the larynx extends from the lower limit of the Oropharynx upto the upper end of oesophagus, it includes two pyriform fossae the post cricoid region and the lateral and posterior pharyngeal wall.

Malignant tumours are common than benign. Commonly affects the males of elderly age (except post cricoid cancer that occur in females) the commonest cause may be betel nut chewing and smoking. Pyriform fossa, is commonest site for cancer, spread of the disease is vast even upto lungs and other viscera.

Clinical Features :-

Early symptoms are vague and the patient may complain discomfort in throat Or Pain on swallowing. In the late stages progressive dysphagia is the main symptom along with referred pain in the ear.

Diagnosis :- 1) Indirect laryngo scopy 2) neck examination for lymph nodes 3) X ray of soft tissues of neck 4) Hypo pharyngo scopy 5) Direct laryngo scopy 6) Biopsy 7) X ray chest.

Treatment :- Surgery and radio therapy.

COMMON SIGNS AND SYMPTOMS OF LARYNGEAL, & OESOPHAGEAL DISORDERS.

1) Pain - may radiate to ear. 2) Dysphagia - difficulty in swallowing due to laryngo pharyngeal Or oesophageal lesions. 3) Hoarseness of Voice - with 2 weeks history expectoration, purulent blood stained foul sputum comes in malignant cases. 5) Dyspnoea with stridor Or Wheezing.

6) Cervical or peripheral lymphadenitis Or metastatic lymph nodes. 8) Congestion or oedema Or inflammation of laryngeal mucosa along with pharyngeal mucosa. 9) Mucoid Or mucopurulent Or purulent secretions From throat. 10) Polyps Or cysts Or tumours or paralytic changes are seen in larynx.

THE TREATMENT PRINCIPLE :-

1) Cause should be removed. 2) Culture and sensitivity of throat swab and using broad spectrum antibiotics accordingly. 3) Anti inflammatory drugs Or analgesics Or antihistamines. 4) Hot gargles. 5) medicated steam inhalations. 6) Vocal rest and Bed rest. 7) Steroids and cough linctus. 8) Avoiding irritants. 9) Endo tracheal intubation Or tracheostomy if needed. 10) Surgery (Laryngectomy) Or radio therapy Or Chemotherapy for malignant tumours.

LARYNGITIS

Inflammation of larynx is known as laryngitis it is of two types.

i) Acute laryngitis A) Specific B) Non specific
ii) Chronic laryngitis A) Specific B) Non specific.

I/A) Acute Non specific Laryngitis :-

- a) Acute non specific laryngitis.
- b) Acute laryngo tracheo bronchitis.
- c) Acute epiglottitis.

I/B) Acute Specific Laryngitis.

- a) Diphtheric laryngitis.

II/A) Chronic Non specific Laryngitis

- a) Chronic non specific laryngitis.
- b) Hyper keratosis (leucoplakia).
- c) Vocal nodule.
- d) Vocal polyps.
- e) Reinke's Oedema.
- f) Atrophic laryngitis etc.,

II/B) Chronic specific laryngitis :-

- a) Tuberculosis
- b) Syphilis.
- c) Lupus.
- d) Leprosy
- e) Scleroma etc.,

I/A/a) ACUTE NON SPECIFIC LARYNGITIS :

It is the commonest cause of temporary hoarseness of voice.

Aetiology :-

The infection (bacterial Or viral Or Exanthemata) Common cold, seasonal changes, recurrent attack of infections like tonsillitis, adenoids, sinusitis, rhinitis, pharyngitis, Bronchitis etc., habits or irritative factors like smoking, alcohol, tobacco chewing etc., Improper instrumentation during intubation, endo laryngeal surgery and mis use of Voice.

Clinical Features :-

Hoarseness of Voice, Rawness feeling in throat, irritative cough, pain, stridor, and constitutional symptoms. signs observed by indirect laryngoscopy are, congestion of Vocal cords, and other parts of larynx into pinkish red colour, Oedema, exudation, (mucoid initially and purulent in severe cases) white plaques in influenza like infections and restricted movements of vocal cord.

Complications:- Infection spreads to Tracheo bronchial tree 2) Dyspnoea 3) Perichondritis.

Treatment :-

- 1) Bed rest 2) Vocal rest (Restrict speaking) 3) Medicated steam inhalation (Menthol Or Eucalyptus Oil in Hot water). 4) Hot gargles and neck Fomentation. 5) endotracheal intubation Or Tracheostomy for Children in stridor. 6) antibiotics antinflammatories and antihistamines. 7) Steroids and cough linctus. 8) Avoiding irritants. 9) Symptomatic Treatment.

I/A/b) ACUTE EPIGLOTTITIS.

The epiglottis get inflamed and becomes markedly swollen.

Clinical Features :-

Dyspnoea, pain especially during swallowing, Fever and discomfort in throat.

Treatment :-

- 1) Vocal rest 2) Steam inhalation 3) Antibiotics 4) Steroids 5) Tracheostomy may be needed in Children, with stridor.

I/A/c) ACUTE LARYNGO TRACHEO BRONCHITIS.

It is a severe condition in which larynx and tracheo bronchial tree entirely involved, the child appears toxic, it commonly occur to the people with low resistance power and with virulent infection. It is more complicated than diphtheria.

The common infective organisms are virus, H. influenzae, streptococcus haemolyticus, It causes oedema, congestion and crusting of entire tracheo bronchial tree.

Clinical Features :-

High Fever, Cough, hoarseness of Voice, dysphagia, discomfort in throat and severe dyspnoea. In examination Congestion and Oedema of entire tracheo bronchial tree with membrane formation, rales and Rhonchi of lungs and acute follicular Or ulcerative tonsillitis are seen.

Treatment :-

- 1) Broad spectrum antibiotics. 2) Steroids. 3) Endo tracheal intubation 4) Bronchoscopy to suck the secretions. 5) Tracheostomy may be needed in children with stridor.

I/B/a) LARYNGEAL DIPHTHERIA.

It is due to extension of faucial diphtheria. It may lead to serious complications like laryngeal obstruction.

Coryne bacterium diphtheriae is the causative agent, a membrane is formed on larynx and causes laryngeal obstruction.

Clinical features :- Mild fever, tachycardia with weak pulse, cough hoarseness of voice breathing problem and greyish white membrane formation on tonsils larynx etc., and chest is clear.

Investigations :- 1) C/S of laryngeal swab for coryne bacterium diphtheriae.

Treatment :- 1) Antitoxin 40000 to 100000 Units. 2) Antibiotics (penicillin or Erythromycin) 3) Steroids. 4) Oxygen may be needed. 5) Endo tracheal intubation to overcome laryngeal obstruction. 6) Tracheostomy for persistent stridor 7) Fluid intake.

II) CHRONIC LARYNGITIS.

Chronic inflammation of larynx is known as chronic laryngitis it may occur by specific and nonspecific aetiological factors.

II/A/a) Chronic Nonspecific Laryngitis :-

Predisposing factors :-

Chronic inflammatory focus of tonsils adenoids, teeth, gums, nasal, paranasal infections, misuse or over use of voice (Teachers actors singers etc), irritative habits like smoking tobacco chewing alcohol etc., atmospheric pollution with dust fumes etc., repeated attack of acute laryngitis with incomplete treatment leads to chronic laryngitis.

Clinical Features :-

Hoarseness of Voice, dry irritative cough, raw sensation or foreign body sensation in throat, and patient develops a tendency to clear the secretions of throat (hawking - Choking).

O/E Hyperaemia, hyperplasia, atrophy, oedema, viscid secretions etc. signs are visualised in larynx according to the vitiation.

Treatment :-

- 1) Rest and Vocal rest. 2) Avoid irritative factors those causing the disease, like smoking tobacco chewing, alcohol etc., 3) Inhalation of medicated steams. 4) Treating the infective sources like tonsils adenoids etc., 5) Change of environment or place of work. 6) Antibiotics expectorant, Anti allergic anti inflammatory and other symptomatic treatments. 7) surgical corrections by Microlaryngoscopy etc.,

II) A/b) Vocal Nodules (Singer's nodes)

Chronic nodular hypertrophy of free edge of vocal cords (approx - at the junction of anterior 1/3 and middle part) it commonly occurs in the female and those who misuses Or over use their Voice continuously for a long time. Ex:- Actors, singers teachers etc., Hoarseness of Voice, strain in Voice, pain in the neck and On examination the nodules appear in pinkish or pearly white and rarely exceeds 1.5 mm of size.

Treatment principles are same but when the nodules are big those should be excised under operative micro laryngoscope.

IV A/c) Vocal Cord Polyp :-

It is a pedunculated lesion arising from the vocal cord usually form anterior commissure and sometimes form both the cords. The polyp may hang down into the sub glottic region and become visible on coughing or phonation.

Clinical features and Treatment is like vocal nodules.

II/A/d) Laryngeal hyperkeratosis (Leucoplakia)

It is considered to be a pre malignant lesion in which white patches develop on the vocal cords, the exact cause is not known but hyperplasia and hyperkeratosis of epithelium of vocal cords develops due to chronic irritation to laryngeal mucosa by excessive smoking, tobacco chewing, or due to syphilitic infection, etc. The clinical features are hoarseness of voice and white raised patches on vocal cords. Biopsy rules out the malignancy but the patient must remain under continuous supervision.

Treatment :-

1) Voice rest 2) Biopsy 3) Avoiding irritants like smoking etc., 4) Steam inhalation 5) Vit - A supplementation 6) Excision of vocal cords or stripping of surface Or Radio therapy

II/A/e) Reinke's Oedema.

It is Bilateral Polypoidal degeneration and Oedema of membranous Vocal cords in Reinke's space. Indirect laryngoscopy reveals bilateral pale spindle shaped swellings of vocal cords.

Treatment :- Micro surgical excision of stripes of mucosa from membranous cords.

II/A/f) Atrophic Laryngitis :-

It occurs in association with atrophic rhinitis Or atrophic pharyngitis, the mucosal glands disappear and there is crusting dryness of throat irritative cough blood stained mucoid secretions and hoarse voice.

Treatment :- Voice rest, controlling the infective focus.

II/B/a) Tuberculosis of Larynx.

It is usually secondary to pulmonary tuberculosis, mode of infection is by infected sputum blood or lymphatics.

The posterior part of larynx (inter arytenoids region, vocal cords, arytenoids, false cords, epiglottis) is involved.

Clinical Features :-

Hoarseness of voice, aphonia, cough, fever, pain on swallowing (refers to the ear) and the movements of vocal cords also affected. The vocal cords initially pale then congested ulcerated in posterior 1/3, the ulceration produces the mouse nibbled appearance, perichondritis and perichondritis of larynx develops in later stages (Tuberculoma - ulceration - cold abscess Formation) It is confirmed a) Clinical features b) X-ray chest c) Sputum for A.F.B. d) Mantoux test e) Biopsy & histopathology of granulation.

Treatment :- 1) Tuberculosis treatment. 2) Voice rest. 3) nutritious diet. 4) Symptomatic treatment. 5) Tracheostomy if needed.

II/B/b) Syphilis of Larynx:-

It is rare now a days. In primary secondary stages of syphilis it doesn't affect the larynx. But gumma may occur on epiglottis and anterior 1/3 of Vocal cords in the tertiary stage of syphilis.

Clinical Features :-

hoarseness of voice, difficulty in breathing, anterior part of laryngeal mucosa is deeply ulcerated, perichondritis and laryngeal stenosis occur in late stage.

diagnosis :- 1) VDRL test. 2) Biopsy.

Treatment :-

1) Anti Syphilis treatment 2) Tracheostomy and laryngoplasty if needed.

II/B/c) Leprosy of Larynx :-

It is rare diffuse nodular infiltration of epiglottis, arytenoids, false cords and deformity and stenosis of larynx in late stages may result.

II) /B/d) Laryngeal Scleroma.

Rhino scleroma of the nose causes the disease but affecting subglottic region of larynx and causes stenosis of larynx.

Treatment :- 1) Streptomycin 2) Steroids 3) Tracheostomy 4) Laryngeal dilatation.

II/B/e) Laryngeal Lupus :-

It is secondary to Lupus vulgaris of nose. The epiglottis, Eryepiglottic folds, arytenoids are involved, destructive lesions, ulceration and cicatricial changes occurs.

Treatment :- Anti Tubercular treatment.

II/B/f) Perichondritis of Larynx :-

Inflammation of laryngeal cartilages due to trauma, infection (T.B. syphilis etc.) and malignancy.

Clinical Features :-

Pain, Hoarseness, inspiratory dyspnoea, Abscess formation and stenosis of larynx.

Treatment :-

1) Antibiotics 2) Steroids 3) Tracheostomy.
4) laryngeal dilatation 5) Laryngectomy.

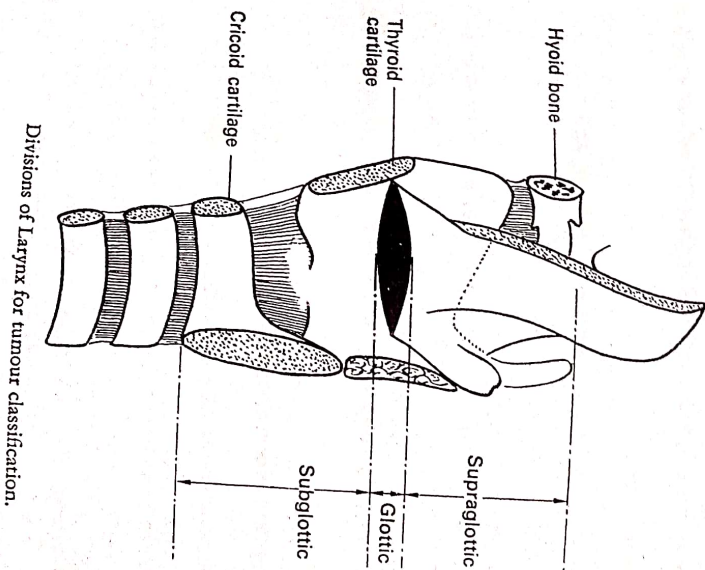
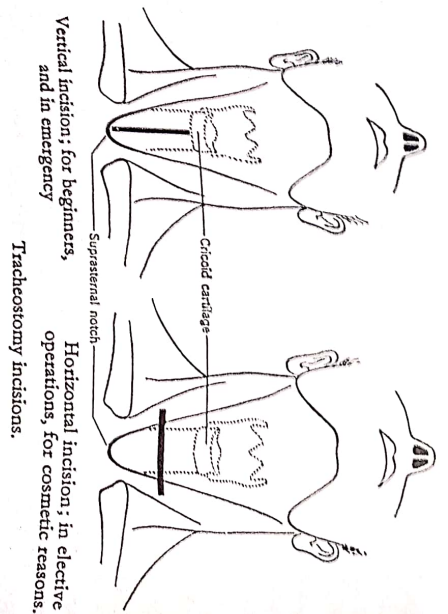
TUMOURS OF LARYNX

Tumours of larynx classified into 1) Benign tumours 2) Malignant tumours.

1) Benign Tumours of Larynx :-

a) Papilloma b) haemangioma c) Fibroma d) Chondroma e) Adenoma f) Myoma g) Lipoma h) Granuloma i) Retention cysts j) Dermoid cyst k) Laryngocoele l) Vocal nodules m) Polyp of vocal cord.

Benign tumours are Frequently seen than malignant, among the benign tumours Papillomas and Fibroma are common, rest of the diseases are rare.



Divisions of Larynx for tumour classification.

1) Papilloma :- a) Single B) Multiple.

a) **Single Papillomas :-**
Common in adult male, it usually come from the edge of the vocal cord anteriorly and may be pedunculated. The common clinical features are hoarseness of voice and cough.

Treatment :-
Excision by Laryngeal micro surgery and the excised mass is send for histopathological examination for the conformation of condition of the disease.

b) **Multiple Papillomas :-**
Common in children and infants, most probably it is viral Origin, originates on vocal cords and ventricular bands but may extend to epiglottis and tracheobronchial tree.

Clinical Features :-
Hoarseness of Voice, difficulty in breathing, multiple papillomas fill the laryngeal cavity and spreads completely. if excised like single papilloma, have tendency to recur.

Treatment :-
1) Antibiotics Steroids etc., has no use. 2) Repeated surgical excision 3) cryo and laser surgery are also used.

2) **Fibroma :-**
It is usually arises from the Vocal cords and others parts of larynx, it is either new formation of fibrous tissues element or Organisation of sub mucosal haematoma Or inflammatory Origin. It appears as reddish mass with smooth surface. produces hoarseness of voice.

Treatment :-
Excision by Direct micro laryngoscopy.
Note :- other benign tumours are not common.

MALIGNANT TUMOURS OF THE LARYNX.

Classification :-

1) Krishner's (1879) Isambert (1876) Classification.

a) Intrinsic B) Extrinsic.

2) Lederman's classification.

a) Supra glottic carcinoma- 24% - arising in Infrathyoid portion of epiglottis, ventricu lar bands, ventricles and marginal zone (Supra hyoid portion of epiglottis ary epiglottic folds and arytenoids).

b) Glottic carcinoma = 66% commonest, arises in vocal cords anterior commissure and posterior commissure.

c) Subglottic carcinoma = 10%

It arises in the walls of subglottis (under surface of true cords.)

3) T.N.M. classification is the latest widely accepted classification for malignant tumours.

T = Tumour, N= lymph nodes.
M= Metastasis.

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1) ADENOCARCINOMA OF CARCINOMA OF VOCAL CORDS,

(The spread *Oculus* is an) along the cord to the anterior commissure and may involve the other cord)

The *Growth* arises from inframammary, epigastric, ventricular band and ventricles. The tumours are detached in late stages, due to rich lymphatic drainage of this area metastasis to the deep cervical nodes on both sides of neck (40%). So only prognosis is very poor. The cauliflower like growth prognosis is better than ulcerative growth.

It is not common, early detection is difficult. Affecting site is subglottic surface of vocal cord or below the anterior commissure. Lymphatic spread is moderate (17%) to lower deep cervical and paratracheal, pretracheal mediastinal glands.

- 1) Among 3 types of carcinoma symptoms appear earlier in glottic cancer than others
- 2) Metastasis also poor 4%, so only prognosis is good in glottic carcinoma.
- 3) Hoarseness of voice also earlier symptom in glottic carcinoma.
- 4) Irritative cough and feeling of discomfort in throat appears early in supra glottic carcinoma.
- 5) Other common symptoms are pain, dysphagia, dyspnoea, blood stained sputum, cervical lymphadenitis.

- 2. Clinical Features.
- 3. Histocytology of tumor.
- 4. Intra and Extra Meningeal spread
- 5. Soft tissue X Ray of neck
- 6. X ray chest.
- 7. Biopsy.

- 1 The Choice of treatment depends on the extent site, histology of tumour, pre surgery - Partial or total laryngectomy with or without neck dissection.
- 2 Radio therapy.
- 3 Chemotherapy.

- 1) Functional paralysis (Bilateral adductor paralysis)
- 2) Organic paralysis.

A) MOTOR PARALYSIS.

- (A) Motor Paralysis :
- (B) Sensory Paralysis
- (c) Unilateral

Unilateral	=	Either Right Or Left side	(22)	Complete
Bilateral	=	Both sides.	(21)	Incomplete
Incomplete	=	Either abductors or adductors.	(22)	Complete.
Complete	=	Abductors and adductors.		

AETIOLOGY :- Most of the intrinsic muscles of larynx having motor nerve supply of by recurrent laryngeal nerve of vagus except cricothyroid (by superior laryngeal nerve of vagus)

2) Peripheral - Lesions of recurrent laryngeal nerve proper

It is more common.

CAUSES IN CHEST:- Carcinoma bronchus, mediastinal growth, carcinoma Oesophagus, mitral stenosis, Aortic aneurism, following patent ductus arteriosis operation, and pulmonary tuberculosis Or Fibrosis etc.

CAUSES IN NECK :- are, carcinoma thyroid, following thyroid surgery, penetrating wounds
Malignant metastasis etc.,

2) RIGHT RECURRENT LARYNGEAL NERVE PARALYSIS :-

Causes only in neck are - same as on left and right side commonly involved in thyroid surgery, Apical tuberculosis and tumours Aneurism of subclavian artery.

3) GENERAL CAUSES :- LIKE DIABETES, SYPHILIS, DIPHTHERIA
ENTERIC FEVER, STREPTOCOCCAL INFECTIONS.

4) IDIOPATHIC CAUSES.

BILATERAL PARALYSIS.

1) Abductor paralysis causes idiopathic, malignancy of thyroid, thyroid surgery, carcinoma of Oesophagus, cut throat injury and peripheral neuritis etc.,

2) Adductor paralysis:-

It is functional or commonly seen in girls and women with psychological back ground.

3) Total Paralysis :-

Viral neuritis, peripheral neuritis etc.,

c) Superior laryngeal nerve paralysis causes :-

Rarely seen alone, usually involved with recurrent laryngeal nerve

CLINICAL FEATURES:-

Voice respiration swallowing and position of vocal cords are affected by the vocal cord palsy.

1) IN UNILATERAL RECURRENT LARYNGEAL PARALYSIS :-

Respiration is not usually affected but there is dyspnoea on exertion.

a) In complete (only abductors are paralysed) Vocal cord occupies median position, voice is unaffected, patient is asymptomatic.

b) Complete (Abductors as well as adductors are paralysed). Vocal cords occupies paramedian position and produces hoarse voice.

2) BILATERAL RECURRENT LARYNGEAL NERVE PALSY.

a) Incomplete (abductor palsy) Vocal cords occupies median Or paramedian position, voice unchanged but severe dyspnoea stridor and cyanosis of larynx occurs.

b) Complete (Abductor and adductor palsy)

Cords remain fixed in paramedian position during phonation, respiration unaffected at rest but get dyspnoea on exertion.

3) SUPERIOR LARYNGEAL NERVE PALSY

It usually occur along with recurrent laryngeal nerve palsy vocal cords lies in cadaveric position of abduction due to paralysis of cricothyroid muscle. This produces hoarse and feeble voice, inhalation of Food in to larynx due to sensory paralysis.

INVESTIGATIONS

- 1) Radiography of Chest to detect malignancy Or enlargement of heart etc.,
- 2) Radiography of Barium swallow to detect malignancy of Oesophagus.
- 3) Direct laryngoscopy Or Bronchoscopy or Oesophagoscopy.
- 4) Blood sugar estimation for diabetes.
- 5) V.D.R.L. estimation for syphilis.
- 6) E.S.R estimation for Tuberculosis etc.,
- 7) Neurological investigations.
- 8) Cardio Vascular investigations.
- 9) C.T. Scan.

Treatment

1) UNILATERAL PARALYSIS :-

Specific cause should be treated.

- a) If hoarse Voice present that should be corrected by speech therapy, Teflon paste in into vocal cords, implantation of cartilage and Arytenoidectomy in mild life (This procedure requires, if paralysis persist for more than 9 to 12 months.)
- b) If a symptomatic require no treatment.

2) BILATERAL ABDUCTOR PALSY:-

Specific treatment for the cause.

- a) Intubation Or Tracheostomy for severe stridor and dyspnoea.
- b) Arytenoidectomy for the dyspnoea patients.

3) SUPERIOR LARYNGEAL NERVE PALSY :-

Specific treatment for cause.

- a) Ryle tube feeding.
- b) Tracheostomy

4) BILATERAL ADDUCTOR PALSY.

- a) Speech therapy.
- b) Psychotherapy.
- c) Shock treatment.

SPEECH AND VOICE DISORDERS.

Speech disorders.

- 1) Aphasia - loss of speech due to lesion of cortical speech centre of brain.
- 2) Dysphasia - Speech disorder due to lesion of cortical speech centre of brain.
- 3) Dysarthria - speech disorder due to lesions of cranial nerves responsible for production of speech.
- 4) Stammering - Functional speech disorder where there is break in the flow of speech.

SPEECH DISORDERS ALSO SEEN DUE TO FOLLOWING.

- 5) In mentally retarded children.
- 6) In the cerebral palsy.
- 7) In Partially deaf child.
- 8) Cleft palate and palatal palsy.

VOICE DISORDERS :-

R. Clausa - R. Aperia change of Voice due to Nasal paranasal problems.
1) Rhinolalia (R. Clausa - R. Aperia change of Voice due to Nasal paranasal problems.)
2) Dysphonia - Hoarseness of Voice (Phonation by ventricular band instead of Vocal cords or due to over tensed Vocal cords.)
3) Pubophonia - Cracking of Voice in males at puberty due to emotional as well as hormonal disturbance.

4) Weakness of Voice due to pulmonary insufficiency.
5) Aphonia :- Loss of voice due to Bilateral vocal cords paralysis.

6) Vocal asthma :- Weak Voice defect due to weakness of Intrinsic muscles of larynx.
7) Stridor - Noisy respiration.

Treatment :-

- 1) Cause should be treated.
- 2) Speech therapy is recommended
- 3) Auditory and speech therapy for defective speech due to deafness.
- 4) Correction of emotional instability.

HOARSENESS OF VOICE:

A hoarse Voice is rough and unpleasant it results from the lesions of Vocal cords. Causes of hoarse Voice may range from simple laryngitis to malignancy. If hoarse Voice is more than 2 weeks inspite of conservative treatment, laryngeal examination and diagnosis should be carried out.

It is due to interference with movements of vocal cords, mass of Vocal cords, Tension of Vocal cords and approximation of edges of Vocal cords.

CAUSES

I) LARYNGEAL - LARYNGO PHARYNGEAL

A) Congenital Causes.

1) Laryngeal web at anterior commissure 2) Cyst and tumours of larynx.

B) Traumatic causes.

- 1) Mis use and over use of Voice Ex. singers teachers
- 2) External injuries like strangulation at throat causes haematoma of vocal cord.
- 3) Internal injuries - inhalation of hot acids, irritant acid, fumes etc. causes laryngitis.
- 4) Irradiation causes damage to Vocal cords.
- 5) Intubation trauma.

C) Infective Causes :-

Bacteria virus fungus and specific Organism of Tuberculosis syphilis leprosy lupus and scleroma may cause Acute and chronic laryngitis (with hoarse voice)

D) 1) Benign and Malignant tumours of larynx causes Hoarse Voice etc.,

E) Miscellaneous Causes.

Singer's nodes, Laryngeal Oedema, Laryngeal Polyp, laryngeal stenosis paralysis of recurrent laryngeal nerve of Vagus, Functional aphonia, laryngocele, prolapse of the ventricle of larynx, and Arthritis of crico arytenoid joints etc.,

II. Oesophageal Causes :- Cervical - mediastinal malignancy etc.,

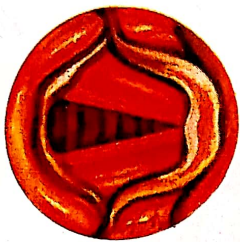
causes recurrent laryngeal nerve palsy and hoarseness.

III. General Causes.

Myxoedema, cardiac Oedema, renal Oedema, diabetes, Syphilis, and lead poisoning may cause recurrent laryngeal nerve palsy.



Normal vocal cords



A



B



C



D



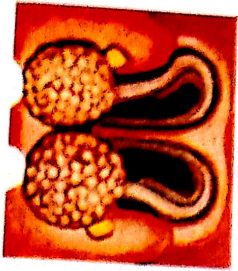
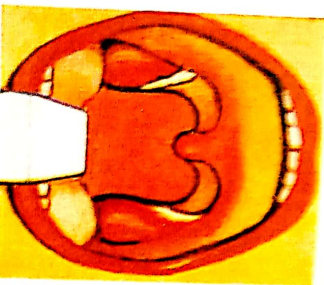
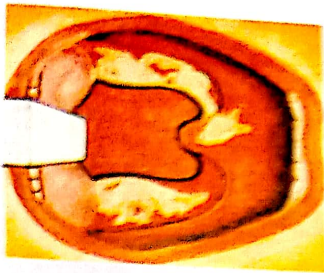
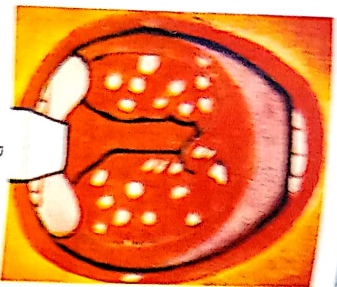
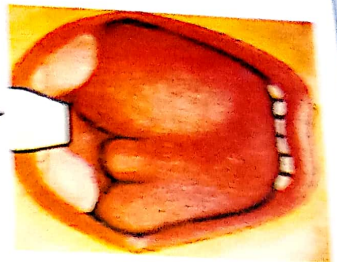
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- A. Acute simple laryngitis.
- C. Singer's nodules
- E. Subglottic (right) carcinoma

- B. Submucous haemorrhage of the vocal cords
- D. Fibroma of right vocal cord.
- F. Carcinoma of right vocal cord.



treatment is:

- 1) Cases should be treated.
- 2) Spread should be checked.
- 3) Virus used.
- 4) Antiviral drugs should be given.
- 5) Anti-inflammatory drugs to control Oedema.
- 6) Supportive therapy should be given.
- 7) Secondary infections should be treated.

CONCENTRATION OF DESOPHACUS

- 1) Corporate 2) Organizational 3) Personal 4) Individual 5) Psychological 6) Physical 7) Environmental 8) Social 9) Political 10) Economic 11) Legal 12) Technological 13) Cultural 14) Religious 15) Philosophical 16) Artistic 17) Scientific 18) Medical 19) Historical 20) Geographical 21) Biological 22) Chemical 23) Physical 24) Mathematical 25) Logical 26) Philosophical 27) Religious 28) Political 29) Economic 30) Legal 31) Technological 32) Cultural 33) Religious 34) Philosophical 35) Artistic 36) Scientific 37) Medical 38) Historical 39) Geographical 40) Biological 41) Chemical 42) Physical 43) Mathematical 44) Logical 45) Philosophical 46) Religious 47) Political 48) Economic 49) Legal 50) Technological 51) Cultural 52) Religious 53) Philosophical 54) Artistic 55) Scientific 56) Medical 57) Historical 58) Geographical 59) Biological 60) Chemical 61) Physical 62) Mathematical 63) Logical 64) Philosophical 65) Religious 66) Political 67) Economic 68) Legal 69) Technological 70) Cultural 71) Religious 72) Philosophical 73) Artistic 74) Scientific 75) Medical 76) Historical 77) Geographical 78) Biological 79) Chemical 80) Physical 81) Mathematical 82) Logical 83) Philosophical 84) Religious 85) Political 86) Economic 87) Legal 88) Technological 89) Cultural 90) Religious 91) Philosophical 92) Artistic 93) Scientific 94) Medical 95) Historical 96) Geographical 97) Biological 98) Chemical 99) Physical 100) Mathematical 101) Logical 102) Philosophical 103) Religious 104) Political 105) Economic 106) Legal 107) Technological 108) Cultural 109) Religious 110) Philosophical 111) Artistic 112) Scientific 113) Medical 114) Historical 115) Geographical 116) Biological 117) Chemical 118) Physical 119) Mathematical 120) Logical 121) Philosophical 122) Religious 123) Political 124) Economic 125) Legal 126) Technological 127) Cultural 128) Religious 129) Philosophical 130) Artistic 131) Scientific 132) Medical 133) Historical 134) Geographical 135) Biological 136) Chemical 137) Physical 138) Mathematical 139) Logical 140) Philosophical 141) Religious 142) Political 143) Economic 144) Legal 145) Technological 146) Cultural 147) Religious 148) Philosophical 149) Artistic 150) Scientific 151) Medical 152) Historical 153) Geographical 154) Biological 155) Chemical 156) Physical 157) Mathematical 158) Logical 159) Philosophical 160) Religious 161) Political 162) Economic 163) Legal 164) Technological 165) Cultural 166) Religious 167) Philosophical 168) Artistic 169) Scientific 170) Medical 171) Historical 172) Geographical 173) Biological 174) Chemical 175) Physical 176) Mathematical 177) Logical 178) Philosophical 179) Religious 180) Political 181) Economic 182) Legal 183) Technological 184) Cultural 185) Religious 186) Philosophical 187) Artistic 188) Scientific 189) Medical 190) Historical 191) Geographical 192) Biological 193) Chemical 194) Physical 195) Mathematical 196) Logical 197) Philosophical 198) Religious 199) Political 200) Economic 201) Legal 202) Technological 203) Cultural 204) Religious 205) Philosophical 206) Artistic 207) Scientific 208) Medical 209) Historical 210) Geographical 211) Biological 212) Chemical 213) Physical 214) Mathematical 215) Logical 216) Philosophical 217) Religious 218) Political 219) Economic 220) Legal 221) Technological 222) Cultural 223) Religious 224) Philosophical 225) Artistic 226) Scientific 227) Medical 228) Historical 229) Geographical 230) Biological 231) Chemical 232) Physical 233) Mathematical 234) Logical 235) Philosophical 236) Religious 237) Political 238) Economic 239) Legal 240) Technological 241) Cultural 242) Religious 243) Philosophical 244) Artistic 245) Scientific 246) Medical 247) Historical 248) Geographical 249) Biological 250) Chemical 251) Physical 252) Mathematical 253) Logical 254) Philosophical 255) Religious 256) Political 257) Economic 258) Legal 259) Technological 260) Cultural 261) Religious 262) Philosophical 263) Artistic 264) Scientific 265) Medical 266) Historical 267) Geographical 268) Biological 269) Chemical 270) Physical 271) Mathematical 272) Logical 273) Philosophical 274) Religious 275) Political 276) Economic 277) Legal 278) Technological 279) Cultural 280) Religious 281) Philosophical 282) Artistic 283) Scientific 284) Medical 285) Historical 286) Geographical 287) Biological 288) Chemical 289) Physical 290) Mathematical 291) Logical 292) Philosophical 293) Religious 294) Political 295) Economic 296) Legal 297) Technological 298) Cultural 299) Religious 300) Philosophical 301) Artistic 302) Scientific 303) Medical 304) Historical 305) Geographical 306) Biological 307) Chemical 308) Physical 309) Mathematical 310) Logical 311) Philosophical 312) Religious 313) Political 314) Economic 315) Legal 316) Technological 317) Cultural 318) Religious 319) Philosophical 320) Artistic 321) Scientific 322) Medical 323) Historical 324) Geographical 325) Biological 326) Chemical 327) Physical 328) Mathematical 329) Logical

SYMPTOMS OF OESOPHAGUS

- metastatic lymph nodes; 7) Spread of malignancy with

DYSPHAGIA.

The word dysphagia means difficulty in swallowing the food (painful swallowing is odynophagia). It is a symptom of various diseases of mouth, tongue, pharynx, larynx, oesophagus and due to pressure on the above parts. So thorough investigations are needed to find out the cause.

Aetiology :- (A) Oesophageal lesions (B) Other than Oesophageal Lesions

(1) OESOPHAGIAL LESIONS,

- a) In the lumen - Foreign body Or large bolus,

b) In the Wall.

- Congenital :- Tracheo Oesophageal fistula - stricture,
Traumatic :- Corrosive Food drinks Or poisons,
Inflammatory :- Hiatus hernia after exanthemata and corrosive poisoning.
Neoplasma :- Leiomyoma - Carcinoma of Oesophagus,
Neurological :- Paralytic lesions, spasm of cricopharynx and Oesophagus, tetanus
 myasthenia gravis
Miscellaneous :- Paterson - Brown - Kelly syndrome In female Achlasia (Cardio spasm),
etc.,

(c) Pressure on Oesophagus by :-

Malignancy of thyroid gland, lymph nodes. Cervical spondylitis. Aneurism of aorta, mediastinal tumours, cardiac enlargement, pericardial effusion, Retrosternal goitre, Hepatomegaly etc.,

(ii) OTHER THAN OESOPHAGEAL LESIONS.

- 1) Nose-Nasal obstruction due adenoids and tumours.
 - 2) Oral cavity - Trismus, Ludwings angina, stomatitis, glossitis
- carinomatous ulcers on tongue, T.B. of tongue, cleft plate paralysis of soft palate, inflammation of floor of mouth, dental lesions etc.,

- 3) Pharynx - Acute tonsillitis, Follicular tonsillitis, quinsy, carcinoma of pharynx lesions of pharynx by specific organisms, Retropharyngeal and parapharyngeal abscess, paralytic lesion of pharynx, spastic lesions of pharynx.
- 4) Larynx - Carcinoma of larynx, paralytic lesions of larynx, Laryngeal Oedema and spastic lesions of larynx.

III) FUNCTIONAL

Glossus hystericus- painful conditions like glossitis and tonsillitis cause dysphagia.

Clinical Features :-

- 1) Age 20 to 40 Year suggest cardio Spasm. 50 to 70 Year suggest carcinoma. Menopause age suggests pater-son kelly syndrome.

2) Past History :-

Anaemia, smoking, alcoholism, Tobacco chewing etc., are contributory factors for dysphasia. Polymyelitis, diabetes diptheria may cause neurological lesions. History of corrosive poisoning suggest stricture of Oesophagus. History of ingestion of Foreign bodies contribute Obstructive Lesions. Hysterical patient may have glossus hystericus (Lump in throat without any positive findings in Female).

Symptoms.

- 1) Acute dysphagia due to Acute Oesophagitis or due to Foreign bodies.
- 2) Difficulty in swallowing of solid especially due to malignancy and stricture and in swallowing of liquids in cardio spasm.
- 3) Glossitis, angular stomatitis and anaemia. Chronic cricopharyngeal, dysphagia occurs in pater-son Brown kelly syndrome. In Menopause ladies.
- 4) Regurgitation of Food especially liquids in cardio spasm.
- 5) Feeling of lump in throat. Hysterically in female (Glossus Hystericus).
- 6) Weight loss, neck glands. Hiperomegaly or Ascites, suggests carcinoma Oesophagus.
- 7) Stairway dysphagia suggest Benign condition, progressive dysphagia suggest malignancy.
- 8) Slow or set of disease in malignancy but rapid onset suggest inflammatory lesions.
- 9) Dysphagia in children suggest congenital lesions and dysphagia in elders suggest malignancy.
- 10) An elderly person with the history of dysphagia for more than 2 weeks and not responding to conservative treatment suggest malignancy.
- 11) There are other so many factors those cause dysphagia are given in the list of aetiology.

INVESTIGATIONS

- 1) Clinical Findings 2) Physic logical Examination for the detection of foreign bodies, Cardio spasm, Oesophageg Varices, Stricture, malignancy, adenoid, polyps - tumours, retropharyngeal abscesses cardio megaly - media stinal tumours, aortic aneurisms etc., (by date - Barium and soft tissue X ray)

- 3) Haemogram for Hypochronic anaemia, ESR, Hb%, TC & DC etc., to find out specific infections.

- 4) V.D.R.L.- for syphilis to rule out neurological dysphagia.
- 5) Blood sugar for Diabetes to rule out neurological dysphagia.
- 6) Tomograms and CT Scan.
- 7) Neurological, cardio vascular examination
- 8) Endoscopy.
- 9) Indirect laryngo scopy - Posterior Rhinoscopy.
- 10) neck examination of lymph nodes.
- 11) Throat swab for bacteriological Examination.
- 12) Routine examination of oral cavity and Oesophagus.

Nose pharynx larynx to detect abnormalities those causing dysphagia.

Treatment :-

- 1) The cause should be detected and treat accordingly.

DYSPHAGIA LUSORIA :-

It is a congenital abnormality of Dysphagia due to vascular anomalies of chest Ex:- Right aortic arch, sub clavian artery and patent ductus arteriosus (Diagnosis by Aortography).

STRICTURE OF OESOPHAGUS :-

It is due to congenital, traumatic, inflammatory and malignant. Corrosive poisons etc., causes severe burns and ulcerations that causes, stricture depending upon the nature of the cause.

PLUMMER VINSON SYNDROME:-

Progressive dysphagia to solids with hypochronic microcytic anaemia and chronic superficial pharyngo Oesophagitis is known as plummer vinson syndrome.

OESOPHAGEAL VARIX :-

Haemoptiesis due to portal obstruction cirrhosis of liver. The condition is found at the cardiac end.

ACHALASIA CARDIA (CARDIOSPASM)

This is a condition characterised by failure of relaxation of the lower Oesophageal sphincter for the passage of food (Oesophagoscopy and Barium meal X Ray confirm the diagnosis).

CARCINOMA OF OESOPHAGUS.

Squamous cell Carcinoma is the commonest type of malignant tumour of Oesophagus, affects in between 40 to 70 Yrs. age group at the middle third of Oesophagus. The growth may be ulcerative proliferative Or infiltrating in nature. The common symptoms are dyscomfort, dysphagia, weight loss, cough and supra claval lymph nodes enlargement, it is confirmed by Barium meal X ray, oesophagoscopy, Biopsy.

KRIYA KALPA (TREATMENT PROCEDURES)

Ayurveda is the life saving science, aimed to preserve the health and to treat the diseases (swasthasyaajaskarm-Aarthasya roganuthi).

In Ayurveda to preserve the normal health different methods are explained, they are - Regular practice of Dantha dhavan, mukha Prakashalan, kavala, Gandoosha, Abhyanga, Vyayama, Pratimarsha nasya, Dhooma Paana, Anjana, Patya Apathya, Rasayan Vidhi, Nidra, Brahmacharya, elimination of Adhaaraneeyavega, and suppression of dharaneeya Vega, in seasonal doshic variation relevant ahar, vihar, Aushada Vidhi, and for special doshic variations-Vaman (for Kapha), Virechana (for Pitta) Vasti (for Vata) Raktha mokshan (for Raktha) and Nasya (Shiro-Virechan) are explained to save the body from doshic complications etc.,

In addition to above, a person by indulging Asaatmya Indriarth Samyoga, Pragyaparaada, Parinama and other factors, dosha dhatu and malas are affected, becomes abnormal and produce diseases in the body and mind. So it is the aim of the doctor to treat the diseases by different treatment procedures, selection of the procedures should be decided by the doctor by his professional experience. Some of the treatment procedures are explained as follows :-

- I. Swasthasyaajaskaram (Preventive treatment) preservation and promotion of health.
 - 1) Artasya roga nuth (curative treatment) cure of the diseases.
 - 2) Curative treatment can be grouped as
 - 1) Diva Vyapashraya Chikitsa (devine therapy)
 - 2) Yukthi Vyapashraya Chikitsa (Rational therapy with drugs diet exercise etc.)
 - 3) Satwaavajaya (Psycho therapy).
- III) Yukthi Vyapashraya Chikitsa can be grouped as
 - 1) Antar parimarjana (internal purification) Ex. Shodhan Karma.
 - 2) Bahir parimarjana (External purification) abhyanga, seka, sweda and psychotherapy.
 - 3) Shashtra Pranidhana (Surgical treatment) Ex. Chedan, Bhedan, Lekhan, Vyadan, Seevan Eshan etc.,
- IV. Shat upakramas (Bahir and Antar Parimarjan)
 - A) 1) Langhan (karshan) Catabolic therapy
 - 2) Brumhan (Tarpan) Anabolic therapy
 - 3) Rukshan (Dehydration therapy)
 - 4) Snehan (Oleation therapy)
 - 5) Swedan (Sudation)
 - 6) Stambana (Retaining).
- A) LANGHAN GROUP = Langhan, Rukshan and Swedan
- B) BRUMHAN GROUP = Brumhan, snehan and stamban

LANGHAN.

- a) Shodhan (Elimination) of doshas Ex:- Pancha karmas.
- b) Shamman (Palliation)

Ex. 1) Deepan (Appetisers) 2) Pachana (digestives Capability) 3) Upavasa (Fasting) 4) Pipasa (Thirst) 5) marutha (Air bath) 6) Aatapa (Sun bath) and 7) Vyayama (Exercise)

- V.
 - 1) In Kshaya (Depleted) Restoration (Brumhan)
 - 2) In Kupitha (Vitiated) - Prashaman (Palliation).
 - in chaya prakopa - Shodhana therapy and in Achaya Prakopa - Shamana therapy.

3) In vrudhi (Aggravation) - Nirharan (Elimination), (samhatrupa Vrudhi Shamman therapy and in Vilayana rupa Vrudhi Shodhan therapy.)

- 4) In equilibrium of the dosha paripalya (maintenance) etc are advised to maintain normal health. (preservation of condition.)
- VI.
 - 1) Nidana Parivarjan (Avoiding the causes)
 - 2) Aushada Chikitsa (Drug therapy)
 - 3) Shashtra Chikitsa (Surgical therapies.)
 - 4) Kshara karma.
 - 5) Agni karma.

- VIII.
 - 1) Local treatment (Shthanika Chikitsa)
 - 2) Systemic treatments (Sarva dehika chikitsa.)

Note :- In Shalakyta tantra II, ear diseases Nose diseases Throat diseases and Diseases of Shiras are present, in these diseases. common treatment procedures are as follows:- 1) Karma Prakashalan (Ear Wash) 2) karma pramarjana (Dry mopping) 3) Karma Avadhoolan (Dusting of Fine Powders) 4) Karma Dhoopan (Fumigation) 5) Karma Pooran (Filling the ear with medicine drops) 6) Nasya karma (nasal drops) 7) Nasa pichu (nasal plug) 8) Kavala. 9) Gandhooshan (medicated gargles) 10) Shirolepa (Application of medicine to snitis) 11) Shiro Abhyanga (head massage) 12) Shiro pichu (Putting of medicated varthi at Brahma randra) 13) Shiro Vasti (Keeping Oleus substances on the head by special Procedure). 14) Pratisaran (Applying the medicine to the affected site.)

Note :- In the treatment principles of most of the diseases first shodhan karma are explained to eliminate deep rooted systemic doshic vitiation then only local treatments are explained - So only here poorva Karma and panchakarma procedures are explained briefly along with E.N.T. Kriya Kalpas.

A) SNEHA KARMA (OLEATION THERAPY)

It is a process used to induce Oleusness in the body with the help of Sneha Dravyas by "Snehan - Visnyandana and kledana" properties. It is not only Poorva karma (Pre therapy) to panchakarma procedures to mobilise the vitiated doshas from their sites but also Prachana Karma (main therapy - One among shat upakramas - Rukshana Chikitsa) to Vata Vyadhi like diseases. Among the 5 Basic elements (pancha mana Bhuta) Pruthwi and Jala are the predominant elements of Sneha dravyas.

Properties Snehana Drugs :-

- 1) Snigdha (unctuousness) 2) Guru (heavy Or Weight gaining property) 3) Sheeta (Coolness) 4) Mrudu (Softness) 5) Drava (liquidity) 6) Pishtila (Stickiness) 7) Sara (Spreading nature) 8) Manda (Slow activity) 9) Sukshma (easily penetrating capacity in to the tissue channels of the body).

Classifications of Snehas Dravyas.

1) According to Yonibheda (utpathi) 2 types by Charaka.

- a) sthaavara (collected from plants) :- Ex - Tila taila, Erenda taila sarshapa taila etc., b) Jaangama (Animal products) :- Ex - Milk, Curd, Ghee, animal Fat, Bone marrow etc.

2) According to action of drugs - by Sushruta.

- a) Virechanopayogi (Causes motions Or Elimination of doshas through rectum.) Ex. Erenda taila etc., b) Vamanopaya yogi (Causes Vomiting Or Elimination of doshas through mouth.) Ex:- madan Phala etc., c) Shiro Virechanopayogi (Useful to eliminate doshas from Shiras through nose.) Ex. Vidanga, Sarshapa Sneha etc., d) Dusta Vranopayogi (ulcer healing). ex - Karanja, Puthikaranja Sneha etc., e) maha Vyadhyopogi (useful in major diseases like Kusta) Ex. Tuvarak taila etc., f) Multa Sangha upayogi (Useful in retention of urine). Ex. Eravaaru taila Kushmand taila etc., g) Ashmar upayogi (useful in Urinary Stones), Ex. Bakuchi, Haritaki taila Taila etc., h) Pramehupayogi (Useful in diabetes). Ex Sarshapa - Nimba Taila etc., i) Pita Samrushta Vata (Vata Pita Vitiation). Ex:- Taali, narkel taila., j) Krishneekarana Upayogi (Useful in white patches) vibheetaki bhalatoka taila k) Pandukaram Upayogi (useful in depigmentation). Ex. Shyonaka Priyang taila etc., l) Kusta upayogi (useful in Skin lesions). Ex:- Devadaru, Agaru taila etc., m) **Snehopaga group by Charak.** Ex :- Drakshya, Yashtimadu, madhu Parmi, Meda, Vidargandha, Kakoli, ksheera kakoli, jeevak, jeevanthi, shala Parmi (10 drugs)

3) Classification of sneha drugs according to therapy.

- a) **Shodhan sneha :-** Causes Elimination of doshas by mouth, nose, Rectum by Teekshna Veerya Sneha Aushadas (Ex. Oily drugs used for Vaman - Virechan - Nasya and Vasti).

- b) **Shaman Sneha :-** Causes suppression of doshas in the body by moderate potent Oily drugs - (Ex- Oily drugs used to control Kusta etc., diseases).

- c) **Brimhan Sneha :-** The oily drugs that gives nourishment to the body (ex- Ghee).

4) CLASSIFICATION OF SNEHA DRAVYA ACCORDING TO IT'S USAGE :-

- a) **Bahya Sneha :-** (External applications) Abhyanga, Lepa, mardan, udavartan Samvahan, Padaghat, Mooridha Taila, Gandoosha, Karma Pooran, Akshitarpan, pariseka, Pichu.

- b) **Abhyantar Sneha :-** (Internal usage)
For food preparations, Drinks, nasal drops and for medicated enema (Vasti).

5) Classification of sneha dravyas according to combination of drugs.

- a) Yamala sneha - Combination of 2 Snehas b) Trivruith Sneha - Combination of 3 snehas c) maha sneha - Combination of 4 Or more snehas.

- 6) **Classification of Sneha Dravya according to dosage.**
a) Hiruseeyasi Matra (test dose) b) Hraswa matra (minimal dose) c) Madyama matra (moderate dose). d) Uttama matra (perfect dose).

- 7) **Classification of Sneha dravyas, according of sneha paka.**
a) Mruda paka b) madyama c) Khara paka.

- 8) **Classification of Sneha dravyas according to good quality (uttama Snehas)**
a) Sarpi (Ghee) B) Taila (Tila Taila) c) Vasa (Fats) d) Majja (Bone marrow)

INDICATIONS OF SNEHA KARMA (OLEATION) (SNEHAN YOGYA)

- 1) Before Fomentation therapy (Sweda Karma) 2) Before Shodhan therapy like Vaman virechan etc., 3) To induce Oleusness in the body or to treat Rough and dry condition of body. 4) To treat Vata Vyadhi etc., diseases. 5) The people who are having the daily habit of exercise 6) Alcoholic people. 7) Debilitated or Weak persons. 8) Old people 9) Ladies 10) who indulge more sex (Shukra dhatu kshaya). 11) Raktha dhatu kshaya (Blood loss Or Anaemic) 12) Anxiety 13) Abhishtandi 14) Timira (Dim Vision or immature cataract) 5) for the improvement of intellect and memory capacity. 16) Improper Opening and closing of eye lids. 17) The persons who have mental tiredness, ministers, Financiers etc., 18) To improve the stamina Or immunity, to face or to prevent the diseases. 19) Before Exercise Or Fighting Or to build the body.

CONTRA INDICATIONS OF SNEHA KARMA (SNEHAN AYOGYA)

- 1) Rukshanartha (Those eligible for Rukshana Chikitsa. 2) kapha & medo Vrudhni (fatty persons) 3) Excessive salivation and secretions From Bahirmukha sidas. 4) Poor digestive Capacity (Mandaagni) 5) Indigestion (Ajeerna) 6) Thin (trushna) 7) Un consciousness (moorchha) 8) Pregnancy (Garbhini) 9) Anorexia (Anuchi) 10) Dryness Or atrophy of palate (Talu sosha) 11) Vomiting (Chardi) 12) Ama Dosha 13) Positioning (Visha dosha) 14) More debilitated conditions. 15) After shodhan karma. (After Vaman - Virechan Vasti, Nasya etc.,) 16) udara rogi (Liver spleen and Ascitic like disorders) 17) Aiti sthula (who contain more Fluids and Fat) 18) Unctious patient (Oily Sticky person) 19) Acute Fever (Taruna jwara) 20) Chronic Alcoholic patient (weakperson) 21) Premature delivered patient (Aksala Prasutha) 22) Gala rogi (The patient who have neck diseases.) 23) Urustamba (Rigid heavy thigh) 24) Dirarthhoea or Dysentry patient 25) Aiti Teekshna gni (Who contain severe digestive capacity) 26) Contra indicated Before nasya Vasti and Rakhamokshana.

RELATION OF SNEHA PAKA WITH THE USAGE ACCORDING TO DIFFERENT AUTHORS :

- The medicated Snehas are prepared according to sneha paka vidhi, they are of 3 types 1) Mruda paka 2) Madhyama Paka 3) Khara Paka (Additionally dagdha Paka is explained by Sushruta and Ama paka by Sarangdhar).

According to the nature of processing of the medicine the useage is depending on, that is as follows According to different acharyas.

Sl. No.	Usage	Charak	Sushruta	Vagbhat	Sarangdhar.
1.	Abhyanga (Massage)	Khara Paka	Madhyama paka Kara		Madhyama paka.
2.	Pana (Oral)	Madhyama	Mrudu	Madhyama	Madhyama
3.	Nasya (Nasal drops)	Mrudu	Madhyama	Mrudu	Mrudu
4.	Vasti (Medicated enema)	madhyama	khara	madhyama	Madhyama
5.	Karna Pooran (ear drop)	-	Khara	-	Madhyama.

Note :- By above description it is clear that 1) Khara and madhyama sneha Paka is used for Abhyanga Vasti and karna Pooran But not the mrudu Paka. 2) Mrudu and madhyama paka are used for oral and for nasya - But not the Khara Paka.

OLEATION THERAPY- SNEHA VIDHI (STEPS OF OLEATION THERAPY)

1) Examination of the patient 2) Determination of duration for Oleation. 3) Determination of dosage for Oleation. 4) Dietetic Management prior to Oleation 5) Collection of materials useful for the therapy. 6) Procedure of sneha Pana 7) Observation of the patient for adequate Oleation or inadequate oleation or excessive Oleation. 8) Complications of the Oleation. 9) Post Snehan Regimen.

1) Examination of the patient is to work out the strength of the patient, diseases and to know whether indicated for Oleation Or not, The strength of the patient, dosha, dushtya prakriti, Vikriti are assessed by Dasha Vidha - Asta Vidha, Trividha, Pancha Vidha, shatvidha Etc., Pareekshas.

- 2) Determination of Duration for Oleation.
 - a) Determination of Duration for Oleation. 4 to 6 days in madhyama Kosta patients.
 - and 7 days in kura Kosta Patients.
- b) Vagbhatta emphasises that, snehan should continue upto the appearance of symptoms of adequate Oleation, there is no specific time limit.

Note :- If Oleation therapy continued longer time it becomes saatmya and doesnot produce shodhana effect in the body.

3) DETERMINATION OF DOSAGE FOR OLEATION THERAPY.

The dosage is fixed on the time required for the digestion of Sneha which is taken (Oil digesting capacity).

Sl. No.	Dosage of drug	Definition	Indications.
1.	Hruseeyasi Matra	Test dose	Testing dose to know the nature of Koshtha.
2.	Hraswa matra	Digestible with 6 hours	Children, Old, Weak. Slight vitiation of dosha, less digestive capacity and in Mrudu Koshtha.
3.	Madhyama Matra	Digestible with 12 hours	Moderate Strength of body and digestive capacity, moderate vitiation of doshas and in Madhyama Koshtha.
4.	Uttama Matra	Digestible within 18 to 24 hours	Strongly, good digestive capacity, more vitiation of doshas and in Kuura Koshtha.

Note :- In Hruseeyasi matra less dosage of Sneha is given for the test dose.

Dosage is 1) 2-4-6- Phala (According to Kosta)
2) 2 1/2 Tolas (Accepted by the Majority)

4) DIETETIC MANAGEMENT PRIOR TO OLEATION.

Tasty, easily digestible, appetisers, easily absorbable and light Food should be given before the day of Oleation and the Food should contain the following qualities. 1) Liquid diet 2) hot. 3) Regulated Quantity 4) Incompatible 5) Non sticky 6) Non Oleus 7) and Light food should give to prevent the complications, (on the day of Oleation the previous Food should be perfectly digested).

5) COLLECTION OF MATERIALS NEEDED FOR THE OLEATION

The medicines required to the therapy and to treat the complications should be collected.

6) PROCEDURE OF SNEHA PANA (OLEATION METHOD)

1) Mangalaacharan (Prayer) 2) Intake of Oleus drug (Sneha Aushada) 3) Waiting for symptoms of adequate or inadequate Oleation 4) Complications - Treatment.

1) **Mangalaacharan (Prayer) :-** Gives mental strength and satisfaction to face the therapy.

2) Sneha Pana :- Should give immediately after 15 to 30 minutes of sunrise, shodhan matra should not give in mrudu kosta, the dosage of medicine of oleation is as follows.

Test day	2.5	Tolas
1st day	5	Tolas
2nd day	7.5	Tolas
3rd day	10	Tolas
4th day	15.0	Tolas
5th day	20.0	Tolas
6th day	25	Tolas
7th day	30	Tolas.

Note :- 1) dosage should increase gradually by observing the digestive capacity of the patient. 2) If diarrhoea occurs, shodhan matra should stop and Brumhana Or shaman sneha should give. 3) Assurance should be given while the oleation 4) Anupana is suggested as follows a) Ghrita with Lukewarm water b) Taila with yooosha c) Vasa majja with manda (Boiled Rice Water) 5) Bhallata Sneha panam with Cool water 6) In Vata predominance ghee+ lavana 7) Pitta predominance only ghee 8) Kapha predominance with kshara And Trikatu

7) COMPLICATIONS OF OLEATION. (Sneha Vyapath)

Complications arises due to the mistakes done during the therapy. These are of two types.

1) Acute complications with the requirement of immediate treatment. 2) Chronic complications without requirement of immediate treatment.

1) ACUTE COMPLICATION :

a) Indigestion (Ajeerna) b) Thirst (Trushna) c) Un consciousness (Sanyanaash) d) Dullness (Tandra) e) Nausea (Uthklesha) f) Fever (wara) g) Stiffness of body (Samban) h) Anaraatha. i) Anorexia (Aruchi) j) Abdominal pain (shoola) k) Aama dosha (Complications of chronic indigestion)

2) CHRONIC COMPLICATIONS :

a) Kusta (Skin Lesions) b) Kandu (itching sensation) c) Pandu (Anaemia) d) Shotha (Oedema) e) Udara roga (G.I.T. diseases) g) Arsha (Haemorrhoides) h) Stimitya (Numbness) i) Vaaknigraha (difficulty in Speech)

8) OBSERVATION OF PATIENT FOR ADEQUATE OR IN ADEQUATE OLEATION

FEATURES OF ADEQUATE (SAMVAK SNEHANA).

A) a) Accelerated digestive capacity (Agni deepthi) b) Intolerance of snehas c) Normal motions without discomfort (Oly stools) d) Lightness in the body (Laghutwa) e) Softness in the body (Mrudutwa) f) Oleus Skin (Roughness of skin is removed and Oily shining comes) g) Vataauloman (normal movement of Vayu) h) Klama (Feeling of tiredness) i) Debility in the body tissues j) Thirst (Trushna) k) Fresh eruptions (shuddha udgar)

B) FEATURE OF, IN - ADEQUATE OLEATION) (Asmyak Sneha Karma)

a) Painful dry Oilless stools (graditha Pureesha) b) Weak digestive capacity (Agni mandya) c) Vata praitiloma (Improper movements of Vayu) d) Body becomes rough and dry (Rukshaand Khara) e) Burning Sensation in the chest (Uro vidaha) f) General debility and Weakness in the body g) All the Opposite features of Samyak sneha present

C) FEATURE OF EXCESSIVE OLEATION.

a) Anaemic (Panduta) b) Heaviness of the body (Gurutwa) c) Rigidity Or stiffness in the body (Stamba) d) Un digested Foodparticles in stools (Apakva Pureesha) e) Dullness Or Sleepy mood (Tandra) f) Nausea (Uthklesha) h) Salivation (mukha Srava) i) Diarrhoea Dysentery Or Anal Secretions (Guda Srava) k) Burning sensation in Rectum (Guda daha)

9) Post Oleation Regimen. (Sneha pashchat Karma)

After Oleation therapy the patient should follow the Following principles upto 7

days.

1) Bed rest, Brahmacharya, Night Sleeping, Warm water intake, Resting in suitable postures and should take easily digestible food.

2) a) The patient should not suppress natural urges. b) Should not expose to hot. Cold, dust, fume and open air. c) Should avoid coarse constipated food, Night arousal, day sleeping, exercise, hard work, journey, anger, loud speaking and anxiety.

SHAMANA SNEHA VIDHI :-

1) Shaman sneha is used to suppress the doshas and to treat the disease. 2) It is given while the patient is hungry (at 9 to 10 AM Or 5 to 6 PM) for proper digestion of Sneha, for quick spread and to control the vitiated doshas. 3) The dosage of the Sneha is Madyama matra that is 4 tolas to 8 Tolas approximately.

BRUMHANA SNEHA

Sneha dravyas are given along with food items for the proper nourishment of the body.

Ex :- 1) mamsa rasa. 2) Ksheera 3) Yooosha 4) Bread 5) Food (Rice) 6) Curries. Snehas are used to prepare the above preparations, the dosage of snehas is approximately 1 to 2 tolas.

Achapeya :-

It is a pure Sneha therapy with out other preparations and so explained as the best for Adequate results.

Sneha Vicharanas :-

Sneha preparations with food etc., items 24 in number they are as follows :-

- 1) Odana 2) Vilepi 3) Rasa 4) mamasa 5) Ksheera 6) Dadhi 7) Yavagu 8) Soopa 9) Shaka 10) Yoosha 11) Kamballika 12) Khada 13) Sakhu 14) Tila Pista 15) Madya 16) Leha 17) Bhakshya 18) Abhyanga 19) Gandoosha 20) Karma Puran 21) Nasa Tarpana 22) Akshi Tarpan 23) Basti 24) Utharabasti.

Sadyah Sneha :-

It is an Emergency type of sudden Oleation therapy given for a single day without following the general principles.
Ex :- 1) medicated mamasa rasa 2) Ghee + Milk+ Medicines.

SEASONAL INDICATIONS OF OLEATION THERAPY.

- 1) A Good, non cloudy day, after sun rise only oleation should be given.
- 2) In the Kapha vitiation Or Vata kapha vitiation Oleation should give in day time 3) In the Vata vitiation Or Vata pitta Vitiation Oleation should give at nights, (in Rainy Season with Tila Taila, sharath ruth with ghritra, vasanth ruthu with vasa and majja oleation, should be given.

sneha	Sweda	Vaman	Virecha.
Avata	1to 3 day.	4th Day/5th day	7th day.
madyama	5th days	6th day	9th day
Pravara 7th days	8th day	9th day	11th day.

Note :- After snehapana - Vasti, Raktha mokshan and Nasya are contra indicated.

Bhaya Sneha :-

14 Types are explained they are.

- 1) Abhyang (massage) 2) Lepa (External applications) 3) udwarthan (Rubbing with Oils in Pratioma direction) 4) mardan (massage with pressure) 5) Pariseka - (Pouring medicated liquids on body) 7) Samvahan (Gentle Oil massage) 8) Gandoosha (Gargling the medicated fluids) 9) Shiro tarpan Or moordha taila (medicated Oil applications. etc., on head). 10) Akshi Tarpan (Keeping of medicated sneha on eye ball by special method) 11) Nasa tarpan (Sneha Tarpana nasya) 12) Karma Poorana (Instillation of eardrops) 13) maasthishkya (Medicated Oils + paste application to head)

Shiras Tarpana (Moordha Tailam) :-

It is a special therapy in which the medicated (Snehas) Oils are kept on or poured on the head for a specific time, it is known as moordha taila Or shiras tarpana, it is more beneficial in the diseases of Shalakyta tantra (Especially in Shiro roga) then other diseases. it is used for preventive as well as curative aspects.

According to Vagbhata it is of 4 types they are 1) Shiro abhyanga 2) Shiro Seka Or shiro dhara 3) Shiro pichu 4) Shiro Vasti, in these 4 therapies Shiro Vasti is the best then pichu, dhara, Abhyanga and the every method is having it's own importance. (Ref. A.h. SU. 2 - 23)

A) Shiro Abhyanga. (Head Massage)

It is a process in which the head is gently massaged with medicated Oils etc., for a specific period. It is preventive as well as curative therapy. Sushruta suggested applications of Cool Chakra taila for Shiro abhyanga. The medicine should be selected according to the condition of the disease.

Use of Shiro Abhyanga :-

By Vagbhata.

It is beneficial in Roughness, itching sensation, dirty collections of scalp and in the diseases of the hair (Ref. A.H. SU. 22 - 24)

By Charak.

By regular shiro Abhyanga a person may get relief from Shira shoola (Head-ache) phalitha (dis colouration of hair), khalitwa (Baldness), Keshha paata (falling of hair), Keshha vikar (Abnormal hairs), Twak vikar (Abnormalities of Skin of scalp, Indria Vikar (lesions of Sensory organs) and gives strength to head and Scalp. (Ref. Ch. Su. 5-81, 83)

By Sushruta.

Shiro Abhyanga gives relief from Shira shoola, gives colour, complexion to face, proper nourishment to Indrias and head, the hair becomes blackish (Ref. SU. Chi. 24 -25, 22)

B) SHIRA SEKA -SHIRO PARISEKA - SHIRO DHARA.

It is a process in which the medicated Oil, ghee, Honey, Butter Milk, Milk, medicated decoctions, Breast milk, Boiled rice water (Kanji) etc., fluids are poured or dropped on the head from 4" height by special process for a specific period is known as shiro seka Or shiro pariseka or Shiro dhara. it is mostly useful in Shiro roga than ear, nose, throat, eye and other general diseases.

According to the medicine used for the therapy it is named as follows :-

	Taila dhara	(Pouring of medicated Oils)
1.	Ghritha dhara	(Ghee)
2.	Madu Dhara	(Honey)
3.	Takra Dhara	(Butter Milk)
4.	Kwatha Dhara	(Decoctions)
5.	Ksheera Dhara	(Milk)
6.	Kanji Dhara	(Boiled Rice Water)
7.		

Note :- 1) Dhara has to do in the mornings in between 7 and 10 AM, and contra indicated in after noon and nights.

- 2) Leukwarm dhara in Vata and Kapha disorders and Cool dhara in Pitta and Raktha disorders.

Drug Selection.

The Choice of the drug depends upon the diseases But in general the following sneha are used.

- 1) In vata and Kapha disorders Leukwam Tila Taila is used for Shirodhara. 2) In vata and raktha vitiation cool ghritta 3) In Pitta and Raktha Vitiation and Vata + Pitta + Rakta Vitiation Tila and Ghritta 1/2 part is used for dhara. 4) In Vata + Kapha disorders Tila one part and Ghritta 1/2 part is used for dhara.

DURATION OF SHIRO DHARA:- is 1 to 1 1/2 hours, it is also depending upon the strength of the patient and the disease.

Time Schedule for Shiro Dhara .

Shiro dhara has to do 14 days Or 21 days.

A) 14 Days Schedule .

- 1st day 1 hour duration.
- 2nd day to 7th day (duration is increased daily 5 minutes)
- 7th day 1 1/2 hour duration.
- 8th to 14 day (duration is decreased daily 5 minutes)
- 14 th day 1 hour duration.

B) 21 Days Schedule.

- 1st day 1 hour
- 2nd to 7 day (duration increases daily 5 minutes)
- 8th day to 14th day 1 1/2 hour.
- 15 to 21 days (Duration decreases daily 5 minutes)
- 21 st day 1 hour.

Uses of Shiro Dhara :-

Vaghnata :-

- 1) He said Shiro dhara is useful in Arumshika (multiple pustules on scalp), Shiras toda (Pricking pain on scalp), Daha (Burning sensation of scalp and head), paka (inflammatory changes on scalp), Vrana (Ulcers on scalp). (Ref. A.H.SU.22-24)
- 2) He explained Dashamoola Ksheera shiro Seka in Shira shoola. (Ref. A.H.U. 24 -3)

Charak.

- 1) Shira Seka with Ghee Or Milk in Pittaj Shira Shoola. (Ref. Ch. chi. 26-176)
- 2) Shiro Seka in Shankhaka Shiro Vyadhi (Ref. : ch. si. 9-73)

Sushruta :-

- 1) Leukwam shiro dhara with Vataghna milk in Vatik Shira shoola. (Ref.su. chi. 26 - 5)
- 2) Cool ghee shiro dhara in Pittaj and Raktaj Shiro roga. (Ref. : su U. 26-12, 13)

Note :- Kerala people called shiro seka as Shiro dhara, it is mostly useful not only in shalakya vyadhis but also in general diseases like psychosis, epilepsy, Neurosis, alcoholism, coma, In somnia, fainting, confusion, excessive perspiration and tiredness etc., disorders.

The Common Requirements for Dhara.

- 1) Clean Ventilated room. 2) Dhara table or Droni 3) 2 to 5 Attenders and Massagists.
- 4) Dhara patra (Vessel to hold medicine) 5) Pillows. 6) Furniture (Chairs, Tables, Stools etc.) 7) Gas Stove 8) Hot water 9) medicines for shiro dhara and to face complications if any 10) Thick cloth for shiro bandan (to prevent the medicine from entering in to the eyes. 11) Eye bandage material 12) Containers to collect the medicine. 13) Stand to hold the dharaa patra.

Dharaa Patra . (Vessel or pot used to hold the medicine for dhara). It should have wide mouth, 5 to 6" depth with central perforation at the bottom in the size of little finger which is fitted with cotton vathi to allow uniform flow during dhara. The container should have 2 litres capacity to hold the medicated fluid (2 prasa or 1 Aadaka that is approximately 2 litres). The borders of the mouth should have been folded outwards so that the neck of the vessel may be tied with rope for handling. The container should prepare with Gold, silver, copper etc.,

Droni or Dharaa Table .

- 2) Length of the table 6 feet. 2) Width "2 feet. 3) height from the ground 1 1/2 to 2 feet
- 4) depth of the table 4 1/2 to 9 inches.

The surface should be smooth even comfortable to the patient and massagist, it should prepare with Vataghna wood, with head resting and Oil collecting arrangements.

3) Common Medicines :-

In Vataj disorders Tila taila, Bala taila, Dashamoola taila: In Kaphaj disorders with honey, nagar, musta. etc; in Pittaja disorders ushneera chandan coconut water and ghee etc.

4) Attenders :-

2 Attenders are needed for shiro seka, one for pouring the medicine properly and another to collect the oil which is irrigated. after shiro seka, sneha and sweda for total body is advised, for that 5 attenders are needed.

Shiro Dharaa Therapy.

A clean Droni is placed in a clean appropriately ventilated room, necessary materials and accessories are procured and are placed in the therapy room systematically. Dhara patra is fixed at about 4 inches height from the head of the patient in SHUBHA MUHURTHA by SWASTIVACHAN and MANGALACHARAN. Eyes should be bandaged with cotton pads to prevent the entry of Fluids into the eyes. Hair of the patient should cut into small to allow proper absorption of medicine, Shiro bandan has to apply around the head, above the eyebrows with thick cloth to prevent the entry of medicine in to the eyes. head should rest on the pillow properly. The medicine has to pour from 4 inches height on the head with constant speed neither quick nor slow, the medicine should irrigate in different postures of head. Irrigated medicine should be collected time to time from the bottom of the Droni, should be cleaned warmed and should replaced it in the Dhara Patra and Simultaneously the head and limbs of the patient should be given intermittent massage. After the specific time - Saranga sneha, sweda are advised to prevent the complications

C) Shiro Pichu.

Shiro pichu means application of cotton piece or cloth piece by dipping in medicated Oil or ghee on the shiras at Brahman randra (Anterior fontanelle). It is more effective than shiro abhyanga and Shiro dhara. Pichu gives scope for gradual and slow absorption of the medicine, so only said as more effective.

It gives nourishment to the scalp, head, indria, and other organs of the body, it is useful in Keshha Paatha (Falling of hair), Keshha Vikruthi (abnormalities of hair), Keshha sputanam (hair fall), Vrana (ulcers), netra stambhana (rigid and restricted movements of eye ball) and in Shiro rogas etc.,

In addition to shiro pichu some other pichu are also explained like .

- Yoni Pichu (pichu is inserted in Vagina)
- Guda Pichu (Pichu is inserted in rectum).
- Nasa Pichu (Pichu is inserted in Nasa guha) etc.,

Note :- If Bigger cloth piece or gauze piece is used by dipping in medicated Oil or ghee that is named as **Plothu**. Ref :- AH, Su. 22-25.

D) Shiro Vasti.

Vagbhata explained it as the best among 4 types of moordha taila. It is process in which medicated sneha (Oil Or ghee) are kept on the head, 2 inches above the level of hair with the help of vasi Yantira (leather cap like structure open on both sides) for a specific period is known as Shiro Vasti. Shiro Vasti Should conduct in the afternoons or in the evenings.

Shiro Vasti Yantira :-

It is a leather cap like structure with open base (2 sides of cap is open), it is 12 to 16 inches in length, width should be according to the size of the head of the patient. It is fixed to the head to keep the medicated Oil or ghee on the head for a specific time.

Shiro Vasti Therapy :-

- 1) Sneha, Sweda, Shodhana has to do before shiro Vasti.
- 2) Hair has to remove (Mundana) Or should cut into small for proper absorption of the medicine.
- 3) Patient is asked to sit in a chair comfortably with out any tension.
- 4) Patient is advised not to move the head during the therapy.
- 5) Shiro vasi Yantira (leather Cap) has to fix to the head, at the junction of head and cap masha Kalka or godhuma kalka has to apply to prevent the leakage of medicine, then Leukwam medicated sneha has to pour into vasi Yantira upto 2 inches height above the level of hair. If the medicine become cool that has to exchange with Leukwaram Oil, like that the medicine should kept for a specific time.

When reduction of pain, arrival of lacrimation (Ashru srava), nasa srava (Nasal discharge), mukha srava (Salivation), appears then Oil should be removed carefully. Then the same oil is used for massage of the shoulders, neck, chest and Back etc., The patient is advised to have bath with hot water and follow the pathya vidhi to avoid complications.

Note :- Shiro Vasti is advised for 7 days.

Note :- Shiro Vasti.

duration of Shiro Vasti.	
10000 Matra Kala	
8000 Matraakala	Approx 53 Minutes.
1) In Vata diseases	
2) In Pitta Diseases	6000 Matraakala
3) Kapha diseases	1000 Matraakala
4) Healthy Person	Approx 43 Minutes.
	Approx 31 Minutes.
	Approx 5 to 6 Minutes.

Indications :-

Shiro Vasti is beneficial in the following diseases.
 1) Prasupthi (Numbness of scalp) 2) Arditha Vata (Facial paralysis) 3) Nidraapatha (Sleeplessness) 4) manya Stamba (neck rigidity) 5) hanugraha and Hanu shoola (lockjaw) 6) Arthava Bhedak (migraine, half headache) 7) Shiro roga 8) Daarunaka (Dandruff) 9) Timira (dim vision) 10) Aasya sosha (Dryness of oral cavity) 11) Nasa sosha (Atrophic Changes in nasal cavity)

KARNA POORANA.

Putting of medicated Leukwam Swarasa (Liquid extract of medicine), Taila (Oil), ghrittha (Ghee), mutra (Goats urine etc) in to external auditory canal is known as Karna Poorana. It is more effective not only in Karna rogas but also in other diseases.

Vagbhata and sushruta advised that a person who practices the Karna poorana regularly should get stamina against deafness, neck rigidity (manya shoola) pain in the Jaw (Hanu shoola) etc., used for Karna pooran.

It is indicated in different types of ear diseases (like Karna Shoola, Karna nada, Badirya, Karma gootha, Karma Srava, Karma kandu etc.,) hanu Shoola (pain in the jaws), manya Shoola (pain in neck) and Shira shoola. (head ache).

Note :- The common Oils are nirgundi taila, Kshara taila, Apamarga taila, Bivadi tailam, Ksheera bala taila etc.,

Duration.

- 100 Matra Kalas in ear disease.
- 500 Matra kalas in Throat diseases.
- and 1000 matra kalas in Shiro rogas.
- 1) Swaras etc., Before meals. 2) Oil at night.

Shiro Lepa. :-

It is named as potthichili according to Kerala Therapy. medicated paste is applied on the head in 1/4 1/3 inch thickness, should keep for 1/2 to 1 hour and advised to continue the therapy for 7 days.

It is indicated in Shiro rogas, Arditha Vata, Pakshaghata, Kralithya, Palithya and most of the Neurological problems.

(hot applications named as upanaha and cool applications named as Lepa).
 "The qualities of Shiro Lepa are merely equalant to Takra dhara."

1) Vataghna Ausadhya Siddha payasa lepan in Vataja Shira shoola. 2) medicated paste prepared with nala, veteas, Shilvata, Raktha kamala, Chandan, utphala, padmaka, vamsli, Yashtimadu, Musta + Ghee application, in Pitala shira shoola. 3) Hot application of Fish in Kaphaj Shira Shoola. 4) 1Kudava (16Tolas) Amalaki, 2 Kudava (32 Tolas) Butter Milk prepared from cow milk, 32 Tolas water, heat it upto water evaporation then the paste should be applied on the head it is useful in most of the Shiro rogas.

Method of Shiro Lepa Therapy.

1) Shiro munda (hair should remove) for proper absorption of medicine. 2) Shiro Abhyanga (head massage) 3) Application of paste to the head which is prepared according to the diseases. 4) Paste should apply in 1/4 Or 1/3 inch thickness only on the scalp not on fore head - and head should be wrapped with banana leaves. 5) Then the medicine should be kept for 1/2 to 1 hour. 6) Then the medicine should be removed and cleaned. 7) Again Oil massage is advised. 8) Patient is advised to have hot water bath. 9) Advised to follow pathya vidhi 10) Like this shiro lepa therapy is advised for 7 days.

GANDOOSHA - KAVALAGRAH.

Charaka explained only Kavala grah But sushruth and Vagbhata explained Gandoosha and kavalagrah. According to them the difference is, only in the dosage of the drug.

Gandoosha.

Holding of medicated fluids in the mouth in full quantity for a specific time and then asked to spit it out (Because of full quantity, the fluid cannot able to rotate in the mouth.)

Kabalagrah :-

Medicated Fluids are kept in themouth incompletely and asked to rotate in the mouth for a specific time and then asked to spit it out

Su. Chi. - 40 -58.

Note :- According to Sarangadhara, Kalka (Medicated bolus) drugs are used in kavala and Liquids are used in Gandoosha.

Sharangdhar. 4th 10-4.

CLASSIFICATION OF KAVALA OR GANDOOSHA.

According to Sushrutha

- 1) Snehan Gandoosha
- 2) Prasadana
- 3) Shodhan
- 4) Ropan

1) Snehan Or Snigda Gandoosha :-

The Drugs should be snigda - Ushna, Madura, Amala, lavana - used in Vata prakopa. The medicine should mix with other Vata hara sneha, mamsasaras etc., items.

According to Vagbhata.

- 1) Snigda Gandoosha
- 2) Shaman
- 3) Shodhan
- 4) Ropan

2) Shaman Gandoosha :-

Drugs should be prepared with Tikha, Kashya and Madura rasa for pitta shaman. But in prasadan gandoosha of sushruth the drugs should be prepared with Madura, sheetha for pitta shaman. The both are one and same but explained by different authors for pitta shaman.

3) Shodhan Gandoosha :-

Drugs should be prepared with Tekshna, ushna, Ruksha, Katu, Amla, Lavana for kapha Shaman. The Gomutra, madya, shukla, madu, Dhanyamaala etc., should be used along with medicines.

4) Ropan Gandoosha :-

Drugs should be prepared with ushna, kashaya, Katu, madura, Rasa, for Vrana ropana (ulcer healing). The Ghritha, ksheera, sneha dravya are used along with the drugs.

Gandoosha Vidhi.

It is a process having utmost importance in the management of mukha rogas. It is a special process as well as pashchyath karma to nasya karma, Vaman karma etc., to save the body from the complications of Kapha dosha.

1) Preparation of the patient for Gandoosha

2) Preparation of the medicine according to the condition of the patient.

a) Example :- Triphala - Tikatu, pancha Valkala, Dashamoola, vacha, Yashtimadu, etc., drugs should be grinded to prepare kalka (Bolus Or Paste). to keep in the mouth or to rotate in the mouth.

b) Liquid Medicines :-

Like Ghritha, Taila, madu, water, madhya, Mamsa rasa, Gomutra, decoctions of medicines, shuktha, kanji etc., drugs.

c) According to the vitiation of doshas either kalka Or Kashaya Or mixed should be selected for the therapy)

3) Gentle massage at neck, Cheek, face, head, shoulders, etc.,

4) Light Fomentation
 5) Patient is asked to sit in a chair with comfort then the medicine is given to hold in the mouth or to rotate upto the specific time (upto the collection of Kapha in mouth, Nasa Srava etc then the medicine should be spit it out. Pashchyath karma Or other gandoosha should be given.

6) Again Gentle massage and light Fomentation at Neck, face, Cheeks, shoulders head etc.,

Indication of Gandoosha :-

- 1) manya Stamb (neck rigidity) 2) Shira shoola (Head ache) 3) Karna shoola (otalgia) 4) Mukha roga (Diseases of Osta, dantha modla, Dantha, jithwa, Tailu, Gala)
- 5) Netra roga (eye diseases) 6) Lala srava (Salivation) 7) Mukha sosha (Vata disorders of mouth) 8) Hrudilasa (Nausea) 9) Tandra (Sleeping mood) 10) Aruchi (Tastelessness) 11) Peenasa (Rhinitis) 12) Shiro roga.

Regular Gandoosha vidhi achieves the following benefits 1) Swara balam (Strength to voice) 2) Hanubalam (Strength to Jaws) 3) Strength to face 4) Ruchyam (Better Taste perception) 5) Druda dantha (Strong and healthy teeth) 6) Stamina against Doshaja or Aagantunija mukha rogas - Shiro rogas, Karna rogas, Nasa roga and Netra roga.

Time Schedule For Gandoosha :-

The medicated fluids should kept in the mouth upto the manifestation of following symptoms.

1) Collection of Kapham in the mouth 2) Nasa Srava 3) Karna Srava 4) Netra Srava.

Then the drug should spit it out. Then New drug should be kept in the mouth or pashchyath Karma has to do according to the condition of the patient.

Samyak Yoga Lakshanas of Gandoosha (Symptoms of Adequate Gandoosha):-

1) Relief from the disease or symptoms. 2) Freshness of all Indrias, Face and mind. 3) Lightness of Body 4) Sound sleep 5) Normal taste, appetite, digestion capacity and general health.

Atiyoga Lakshanas of Gandoosha. (Symptoms of Excessive gandoosha):-

1) Shosha (Dryness of mukha etc., srotas) 2) Daha (Burning sensation) 3) Paka (ulceration) 4) Trushna (Thirst) 5) Aruchi (loss of Taste) 6) Klam (Debility).

Asamyak Yoga Lakshanas of Gandoosha

(Symptoms of Inadequate gandoosha):-

1) Aasthya (Laziness) 2) Aggravation of the disease 3) Kapha vitiation 4) Aruchi (Tastelessness) 5) Hrullasa (nausea) 6) Tandra (Inactive state Or sleepy mood)

Some Important Yogas of Gandoosha.

1) Hot water gandoosha in general Kapha disorders of mukha 2) Gandoosha with Kanji Or Dhanvantari in Aruchi 3) Daruharidra - rasa Kriya Or Triphala Kashaya Gandoosha in Mukhapak. 4) Trikatu Sarshapa hareetaki Kalkam + ksharajala Gandoosha in Kaphaj Mukha roga. 5) Tila Kalka + Water gandoosha in Dantha harsha. 6) Ghritha Or Ksheera gandoosha in Pittaja mukha rogas. 7) Ksheeri Yrukshta Kashaya gandoosham in Bleeding gums. 8) Decoction of Kaseesa, Lodra, Pippali, manahshila, priyang, Tejohwa + Honey, Gandoosha in Pyorrhoea (pus discharge from gums) 9) Pancha pallava kashaya + Ghritha + madu + Sugar Gandoosha in (Gingivitis) Upakusha. 10) Gandoosha with Immedadi, Taila Or sahacharadi taila Or sarshapa taila Or narayan taila Or prasaarini taila in gum disorders (Dantha moola vyadhis). 11) The decoction of moola Vyadhi. 12) Patola - Nimba, Triphala Kashaya gandoosha in saushira (Dantha Dasha moola Kashaya + Tila Taila gandoosha in Dantha rogas. 14) Trikatu, Sarshapa, Kaphaja Lavana, gandoosha in Kaphaja jihwa roga. 15) Kshara jala gandoosha in 17) Yashtimadu Kashaya gandoosha in Mukha paka. 18) Kakolyadi or Vdarigandhadi ghritha gandoosha in Pittaj mukha rogas.

B) SWEDANA KARMA

Sweating is the physiological process But over sweating or Absence of Sweating is pathological. Inducing the sweating by heat application is known as swedan Karma. it is beneficial in vata kapha disorders and harmful in pitta, Raktha disorders.

Swedana is a major poorva Karma procedure conducted after sneha Karma and proceeds Vaman karma. it is a process in which by the application of heat liquefaction of doshas occurs that relieves stiffness, heaviness, cold and induces sweating. Being the principal poorva karma procedure, swedana is also a specific treatment procedure for number of diseases like vata vyadhi (It is also a specific that is one among shat upakramas and quite opposite to stambhana therapy).

Qualities of swedan dravyas.

1) Ushna (Hot) 2) Teekshna (Quickly spreading) 3) Sara (Spreading nature in the all directions) 4) Snigdha (oleus- unctuous) 5) Rooksha (Rough - opposite to snigdha) 6) Sukshma (penetrating into minute channels.) 7) Drava (liquidity) 8) Sthira (Fixed) 9) Guru (Heavy or bulkiness)

Classification of Swedan Karma.

I) According to Charak

a) Agni Sweda 13 types. b) Anagni Sweda - 10 types.

ii) a) Snigdha Sweda in Vata disorders. b) Rooksha Sweda in Kapha disorders.

iii) a) Ekanga Sweda (Swedan only at the affected part) b) Sarvanga Sweda (Swedan to the complete body)

iv) a) Mrudu Sweda - in weak persons, less vitiation of doshas and at Heart scrotum, eyes etc., b) Madyama Sweda - moderate Strength of the patient disease and at groins. c) Maha Sweda - Strongly people with high vitiation of doshas.

v) According to Sushruta and Vagbhata

a) Tapa Sweda b) ushma Sweda c) Upanaha Sweda d) Drava Sweda.

vi) a) Shaman Sweda (Remission of the diseases) b) Shodhan Sweda (elimination of doshas)

vii) a) Bahya Sweda (External) b) Abhyantar Sweda (Internal)

Swedana Karma - Indications.

1) Pratishyaya (Rhinitis) 2) Kasa (Cough) 3) Hiccach (hiccough) 4) Swasa (Dyspnoea) 5) heaviness of body 6) Karna Shooda (otalgia) 7) manya shooda (Pain at neck region) 8) Shira shooda (headache) 9) Swara bhedha (hoarseness of Voice) 10) Gala gran (neck rigidity) 11) Paasthwa graha (rigid flanks) 12) prusta gran (rigidity in the dorsum of trunk) 13) kati graha (rigid Lumbo sacral region) 14) Kukshigrah (rigid abdomen) 15) hanu gran (rigid jaws) 16) Pada - jaanu- janga-uru graha (Rigidity in all parts of Lower limbs) 17) Padaarthi- jaanurarthi Jangaarthi Uru arthi (Pain in all parts of Lower Limbs) 18) Arditha Vata (Facial palsy) 19) Ekaanga Vata (Monoplegia) 20) Sarvaanga Vata (total Paralysis) 21) Pakshaghata (hemi Plegia Or paraplegia)

22) Angamarda (Body pains 23) Aadya Vata 24) Vata kantaka 25) Ghrudrasi Vata 26) Supthi (loss of Sensation) 27) Stamba - Sankocha (Spastic pains) 28) Aaraha 29) Vibandha (Constipation) 30) Ama Vata 31) Shotha (Oedema) 32) Jumba 33) Shukraghaath (Retention of Semen) 34) Mutra krucha (Dysuria) 35) Muska Vruddi (Orchitis) 36) Moodha garbha (malpresentations during delivery) 37) Arsha (haemorrhoids) 38) Bhagandar (Fistula in ano) 39) Arbuda (Tumours) 40) Grandhi (Cysts) 41) Kanpaya 42) Shalyaapahrut (after removal of foreign bodies) 43) Samyak Pralatha (after normal delivery) 44) Ashmari (Urinary calculus) 45) Most of vata and Kapha disorders.

CONTRA INDICATIONS OF SWEDAN KARMA.

1) Raktha and Pitta Disorders 2) Alcoholism 3) Pregnancy 4) jaundice (Kamala) 5) Atsara (Diarrhoea) 6) Raktha Pitta (Bleeding disorders) 7) udara roga Spleenomegaly - hepatomegaly, Ascites etc. disorders) 8) urakshata (chest injury) 9) Burns 10) Pitta Prakruthi 11) Tired 12) Poisoning 13) unconscious 14) Shoolaa (fat) 15) Thirsty 16) Angry 17) Weeping due to mental illness 18) Urustamba 19) Debilitative persons 20) Shukra kshaya 21) Oja kshaya 22) Timira (Dimvision) 23) Pandu (Anaemia) 24) Visarpa (Skin rashes) 25) Sosha (Dehydrated) 26) Kushta 27) Guda bramsha (prolapse of rectum) 28) Rajaswala (menstruation period) 29) After intake of milk, alcohol, curd, oil etc., 30) Indigestion 31) Madu Meha 32) Pitataja Prameha 33) Ruksha - Shuska derma - (dehydrated) 34) After Virechan 35) Stambana Arha (Those indicated for stambana therapy)

CLASSIFICATION OF SWEDA ACCORDING TO CHARAK.

a) Agni Sweda - 13 types b) Anagni Sweda - 10 types.

a) Agni SWEDAS 13 :-

Inducing sweda by heat applications they are

1) Sankara sweda, 2) Prastara sweda 3) nadi Sweda 4) pariseka Sweda 5) Avagaha Sweda 6) Jenthaaka Sweda 7) Asmaghna Sweda 8) karshoo Sweda 9) kuttee sweda 10) Bhoo sweda 11) kumbhi Sweda 12) Koopa Sweda 13) holak Sweda.

b) Anagni Sweda 10 types.

Inducing sweda by other than heat applications, they are.

1) Vyayama - Indulging more exercise 2) ushna Sadan - Residing in hot non Ventilated room 3) Guna pravaratan - By covering thick blankets etc., 4) Kshudha - Suppressing the hungry 5) Bahupaanam - In take of more alcoholic drinks. 6) Bhaya - By inducing Fear 7) Krodha - By anger 8) Upanaha - Application of ushna Veerya Aushada 9) Aayath - Fighting 10) Aatap - Sun Bath

1) Sankara Sweda - Or Pinda Sweda :-

It is of two types.

a) Snigdha Pinda Sweda b) Ruksha pinda Sweda.

a) snigdha Pinda Sweda :-

The medicated Kalkam (Semi solid paste) which is prepared with cooked rice, Tila, Masha, Kuluththa, Amladravya, Talia, ghrittha, Ksheera, payasa and other purified medicines should keep in a Fresh, thin white cloth and should prepare poultices or pouls or pinda 4 to 6 according to the requirement, these poultices should dip in hot medicated decoctions and apply to the affected areas for specific time. It is especially indicated in Vata predominant disease.

b) Ruksha Pinda Sweda :-

Metalic particles, stone pieces, sand and dried faecal material of animals- is heated and applied to the affected area directly or by keeping them in the fresh, thin white cloth like above.

It is especially indicated in Kapha predominant diseases.

Kerala people are practicing this therapy (snigdha pinda Sweda) in the name of Shastika snail pinda Sweda Or NAVARAKIZI with advanced techniques.

Time 1/2 to 1 hour - Once or Twice a day.

2) Prasthara Sweda :-

Prasthara means stone. In astanga sangraha it is explained as samsthara sweda.

Snail dhanya, Yava, godhuma, masha, Kuluththa, mudga, Kodrava, Tila, mamsa, payasa etc., are cooked and kept on the 6 feet x 21/2 feet stone uniformly and should cover with medicated leaves Or thin cloth and the massaged patient is asked to lie down on the stone for a specific time. It is meant for sarvanga sweda.

3) Nadi Sweda Or Bhaspa Sweda.

a) Bhaspa yantra b) Bhaspa Nalika c) Medicated decoction are required.

The medicated decoction prepared with Rasna, Erenda, devadaru, Nirgundi, Bala, Shigru, Punarnava, Varuna, guduchi, Amla dravya, Lavana, mutra, Ksheera, Mamsa, or other needed medicines according to the disease should collect in a Big wide vessel. The mouth of the vessel is sealed and 6 feet tube (Bhaspa nalika) is connected to the lateral part of the Bhaspa Yantra. Bhaspa Yantra is kept on the stone for boiling the medicine. The medicated vapour will come through the tube that should be exposed to the massaged part which is affected or to the entire body.

Time :- 1/2 to 1 hours, 7 to 21 days according to the vitiation.

4) PARISEKA SWEDA - SNEHA DHARA SWEDA.

PIZCHIL - PISHIMCHIL.

Droni is a special table used for abhyanga and Sweda in which there is a facility to collect the Oil which is used for the therapy.

Patient is asked to lie down on the droni. Shiro Abhyanga and Kaya Abhyanga has to do before pariseka. Lukewarm medicated decoctions, Oils, ghee, milk, butter milk etc., is poured on the body with the help of dhara patra from 9" height for specific time, Kerala people call it as

pizichil Or pishimchil. 5 Attenders are required for the therapy. 2-2 attenders on either sides for giving dhaara and 5th attenders is to collect the medicine from the bottom of dromi.

Note :- 1) Daily if medicine is changed it is perfect.

- 2) Milk has to change daily
 - 3) Dhanyamla should change once in 3 daily
 - 4) Talia, after 3 days fresh medicine should add to the old medicine and should change completely after 7 days.
- Time :- 1/2 to 1 1/2 Hour daily, for needed duration according to the disease.

5) Avagaaha (Medicated tub Bath)

Medicated decoctions, Oils, milk, ghee, mamsa rasa etc., should be filled in the tub, the patient is asked to dip upto neck for 1/2 to 1 hour, then asked to have hot water tub bath

Measurements of tub :-

Length 4 to 6 feet

Width 2 feet

Height - 1 1/2 to 2 feet.

6) Jenthaka Sweda :-

A special equidimensional round room is arranged for this therapy. In side the room centrally Angarakosti is arranged, peripherally all around the room seating arrangement is done for the patient. A patient after massage is send in to the room and asked to sit - on the place arranged peripherally - upto specific time (up to the appearance of adequate symptoms of fomentation).

7) Ashma ghana sweda :-

It is a type of prasthara sweda in this variety medicines are burnt on on 6 x 2 1/2 feet stone, medicines are removed. Water is sprinkled thin cloth is covered on the stone and the massaged patient is asked to lie down on the stone by covering his body with cloth upto the neck the vapour coming from the stone gives fomentation effect to the patient.

8) Karshoo sweda :-

A pit has to dig on the ground in which the bottom should be wide and mouth should be narrow (approximately 4x2 1/2 feet dimensions) medicines should be burnt in the pit and massaged patient is asked to lie down on a cot which is kept on the pit, for fomentation.

9) Kutee sweda :-

Massaged patient is covered with thick cloth and asked to sit in a non ventilated room with Angaara kosti, due to absence of air, thick covering, and heat, sweating is induced.

10) Bhoo Swedan :-

It is like Ashmaghana sweda but medicines are burnt on earth instead of stone, medicated burnt particles are removed, water is sprinkled, covered with cloth and massaged patient is asked to lie down upto the specific time.

11) Kumbhee sweda :-

A pot with medicated decoction is buried in the earth, a cot Or stool is kept on the site, then hot iron balls are dropped into the decoction then medicated vapours are released those should be exposed to the affected site.

12) Koopa Sweda :-

It is like Karshoo sweda but more hot because the mouth surface of pit is more wider than the cot dried faecal material is burnt in the pit (medicinal parts are burnt is Karshoo sweda)

13) Holaka Sweda :-

It is also like Koopa sweda but dried faecal material is burnt and is kept underneath the cot instead of pit.

SWEDA CLASSIFICATION ACCORDING TO SUSHRUTHA AND VAGBHATA.

1) Tape Seda :-

Swedana is done with the direct touch of hot or heated objects like metallic things, salt, sand, cloth or hand etc.,

2) Ushna Sweda :-

It is indirect Fomentation in which swedana is carried out with the touch of vapour liberating from medicated hot items.

3) Upanaaha Sweda :-

Swedan by the application of ushna lepa, Sankara Sweda and ushna dravya bandana (Saalavana sweda).

4) Drava Sweda :-

Swedan with hot medicated liquids like in pariseka Or Avagaaha.

Sweda Vidhi

1) Poorva Karma.

1) Collection of requirements like Vessels, medicines for the therapy and to treat complications.

2) Assessment a) About the Common principles like indications, b) Which type of Sweda is required, c) Seasonal indications (maha Sweda in sheeta ritu and mrudu sweda in ushna ritu etc.,) d) Strength of the patient (for more strength maha sweda, moderate strength madhyama sweda and for weak person mrudu sweda) e) economical status, estimation of money to purchase the medicines for sweda f) Desha or site of the disease also gives the idea about the sweda (like Aamashaygatha vata - Raksha Sweda Pakwashaya gatha kapha snigda sweda, vrushan Hrudaya netra mrudu sweda etc.) g) Age consideration is important to decide the type of sweda and for treatment

10) Snehana Karma :-

1) Snehana Karma :- Snehana Karma :- Snehana Karma :-

2) Snehana Karma :- Snehana Karma :- Snehana Karma :-

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VAMANA KARMA (EMESIS THERAPY)

Vamana Karma is one among the panchakarma therapy, especially mentioned in the Vaidic literature. It is a procedure for the elimination of the vitiated Kapha through the oral route, the expelled material (emesis) is called vomit.

The aggravated doshas can be expelled out either through oral route or through the nasal route. For the both virechana word is used but particularly Vamana is termed as the oral route. It is indicated for elimination of dosha not only in diseased condition but also in healthy condition for the preservation of health.

Sneha and Sweda Karma causes softening mobilisation and liquefaction of doshas, then brings them from Shukha to Kosha, from here, by Vamana, doshas are expelled out through the mouth.

PROPERTIES OF VAMANA DRAVYA.

1) Ushna 2) Teekshna 3) Sukshma 4) Vyavayi 5) Vikasi 6) Prabhava

NOTE :- (a) The drugs those induce vomiting are called as vamana dravya.

(b) The drugs those helps or enhance the qualities of vomiting are known as Vamanopaka dravya.

INDICATIONS OF VAMANA KARMA.

1) Peenasa 2) Kusta 3) Navajvara 4) Rajayakshma 5) Kasa 6) Swasa 7) Gata-grah 8) Sleep 9) Galagand 10) Prameha 11) Mandagri 12) Vishuchika 13) Alasa 14) Vata Peetha 15) Viddha 16) Adho rakthapitta 17) Mukha prasaka 18) Arsha 19) Hujassa 20) Aruchi 21) Apachi 22) Grandhi 23) Apsamara 24) Urmada 25) Alasara 26) Shophia 27) Pandu 28) Mukha Paka 29) Stanya dysi 30) Arbuda 31) Vidaria 32) Meho roga 33) Gudroga 34) Chitta Vibrama 35) Visarpa 36) Vetradi 37) Poothi nasa 38) Kantha paka 39) Karma Srava 40) Adhi Jihwak 41) Gata Shundika 42) Kapha Vikar.

CONTRA INDICATIONS OF VAMANA KARMA.

1) Kshatha Ksheena 2) Ati sthula 3) Ati Krusha 4) Baala 5) Vruddha 6) Durbala 7) Shrantha 8) Pipasitha 9) Kshudhita 10) Kamahatha 11) Bhagavatha 12) Aardraha 13) Upavastha 14) Mithuna prasakta 15) Adhyayan prasakta 16) Vyayama Prasakta 17) Chila Prasakta 18) Kshaama 19) Garbini 20) Sukumara 21) Vbada 22) Kruhi 23) Kosha 24) Dushchardan 25) Urdwa rakthapitta 26) Prasaka Chand 27) Urdwa Vata 28) Aasthapitha 29) Hrudroga 30) Anuvastha 31) Udaavart 32) Mootra ghaata 33) Pleeha roga 34) Gulma 35) Urdwa 36) Ashtheela 37) Swaropaghaata 38) Timira 39) Shankhaka 39) Karma Shoola 40) Arsha 41) Akshi Shoola 42) Dukha 43) Brama 44) Paishwa ruk 45) Vata Vyadhi.

DRUGS LIST USED FOR VAMANA KARMA.

(a) ACCORDING TO SUSHRUTHA :- Madanphal, Jeonok, Kshmetu, Dhanvan, Kudavardana, Sarshapa, Pippali, Karanja, Chakramand, kovidara, Ashwagand Vohi, Sharapustpi, Bimbi, Chitra, Swethavacha etc.

4) ACCORDING TO BHAVAMISHRA AND SARANGADHAR.

Decoction.	Perfect dose	9 Prasta	=	576 Tola
	Moderate dose	6 Prasta	=	384 Tola
	Minimum dose	3 Prasta	=	192 Tola
Kalka	Perfect dose	12 Tola		
and	Moderate dose	8 Tola		
Churna	Minimum dose	4 Tola.		

5) IDEAL OR PRACTICALLY USING DOSAGE BY MOST OF THE DOCTORS, IS.

Decoction	10 to 20 Tolas
Powder	1/2 To 1 Tola.

PREPARATION OF THE PATIENT :-

Suitable diet, Snehana, swedana, suggestions and assurances etc., should give before Vaman Karma.

1) DIET REGIMEN DURING SNEHA KARMA.

Light, hot, Non sticky food should give, during the rest day Abhishyandi Kaphoth Klesha (Nausea) food like Anupamamasa, dadhi, Ksheera, Masha, Tila, Drava etc., should give.

During the day of Vaman :- Ksheera, Yavagu, ghrita should give, Vaman is conducted after intake of liquid diet only - not in empty stomach.

2) SNEHA SWEDA :-

- Abhyantara Sneha 3 to 7 Days.
 Abhyanga and Sweda - 3 Times, in the
 1) Last day of Sneha Pana 2) Rest day 3) During the day of Vamana.

So, Sneha Pana, Abhyanga, Bastipa Sweda liquifies the doshas and brings them to the Kosta, that should be expelled out by Vaman Karma.

3) MAANASOPACHAR:-

Patient should be explained about the therapy and its advantages, tension fear anxiety should be removed, head bath, application of Cented Flavours, wearing of new dress and garlands, taking blessings from God, Brahmins, elders and Friends should be done.

After these preparations, in a good day vamana karma has to conduct.

II. PRADHANA KARMA.

- Induction of vanaaka Dravya
- Service to the Patient and waiting for Vamana.
- Waiting for Vamana, Vega -
- Determination of Samyak Or Asmyak Vega.
- Complications and its Management.

(a) INDUCTION OF MEDICINE,

Patient is asked to sit in a Chair comfortably, after examination, the patient is given Vamanopaga dravya like Ksheera, Ikshurasa, madya, mansarasa etc., to provide kapha for proper emesis.

The quantity of milk Or Sugar cane juice should be measured before administration, commonly patient get satifraction after intake to 40 to 64 Lbs (Auns) juice, then madana phala compound (4 parts madana phala + 2 Parts Vacha + 1 Part saindhava lavana with honey) should be given.

(b) SERVICE TO THE PATIENT :-

Lukewarm sweda should be done at face chest flanks and back and should wait for 1 muhartha (48 minutes) for Vaman Vega.

Sweating on frontal region, horripulations, ballooming of abdomen, salivation, nausea are the Signs of Provokation of dosha to cause proper emesis commonly in one muhartha 2-3 Vega has to come if not with sticks or madhana phala compound throat should be irritated, and repeatedly salt water Or Yastimadhu kwatha should be given for proper emesis, 10 to 20 Lbs (Auns) Yastimadhu Phanta 5 to 8 times should be given that cause 4 to 10 Vamana Vega, than Samples should be collected for analysis.

(c) Vamana Vega Nireekshan.
 Waiting for Vamana Vega.

Number of Vamana vegas expelled matter, its quantity, features etc., should be observed carefully to assess the adequate or inadequate emesis.

1st vega after induction of medicine should be Omitted.

Sl. No.	Emesis grades	Vega	Dosha	Quantity of Vomited matter.
1.	Best emesis (Pravara)	8	Pitta antha	2 Prasta = 108 Tola
2.	Moderate Emesis (Madyama)	6	Kapha antha	1 1/2 Prasta = 81 Tola
3.	Minimal Emesis	4	Kapha antha	1 Prasta = 54 Tola
	Avara			

(b) **VAGBHATA CLASSIFICATION** :- Lavana, vacha, Ela, Sarshapa, Karanja, Pipali, chitrak, Vidanga, Mura, Devadali, Kutaj, Trapusha, Vishala, Bimbli, nimba, madhuka, madanphala.

(c) **ACCORDING TO CHARAKA**

Madanaphala	Yogas	133,
Jeeerutaka	Yogas	39,
Ikshwaku	Yogas	45,
Dhamagav	Yogas	60,
Kutaj	Yogas	18,
Krutavedan	Yogas	60,
and in Total		355

He explained modhri, phalini, Pustapa, patra, lavana, Vaman-opaga, Kashya, drugs, and in Kapha pitta Amaashaya Vyadhis he explained madanphala, yashtimadu, nimbu, jeemua, Kutavedan, pippali, kutaj, Ikshwaku, Ela, dharmagav etc., drugs.

VAMANA KALPANAS.

Churna, Vail, kalka, Vail, Kashaya, Letha, sneha, Mamsa ras yavagu, yooosha, kshner, dadli, Yaka, Ikshuras, asava, Arista, and with different food items.

VAMAN KARMA PROCEDURE

1) **POONA KARMA.** Essential pre requisites for Vamana

a) Collection of necessary facilities such as :- Equipped room, utensils, furniture, solutions, assisting staff and drugs for inducing vamana and to treat the complications.

(b) **Examination of the Patient** :-

Regarding its suitability for vamana, this assessment is done by Asta Vidha, Dasta Vidha Paripaksha etc.

(c) **DETERMINATION OF THE DOSAGE OF VAMANA.**

References from classics.

1) **Sushruta** suggests vaman dosage for Decoctions = 16 Tola. Powder and paste = 1 Tola. The other deciding factors are, strength of the patient, disease and digestive capacity.

2) CHARAK

Minimum dosage of drug should eliminate doshas, should be pleasant without producing any complications.

3) VAGBHATA.

He said dosage should be fixed basing upon severity of disease, age, Climate, Weather and strength of the patient etc.,

6) FEATURES OF ADEQUATE EMESIS (SAMANYAK VAMAN LAKSHAN)

- 1) Proper elimination of doshas first Kapha then pitta.
- 2) Lightness in hrudaya moordha, Kantha, Paashiva, Stotas, India and body.
- 3) Weakness and general debility.
- 4) Should not have complications.
- 5) Starting and stopping of Vamana Vega should be natural without any stimulations.

FEATURE OF INADEQUATE EMESIS (ASAMANYAK VAMAN)

- 1) Improper elimination of doshas
- 2) Only medicine is expelled out
- 3) Delayed emesis.
- 4) uneasyness in hrudaya, Kantha and Stotas
- 5) Eruption of Spoti, Koti, Kandu
- 6) Sticky Salivation.
- 7) Fever.

Features of Excessive emesis.

- 1) Frothy Vomiting.
- 2) Blood stained vomiting.
- 3) Pain in the Chest heart and throat
- 4) Triset
- 5) Delirium
- 6) Vertigo
- 7) Un consciousness
- 8) Burning sensation
- 9) Insomnia
- 10) Weakness
- 11) Death.

e) Complications of Vamana. (Vamana Vyapath.)

- 1) Aadmana
- 2) Parikarshika
- 3) Hrudigrha
- 4) Gatrgrah
- 5) Santia
- 6) Kama
- 7) Sara
- 8) Raktia
- 9) Pitia
- 10) Vipramsha
- 11) Ahsara
- 12) Pravatika
- 13) Vata Shoola
- 14) Symptoms of Heena
- 15) Yoga and Atiyoga of Vamana.

PASHCHATA KARMA. (Post Vaman Regimen)

- 1) Rest for 1 Muhurtha (48 Minutes)
- 2) Dhooma Paana for sooth studdi
- 3) Following the suitable suggestions (Pariharya Vishaya)
- 4) Samasarjana krana to activate agni
- 5) Santarpana - nourishing therapy
- 6) Preparation for proceeding shodhana therapy

Suitable Suggestions after Vamana Karma :-

The Patient should avoid. Loud talking, excessive eating, constant sitting, excessive walking, travelling, Anger, Anxiety, heat, Cold, Open air, coltus, night arousal, day sleeping, suppressing of natural urges etc.

SAMSARJANA KRAMA :-

The Vamana Karma Temporarily diminishes the agni, it has to be revived with the help of appropriate diet schedule for 7 days, its here under.

No. of Anna kala. (days)	No. of the day	Pravara Shuddhi	madhyama Shuddhi	Avara
1st	1st day Morning	-	-	-
1st	Night	Peya	Peya	Peya
2nd	2nd day Morning	Peya	Peya	Vilepi
3rd	Night	Peya	Vilepi	Yusha
4th	3rd Day Morning Vilepi	Vilepi	Mamsa rassa	
5th	Night	Vilepi	Akutha Yusha	Normal diet
6th	4th Morning	Vilepi	Krutha Yusha	
7th	Night	Akutha Yusha	Akutha mamsaras	
8th	5th morning	Krutha Yusha	Krutha mamsaras	
9th	Night	Krutha Yusha	Normal diet	
10th	6th Morning Akutha	mamsa rassa		
11th	Night	Krutha	Mamsa rassa	
12th	7th Morning	Krutha	Mamsa rassa	
12th	Night	Normal diet		

Note :- a) For pravara shuddhi, at 7th day evening normal diet should be given.

b) For Madhyama Shuddhi at 5th day evening normal diet should be given.

c) For avara shuddhi at 3rd day evening normal diet should be given.

Preparation for Proceeding Shodhana karma.

Vamana pathya vidhi completes upto 7th day then 8th day rest day, 9th 10th, 11th preparation. 12th 13th, 14th, Rest days and 15th day Swedan and Virechana should be given.

VIRECHANA KARMA.

It is also one among the pancha karma procedures, commonly proceed after Vamana karma. It is aimed to expell out the pitta predominant doshas through the anal passage, it is safest and less complicative than Vaman Karma.

Qualities of Virechana Drugs.

1) Ushna 2) Teekshna 3) Sukshma 4) Vyavayi 5) Vikasai 6) Predominant basic elements are pitta and jala. 7) Having the effect (Prabhava) of expelling doses through anal Canal.

Notes :- Vamana and Virechana drugs are having mostly Similar qualities but opposite effect is due to the prabhava of the drugs.

INTRODUCTION OF VIRECHANA DRUGS.

1) According to Charaka.

1) Best drug of Suktha virechana is Trivrut root

2) * mridu Virechana is Aragwada

3) * Teekshna Virechana is Snuhi Ksheera.

Charaka - explained in detail about Virechana drugs in Kalpa sthana From 7th to 12th chapters (6 chapters) and explained 24 5 Virechana Yogas, they are.

a) Snyana Trivrut Yogas 110, b) Snuhi yogas 20, c) Aragwada Yogas 12, d) Tiliwaka Yogas 16, e) Saptphala & Shankhini Yogas 39, f) Dantini & Dravanti yogas 48, in addition to above description Charaka Also given the classification of Virechana drugs as below :-

1) Moolini drugs 2) Phalini drugs 3) Lavan Varga 4) Ksheera Varga 5) Pakwashaya dosha haran dravyas 6) Bhedinee drugs 7) Virechanopaga Varga 8) Pureesha Virajaneeya 9) Sveda dravyas 10) Virechana dravya sangraha.

B) ACCORDING OT SUSHRUTHA :-

The Best drug of :

1) Moola Virechan, - Snyana Trivrut 2) Twak Virechan - Tiliwaka 3) Phala Virechana - hareelaki 4) Talia Virechan - Erenda Tail 5) Swarasa Virechan - Karavellaka 6) Ksheera Virechan - Shuni Ksheera.

Virechan drugs list - by sushruta & Charaka :- Trivruh, Danti, Dravanthi, Saptala, Vishanika, Gavaakshi, Snuhi, Swarna ksheeri, Chitrak, Kirihi, Kushta, Kaasha, Tiliwaka, Kampilika, Ranyak, Patila, Pooga, hareetaki, vibheetaki, Aamalak, Neelnee, Aaragwada, Erenda, Poothika, Maha Vyuksha, Saptachhada, Jyotismati, Arka, Aavartaki, Vidanga, Lavan, Vacha, Katuki, Drakshma, Yasimadu, Mutra, Ksheera, Karavelaka.

Important Drugs Commonly used :-

- 1) Trivruh 2) Aaragwada 3) tilwaka 4) Snuhi 5) Saptala 6) shankni 7) Danti 8) Dravanthi 9) Erenda Talia 10) hareetaki 11) Yasimadu 12) kakuki 13) Draksha etc.,

Indications of Virechana.

- 1) Jwara 2) Kusta 3) Prameha 4) urdwa Raktha Pitta 5) Bhagandar 6) Arsha 7) Bradhna 8) Pleeha roga 9) Gulma 10) Arbuda 11) Goleganda 12) Grandi 13) Gara Visha 14) Vishoochika 15) Aalasa 16) Mootra ghata 17) Krimi Kosta 18) Visarpa 19) Pandu 20) Vyanga 21) Shirah Shoola 22) Parshwa shoola 23) udaavartna 24) netra dahan 25) Aasya dahan 26) hrud roga 27) Neelika 28) Aruchi 29) Netra Strava 30) Nasa strava 31) Haleemaka 32) Swasa 33) kasa 34) Kamala 35) Apachi 36) Apasmara 37) Ummada 38) Vata raktha 39) Yoni dosha 40) Aarthava dosha 41) Trimira 42) Urdara 43) Avipaka 44) Chardi 45) Vishpota 46) Pakwashaya rja 47) vibanda 48) Vidradhi 49) Shotha 50) Kshatha 51) Dagda Vrana 52) Guda dahan 56) Medhra dahan 57) Nasa dahan 58) Karma dahan 59) Aanaha 60) Shleepada 61) Stanya dosha 62) Hrudasa.

Contra Indications of Virechana.

- 1) Kshata guda 2) Guda bramsha 3) Adho Raktha Pitta 4) Langhana 5) Durbala Indria 6) Mandagni 7) Niruha 8) Ajeerna 9) Nava jwara 10) Madatyaya 11) Aadmana 12) Shalyaardhna 13) Abhigata 14) Aiti snigda 15) Aiti ruksha 16) Daruna Kosta 17) Kshata Ksheena 18) Aiti sthula 19) Aiti Krusha 20) Bala 21) Vyudhna 22) Shraanika 23) Pippasitha 24) Adwaha 25) Upavasthita 26) Mithuna Prasaktha 27) Adayaan Prasaktha 28) Vyayama Prasaktha 29) Chinta Prasaktha 30) Kshaama 31) Garbini 32) Nava prasoola 33) Raja Yakshma 34) Atisar 35) kshudhita 36) Dukhitha 37) Hrudrogi 38) Bhaya bheet.

DIFFERENT WORDS RELATED TO VIRECHAN BY SARANGADHAR

1) Anuloman :-

Pureesha, perfectly formed (Pakwa) disintegrated and eliminated out through the anal canal. ex :- hareetaki

2) Sramsana.

Pureesha, imperfectly formed (Apakwa) but forcibly send out side through the anal canal. ex :- Aaragwada

3) Bhedana.

Accumulated pureesha whether perfectly formed or not, get disintegrated and send out side through the anal canal. ex :- katuki

4) Rechana.

Pureesha is send out side through the anal canal in fluid form Ex:- Trivruh.

Virechana Kaipanas :-

The virechan drug can be used in so many forms as follows :-

- 1) Churna 2) Vati 3) Modak 4) Varti 5) Avalaha 6) Aasava 7) Arista 8) Kwatha 9) Yavagu 10) Madya 11) Madya 12) Panak 13) Kseera 14) Takra 15) Dadhi 16) Talia 17) Yogila 18) Mamsarasa 19) Food preparations 20) Water.

10) Poorva Karma Procedure.

gillina 10) Examination of the patient. 3) Preparation of the patient. 4) Collection of required material. 2) Examination of the patient. 3) Preparation of the patient. 4) Collection of required material.

Collection of Required Material :-

A special well equipped room with furniture, utensils, spittons, bed pans, medicine.

Examination of the patient.

1) Collection of the patient. 2) Examination of the patient. 3) Preparation of the patient. 4) Collection of required material. 5) Examination of the patient. 6) Preparation of the patient. 7) Collection of required material. 8) Examination of the patient. 9) Preparation of the patient. 10) Collection of required material.

Preparation of the patient.

Varman & Samsarjan Karma for 7 days then 8th day rest period, 9-10-11th days Vaman & Samsarjan Karma for abhyanga and sweda in these day Anabhishtyandi agni sneha paana, snigda, drava, ushna, mamsarasa, Amarasas etc., food items should give, then on 15th day in empty stomach, Virechana therapy should be conducted.

4) Fixation of the dosage . Dosage should be fixed according to the strength of the patient, disease, and digestive capacity etc.,

According to Sarangdhar.

Decoction perfect dose

Moderate dose

Minimal dose

Powder & Paste-perfect dose

Moderate dose

Minimal dose

Sl. No.	Drugs	Mrudu Kosta	madyama Kosta	krura kosta.
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1.	Erenda sneha	1/2 to 2 Tola	2 to 5 Tola	5 to 10 Tola
2.	Trivruh	1 to 3 Masha	3 to 6 Masha	1/2 To 1 Tola
3.	Draksha	1 To 2 Tola	2 1/2 To 5 Tola	5 To 10 Tola
	Aaragwada	-do-	-do-	-do-
	Hareetaki	-do-	-do-	-do-
4.	Mayaphala	1/2 To 1 Rati	1 To 2 Rati	4 to 8 Rati.
	Snuhi	-do-	-do-	-do-
5.	isabgola	3 Masha	3 To 6 masha	1 Tola.

Usage of drugs according to doshas :-

1) Vata predominant doshas - Triphuth, Saindhava Lavana, Shuntichurna with Keshi,
2) Pitta predominant doshas - Triphuth churna and Drakshina Kwath. 3) Kapha predominant
doshas - Triphala Kwath, Gomutra and Tikta.

Virechana - pradihaana Karma Procedure. (Virechan Therapy)

1) Induction of Virechana medicine. 2) Service to the patient. 3) Determination of
Virechan Vega. 4) Waiting for Adequate, Inadequate Or Excessive vrechana 5) Complica-
tions - Management.

1) Induction of Medicine :-

After perfect preparations when the patient is well prepared physically and men-
tally, in a good day after worshipping the god, elders, Brahmins etc., in between 7 and 8
AM, medicine should be given.

According to the condition medicine should be selected for the therapy. Commonly

Triphuth churna or,		
Drakshna	1 Tola	+ 16 Tola Water
Aragwadha	1 Tola	Boil it and reduce to
haritaki	1 Tola	1/4, so 4 Tolas decoction is prepared.
Katuki 1/2	1/2 tola	

4 Tolas above compound + 21/2 tola erenda taila

+ 4 Rat lochabhedhi rasa - is given orally to the patient.

2) Service to the Patient.

After intake of medicine, due to its taste odour and effect there is every possibility
of Vomiting so only patient should be advised to Wash the face with Cold water, hot water
gargling and intake, chewing and application of Flavoured items and Wearing Or Inhaling
Flowers etc.,

3) Determination of Virechan Vega.

After drug administration Virechana vega will start if not repeatedly hot water should
be given and mritu sweda at abdomen should do for the activation of the therapy.

- 1) If Virechana doesn't occur on the day, medicine should not give again and in
the evening normal diet should give.
- 2) The next day medicine should give again.
- 3) If Second day also Virechan doesn't occur, by giving 10 days gap Virechana
should conduct with sneha, sweda, vaman etc., procedures.
- 4) Care should be taken to collect the expelled matter separately for the assess-
ment.
- 5) For the adequate Virechana therapy pureesha pitta and kapha has to come
gradually (Kaphaantrha).
- 6) While counting the number of vegas the first 2-3 vegas should be avoided.

Number of Virechan Vegas for perfect moderate and minimal should be 30-20
and 10 respectively.

Quantity of vrechana for perfect moderate and minimal should be 4 Prasta 3 prasta
and 2 praste respectively.

- 1) The vegas should start and stop naturally, after the appearance of adequate
symptoms, if drug residue present that should be Vomited by Giving madanphala
+ Vacha + Saindhava lavana compound.

4) Observation of Symptoms.

a) Adequate symptoms of Virechana.

1) Srotoshuddhi, Indria prasannata, Laghuta, Vatanulomana, Agni deepana,
nirveda, Kaphaantrha Virechana 30-20-10- times of Vega (Pravara - maadyama aavara),
1, 3, 2, prasta pureesha (pravara, madhyama, Avara), Absence or Ayoga Or Atiyoga Lakshana,
and elimination of doshas in time.

b) In Adequate symptoms of Virechana.

Vata pitta Kapha prakopa, Agnimandya, Gourava, praitshyaya, Tandra, Chardi,
Auchi, Vata Pratiomana, Datta, kukshi hrudaya Ashuddhi, kandu, Vibanda, mutrasanga,
pichha.

c) Excessive Symptoms of Virechana.

Vata Pitta Kapha Kshaya, Supiti, Angamarda, Klama, Vepadu, Nidra, Dourbalaya,
Jama Praveshna, unmada, apasmara, hiccough, murcha, Gudabramsha, shoola, Trushna,
Brama, Rakta Kshaya and medokshaya.

d) Complication .

Aadmana, parkarthika, Strava, hrudgraha, Gatrgraha, Raktha pitta, Vibramsha,
Samba, Klama, upadrava.

Pasthyat karma.

Post Virechan Regimeint.

Except Dhoomapana rest of the method is as like Vamana.

Virechanottaa karma.

If vasi has to give.

7 days samsarjankram. 8th day rest 9th day Anuvasan Vasti, 3 days food with
Jangala mamsa then Nirruha Vasti has to give.

VASTI KARMA

Vasti Karma is the most important therapy in pancha Karma Procedures, with vivid
scope of applicability. It is said as the special treatment for Vata dosha (for pitta Kapha and
Rakta also) it is having the effect of Samshodha, Samshaman, Anabolic, catabolic, resto-
ration of semen etc., dhatus, improves vision, lustre, strength and health. So only given
 utmost importance in pancha karma procedures and said it is the HALF of the or WHOLE
 of the treatment.

The word vasi is derived From the vasi Tantra (animal urinary bladder) which is
used to introduce the medicated materials through rectum, urethra and Vagina etc.,

Classification of Vasti Karma.

- 1) Anatomical classification (adhistana bhed)
 - a) Pakwashaya gath (Through rectum into Pakwashaya) b) Garbhashaya gath (through Vagina into uterus) c) Mutra Shaya gath (Urethro Vesical) d) Vrana gath (for wound Or abscess).
- 2) Pharmaceutical Classification (Dravya bhed)
 - a) Niruha Vasti Or Aastapan Vasti Or kashaya vasti b) Anuvasan Vasti Or Sneha Vasti.
- 3) Pharmacological classification (Karma bhed)

1) According to Sushruta

- a) Shodhana Vasti - It is used to expell the doshas Forcibly.
- b) Snehan Vasti :- It is used for Oleation effect - (Anuvasan Vasti).
- c) Lekhan Vasti :- It is used to scrape out medho dhathu Or Kapha dosha.
- d) Brumhan Vasti :- It is used to nourish the sapha dhathu (Anabolic activity).

II) According to Vagbhata.

- a) Uthkleshan Vasti - It increases the quantity of dosha Or mala.
- b) Doshha hara Vasti. :- It is like shodhan Vasti in which doshas are expelled out.
- c) Shaman Vasti. :- It suppresses the propagated Or vitiated doshas.

III) According to Sarangdhar.

- a) Uthkleshan Vasti - it increases the quantity of dosha Or mala. b) Doshha hara Vasti - it is shodhan Vasti in which doshas are expelled out. c) Shaman Vasti. - It suppress the vitiated Or propagated doshas. d) Shodhan Vasti- Doshas expelled out Forcibly. e) Lekhan Vasti - It is used to scrape out medo dhathu Or Kapha. f) Brumhan Vasti. - Nourishes the dhatus g) Pischilia Vasti - Vasti given with sticky items to control Aitsara like disorders. h) Deepan Vasti - It is used to regularise the intensity of jatharagni.

IV) According to Charak.

- a) Vataghna Vasti - Controls Vitiated Vata dosha b) Bala Varma Kruth- Gives strength and Colour complexion c) Snehan Vasti_ like anuvasan Vasti. d) Shuktrakruth - Increases semen. e) Krimighna Vasti - Destruits Krimi. f) Vrushatwa Kruth - Increases sex potency.

4) Classification of Vasti Based on Number of Vasti.

- a) Karma Vasti - 30 Vasti b) Kala Vasti 16 Vasti given. c) Yoga Vasti 8 Vasti should be given.

5) Different words used for Vasti.

- 1) Shodhana Vasti 2) Shaman Vasti 3) Lekhana Vasti 4) Uthkleshan Vasti 5) Brumhana Vasti 6) Karshan Vasti. 7) Rasayan Vasti 8) Vaji Karan Vasti 9) Snehan Vasti 10) Chakrushya Vasti 11) Sangrahi Vasti 12) Varma Prasadan Vasti 13) Karma Vasti 14) Kala Vasti 15) Yoga Vasti 16) Aastapan Vasti 17) Anuvasan Vasti 18) Matra Vasti 19) Yapan Vasti 20) Siddha Vasti 21) Prastutha Yougika Vasti 22) Dwadash Prastuth vasti 23) Madhu tailika Vasti 24) Pada heena Vasti 25) Mirdu Vasti 26) Pischilia Vasti 27) Teekshna Vasti 28) Raktha Vasti 29) Ksheera Vasti 3) yuktha ratha Vasti 31) Deepan Vasti 32) Krimighna Vasti 33) Doshha hara vasti.

Aastapan Vasti Or Niruha Vasti Or Kashaya Vasti :-

- 1) Aastapan Vasti - Treat the diseases.
- 2) Niruha Vasti - Restores aging process
- 3) Kashaya Vasti - Decoction predominant medicines used in this type.

Example :- Madhu tailika vasti - Honey Oil are Basic elements of the medicine (honey 2 prastuthi, taila 3 prastuthi, Kwatha 4 prastuthi, Kalka 1 prastuthi, prastuthi Vasti - restores aging and causes Aayur Vruddhi - (Ch. Si. 12-5)

Yapan Vasti - Gives strength colour complexion and treats the disease - Siddha Vasti - (Ch. si -10-3)

Ch. si -10-3

yukta ratha vasti - given even in journeys

prastuthi yougika Vasti - 8 Tolas (1 Prastuthi) medicine is given (Ch. SI 8-2)

Ex. Ksheera Vasti, Talia Prasanna vasti.

paqladi Vasti - Vidangadi Vasti.

Dwadasha Prastuthi Vasti (Su. Chi 37-30)

12 Prastuthi (96 Tolas) Medicine is used Ex madhu tailika Vasti.

Pada heena Vasti - 9 Prastuthi (72 Tolas) medicine is used (Su. chi. 38-118)

Teekshna Vasti (su. Chi. 35 -10)

Modu vasti

Pischilia (sangrahi) Vasti - (Cha. Chi. 19-64 to 68)

Pischilia (Sangrahi) Vasti - (Cha. Si. 8 to 26)

6 to 83

Note :- The dosage of Aastapana Vasti is 12 Prastuthi = 96 Tolas (in general)

Astapan Vasti Or sneha Vasti.

It can be given daily and doesn't cause any complications if retained in the body so it is named as Anuvasan Vasti, in the combination of medicines Oily drugs are predominantly used so also named as sneha Vasti.

It can be named as follows according to dosage.

Sneha Vasti Dosage

1/4th of Niruha Vasti = 12 prastuthi = 3 prastuthi

Anuvasan Vasti dosage = 4 = 24 Tolas.

1/2 of Sneha Vasti = 3 Prastuthi = 1 1/2 Prastuthi

Matra Vasti dosage = 2 = 12 Tolas.

1/2 of Anuvasan Vasti = 1 1/2 Prastuthi = 6 tolal

Karma Vasti.

Total 30 Vasties are given

among them 18 Anuvasan Vasti and 12 Niruha Vasti.

First anuvasan Vasti is given then Niruha Vasti, like this 12 Anuvasan and 1:

12th Vasti should give and at last 6 anuvasan vasti should be given.

IV) Kala Vasil :-

Total 16 Vasties are given among them 10 Anuvasan Vasil and 6 Niruha Vasil

First Anuvasan Vasil is given then Niruha Vasil, like this 6 Anuvasan and 6 Niruha

Vasil should be given and at last 4 anuvasan vasil should be given.

v) Yoga Vasil.

Total 8 Vasties are given, among them 5 anuvasan Vasil and 3 Niruha Vasil

First Anuvasan Vasil then Niruha Vasil like this 3 Anuvasan 3 Niruha Vasil should be given, at last 2 Anuvasan Vasil should be given.

Indications of Niruha Vasil:-

1) Ekanga and Sarvanga roga 2) Kukshi roga 3) Vata, moola, Puroosha and shukra, Sanga (Retention) 4) Bala Mamsa Shukra and dosha Kshaya 5) Aadmana 6) Anga Suphi 7) Kruti Kosta. 8) Udaavartha 9) Aitsara 10) Paasthiva bhed 11) Abhilapa 12) Pleeha dosha 13) Gulma 14) Shoola 15) Indroga 16) Bhagandara 17) umnada 18) Jwara 19) Bradhna 20) Shitrai, Kama, hrudaya, Paasthiva, prusha and Kati shoola 21) Kampa 22) Aakshapa 23) Anga gourava 24) Laghuwa 25) Kshaya 26) Vishamaagni 27) Spik Janu Jangha Uru Gulpha Paasthiva Prapada Yoni Bahu Anguli stana Nakha and dantha shoola. 28) Sopha 29) Stambha 30) Antra Koojana 31) Parikartika 32) Vata Vyadhi 33) Jwara 34) Timir 35) Prasthaya 36) Adhimantha 37) Ardha 38) Pakshaghaatha 39) Ashmai 40) Upadamsha 41) Vata Raktha 42) Aisha 43) Stanya Kshaya 44) Manya Graha 45) Hanu graha 46) Moodha garbha 47) Multa Krucha.

Contra Indications of Niruha Vasil.

1) Aileena 2) Aitsneha 3) Peela sneha 4) uthkista doshas 5) Alpagni 6) Kama 7) Durbala 8) Kshudhitha 9) Trushnatha 10) Shramaatha 11) Krusha 12) Bhukthaabhaktha 13) Peetodaka 14) Vaamitha 15) Viriktha 16) Kruha Nasya 17) Krudha 18) Bheetha 19) Maitha 20) Morrothha 21) chardi Praska 22) Nishtheevana Prasakta 23) Swasa prasakta 24) Kasa Prasakta 25) Hikka Prasakta 26) Badtha gudodara 27) Chidro daru 28) Jalodars 29) Aadmana 30) Alasaka 31) Vishuchika 32) Aamadodha 33) Aama Aitsara 34) prameha 35) Kusta 36) Aisha 37) Paandu 38) Briama 39) atochak 40) Umnada 41) Shoka grasta 42) Shoulya 43) Kantha sosha 44) Kshathha Ksheena 45) Garbini 46) Bala 47) Vrudha 48) Guda sotha 49) Shopha 50) Alpa Varcha.

Indications of anuvasan Vasil.

All the indications of Niruha are also indicated for anuvasan, additionally

1) Ati nuksha 2) Vata vyadhi 3) Teekshnagni

Contra Indications of Anuvasan Vasil.

1) All Contra indications of Niruha Vasil 2) Abhukta bhaktha 3) Nava jwara 4) Pandu 5) Kamala 6) Prameha 7) Aisha 8) Prasthaya 9) Arochaka 10) Mandagni 11) Durbala 12) Pleehodara 13) Kaphodara 14) urustamba 15) Aitsara 16) Visha Peetha 17) Gara peetha 18) Vishvandi 19) Guru Kosta 20) Shleepada 21) Gala ganda 22) Apachi 23) Kirini Kosta 24) Prameha 25) Kusta 26) Shoulya 27) Peenasa 28) Krusha.

Vasil Yantra :-

It is the instrument used to introduce the medicine in to Rectum or urethra or vagina.

Vasil Netra :-

It is the metallic tube (Prepared with gold, Silver Copper lead, Tin, Brooze, long, poles, horn, elephant teeth, stainless steel etc.,) Root is bigger and apex is smaller in diameter, to which vasil putaka (Bladder) is attached, the size depends upon the age and diameter, vasil netra should be perfect without errors like hraswa, deergha, Tanu, sthula method, shilpita, paasthiva Chidra, Vakra etc.,

Vasil Putak :-

It is an elastic bag used to collect the drug and pressed while the therapy to introduce the medicine into rectum or uterus etc., through vasil Netra, in Olden days perfectly purified urinary bladder is used, but nowadays Rubber bladders are available for the use, vasil putaka should be without the errors like Vishama, Mamsala, Chidrayuktha, jagda, Jalayuktha, vatala, Snigdha and Kilma. (Anema cans, bigger syringes also used.)

VASTI KARMA PROCEDURE

1) Poorva Karma.

The following factors should be considered in Poorva Karma, they are.

1) Dosha (Humors) 2) Aushadhi (Medicine)
3) Desha (climate) 4) Kala (season) 5) Saatrya (Adaptability) 6) Agni (Digestive capacity)
7) Desha (Psychic state) 8) Oka (adaptations) 9) Vaya (age) 10) Bala (Strength)
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4) Kala.
Naman after 15 days Virechanam after 7 days Niruha. after 9th day Anuvasan.
Vagbhat :- After Virechan 7th day to 15th day Anuvasan then Niruha should give alternatively

5) Sanyas :- (Adequately)
Niruha Vasti should give on empty stomach (after fully digested but not in hungry state).

6) Agni :- In manodagni Niruha Vasti is contraindicated.

7) Sama (Mind)
The dosage of drug or tolerance of pain during the therapy can be judged according to knowledge of prava madhyama and Avara satva of the patient.
8) Oka Sanyas :- (Adaptations developed by habit etc.,) By this the proper indications and selection of the drug can be assessed.

9) VAYAS (AGE)
Dosage, size of Vastiyant, time and duration can be assessed.

10) Bala (Strength of the Patient).
Selection of type of the therapy dosage and duration can be assessed by the strength of the patient.

DOSAGE OF NIRUHA VASTI.

Sl.	Age	Dosage in prastruthi	Dosage in tolas
1.	1 to 12 Years yearly	1 Yr = 1/2 Prastruthi,	4 Tola
	1/2 prastruthi increases	12th Yr = 6 Prastruthi,	48 Tola
2	12 to 18 Years	18 th Year = 12 Prastruthi	96 Tola
	Yearly 1 Prastruthi increase.		
3	18 to 70 Years	12 Prastruthi	96 Tolas
4.	After 70 Years	10 Prastruthi	80 Tolas.

The common Niruha dosage of an adult is 12 Prastruthi = 96 Tolas.

Pradana Karma of Vasti :-

- Vasti Prandana
- Vasti Pratyagamana - Nireekshan
- sanyak yoga, Asanyak Yoga etc.

a) Vasti Prandanam (Induction of Medicine),
1) Abhyanga (local and genal) 2) Swedan (Local and general) 3) Vasti Yantra Preparation and filling the medicine for induction. 4) Patient should lie down on leftside with left lower extremity is straight and right lower extremity flexed on knee and hip joint 5) Patient is asked to take deep breath during the induction of medicines. 6) Shivering of hands should be avoided as it may injure the anal region. 7) Quick Or slow induction of Vasti is not advisable

8) Total medicine should not introduce into Pakwashaya in order to avoid entry of Vayu into Pakwashaya which may produce pain. 9) Vasti tube should be pulled out immediately after introduction of medicine. 10) Patient should remain lying in the same posture for 1/2 hr. 11) After that patient should take up utkataksasan to eliminate mala vegas.

B) VASTI PRATYAGAMANA KALA.

Duration of elimination of Vasti is known as Pratyagaman Kala, that is 1 Muhurtha (45 minutes). If Vasti does not come in 1 muhurtha the patient may die or get severe pain with following complications a) Kosta aadmana b) pakwashaya shoobha c) Mutra shoobha d) Praloma e) Cardiac pain f) Vistambha g) Arai h) jwara.

If Vasti doesn't come out intime. :- 1) Teekshna vasti 2) phala varthi 3) Kativeda, 4) Vata sveda 5) Producing fear complexion 6) Giving rechana

Adequate features of vasti (sanyak yoga) :-
1) Natural Elimination of Vasti without extra stimulations (Prasrusa, Vrikatha). 2) Normal urination (prasrusa mutrata) 3) Normal elimination of Flatus (Prasrusa Vatata) 4) Elimination of Mala, Pitta, Kapha and Vata in Order. 5) Lightness in the body 6) Good appetite 7) Good taste in eating. 8) lightness in pakwashaya, mutrashaya etc., 9) Control of the disease (ringa Niruthi) 11) Improvement of health.

In Adequate Features of Vasti (Asmyak Yoga)
1) Severe pain in different parts. 2) Oedema 3) Rhinitis 4) Cutting pain at anal region. 5) nausea 6) Retention of Flatus 7) Retention of urine 8) Dyspnoea 9) Improper elimination of nausea 6) Loss of taste 11) Heavyness of body.

Vasti 10) Loss of taste 11) Heavyness of body.

Features of Excessive Vasti (Ati Yoga).
1) Body pain 2) Debility 3) Tiredness (Kiama) 4) Tremors (kampa) 5) Sleep mood 6) Giddiness 7) Hiccough 8) Mental disturbances (Ummada) 9) Drowsiness 10) Features of Virechan ali yoga.

Post Vasti Regimen (Vasti Pashchyath Karma)

1) After introduction of Niruha Vasti within one muhurtha Vasti vega has to come out with adequate features.

If the medicine only come out immediately, second Niruha vasti can be given, Even though adequate Features are not seen 3rd 4th 5th Niruha vasti should not give, that causes Pakwashaya shoobha, so After 2nd Niruha Vasti sneha vasti should give, then only Niruha vasti can be given for the adequate features and health.

2) Pathya.

- Rest 2) Warm Water bath.
- Milk, dalsoup (Yoosha) and jangala mamsatasa should give according to the strength, digestive capacity and doshic condition of the patient.

According to Sushruth.

a) In Vata dosha-Mamsa rasa b) Pitta dosha-Milk c) Kapha dosh -Yoosha should give.

Note :- 1) Light diet, (1/3 of normal diet) should give. 2) In the same evening only anuvasan Vasti should give. The Following Activities should be avoided after Vasti karma.

- Excessive sitting, standing, travelling and talking.
- Avoid day sleeping, coitus, suppression of natural urges, Cold, sunlight, anxiety, anger, unfinely food and incompatible food.

Vasti Vyapad :- Complications of Vasti.

a) Vasti Netra vyapath complications due to incorrect Vasti netra.

Vasti Netra dosha	Complications.
1) Smaller	Drug doesn't enter upto Pakwashaya
2) Lengthy	Spreads to deeper parts
3) Thin	Pain to rectum.
4) Thick	Irritation to rectum.
5) Destroyed	Pain to rectum.
6) Improper adjoinning of Neta with Putaka	medicine comes out side
7) Perforations.	Pain to rectum.
8) Irregular	Improper entry of Medicine.

b) Vasti Putak Vyapad (Complications of Vasti Putak) :-
Urinary bladder (of animal), rubber bladder etc.,

Vasti Putkaa dosha	Medicine	Vyapad.
1) Vishama Vasti	goes in other directions.	
2) Mamsala Vasti	Bad smell produced in the bladder.	
3) Chidra yuktha Vasti	leakage of medicine.	
4) Sihoola Vasti	Difficulty in induction of Medicine.	
5) jala Yuktha	leakage of Medicine.	
6) Vata Vasti	Foam Production in the Medicine.	
7) Aitsnigda Vasti	Slipping while induction of Medicine.	
8) Ati Kilna Vasti	Difficulty for holding.	

c) Vasti Pranetha Vyapad (Complications of Vasti)

due to untainted or unexperienced person who gives vasti).
1) Savaatha Vasti daan (If complete medicine is introduced without residue, air also enters and causes pain and discomfort in Anus and Pakwashaya. Pakwashaya Abhyanga, Mrudu Swede to rectum may relieve the problem.

2) Drutha praneetha Vasti Vyapad.

quick and irrelevanty introducing and removing the Vasti Netra causes pain, discomfort, dysuria, rigidity and Lumbar pains, Vata hara chikitsa has to give.

3) Tiryak Pranidhaan.

Improper introducing of Vasti netra, drugs doesn't enter properly so cannot get the adequate results.

4) Uluptha Dattna Vasti :-

Vasti putaka should press carefully, at a time without gaping and pressure variations, If not leads to vata prakopa and need Vata hara Chikitsa

5a) Kampa Vasti Daan:-

should not shake or move the hands during the drug administration.

5b) Kampa Vasti Daan:-

6) Ati Praneetha Vasti :-

Introducing of Vasti netra into deeper levels, causes ulceration and pain in the rectum.

7) Ati Bahya, Atimanda Datta Vasti :-

Introducing of Vasti netra superficially and slowly.

8) Ati Bahya, Atimanda Datta Vasti :-

By Introducing vasti netra very quickly - Medicine enters more deeply and causes adverse reactions.

Note :- After the Vasti administration Patient Should relax by raising the Anal region by putting some pillow to prevent the back flow of vasti dravya, and other vatic disorders.

Other Complications of Vasti :- 12 in number they are.
1) Ayoga 2) Atiyoga 3) Klamia 4) Aadman 5) Hiccough 6) Hrudiprapthi 7) urdwaprapthi 8) Pavahika 9) Shiroaarthi 10) Angaarthi 11) Parikarthika 12) Parsrava.

Anuvasan Vasti.

1) Anuvasan Vasti is contra indicated in Kapha predominant, medo dosha, Aama dosha and in shodhan indicated disorders. 2) In Hemantha, Shishira and Vasantha rithu Anuvasan Vasti should give in day time, and in sharath, greshma and Varshta rithu in early nights. 3) It is administered immediately after meals.
4) In Kapha dosha - 1 to 3 Vasti.
In Pitta dosha - 5 to 7 Vasti.
In Vata dosha - 9 to 11 Vasti should give.

5) Except in Vata predominant diseases Anuvasan Vasti should accompany Niruha Vasti for adequate results. 6) After elimination of male matra vaga only Anuvasan Vasti should give. 7) After drug administration, the drug can reside for 12 o 24 hours, if drug cannot come even after 24 hours Teekshna Vasti or phala Varti should give for the elimination. of the drug. 8) Rest of the therapy is as like Niruha Vasti.

Complication of Anuvasan Vasti:-

1) Sneha Vata Aavruttha 2) Pitta Aavruttha 3) Kapha Aavrutth 4) Anna Aavruttha 5) Pureesha Aavrutth 6) Complication of Vasti if given empty stomach.

Uttara Vasti.

Vasti if given through urethra Or Vagina, is known as uttara vasti.

DOSAGE OF DRUG :- 1/2 Phala Or 2 Tola.

According to sushruth = 1 Prasruthi, but for Garbhashaya shodhan = 2 Prasruthi

Indications :- in most of urinary, vaginal and uterine disorders

Note :- 1) In Ladies for Garbhashaya shodhan the vasti should give in Putakala, after 4 days of menstrual cycle.

2) If the given medicine is Oil predominant, the rules of Anuvasan should follow, if decoction predominant medicine is given, the rules of Niruha Vati should follow.

DHOOMA PANA

1) It is a special therapy to treat Kaphaj disorders of shiro Gala nasa, Karma, Valshta (Chest) and Deha (General). Ex :- Pratisyaya, Shiroshoola, Galatoga, Mukha roga, Kasa, Swasa etc.,

2) It is a Pashchat Karma to Nasya and Gandoosha, to scrape the kapha dosha which is stuck to the srotas.

Taking of medicated smoke either through the mouth or Nose and releasing it through mouth is called Dhooma pana, it is very quick and effective treatment for Kapha roga.

Classification :-

1) According to Charaka - 3 Types they are.

a) Prayogika Or shaman dhooma Pana.

b) Virechanika Dhooma Pana c) Snehika Dhooma Pana

2) According to Sushruta :- 5 Types they are

a) Prayogika b) Virechanika c) Snehika d) Kasagghna e) Vamaneya Dhooma pana

3) According to Vagbhata :- 3 types, they are

a) Sniggha Dhooma Pana (Vata hata)

b) Madyama Dhooma Pana (Vata Kapha haram)

c) Teekshna Dhooma Pana (kapha haram)

4) According to Sarangdhara and Bhavamishra :- 6 types they are

a) Shanan b) Virechan c) Burmhan d) kasahara e) Yamak f) Vrana Dhoopana.

1) Prayogika Dhooma Pana - Or Shaman Dhooma Pana.

Eladigana dravyas except kusta and Tagaru should paste on 12" length, Shara Kanda which is covered with silk cloth, upto 8" level it should be dried in shade then shara kanda should be removed the 8" medicated varthi should use for dhooma pana.

2) Snehika Dhooma Pana

Varthi should prepare with Erenda, devadaru, madooschista sarja ras guuguilu varthi should prepared for Dhooma pana.

3) Virechanika Dhooma Pana:-

Varthi should prepare with shiro Virechana drugs like vidanga and has to use for Dhooma pana.

4) Kasagghna Dhooma Pana.

Dhooma Varthi should prepare with Bruhathi, Kantakari, Trikalu, Kasamarda, Hingu, Guduchi, Karkataka Shrunji, etc drugs.

5) Vamaneya Dhooma Pana :-

Dhooma Varthi should prepare with snayu, Twak, horns, bones, dried fish, meat and insects Or with Vamaka dravyas.

6) Vrana Dhoopana Varthi should prepare with Vrana ropana dravyas.

Indications of Dhooma Panam :-

Shiro gurutwa, shiroshoola, peenasa, Arthavabhedak, Kamashoola, Netra shoola, yasa, Swasa, hiccough, Galatoga, chalatadanta, Mukhapaka, Puthi Yakhratha, kamataga, nasa roga, Aruchi, Manyastamba, hanugraha, Kandu, Swatubhedha, Galastundi, Upajihvak, khalitrya, Pralitha, Indraluptha, kshavahu, Tandira, motha, Alinidra etc.,

Contra Indications of Dhooma Panam :-

Pitta prakopa, Raktha Prakopa, Raktha Pita, Bala (children), Yrutha (Old), garbini, agshta, murcha, Brama, Trushna, Kshathakshheena, Ruksha gathra, Talusosha, Mukhasosha, bhaya, krodha, daha, the persons who undergone snehapana, Vasti, Virechana, shoka, are not indicated for dhooma panam.

Dhooma Pana Yantra .

It is prepared with Gold Silver Copper Brass etc., metals, it is tube like structure to which dhooma varthi is attached. The length of Dhooma Pana Yantra is as follows :-

For Prayogika Dhooma	48 "
Virechanika	24 "
Snehika	32 "
Yamak Kasagghna	16 "
Vrana Dhoopana	8 "

Dhooma Pana Vidhi :-

The patient should be relax without any tensions and should sit for dhooma pana. Though medicated smoke is taken through mouth or nose it should be released through the mouth only.

Name of Dhooma	Route of Dhooma Pana
1) Prayogika	Should take through nose.
2) Snehika	Mouth and Nose.
3) Virechanika	Nose
4) Kasagghna	Mouth
5) Yamak	Mouth
6) Vrana Dhoopana	The smoke is exposed to Vrana. with dhooma netra.

The smoke is taken 3 to 4 times upto Salivation, lacrimation and Nasal discharge.

Time schedule for Dhooma Pana:-

A) According to charak 8 Times for prayogika dhooma they are

1) After bath 2) After meals 3) After Vaman 4) After sneeze 5) After tooth brushing 6) After nasya 7) After anjana 8) After sleeping

" 9 Times in each time smoke has to take (Slight break should give after 3 times) "

b) Sushruta's Description :-

12 Times - In general for 3 types of dhooma pana they are.

1) After sneezing 2) After brushing of teeth 3) After Nasya 4) After bath 5) After meals 6) After Vaman 7) After sleeping 8) After coitus 9) After going to toilet 10) After laughing 11) After Anger 12) After surgery.

c) Vagbhata explained 8 times in general for dhooma pana they are.

- a) After 1) Hunger 2) Sweating 3) Defecation 4) Cough 5) Surgery 6) Laughter 7) Eructing of food
- b) Urination- Mucous drooping, Sneezing, dhooma pana has to give
- c) Above 8 times and 9) at night 10) After meals 11) After Nasya in Meqama dhooma
- d) After sleeping Nasya Anjanam and Vajrasana. Teekshna dhooma has give.

Samyakdhooma Lakshanas of Dhooma Pana :-

- 1) Lightness in throat, Chest and head, 2) Indira and mudaya nirmalya, 3) Control of the disease, 4) Sound sleep 5) Normal appetite

Heena Yoga of Dhooma Pana :-

Improper Elimination of Kapha from throat, head, nose, and sinuses; heaviness of head, laziness, voice problems (hoarseness) and Uncontrolled disease.

Atiyoga of Dhooma Pana :-

Burning sensation in throat, palate, nose, and head; thirst, dryness of oro-pharyngeal and laryngeal mucosa, Bleeding from mouth and nose, vertigo, delirium, debility, sensory nerve damage may cause the problems like deafness - blindness, anosmia, tasteless-ness and loss of sensation.

Complications :-

- 1) Indriyaghattha (Blind, deaf, anosmia, loss of Sensation, speech problems, etc).
- 2) Bleeding disorders 3) Vertigo 4) Delirium
- 5) Raktha and pitta Complications.

Uses of Dhooma Panam :-

Prayogika dhooma reduces Vata & Kapha disorders, snehika dhooma controls Vata disorders and Virechanika dhooma controls Kapha disorders.

The uses are Indira shuddi and drudatwa, Vak shuddhi, Mukha Shuddhi, Drusti prasada, and strength to Kesa Smashru and dantha.

The person who takes Dhooma pana regularly get relief from Kasa Swas Arochaka, Mukhalap, Swarabhed, Mukha srava, Tandra, Nidra, Peenasa, Kshavathu, Shiroroga, Kamaroga, Akshi roga, hanu and Manya roga.

RAKTHA MOKSHANA.

Synonyms :-

Raktha Mokshana, Rakthanirharan, Rakthasravana, Rakthaharan, Shonitha Mokshan, Asra Viruti

It is a blood letting process especially mentioned in the Raktha and Pitta disorders. Charaka and his followers did not include Raktha mokshan in Pancha karma But sushruta vitiated doshas But Rakthamokshan aimed to eliminate raktha with pitta. It is a very quick and most fruitful therapy among all But also causes more complications if improperly handled.

Signs of Raktha.

- 1) Virech, Haemic smell due to pruthwi, 2) Dravata (Liquidity due to apa), 3) Rakta (Redness due to agni), 4) Shyandan (mobility due to Vayu), 5) Laghuta (Lightness due to Akash).

The colour of normal Raktha is compared to the padmaka Laksha and Gunja. It is vitiated by doshas it discolours in to other

Signs of Raktha :-

- 1) Jeevana (Life), 2) Balya (gives strength), 3) Aayushya (longevity of life), 4) Jeevanu pusti (Gives strength to dhatu) 5) Nourishes the mamsa dhatu 6) Promotes healthy sensation and other special senses, 7) Deha sthiratha and dharana (for proper body build), 8) Jatharagni Preraka (Stimulates the agni), 9) Gives colour complexion to skin, 10) It is the prime cause for all systems to regulate properly.

Vitiating Factors of Raktha.

- 1) Suppressing the natural urges (Vagavarooha), 2) By improper food and habits (ajyadhatana Viharas), 3) Mental disturbances (mano Klesha) 4) Abhigata (Injuries) 5) Krimi (Worm infestation or infection) 6) Shrama (Physical strain) 7) Aatapa Sevana (Exposure to Sun Stroke), 8) Avasthyaya (Exposure to moist), 9) Agni Mandya 10) Ajyama 11) Intake of Abhishyanda Padartha like dadhi, Kanji, Masha, tila, Madya, Kulitha etc., 12) Advashan (Intake of more bulk Food) 13) Ajeernashan (in take of undigested materials) 14) Sleeping immediately after meals, 15) In take Viruddhatara 16) In take of more oily, rough, Hot, Cool, Spicy, Salt, sour, Itmes 17) Not indulging Raktha Mokshan, in Sharat rutu - by above factors Raktha vitiates and causes Rakthaja Vyadhis.

Note :- If the vitiation of Raktha is not treated in time causes Raktha Pradoshaj Vyadhis like - Kushta, Visarpa, Swara kshaya, Pittica, mada, Vyarnya, Kamala, Vata Raktha, Swita, kandu, Kotha, Raktha Pitta, Asrugdhara, Guda Paka, Upajilivak, Rakhatwak, Rakha netra, Raktha Mutrata, Arsha, Medhra Paka, Pleeha vrudhi, Gulma, Vidradi, Anchi, Putrinasa, Aasya Dourgandya, Upakusha, Mukha Paka, Asramandala, Pipasa, Gulgata, Shirashoola, Swedan, Shareera dourgandya, shiro roga, indraluptha, Mukha roga, Bama, mucha, Sanyasa, Kshudraroga and Charmaroga etc., in above diseases Raktha mokshana is the proper therapy.

Contra Indication :-

- 1) Sarvanga Shophya 2) Debility 3) Pregnancy 4) Sosha 5) Anaemia 6) Children
- 7) The Old 8) Patients of Pandu, Arsha, udara and Kshaya.

Classification of Raktha Mokshan.

- 1) Shashtra Krutha Visravana
(Blood letting with metallic instruments)
- a) Sira Vyadana (Veine Puncture)
- b) Prachhana (incisions)
- 2) Anushastra Krutha Visravana.
(Blood letting with other than metallic instruments).
- a) Shrunaga (application of Cow's horn for aspiration)
- b) Jalauka (application of leeches).
- c) Alaabu (Application of Alaabu for Cupping)
- d) Ghatal Yantra (Cupping glass application.)

Raktha Mokshan Prayog Bhedas :-

Indication of different types of Raktha Mokshan, Based on Dosha Raktha and strength of the patient.

Sl. No.	Name	Charak	Sushruta	Vagbhata.
1)	Shrung	In Vata Vitation	In Vata dosha	In vitiated vata pitta dosha (not in Kapha dosha). In Twak sthila vitiated Raktha, vitiated Raktha. in Avagadha tarra Raktha and in Weak Persons.
2)	Jalauka	In Pitta Vitation	In pitta Vitation, In Avagadha raktha, graditha raktha and in very delicate persons.	Pitta dosha, graditha Raktha and in very delicate person.
3)	Alaabu	In Kapha Vitation	In Kapha vitation, In Avagadha raktha. in twak sthila vitiated Raktha and in delicate Persons	In Vata Kapha Vitation (not in pitta vitation) and in Twak sthila Rakth dosha. Raktha and in delicate Persons
4)	Sira Vyada	In Sarvanga Raktha dosha and in strong persons	Sarvanga Raktha	Sarvanga Raktha dosha.
5)	Prachhan	Sarvanga Raktha dosha (utthana raktha) and in strong persons.	Sarvang Raktha dosha (utthana) Pinditha raktha.	
6)	Ghatee Yantra	Gulma Chikitsa	----	Kapha Vata vitation (not in Pitta vitation) Twak sthila Raktha dosha.

Jalakava Charana :-

(Leech Therapy).

Jalauka name is given for living in water, There are two types 1) Savisha 2) Asavisha

Jalakava :- 6 Types they are
1) Savisha 2) Asavisha 3) Alagarda 4) Indrayudha 5) Samudrika 6) Goghandan : These
are found in dirty water especially in Rainy season, not used in Chikitsa, if used causes
fever, itching sensation unconsciousness, Fever, Burning sensation, Vomiting, de-
pression and body pains etc.,

Asavisha JALAUKA :- 6 types they are.

1) Pingala 2) Pingala 3) Shankha Mukhi 4) Mooshika 5) Pundareeka Mukha 6) Saavarka.
These are found in pure water especially in sharath ritu and are indicated for treat-
ment.

Male leeches used in severe conditions and female leeches used in mild conditions.

Indications For Jalaukavacharan.

Indications and Weak persons those cannot bear the pain 2) Ladies 3) Children 4) The
delicate and 5) Pitta and Raktha Vitations. 7) Avagadha Raktha 8) Gulma 9) Arsha
10) Kusta 11) Kusta 12) Vata raktha 13) Gala roga 14) Netra roga 15) Visha damstra
16) Visha 17) Shiro roga.

Leeches should collect from fresh water in sharath ritu and kept in pot or
copper vessel in water with required food items, the water should change once in a
week.

Purification of Jalauka :- (Shodhana)

To activate the blood sucking capacity and Locomotion of leeches the follow-
ing measures should be taken.

1) Adding haridra and Sarshapa Churna to the water where the leeches are
kept, or 2) Application of Haridra and Sarshapa churna to the body for 48 minutes
(muhurtha).

3) Again Jalaukas should kept in Kanj and lastly in water The leeches should
catch after putting on Gloves and should apply to the affected area of the patient.

Poona Karma :-

1) Sneha Sweda Vaman and Virechana should do for body purification.
2) Local Oleation (Sneha) and fomentation (the area of leech application should be dry
and tough for the proper grip).

3) Application of Honey, then by a small incision (Prachhana) to the skin
Needling surface should create to attract the leeches for proper grip, then it should be
covered with thin white cloth.

Karma: - Sarvangasneha Sweda has to do (Sarvanga Shodhana), Liquid Pancha and Abhyangata has to give on the day.

Bahya and Aditya
has to give on the day.

The patient is asked to be relaxed in the therapy, Siru Vyadana is carried out in the supine position or in lying position by depending upon the site of the disease.

The patient is asked to be relaxed for the therapy. Sira Vyadana is carried out in the supine position or in lying position by depending upon the site of the disease.

[illegible]

Adequate Sira Vyadana :-

- 1) Bleeding has to stop it self. 2) Lightness of the body. 3) Remission of symptoms. 4) Control of the disease. 5) Physical and mental peace 6) Normal features of the body.

Causes of Inadequate Sira Vyadana :-

Features: 1) Swelling 2) Inflammation 3) Aggravation of Symptoms 4) Burning Sensation 5) Itching sensation 6) hyperaemia of the site.

1) Swelling =
hyperaemia of the site.
sensation 6)

Features of Excessive Sira Vyadana :-

- 1) Head ache (Shira Shoolaa) 2) Thirst (Trushna) 3) Loss of vision (Andhathwa)
- 4) Burning Sensation (Daha) 5) Hiccough 6) Dyspnoea (Swasa) 7) Cough (Kasa) 8) Anaemia (Pandu) 9) Convulsions (Akshepaka) 10) Glaucoma (Adhimanthra) 11) Cata-ract and refractive errors (Timira) 12) Emaciation of body (dhathu kshaya) 13) Mono pigla (Klanga Vata) 14) Paralysis (Pakshaghath) 15) Delirium (Mano Vibraman 16) unconscious (Murcha) 17) Death.

Management of Inadequate Sira Vyadana :-

The veinopuncture area should be rubbed with the powders of ushna veerya, *Ushna veerya* (Ushna veerya) to allow blood flow.

Management of In Excessive Sira Vyadana :-

suturing etc.) 2) Skandana (By sprinkling the powders of sheeta veerya dravya to arrest the bleeding) 3) Pachanam (medical cautery, by dusting Kshara bhasma etc.) 4) Dahanam (Agni Karma, cauterisation) , In addition to above methods oral remedies should also be given to compensate the blood loss.

Note :- Maximum 1 prasta blood should remove by Siravyadana, that to not in a single day (Weekly once for 3 to 4 times).

Post Raktha Mokshana Regimen.

- 1) Patient should consume light, easily digestible, haematinic diet.
- 2) Patient should avoid intake of excess cold Or hot items, anger, coitus, day sleep, incompatible diet, Excessive work, stress and strain.
- 3) The diet regimen should follow for a month.

List of Avedya Sira. (Veins rejected for Veinepuncture).

follows :-

Part	No. of Siras	No. of Vedyas Siras.
1) Limbs	400	
2) Pelvic region	32	
3) Flanks	16	8
4) Dorsum	24	4
5) Abdomen	24	4
6) Chest	40	4
7) Neck	56 (Sushruta), 24 (Vagbhata)	14
	16	8
		Matruka
		Manyas Neela Krukaika Vidura
		2 2 2 2

8) Jaws

9) Tongue

16	2	(Hanu Sandhi sthitha)	16
36 Sushruta, 16 Vagbhata	4	(Rasavaha Vakpravarata)	2

10) Nose

24 Sushruta

5	Aupanasika	4
	Talu	1

24 Vagbhata

3	Gandha Sevani	2
	Talu	1

11) Ear

12) Eyes

10 Sushruta, 16 Vagbhata
38 (Sushruta)

2

Shabda Vahini	2
Apanga	2
Keshanahak	4
Aavatha	2
Stapani	1

53 Vagbhata

13

Above	9
Nimesha Kriya	2
Umeshha Kriya	2

13) Temporal

10 Sushruta, 16 Vagbhata

2

14) Cranium

12

Sankha Sandhi	13
gatha.	
Ukshepa	2
Seemantha	5
Adipathi	1

3) Pracchana :-

It is metallic instrumental blood letting process, shastrapada, pada are syringes, it is a special therapy as well as poorva Karma to other therapies (of Raktha Mokshan). It is indicated to remove pinditha suptha raktha in twak (Accumulated impure blood subcutaneously).

This process resembles Lekhana Karma in which the superficial strait, parallel, very close, imaginary incisions should be done quickly in prathiloma direction, the proximal part of the lesion should be tied to arrest the blood flow for proper elimination of impure blood.

The incisions should not do at Marma sandhi asi and snayu.

4) Shringavacharana :-

It is nonmetallic blood letting process in which 7 " cow horn is used to suck the impure blood by creating vacuum in the horn, it is meant to treat the Vataj, Raktha Pradoshaj Vyadhis.

After performing poorva karm and precchana, the base of the horn should fix to the lesion without air leakage, then vacuum should be created in the cavity of the horn from the root (Second end) of the horn, air should be sucked, by that vitiated raktha Ozes and collects in the horn by negative pressure

5) Alabu :-

It is non metallic blood letting process in which Raktha harana is done on the principle of cupping (Like shrunga) . It is used in Kaphaj Raktha pradoshaj vyadhis. Alabu removes vitiated Raktha From 12" Distance. Alabu may be elongated or rounded. Madhura Or Tiktha, but Tiktha alabu is only indicated for Raktha mokshana in theKapha vitiation.

Alabu should be collected, dried, central part should be cleaned, after poorva karma and prachhana alabu should be fixed to thewound by creating vacuum in thealabu, precaution should take for air tight, because of the negative pressure created in the alabu vitiated raktha Oozes and collects in alabu.

Ghaatee Yantra :-

The Principle and method of application is as like alabu but charaka especially used it in Gulma vyadhi to separate gulma From the root.

NASYA KARMA

Introduction :-

Nasya Karma is an important therapy among panchakarma, for the management of the diseases of Shalakyata tantra (E.N.T. - Eye - and dental disease) and other systemic disorders like Vata Vyadhi - Ummada, Apasmara, Moorcha, Kasha Vikara i.e., - Nasya Karma is having not only local but also systemic effects.

Note :- It is the last step in pancha Karma Therapy.

Defination of Nasya :-

It is a special and important therapy in which the medicine is administered through thenose, either in the form of powder, liquid, oil or smoke. So only it is known as Nasya and the process is known as Nasya karma.

Importance of Nasya Karma :-

Nose is the only gate way of head to eliminate the doshas from the head treat the diseases So only it is having utmost importance in the management of diseases of Shalakyata tantra and also in other systemic disorders. Like Vata Vyadhi etc.,

Synonyms of Nasya :-

1) Nasya 2) Shiro Virechana 3) Moorcha Virechan 4) Shiro Vireka 5) Prachardha.

List of different Words used For Nasya :-

Nasya 2) Navana 3) Nasta 4) Shiro Virchana nasya 5) Shiro Vireka 6) Pradamana nasya 7) Dmapana Nasya 8) Avapeedana Nasya 9) Marsha Nasya 10) Pratimarsha nasya 11) Dhooma Nasya 12) Snehana Nasya 13) Shodhana Nasya 14) Stanbana Nasya 15) Prayogika Dhooma Nasya 16) Virechanika Dhoom Nasya

snehika Dhooma Nasya 18) Brumhana nasya 19) Tarpana Nasya 20) Rechana nasya 21) Shamana Nasya 22) Karshana Nasya 23) Sanghya Prabhooak Nasya 24) prachardak 25) Chooma Nasya 26) Swasa Nasya 27) Kashaya nasya 28) Sneha nasya 29) Raktha Nasya 30) Ksheera Nasya etc.,

It is a type of samshodhana Karma administered through the Nasal passage. it comprises a variety of procedures with slight difference in the therapy, those are grouped as follows -

CLASSIFICATION OF NASYA :

a) 5 Types (C.S. Sh-9-89 to 92)

i) By CHARAKA :-

b) 3 types

1) Navana

Snehana Nasya

2) Avapeedana

Shodhana Nasya

3) Dmapana Nasya

Stambana Nasya

4) Dhooma Nasya

Prayogika Dhooma Nasya

5) Pratimarsha Nasya

Virechanika Dhooma Nasya

Snehan Nasya

Snehika Dhooma Nasya,

Rechana Nasya.

1) - Rechana Nasya 2) Tarpana Nasya 3) Shamana Nasya

b)

By Sushruta :-

a) 2 Types

ii

b) 5 Types

a)

1- Shiro Virechana Nasya 2) Snehan Nasya

b)

1) - Nasya 2) - Shiro Virechana Nasya 3) - Pratimarsha Nasya

4)

Avapeedana Nasya 5) - Pradamana Nasya.

iii)

3 Types

iv)

By Vagbhata :- (AH. SU. 20-2)

1)

Virechana Nasya 2) - Brumhana Nasya 3) - Shamana Nasya.

v)

2 Types

vi)

By Kashyap :- (Ka.SI. AS. 2, 40)

1)

Brumhana Nasya (Poorana Nasya) 2) - Karshana Nasya. (Shodak)

vii)

2 Types

viii)

By Sarangdhar :- (Sh. U. 8-2 11, 24.)

1)

Rechana Nasya Or Karshan . a) Avapeedan b) Pradamana.

2)

Snehan Nasya Or Brumhannasya. a) Marsha b) Pratimarsha.

iii)

2 types

iv)

By Bhoja :- S.S. CI. 40-23

1)

Prayogika Nasya 2) Snehika Nasya

v)

2 Types

vi)

By Videha S.S. CI. 40-44

1)

Sanghya prabhodaka nasya 2) Stambak nasya

VIII) Charaka Also Mentioned :- 7 Types of Nasya based on the parts used they are :-
 1) Phala Nasya 2) Patra nasya 3) Moola nasya 4) Kanda Nasya 5) Puspa nasya 6) Niyasa nasya 7) Twak Nasya.

IX) Drugs Can be used for Nasya in the Following Forms :-

a) Churna Nasya b) Kalka Nasya c) Swasa nasya d) Ksheera Nasya e) Kwatha Nasya f) Saara Nasya g) Udaka Nasya h) Dhooma Nasya i) Mamsarasa Nasya j) Tail Nasya k) Ghritta Nasya l) Madya Nasya m) Raktha Nasya etc.,

DRUGS USED FOR NASYA

According to Charak :-

Apamarga, Pippali, Maricha Vidanga, Shigru, Sarshapa, Shirisha, Maricha, Kareera, Ajamoda, Pili, harenuka, Pruthweeka, Surasa, Swetha, Kutheruka, Phaninjaka, Shireesha, Lashun, Hardra, Daruharidra, Sauvarchalavana, Saindhavalavan, Jyothishmati, Shunti, Gandeeera, shalaki, Tejovathi, Inguai, Dalcini, Vartaki, Ela, Sunnukra, Gandeeraka, Kalmalaka, Pamasa, ghrunger, Mulak, Tarkari, Arka, Aleka, Kusta, nagadanihi, Vacha, Bhargee, Gavaksha, Awakushpee, Yuuchnikail, Brahmes, ativisha, Lochra Madanphala, Saphaparna, Nimba, Devadaru, Agaru, Sarela, Hingu, Guduchi, Bruhati, Ikshavak.

2) Sushrutra :-

Pippali, Vidanga, Apamarga, Shigru, Sarshapa, Shirisha, Maricha, Kareera, Binbi, Sweta parajitha, Kintih, Vacha, Jyothishmati, Karanja, Arka, Alarka, Lashuna, Aitaa, Shunti, Talisapata, Tamala patra, Surasa, Arijaka, Indguai Medha, Shrunji, Matulunga, Murangee, Pily, jathi, Sala Tada, madhuka, Laksha, Hingu, Lavana, Madya, Gomaya, Gomuta.

3) Vagbhata :-

Vidanga, Apamarga, Trikatu, Daruharidra, Pal, Shireesa, Bruhati, Maukasara, Saindhavalavana, Daruharidra, Ela, Bruhat Ela, Hingu.

Common Drugs Used for Nasya :- Suggested by Kashthure .

Churnas	
Kaphala Churna,	Trikatu Churna
Swasakuhara,	Vata Vidwamsini
Maricha Churna	Vidanga Churna
Tailas Anutaila,	Shatbindu Tail
Padmakadi Taila,	Panchaguna Tail,
Ghritha etc.,	Jatyadi Taila
	Vachadi Tail

indications of Nasya :-

1) Stambh (stiff head) 2) Manya stamba (Stiff neck) 3) Dantha Shoola (toothache) 4) Sphra Stambha (lockjaw) 5) Peenasa (Coryza) 6) Gala Shundika (uvulitis) 7) Kantha 8) Shukra (Corneal opacities and ulcer) 9) Timira (Dimvision) 10) Shulka (Adenoids) 11) Vyanga (Pigmentation of face) 12) Upajilwak (Cyst of eye) 13) Greeva Stamba (neck rigidity) 14) Skandha roga (disease of Shoulder) 15) Anga shoola (Body pains) 16) Mukha roga (disease of Mouth) 17) Karna roga (Ear diseases) 18) Nasa shoola (Pain in the nose) 19) Akshi Shoola. (Pain in the eye) 20) Shira shoola (Headache) 21) Ardhtavata (Facial Paralysis) 22) Apatantrek (eye) 23) Shira shoola (Vata Vyadhi) 24) Gala Ganda (Goitre) 25) Dantha hairsa (Nasal Sensitivity) 26) Chala Dantha (loose tooth & decay) 27) Netra raji (Hyperemia of eye ball) 31) Gadga (Stammering) 32) Ama shoola (Shoul-der pain) 33) Krathana (alteration of Voice) 34) dantha Stamba (Rigidity of teeth).

CONTRA INDICATIONS OF NASYA

Sl. No.	Contra Indicated Condition	Complications due to administration.
1.	After meals if nasya is given leads	Kasa, Swasa, Pratishyaya, chardi etc., Kapha Vikara
2.	Indigestion	-do-
3.	After Sneha Pana	
4.	After Madya Pana	Causes Netra Srava, Gala Srava, Avila netra, Timira and shiroroga.
5.	When Desire to drink water	
6.	After head (Shira Srana)	Pratishyaya, netra Srava, Gala Srava, karna Shoola, Shira Kampa, Vata Vikar.
7.		
8.	Hungry	Vata Vitiation.
9.	Thirsty	Mukha sosa.
10.	Tired	Pain Increases.
11.	Made (Semi Consciousness)	
12.	Moorcha (Un consciousness)	Samgya nash.
13.	Abhignatha (injury)	Severe Pain.
14.	After Coitus when debility,	
15.	weakness if Present	
16.	After Exercise if debility Present	Pain in Shira netra vaksha
17.	Acute Fever (grieved)	Shakta (Limbs)
18.	Shoka (Grieved)	
19.	After purgation (Virechah)	Timira - fever Increases.
20.	After Vasti	Vata Vitiation-Indriyaabighnata
		Kapha Vitiation, Gurutwa, Kandau, Krimi roga.

21.	For Pregnant Lady	"	Garbha Vikrutti
22.	For sutika (just delivered Lady)	"	Dhatu Kshaya.
23.	Nava Prathishyaya	"	Prathishyaya Aggravates.
24.	Apatantrika (Weak Personality)	"	Dhatu kshaya develops.
25.	Bala (Children)	"	"
26.	Vrudha (Old People)	"	"
27.	Swasa	"	Diseases become more complicated.
28.	Kasa	"	Cause debility (dhatu Kshaya).
29.	Raktha Pitta	"	"
30.	Vagavarda	"	"

Note :- Specific Nasya can be given in above contra indications
Ex- Sangya Prabhodak nasya in Morocha etc.,

1) Naavana Nasya :-

It is one of the most important Nasya which can be easily administrable and more beneficial. It is a procession which the medicated Oil is dropped in to nose with the help of cotton (Pichu) Or Ink Piller. It is equivalent to Sushrutas Snehan Nasya and Shiro Virechan Nasya so only. It can be mainly classified in to 2 types a) Snehan Nasya and 2) Shodhan Nasya.

a) Indications of Snehana Navana Nasya :-

1) Vataja Shiro Roga 2) Danha Pratha 3) Keshapatha 4) Karna shoola 5) Karna kshweda 6) Timira, 7) Swedopa ghatha 8) Nasa Roga, 9) Mukha sosha 10) Apabhukta 11) Akala Valey phalitha, 12) Nera Varthma roga 13) Vata Pittaja mukha roga 14) Ardha vata 15) Vatahatha Varthma 16) Darunaka.

Dosage :- Heena Matra (minimum dose) 8-8 drops in each nostril madhyama Matra (Moderate dose) 16-16 drops.
Uthama Matra (perfect dose). 32-32 drops.

b) Indication of Shodhana Navana Nasya :-

1) Kapha Rogas 2) Tailu roga 3) Gala roga 4) Shiro roga 5) Nasa roga 6) Mukha roga 7) Aruchi 8) Shiro gurukta 9) Shira Shoola 10) Peenas 11) Arhava bheda 12) Krumi 13) Prathishyaya 14) Apasmar 15) Gandhiyagnash.

Dosage :-

Minimum dose 4-4 drops in each nostril
Modern dose 6-6 "
Perfect dose 8-8 "

Time Schedule :-

1) Kapha Roga Fore noon (Poorvahan)
2) Pitta roga After noon (madyanahna)
3) Vata Roga Evening (Aparahna)

Note :- (It should be given before meals and in day time).

Personal Time Schedule For healthy People.

Sheela rutu madyanahna (Noon)
Sheeta rutu Poorvahan (Morning)
Sphat, Vansat rutu Aparahna (Evening)
Greeshma Rutu Non Cloudy day nasya has to do
Varsha rutu

2) Avapeedan Nasya :-

Medicated drops extracted from Aushada Kalka (Paste of Medicine) and is instilled into nose is called Avapeedan Nasya. It is of two types.

1) Shodhana (Rechana)
2) Stambana (Raktha Stambana).

1) Chakrapani.

1) Shodhana kapha rechana.
2) Stambana Raktha Stambana.
3) Shaman For controlling vitiated doshas (in debilitated persons).

2) Galthana

1) Sangya prabhodan - in murcha, Visha roga, Apasmar, moha etc.,
2) Stamban - in Raktha pitta.

Indications :-

1) Vishabhigghatha 2) Sanayasa 3) Moorcha 4) Moha 5) Apasmar 6) Apatantak 7) Mada 8) Shirobhedan 9) Krodha 10) Bhaya 11) Mano roga 12) Karshya 13) Bheeru 14) Siree 15) Bala 16) Vrudha

Heena matra 4-4 Drops.
Madhyama Matra 6-6 Drops.
Uthama Matra 8-8 Drops.

3) Unapana Or Pradhamaana Nasya :-

It is shodhana nasya in which medicated powder is blowed in the nose with the help of 6" Lengthy tube Or inhaling the medicated powder sachet (2 Tola fine powder should be packed in thin cloth.)

Dose :- 3 muchhuti.

Indication :- 1) Mental diseases (unmada, apasmar)
2) Krumija Shira shoola 3) Poisonous cases.

4) Dhooma Nasya :-

Inhaling Or taking the medicated smoke Or Vapour through nose with the help of Nasya netra by closing the other nostril. It is of 3 types 1) Prayogika dhooma nasya (Shaman dhooma Nasya (in Vata kapha disorders) 2) Virechanika dhooma nasya (in Kapha disorders) 3) Snehika dhooma Nasya (in Vata disorders). Inhaled smoke should not be through nose by that eye complications may arise. The length of Nasya netra for prayogika dhoom Nasya 36 Angula, for Virechanika dhooma nasya 24 angula and for snehika dhooma Nasya 32 angula. (For prayogika dhooma netra 40 angula according to Vagbhata.)

Dose :- 9 Times the smoke or Vapour should take by giving small break after 3 times i.e. 3-3-3 times.

1) Drugs For Prayogika Dhooma Nasya :-

Harenu, Priangu, Kesar, Chandan, ela, usheera, padmaaka, jatamamsi, Agaru, Lodra, Sarjaas, Musta, Pancha Valkal Bark etc.,

2) For Snehika Dhooma Nasya :-

Vasa, Ghrittha, Maduchista and Jeevaneeya gana.

3) For Vitreehanika Dhooma Nasya :-

Sweetha aparajitha, malkangiri, haritai, manashila, Agaru, etc.,

5) Marsha nasya - Prathimarsha nasya :-

Medicated Oil is dropped in to nostrils in marsha and pratimarsha nasya but there is dosage and following differences present in between them.

COMPARATIVE STUDY OF MARSHA PRATHIMARSHA NASYA :-

Sl. No	Prati Marsha nasya	Marsha Nasya
1.	Never Produce Dosha vitiation	1) May produce dosha Vitiation.
2.	Dose 2 drops Bid	2) Dose 6 to 10 drops (6 heena, 8 madyama, 10 drops uthama)
3.	Indicated for all age groups and in all seasons.	3) Age and Seasonal restrictions present.
4.	Consists of less Sneha dravya	4) Consists of More Sneha dravyas.
5.	No Complications	5) Complications may arise.
6.	Slow Action	Quick action.
7.	Less potent	More Potent
8.	Easy administration	Helper needed to put the drops in nose.
9.	Preventive as well as curative therapy	Only curative therapy.
10.	Indicated in less vitiated diseases, cannot control the more severe disorders.	Control high vitiated diseases.

Note :- Prathimarsha nasya can be dropped with dropper or by dipping the finger in the Oil upto 2 inches level.

Indications of Prathimarsha Nasya :-

Indication	Benefit.
1. Early Morning	1. Kapha Dosha which is accumulated at night is reduced.
2. After brushing of teeth	2. Teeth becomes strongly, and mouth become fresh.
3. While going out side from house	3. Prevents dust and smoke allergy.

After Exercise
4. The debility. Or tiredness is removed.

1. After coitus
5. -do-

3. After tiredness due to walking
6. -do-

5. After Kavalaagrah
7. Vision improves.

6. After anjan
8. -do-

7. After meals
9. Sroto shuddhi,

8. After Vaman
10. Kapha shaman and Taste improves.

10. After sleeping in day time
11. Heaviness and other symptoms controlled and promotes mental Peace.

11. In the evening
12. Gives sound sleep at night

12. After Urination.
Vision improves.

13. After defecation
Vision Improves.

14. After defecation
Vision Improves.

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Vision Improves.

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For sitting as well as lying purpose chair and Bed are needed for giving Nasya. (The bed should be adjusting type to raise the foot part or to down the head part, for proper medication). c. Nasya Aushadhis :- The medicines needed for poorna pradhana and paschyat Karma should be collected.

d) Nasya Yantra :- For 1) *navana Nasya* - *waista Nasya* and *Pratimarsha Nasya* - droppers Or *karpasa Pitch* should use. 2) For *dhooma nasya* different sizes to *Dhooma nasya* *netras* should use. 3) For *aVapeedna Nasya* thin cloth should be kept to extract the *swarasa* for *Nasya*. 4) For *Pradamana nasya*, 6 angula length tube should keep for blowing medicated powder into the nose.

Besides above material efficient assistants, spittoons pots, dressing material, medicines to control the complications, material for Kavaia, Gandoosha, dhooma, panal (for paschyat karma) and other minor accessories needed for proper administration of Nasya should be procured to achieve good result.

DO dosage of drug in different types of nasya

Sl. No.	Name of Nasya	Heena Matra	madhyam Matra	uthama matra
1.	Navana Shaman Nasya	8-8 drops in each nostril.	16 -16 drops	32 -32 drops.
2.	Navan Shodhana Nasya	4-4 drops in each nostril	6-6 drops.	8-8 drops.
3.	Avapeedana nasya	4-4 drops in each nostril	6-6 drops	8-8 drops..
4.	Pralimarsha Nasya	2-2 drops in each nostril	2-2 drops	2-2 drops
5.	Marsha Nasya	6-6 drops	8-8 drops	10-10 drops.
6.	Pradaman nasya	3 Mucchyuti (2 to 4 ratl)	3 Mucchyuti	3 Mucchyuti
7.	Dhuma Nasya	9 times the smoke should be taken by slight gap after 3 times		

POSAGE OF NASYA ACCORDING TO SARANGA DHARA.

1	Shana (24 Rati) Powder, 8 drops	Liquids
1	Yava (1/2 Rati)	-
1	Masha (6 Rati)	-
8	shana 64 drops.	-
3	Tola.	-
1	Milk	-
1	Water (medicated)	-

patient For Nasya Vidhi.

[illegible]

Abhaya Karma :-

1) Gentle sweda on face, Neck and Frontal region, 2) Gentle massage of Head, Frontal region, shoulder, hands and legs. 3) If, salivation occurs, patient is asked to spit it in gubins and Nasal discharge in the other pots and lacrimation should clean with clean, cold. 4) After Nasya Karma Patient should wait for 100 matra Kala then he is treated with kaxa Gandoosh and Dhoorna Pana, to clear the Kapha dosha from throat and air-ways - finally Lukewarm water gargling is given to clean themouth. 5) Light diet, and warm water is given for drinking, bath etc.

6) Avoiding :-

Cold water, exposure to dust smoke and heat, head bath, intake of alcohol, anger, sleep, travelling and usage of oils

Features of Adequate Nasya :-

- 1) Lightness of body. 2) Sound sleep. 3) Lightness in the head 4) Sensorial Happiness (Indra prasannata). 5) Mental happiness. 6) Control of the disease.

Features of Inadequate Nasya :-

- desire secretion from Nose, mouth and eyes. 5) Mental and sensorial disturbances

Features of Excessive Nasya :-

- 1) Head ache, 2) Delirium 3) Aggravation of disease 4) Giddiness.
- Note :- Nasya is given daily or alternate day for 7 days (Nagchana), 21 days Or upto result (Susthara).

Advantages of Adequate Nasya :-

- 1) Prevention of eye disease, 2) Prevention of ear diseases, 3) prevention of nasal diseases, 4) healthy hair, 5) Provides strength to scalp 6) improves hairpins, 7) improves voice, 8) Improves senses, 9) Pleasant oral smell 10), Passiyana, 11) Improvement of Akala Veli Pralim, 12) Prevention of urticaria Jasthu Vikaras.

NASYA YOGAS INDIFFERENT DISEASES

a) Nasa Rogas.

1) a) In Vataj prastishyaya :- Rohitadi yoga pradaman Nasya.

In Pittaja Prastishyaya :-

Patra, narora, Daruora, moorna, pippli, Jasthupallava, danthi, tila taila (pakwa taila) nasya.

3) In Kaphaj Prastishyaya :-

a) Bhazagadi taila Nasya (Bharangi, Madamphala, Tarkari, Tulasi, Gomutra, Laksha, Vata, vidanga, Kusta, Pippli, Karanja, and Sarshapa taila - Pakwa taila nasya).

b) Marashiladi Churna Pradaman nasya (Manashila, Vacha, Tikatu, Vidanga, nirgu, gurgulu, Kau dianya, c) Tikatu, Saindhavalevana, Kutaja, Jeeraka, Gomtra - nasyam, d) Baladi taila Nasyam (Bala, Athala, Bruhadi, Vidanga, Kantakari, Varnakaranta, Mudagani, Rasra, Purnamaya, Tila taila, (pakwa Taila) Nasyam).

4) In Sanni Patraja Prastishyaya :-

a) Rasajyanti tailam for Nasyam.

5) In Rakthaja Prastishyaya :-

a) Vidangadi Nasya b) Gomutra + gonochana Nasya

6) In Apeemasa :-

a) nirgu Tikatu, kutaja, srivati, (Tura), Laksha, Tulasi, Kaiphala, vacha, Kusta, Sarshapa, Vidanga, Karanjabeja, Avapeedan nasya. b) Above drugs+ Gomutra Sarshapa taila (Pakwa Taila nasya).

7) In Nasa Raktha Srava :-

a) Neela kamala, Gyrka, chandan, shankha, Shaikara jala- Nasyam, b) Amrasi, Saranga, Dhakki, Moola rasa, Lodra - Nasya, c) Draksha swarasa Or Ikshurasa Or swarasa Or vasa swarasa Or Dadima Pushapa rassam Or Yavasa Moola and lashuna e) Yashtimadu Gandha Nasya, f) Jasthyadi taila nasya, g) padmakadi Taila Nasya.

a) Tikatu, Shigrubeeja, Vidanga, Pradaman Nasya.

a) Rasajyan nasya

a) Bala Taila Nasyam, b) Shatbindu taila Nasya.

1) Nasa Gasha :- a) Ksheerisarp Nasya b) Anutaila Nasya

2) Nasa Rogas :- 1) Dantthavesta - Kakolyadi ghrittha Nasyam.

2) Yastimadu, Lodra, utphala, Bala, Sarva, agaru, chandana, gyrika, prepared oil is used for nasya.

3) Nasa Nadi :- Ksheeri Vruksha taila Nasya.

4) Nasa Nadi :- Apamarga, Vishnu Krantha, Danthi, Vidanga, Saindhava Lavan, Tila, compound -

5) Nasa Rogas :-

1) In Vataja shiro roga a) Nasya with Rasnadi taila (Rasna Laghu Panchamoola

1) In Vataja ghrittha Or maha mayuradya ghrittha. c) Bala Madhuka

1) In Vataja ghrittha Or maha mayuradya ghrittha. c) Bala Madhuka

1) In Vataja ghrittha Or maha mayuradya ghrittha. c) Bala Madhuka

2) In Pittaj Shiro Roga :-

1) In Pittaj Nasyam b) Yastimadu Chandana sarva sharkara milk Draksha, Madhuka

1) In Pittaj Nasyam b) Yastimadu Chandana sarva sharkara milk Draksha, Madhuka

1) In Pittaj Nasyam b) Yastimadu Chandana sarva sharkara milk Draksha, Madhuka

3) In Krimija Shiro Roga.

1) In Krimija Shiro Roga. 2) Twak, Danthi, Wyaghranaki, Vidanga, Nava malika, Sarshapa, Karanja, Shireesha,

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1) In Krimija Shiro Roga. 2) Twak, Danthi, Wyaghranaki, Vidanga, Nava malika, Sarshapa, Karanja, Shireesha,

6) In Surya Vartha & Anantha Vata.

a) Nasya with Apamarga Swarasa b) Milk c) Ghrittha d) Navaneetha e) Kalphala churna f) Trikatu g) Chakra marda beela h) Brungaraj swarasa, Aja Ksheera i) Madhu + Shiroesha moola swarasa Nasya j) Kesara fry in ghee with Sharkara nasya has to give. k) Tulasi beela Nasya l) Shiroesha moola swarasa Nasya m) Rasana Swarasa Nasya n) Swella aparajittha moola swarasa Nasya o) Gunja Moola Swarasa Nasya.

7) Arthavaheda :-

a) Vidangadi Nasya - Vidanga, Krishna tila should be grinded in Aja Ksheera for Nasya. b) Ksheera + Sharkara c) Vachadi Avapeedan Nasya :- Vacha Pippali Yastimadu Yava, should grinded with water and with Honey for Nasya. d) Shiroesha moola and phala Avapeedan Nasya. e) Vamsi moola and Karpura Avapeedan Nasya. f) Madhu + Chandan Avapeedan Nasya. g) Madhu + Manashila Avapeedan Nasya. h) Shiroesha Beela, apamarga moola, Bidelavan, Avapeedan Nasya. i) Mruthika (From chuhlika) + maricha choorna. Pradaman nasya j) Madhu + Talia Nasya k) Sarshapa talia Nasya.

8) Darunaka :-

Bringaraj talia Nasyam.
Nimba talia nasyam.

9) Indraluptha :-

a) Ksheera, Sahachara, talia, Brungaraja Swarasa, Tulasi, Tila talia, yastimadu (Talia Paka vidhi) oil is used for Nasya.
b) Prapoundareekadi talia nasya (Amalaki, Tila talia, Prapaundareeka, pippali, chandan, Neelochphala, Yastimadu (Talia Vidhi))

c) Vibheetakadi Nasya :-

(Vibheetaki, Nimba, Gambhari, hareetaki, Lisoda Gunja- Pakwa Talia- as pratimarsha Nasya.

D) In Vata Vyadhis :- 1) Rasnadi ghrittha 2) Ksheerabala talia 3) Baladi ghrittha manda 4) Mashadi nasya. (Masila, Kaunchabeela Rasna Bala erenda moola rohins Truna, Ashweganda - Quatha should prepare, and add saindhava lavan Hingu for Kashaya Nasya.

E) In Tandra And Nidra :-

1) Marchadi Nasya - Krishna maricha, Pippali, shunti, Kankola, saindhava lavana, lashuna, guuguulu, Kalphala, vacha, saindhava lavan - Rohitha matsya - as pradaman Nasya.

2) Saindhavadi Nasya :- Saindhava lavan, maricha, sarshapa, kusta grinded in mutra and used as Nasya.)

F) In Umadaa and Apasmara :-

Madhuka saradi nasya - Madhuka, shuktha, pippali, vacha, maricha saindhav lavana and water as nasya.

G) In Umadada :-

1) Rasnadi ghrittha - 30 hareetaki, 1 phala Trikatu, 1 prasta Go charma masi, 2 Aadaka 100 Lashuna, and mutra, 1 praslam Ghee, 1 Palam hingu, 2 Kudava Honey, ghrittha has to give for Navana Nasya.

2) Vyosthadi Nasya:-

Trikatu Haridra, Daruharidra, Manjista, hingu, Sarshapa, shireesha beela, Trikatu, Triphala, Samanga, priyang, Sariva, Devadaru, should grind in Aja mutra for Nasya.

3) Shireeshadi Nasya .

Shireesha, madhuka, Hingu, Lashuna, Tagara, Vacha, Kusta, should grind in Aja mutra for Nasya.

4) Pradaman Nasya.
Mutra, pitta, Roma, Nakha, Charma, of Animals.

5) Apasmara :-

1) Bharangi, Vacha, Nagadanthi Or Jyothismathi, Nagadanthi, Or Sariva, shireesha, Shatavari, should grind with mutra for Nasya.

2. Triphala, Trikatu, Devadaru, Yavakshara, Trivruth, Apamarga, Phaninjaka, Kanja, should grind in Aja mutra the prepared talia is used for Nasya.

3. Pippali, vuschikali, kusta, Pancha Lavana, Bharangi, pradaman, Nasya.

6) Hikka :-

1) Lashuna + Rasana Swaras. 2) Chandana + Stanya. 3) Saindhava Lavana + Ghrittha manda. 4) Sharkara + Shunti. for Nasya.

7) Kshataja Kasa .

1) Ghrittha + Ksheera Nasya

8) 1) Vataja Kasa :- Rasnadi ghrittha Nasya (Rasna, dashamool, shatavari, kulutha biddaiphali, yava, Aja mamsa - ghrittha).

9) Visha chiktisa :-

1) Shireesha Swarasa + Maricha - Nasya. 2) Shireesha Swarasa + Shigruichurna Nasya. 3) Amrutha + Shireesha Twak, Trikatu, Triphala + ghrittha - Nasya.

10) Kusta vyadhi :-

1) Vidanga churna Pradaman Nasya.

DESCRIPTION OF E.N.T. INSTRUMENTS

Plate - I and Plate II

1) Oto scope - electrical

It is self illuminating aural speculum with magnifying Lenses and handle, it is used to examine external ear canal and tympanic membrane.

2) Aural speculum (Toynbee's)

It is used for examination of the external ear and tympanic membrane by pulling the pinna upwards backwards and Laterally in adults and downwards backwards and Laterally in children. Speculum should insert upto cartilage and bony junction of external auditory canal.

3) Tuning fork (Hartmanns)

It is used to determine the type and quality of deafness (Rinne's Webbers tests etc).

4) Aural syringe :-

This is used to remove the unimpacted foreign bodies from the ear like wax dried discharge of otitis media etc. While using the instrument it should not introduce in side the lumen as it will obstruct the way of returning Fluids should not introduce forcible and should not direct the nozzle straight that may damage the tympanic membrane, so should direct preferably to wards the roof of the canal.

5) Eustachian Catheter (Kramer's)

It is used for Eustachian catheterization for diagnostic (to know the patency of eustachian tube) and therapeutic purposes (to remove Eustachian blockage and to give medication in the middle ear.)

6) Siegle's Pneumatic speculum :-

It contains ear speculum with magnifying Lens, which is attached to rubber bulb and rubber tube. It is useful to test the mobility of tympanic membrane. The speculum is fitted in the ear canal and makes an air tight chamber, by pressing the rubber bulb mobility of tympanic membrane is observed through the magnifying lens of ear speculum.

7)

Self retaining Haemostatic mastoid retractor (Weislander's)
It is used in the both cortical and radical mastoidectomy operations.

8) Mastoid Gouge (Jenkin's)

It is used in mastoidectomy operation, Both cortical and radical to explore the mastoid antrum and the mastoid air cells.

Mac Ewen's Cell Seeker with Scoop :-

It is used in mastoidectomy operation to explore the air cells and mastoid antrum with the seeker and to scoop out the pathological air cells with the scoop.

Staecke's Guide :-

It is used in radical mastoidectomy operation, it guides the surgeon to explore the facial nerve and Lateral Semi circular canal from the aditus.

Myringotomy (Daggett's)

It is used in myringotomy which means incision of the tympanic membrane for better drainage of pus from middle ear.

Aural Snare (ballance's)

It is used to cut the pedicle of the aural polyp. The number "O", steel wire is used in this snare.

Lempert's end-aural speculum :-

This is used to during mastoidectomy operation to apply end-aural incision of Lempert.

End-Aural retractor with the third blade (Lempert's)

It is used to retract the incision lines in the mastoidectomy operation, through the third blade is used to retract the temporal muscle and fascia away from the field of operation.

Plate - III and IV

Thudichum Nasal speculum :-

It is used for Anterior Rhinoscopy (examination of the Anterior part of Nasal cavity)

Posterior Rhinoscopic mirror (St. clair thomson's)

It is used to examine in the posterior part of the nose and the Nasopharynx.

Antrum washing Cannula (Rose's) :-

It is used for giving wash to maxillary antrum on the 4th to 6th post operative day of I. N. A. (intra nasal antrostomy)

Nasal foreign body hook :-

Used for removal of foreign bodies from the nose.

Antral harpoon (Tilley's) :-

It is used for making an artificial opening in the inferior meatus of the antral wall, in intra nasal antrostomy operation.

Antral Rosette Burr (Tilley's)

It is used for enlarging and smoothening the margin of the artificial opening made by the harpoon in I. N. A.

- 7) **Antral trocar and Cannula (Tilley-Licht-witz) :-**
It is used for washing the maxillary antrum in cases of maxillary sinusitis for diagnostic and therapeutic purposes.
- 8) **Killian's mucoperichondrial Elevator with the thumb rest (Right and Left).**
These instruments are used in submucous resection (S.M.R.) operation of septum for elevating the mucoperichondrium of septum in deviated nasal septal disease.
- 9) **Long bladed Nasal speculum (Stclair-Thomsons)** It is used to keep the elevated mucoperichondrium of either side, away from the bare septum during S.M.R. operation.
- 10) **Ballenger's Swivel Knife :-**
It is used to cut a quadrangular piece of cartilage of septum in S.M.R. operation.
- 11) **Luc's Forceps :-**
It is used in Caldwell-Luc's operation, SMR operation for tissue biopsy from oral cavity and oropharynx, INA operation and in dissection method of tonsillectomy.
- 12) **Negus Modification of (Glegg's) Nasal snare :-**
Its function is to crush and avulse the polyp from its base. Number 1 steel wire is used.
- 13) **Bayonet shaped Bone Gouge (Killian's)**
It is used to cut the bony thickening or spurs along the maxillary crest.

PLATES V. VI VII AND VIII :-

- 1) **Tongue depressor (Lack's)**
It is used to depress the anterior 2/3 of tongue to visualise the oral cavity and oropharynx clearly.
- 2) **Laryngeal mirror**
A mirror with straight handle is laryngeal mirror used for indirect laryngoscopy.
- 3) **Laryngeal forceps (Mackenzie's)**
These are sharp and curling types of forceps, used to take biopsy from the larynx and hypopharynx.
- 4) **Tonsillar Haemostatic Clamp (Yorke's)**
It is used to stop reactionary and secondary haemorrhage in the post-operative cases of tonsillectomy.

- Adenoid Cyrette with Cage (Stclair-thomsons)**
It is used to curette the adenoids.
- 1) **Draffin's Bipods**
These are used (Draffins bipods Boyle Davis mouth gag) in dissection method of tonsillectomy under general anaesthesia.
 - 2) **Tonsil holding Forceps (Denis Browne's) :-**
It is used to hold the tonsil and to pull it medially in dissection method of tonsillectomy.
 - 3) **Tonsil dissector with pillar retractor (Beavis)** This instrument is used for blunt dissection of the tonsil from its bed, retractor is used to bend the anterior pillar to expose any bleeding point and tonsillar tag just after tonsillectomy.
 - 4) **Tonsillar Snare (Eve's)**
It is used to crush and cut the lower pole of tonsil in dissection method of tonsillectomy - Number "2" steel wire is used in it.
 - 5) **Negus artery Forceps :-**
A pair of Artery forceps with curved end, is used at the time of applying ligatures of bleeding points in the tonsillar bed.
 - 6) **Knot - Tier and Ligature slipper (Negus) :-**
This is used for slipping the ligature beyond the curved tip of the artery forceps and also to tie the knots during an attempt to stop the bleeding points, during tonsillectomy operation by dissection method.
 - 7) **Tonsil Guillotines (Ballenger's)**
These are used in tonsillectomy by Guillotine method.
 - 8) **Doyen's Mouth gap :-**
This is used for opening the mouth during tonsillectomy by guillotine technique.
 - 9) **Peritonsillar abscess drainage Forceps or Quinsy dilator (St Clair Thomsons)**
These are used for draining a peritonsillar abscess.
 - 10) **Direct Laryngoscope (chevalier Jackson's)**
It is used for direct visualisation of larynx, to remove foreign bodies, papilloma or benign growth or for biopsy.
 - 11) **Paterson's Forceps :-**
A long and narrow pair of Forceps which may be passed through the endoscopes.
 - 12) **Cutting type for taking biopsy.**
 - 13) **Holding type to remove Foreign bodies.**

18) **Broncho Scope (Chevalier Jackson's) :-**

This instrument contains holes on either side near its distal end to keep air way patent for the ventilation of one lung during examination of the bronchus and bronchioles of the other lung.

19) **Oesophagoscope (Nagels)**

It is used for direct visualisation of the oesophageal lumen, for removal of foreign bodies, for taking biopsy, diagnosis of achalasia and for dilation of benign stricture of Oesophagus etc.

20) **Tracheal Dilator (Trousseau's)**

It is used in tracheostomy operation to dilate the tracheal incision for smooth introduction of the tracheostomy tube.

21) **Sharp tracheal hook :-**

It is used in tracheostomy operation to fix the trachea during its incision.

22) **Blunt tracheal hook :-**

It is used to retract the isthmus of thyroid gland during tracheostomy operation.

23) **Bivalved Metallic Tracheostomy tube (Julier's) :-**

The outer tube contains two cusps so only called Bivalved, it never gets blocked by tracheo bronchial secretions, after introduction of inner tube through the outer one, the opening should be covered with a piece of Sterile gauze.

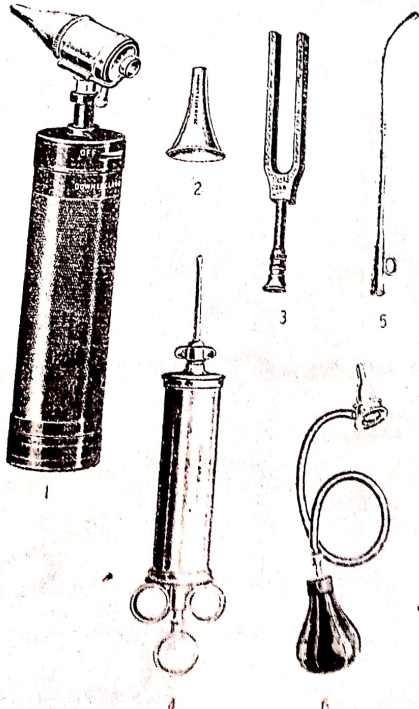
24) **Head mirror :-**

It is fixed to the head, The bright light which is coming from the source, should be focussed properly on the concave mirror of head mirror and the converged reflected light should expose to the site and through the central perforation of the concave mirror the affected part should be examined.

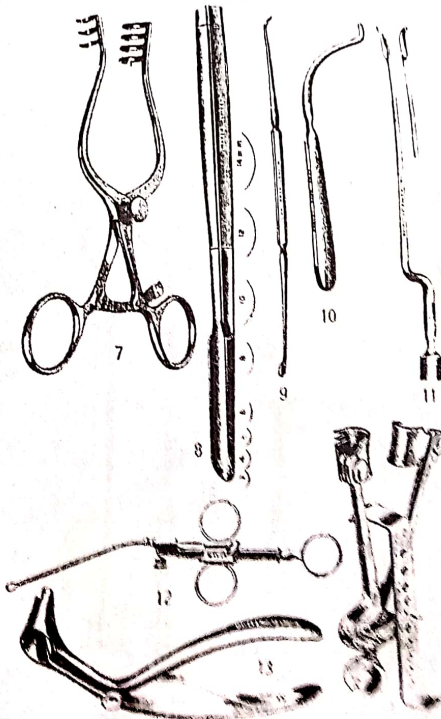
25) **Head Light :-**

This contain concave mirror with central hole and light source togetherly so easy for focussing and examination.

PLATE—L. INSTRUMENTS USED IN EXAMINATION OF THE EARS



PLATE—II. INSTRUMENTS USED IN SURGERY OF THE EARS



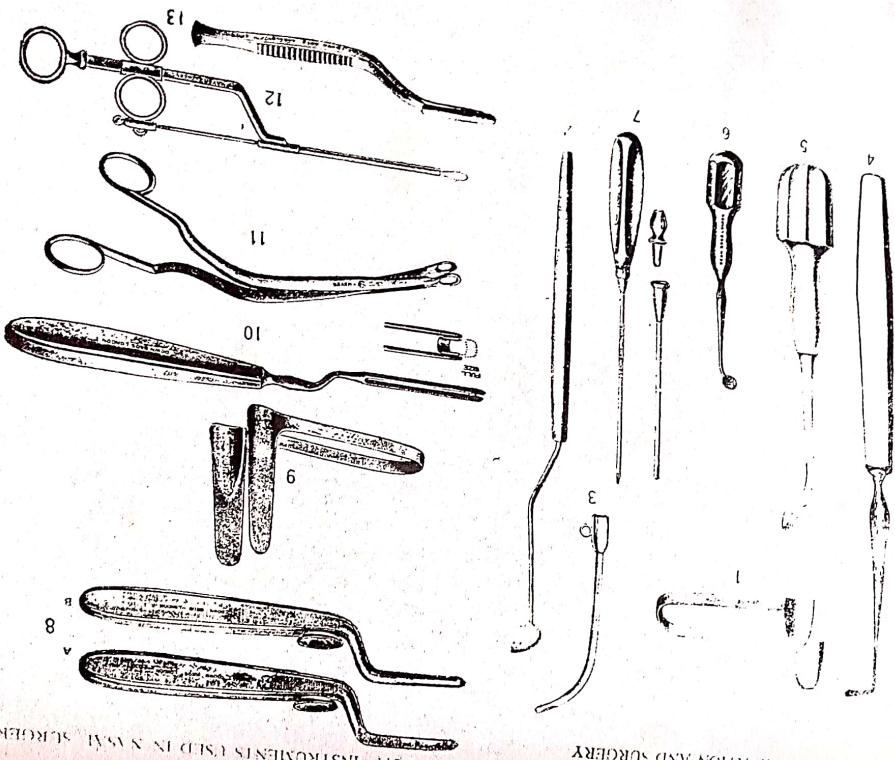


PLATE III—INSTRUMENTS USED IN NASAL EXAMINATION AND SURGERY

PLATE IV—INSTRUMENTS USED IN NASAL SURGERY

PLATE V—INSTRUMENTS FOR THE EXAMINATION AND SURGERY OF THE THROAT

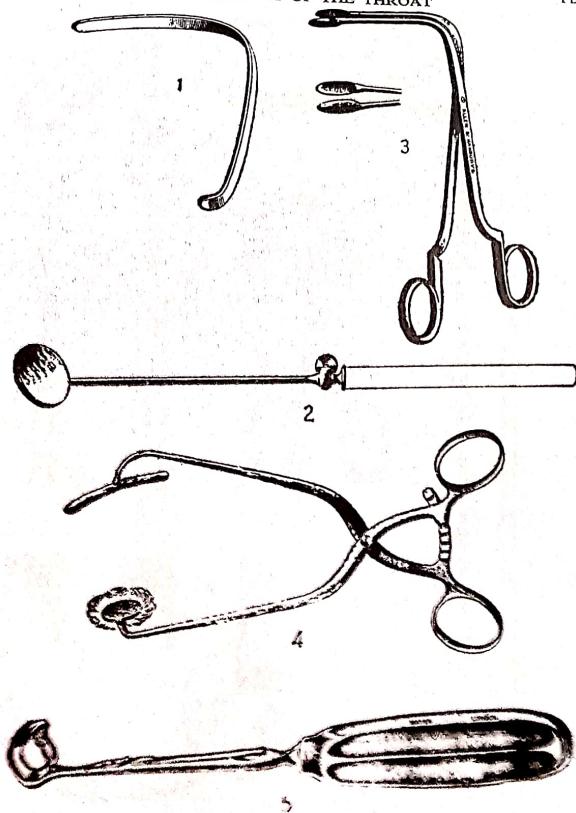
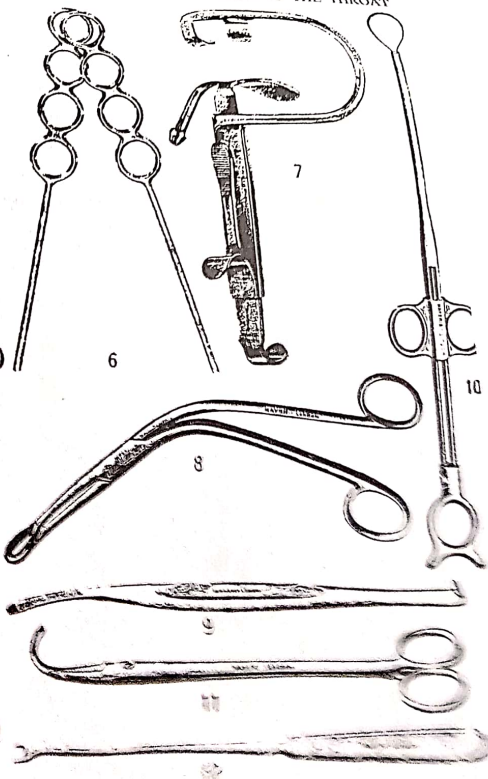


PLATE VI—SURGICAL INSTRUMENTS OF THE THROAT



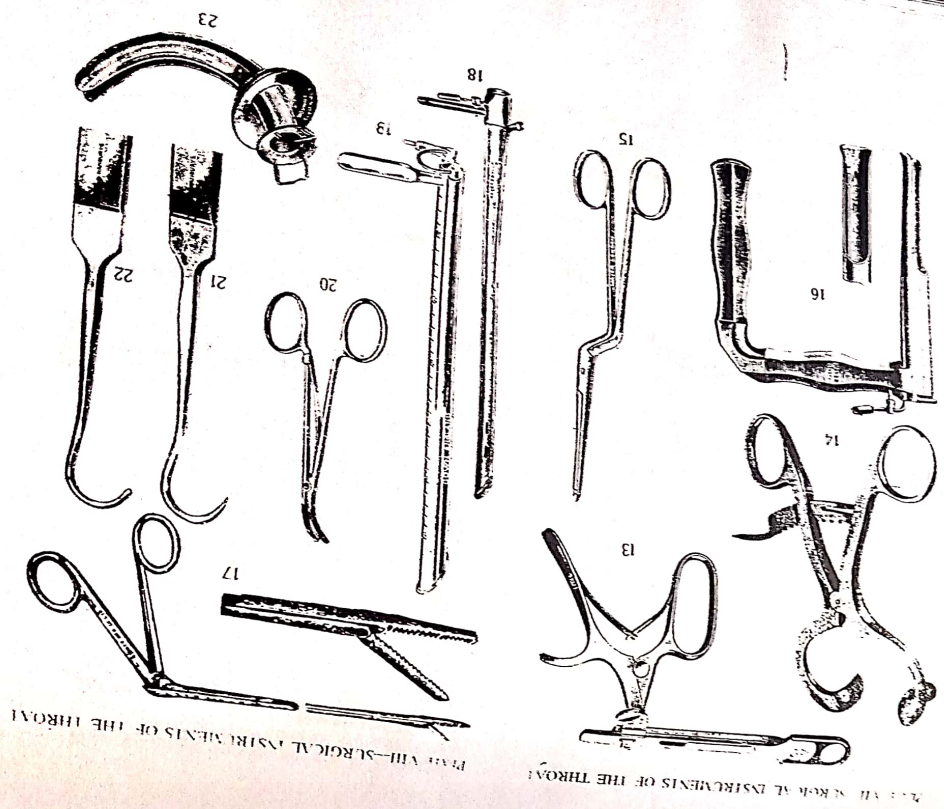
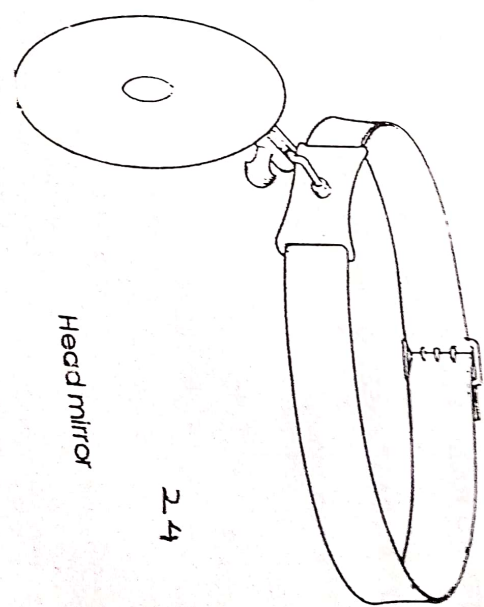


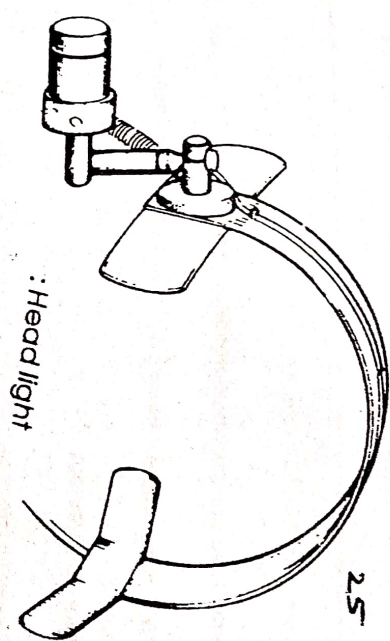
PLATE VII—SURGICAL INSTRUMENTS OF THE THROAT

PLATE VIII—SURGICAL INSTRUMENTS OF THE THROAT



Head mirror

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Head light

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A MODEL CASE SHEET FOR SHALAKYA - II

C.S.S.

N.K.J. Ayurvedic Medical College - Hospital. BIDAR.

**AFFILIATED TO RAJIV GANDHI UNIVERSITY OF HEALTH SCIENCES
KARNATAKA**

SHALAKYA II CASE SHEET- DEPARTMENT OF SHALYA SHALAKYA

- I)
- 1) Name of the patient
 - 2) Age
 - 3) Sex
 - 4) Caste
 - 5) Occupation
 - 6) Address
 - 7) Registration No.
 - O.P.D. No.
 - I.P.D. No.
 - Bed No.

8. Date
- 9) Provisional diagnosis.

- II)
- 1) Patient's Chief Complaints, duration :
 - 2) Associated complaints, duration :
 - 3) History of present illness :
 - 4) History of previous illness :
 - 5) Personal history :
 - 6) Family history :

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III) Asta sthana Pareeksha :-

- 1) Nadi
- 2) Mutra
- 3) Malam
- 4) Jilwa
- 5) Shabda
- 6) Sparsha
- 7) Druk
- 8) Akruithi

IV) Dasha - vidha pareeksha :-

- 1) Prakruthi
- 2) Vikruthi
- 3) Sara
- 4) Samhanana
- 5) Pramana
- 6) Satmya
- 7) Satwa
- 8) Ahara Shakthi
- 9) Vyayama Shakthi
- 10) Vayas.

V) Anga Pratyanga Pareeksha :-

- 1) Heart
- 2) Lungs
- 3) Liver
- 4) Spleen

Other :-

VI) Samsthanika - Pareeksha :- (Systemic Examination)

VII) Examination Nose :-

- 1) Bahya Nasa :
 - a) Normal ()
 - b) Deformed ()
 - c) Congenital Lesions :-
 - d) Inflammatory Lesions :-
 - e) Traumatic Lesions :-
 - f) Operative lesions
 - g) Others
 - h) Description :-

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- 2) **NASA PATALA (NASAL SEPTUM)**
 - a) Normal ()
 - b) Deviated ()
 - c) Description :-
 - 3) **NASA GUHA (NASAL CAVITY)**
 - a) Normal b) Rhinitis. c) Atrophied. d) Hypertrophied. e) Furunculosis. f) Crust formation. g) Occlusions. h) Nasal Polyp. i) Granchi j) Arbud. k) Vidradi l) Bleeding m) Pain. n) Burning sensation. o) Itching sensation. p) Sneezing. q) Nasal discharge its nature r) Swasa. 1) Normal. 2) obstructed Right side/Leftside. s) Gandha gyanam 1) Normal 2) Absent 3) Altered 4) Reduced 5) Aggravated. t) Description.
 - 4) **INSTRUMENTAL EXAMINATION - INVESTIGATIONS - REPORTS :-**
- VIII. Examination of EAR :-**
- 1) BAHYA KARNA :**
- a) Normal ()
 - b) Deformed ()
 - c) Congenital Lesions :-
 - d) Inflammatory Lesions
 - e) Traumatic Lesions
 - f) Operative lesions.
 - g) Others.
 - h) Description :
- 2) **EXAMINATION OF EXTERNAL AUDITORY MEATUS :-**
 - a) Normal b) Wax. c) Foreign bodies. d) Inflammation e) Furunculosis. f) Otitis Externa. g) Otiomycosis. h) Trauma. i) Ear discharge, its nature j) Otagla 1) Local () 2) Radiating () 3) . k) Polyp. l) Cyst. m) Tumours. n) Abscess. o) Fistula p) Description :-
 - 3) **Examination of Tympanic Membrane :-**
 - a) Normal
 - b) Abnormal
 - c) Perforated i) Location () 2) Size () 3) Shape ()
 - d) Description
 - 4) **Deafness :-** a) Conductive b) Sensori neural c) Mixed () d) Tinnitus () e) Menier's Syndrome c) Vertigo ()
 - 5) **INSTRUMENTAL EXAMINATION INVESTIGATIONS - REPORTS :-**
 - IX) **Others if any :**

- X) **Examination of Shiras :-**
 - 1) Normal
 - 2) Shiras shoola (Head ache)
 - 3) Site of the pain :
 - a) Local pain :
 - b) Continuous pain
 - c) Local pain
 - d) Time of occurrence
 - e) Duration of pain
 - f) Reduce naturally
 - g) Reduce by medication.
 - h) Reduce by medication.
 - i) Shiro kandu : () 5) Shiro gurutwa : ()
 - j) Shirodaha : () 7) Kapala Vikara
 - k) Brama ()
 - l) Description :-
- 6) **Investigations and reports :**
- 9) **Examination of MUKHA :-**
- 10) **OSTA (Lips)**
 - a) Normal
 - b) Varna (Colour)
 - c) Vedana (pain)
 - d) Kandru (itching)
 - e) Parimana (size)
 - f) Shooha (Oedema)
 - g) Srava (Drava - Raktha - Puya - Pischila -)
 - h) Daba (burning sensation)
 - i) sputona (Cracking)
 - j) Description :
- XI) **Dantha Mooda (Gums)**
 - a) Normal
 - b) shooha (Oedema)
 - c) Perforation.
 - d) Arbuda tumour.
 - e) Vidradi. abscess
 - f) Daba (Buring Sensation).
- XII) **DANTHA (TEETH)**
 - a) Normal
 - b) Varna (Colour)
 - c) Sensitivity
 - d) Krimidantha (carres tooth)
 - e) Gradhi (Cyst)
 - f) Vidradi (abscess)
- XIII) **Akruthi (Sama - Vishama)**
 - a) Shoola (Pain)
 - b) Dantha Harsa (Sensitivity)
 - c) Shriti (Shira - chala)
 - d) (Sputana (cracking))
 - e) Dantha Chidra (Perforation)
 - f) Krimidantha (carres tooth)
 - g) Shooha (Oedema)
 - h) Gradhi (Cyst)
 - i) Arbuda (Tumour)
 - j) Vidradi (abscess)
 - k) Description :
- XIV) **JIHWA (Tongue)**
 - a) Normal
 - b) Parimana (Size)
 - c) Varna (Colour)
 - d) Akruthi (Shape)
 - e) Sputana (ulceration)
 - f) Rasana (Taste)
 - g) Description :

XV) **TALU (Palate)** ()
 Varna (Colour)
 Shoola (Pain)
 Vrana (ulceration)
 Description :-

Normal
 Shotha (Oedema)
 Sputana (Cracking)

XVI) **GALA (Throat)**

a) Varna (Colour)
 Vedana (Pain)
 Kandu (itching)
 Swara Vikar
 Arbuda (Tumour)
 Description :-

Normal
 Shotha (Oedema)
 Dahan (burning)
 Grandhi (Cysts)
 Vidradi (abscess)

Instrumental Examination - Investigations - Report.

XVII) **Differential diagnosis :-**

XVIII) **Final Diagnosis.**

XIX) **Pancha Lakshana Nidanam :**

1. Nidana :

2. Poorva rupa :

3. Rupam :

4. Upashaya :

5. Sampraphi :

6. Doshha Vikruthi.

7. Dushya Vikruthi

8. Sroto Vikruthi

9. Rogi bala

10. Roga balam

11. **Sadhya Sadhyatha :**

xx) **A. Chikitsaa Sutra :-**

B) Pathya :

C) Apathya :

D) Aushada chikitsa :

I. Sthanika chikitsa

II) Saarva dehika chikitsa

E) **Shastra Shikitsa**

I. Poorva Karma

II. Pradhana karma

III) Paschaat Karma

XXI. **Result**

XXII) **Advices.**

Signature of Student

Signature of the Lecture

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