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KADALĪ

Botanical name

Musa paradisiaca Linn. Syn. *Musa sapientum* Linn.

Family : Musaceae

Classical name : Kadali

Sanskrit names

Kadali, Mocā, Rambhā, Anśumatī, Ambusāra, Vāraṇā, Phala, Mocāphala, Dīrghapatikā, Palāśikā, Bṛhatpuṣpa, Muktasāra

Regional names

Kela (Hindi); Banana (Eng.)

Description

A genus of perennial tree like herb. Stem 2.5-3.5 meters. Leaves 1.2-1.5 meters, bright green above, paler beneath. Inflorescence about as long as the leaves. Bracts ovate, more or less pruinose, lower 15-20 cm.; petals oblong, about half as long. Fruit oblong, trigonous 5-7.5 cm. in the wild form and full of seeds, tapering to the base and apex.

Stoloniferous plant, 2.5-3.6 meters tall. Leaves large, oblong, erect or ascending. Spikes drooping about as long as the leaves. Bracts many flowered, deciduous. Flowers 60 x 7 mm. Fruits oblong, yellowish - green when ripe, sweet, edible. Seeds brownish - black (if present).

Flowering and fruiting time

Plant flowers during summers, April to June; and fruiting during rainy season.

Distribution

It is cultivated throughout India. Planted by suckers in fruit orchards, garden shrubberies near houses, house or bungalow gates and premises (rural and sub-urban) specially farm houses. Farming of Banana in different regions, especially in the plains, Coastal regions and other various areas in country.

Kinds and Varieties

There are three kinds of Kadali which are described

in classical texts of materia medica (nighaṇṭu) viz. Kāṣṭhakaḍalī, Girikaḍalī and Suvarṇakaḍalī. In another context, some classical varieties of Kaḍalī are indicated such as Kṛṣṇakaḍalī, Sugandhā and Śailarambhā. Presently several varieties are cultivated, produced and marketed in differeng regions of country under crop farming.

Chemical Composition

The ripe fruit is rich source of carbohydrates and a fair source of minerals and vitamins, particularly of the B group. The composition varies with type and also the stage of maturity.

Analysis of the flesh (of 59 types of the ripe banana (from Madras), having percentage of flesh in fruit 52.1-91.8, gave the following values : moisture 60.6-79.8, protein 0.4- 1.7, reducing sugars 3.6-24.6, non-reducing sugars 0.0-14.6, other carbohydratis, fat etc. 0.1-16.4 and ash 0.7-1.6/∴ calorific val. 67-137 cal. 100g.

Pharmacodynamics

Rasa	: Madhura, Kaṣāya
Guṇa	: Guru, snigdha, śīta
Virya	: Śīta
Vipāka	: Madhura
Doṣakarṇa	: Pittahara Kaphakara (Variations to stage/kinds/state of fruit and other, parts in particular).

Properties and Action

Karma	: Vṛṣya - śukrala
	Rucikara
	Saṅgrāhi
	Mānsakara
	Bṛmhāṇa
	Hṛdya
	Trṣṇanigrahaṇa
	Viṣṭambhi
	Dāhapraśamana
	Tṛptikara
Roga	: Kṣata
	Kṣaya
	Dāha

Sidhmakuṣṭha
 Vraṇa
 Somaroga
 Pradara
 Śvāsa
 Pramēha
 Kṣudhā
 Netraroga
 Dourbalya
 Atisāra-raktātisāra
 Jvara
 Raktapitta
 Karṇaroga
 Grahaṇī.

Therapeutic uses

Externally, some parts of the drug plant are used in various diseases. The nature and clean leaves of Kadali are externally applied to remove the hidden pus from wounds. In ear diseases, the tepid juice of Kadali is used for filling ear or as ear drops.

The leaves of Kadali (*Musa paradisiaca* Linn.) are employed in some specific pharmaceutical process of drug formulation preparations; based on classical method; for the instance parpaṭī kalpanā, particularly Pancamṛta Parpaṭī. Thus, the leaves and juice of stem (patra and kāṇḍa swarasa) are used as an ingredient as well as adjunct or upakaraṇa (or sambhāra) item in Rasaśāstra and Bhaiṣajya kalpanā of Āyurveda.

Internally, various parts and commonly the fruits of plant drug are used in several diseases; and the ripe fruits are very popular edible fruit and the unripe fruits are used for cooking vegetable (phala śāka) and also preparing certain food items or dietary dishes. Stems and flowers are also eaten after cooking.

Unripe fruits of Kadli are steamed a little and made into bread which is taken with curd devoid of fatty layer for overcome Grahaṇī roga (intestinal disorder under type of chronic diarrhoea) and in diarrhoea, the fruits (ripe) are

considered among wholesome diet. In bronchial asthma, fruit of Kadali boiled in cows urine or fried (or roasted) on charcoal, is orally given in excessive discharge of menstrual blood.

In juice of Kadali, Lesser cardamom (Elā) is mixed with honey and given in dysuria. In treatment of all kinds of udar roga (abdominal disorders) Kadali is indicated; kṣāra (alkali) extracted from ash of banana tree leaves (Kadali patra) is mixed with flour and made into a paste; this preparation is taken orally for three days (minimum and also more days as needed) for checking udar rogas. In intestinal worms, the root of Kadali cooked with ghee and jaggery is internally taken, and it is also given in toothache, abdominal colic and pain in flanks.

In some roga (watery vaginal discharge in females with other symptoms), ripe fruit of banana (pakva kadali phala) is frequently recommended. Ripe fruit duly, mixed with juice of Āmaḷakī, honey and sugar, is orally given. There are also other recipes of banana fruits which are suggested to be taken by women patients suffering with some roga. Similarly Kadali fruits mixed with ghee is internally prescribed in meno-metrorrhagia (pradara roga) which is characterized by excessive discharge of menstrual blood.

In the ancient texts of Indigenous medicine; the medicinal as well as dietetic utility of different parts of Kadali and stages of fruit of Kadali, medicinal properties of (unripe) apakva, ardhapakva (semi-ripe) and pakva (ripe) are specified. Simultaneously the medicinal utility of Kadali kanda (root), Kādali kaṇḍa (stem or trunk), Kadali paṇa or patra (leaves), Kadali puṣpa (flowers) Kadali toyam (watery fluid) and Kadali puṣpa śaka (flowers vegetable) are mentioned.

Parts used

Fruit (phala), flowers, leaves (puṣpa), stem (Kāṇḍa-stambha), root, (mūla), watery fluid or juice (rambhā toyarasa) Expressed juice (svarasa), Alkali (Kṣāra)

Dose : Juice 10-20 ml.

Formulation : Kadali kṣārā.

KADALĪ (कदली)

- क. कदली वारणा मोचाऽम्बुसारांशुमती फला ।
 ख. मोचाफलं स्वादु शीतं विष्टम्भि कफकृत् गुरु ॥
 स्निग्धं पित्तास्रतृड्दाहक्षतक्षयसमीरजित् ।

Bhāvaprakāśa Nighaṇṭu, Āmrādīphala Varga, 33-34

पक्कफलम्

- पक्कं स्वादु हिमं पाके स्वादु वृष्यञ्च वृंहणम् ।
 क्षुत्तृष्णानेत्रगदहन्मेहघ्नं रुचिमांसकृत् ॥

Bhāvaprakāśa Nighaṇṭu, Āmrādīphala Varga, 34

कदलीभेदान् गुणनिर्देशपूर्वकम्—

- माणिक्यमर्त्यमृतचम्पकाद्या भेदाः कदल्याः बहवोऽपि सन्ति ।
 उक्तः गुणास्तेष्वधिका भवन्ति निर्दोषतः स्याकलधुता च तेषाम् ॥

Bhāvaprakāśa Nighaṇṭu, Āmrādīphala Varga, 35

मोचा कदली (वृक्ष)- शिलीन्ध्रकम् (पुष्प)

- कालीरसा हस्तिवुसा रम्भा वीरांशुमत्फला ।
 चर्मण्वती कानुफला मोचा हस्तिविषाणिका ॥
 बृहत्पुष्पा मुक्तसारा ग्रन्थिनी सुकुमारिका ।
 काष्ठीालिका हस्तिविषा कदली दीर्घपत्रिका ॥
 पलाशिका मृत्युपुष्पा तस्याः पुष्पं शिलीन्ध्रकम् ।

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 280-282.

कदलीकाण्डस्य गुणाः

- मोचा गुर्वी हिमा स्निग्धा स्वाद्वी पित्तास्रनाशिनी ॥
 योनिदोषहरास्त्रघ्नी तत्काण्डं गुरु शीतलम् ।

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 282-283.

कदलीकन्दः

- बल्यः कदल्याः कन्दः स्यात् कफपित्तहरो गुरुः ॥
 वातलो रक्तशमनः कषायो रूक्षशीतलः ।
 कर्णशूलं रजोदोषं सोमरोगं नियच्छति ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, -283-284.

कदलीतोयम्

रम्भातोयं शिरोमज्जा मधुरो रसपाकयोः ।

वातपित्तास्त्रशमनः शुक्रश्लेष्मविवर्धनः ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 285.

कदलीकुसुमम्

कदलीकुसुमं तिक्तं कषायं ग्राहि दीपनम् ।

उष्णवीर्यं बलासघ्नं तादृशास्तत् सटादयः ॥

कदल्यामफलम्

तृड्रक्तपित्ताक्षिगदप्रमेहान् फलं कदल्यास्तरुणं निहन्ति ।

साङ्ग्राहिकं तिक्तकषायरूक्षं रक्तातिसारं शमयेज्ज्वरञ्च ॥

कदल्यार्धपक्वं (मध्यम) फलम्

ईषत् कषायमधुरं मध्यमं कदलीफलम् ।

गुर्वाग्निसादकृत् त्वक् तु कटुतिक्तरसा लघुः ॥

कदलीपक्वफलम्

मोचं पक्वं स्वादु पाके सकषायं हिमं गुरु ।

मांसलं श्लेष्मलं रुच्यं वृष्यं विष्टम्भि वृंहणम् ॥

स्निग्धं क्षतक्षयक्षुत्तृड्वातपित्तास्त्रदाहजित् ।

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, -287-290.

कृष्णाकदलीफलम्

कृष्णरम्भाफलं रुच्यं कषायं मधुरं तथा ।

मेहं पित्तं तृषां हन्ति वातलं वृंहणं लघु ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga,, 290.

कदलीभेदाः

सुगन्धा कृष्णरम्भा च शैलरम्भा यथोत्तरम् ।

निन्दिताः फलमासां तु कषायं मधुरं गुरु ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga,, 291.

कदलीपुष्पगुणाः (पुष्पशाकम्)

कदल्याः कुसुमं स्निग्धं मधुरं तुवरं गुरु ।

वातपित्तहरं शीतं रक्तपित्तक्षयप्रणुत् ॥

Bhāvaprakāśa Nighaṅṭu, Śāka Varga, 49.

कदली भेदाः

क. काष्ठकदली

काष्ठकदली सुकाष्ठा वनकदली काष्ठिका शिलारम्भा ।
दारुकदली फलाढ्या वनमोचा चाशमकदली च ॥

गुणाः

स्यात्काष्ठकदली रुच्या रक्तपित्तहरा हिमा ।
गुरुर्मन्दाग्निजननी दुर्जरा मधुरा परा ॥

क. गिरिकदली

गिरिकदली गिरिरन्भा पर्वतमोचाऽप्यरबहुबीजा
वनरन्भा गिरिजा गजवल्लभाऽमिहिता ॥

गुणाः

गिरिकदली मधुरहिमा बलवीर्यविवृद्धिदायिनी रुच्या ।
तृट्पित्तदाहशोथप्रशमनकर्त्री च दुर्जरा च गुरुः ॥

ग. सुवर्णकदली

अन्या सुवर्णकदली सुवर्णरम्भा च कनकरम्भा च ।
पीता सुवर्णमोचा चम्पकरम्भा सुरम्भिका सुभगा ॥
हेमफला स्वर्णकला कनकस्तम्भा च पीतरन्भा च ।
गौरा च गौररम्भा काञ्चनकदली सुरप्रिया षड्भूः ॥

गुणाः

सुवर्णमोचा मधुरा हिमा च स्वल्पाशने दीपकारिणी च ।
तृष्णापहा दाहविमोचनी च कफावहा वृष्यकरी गुरुश्च ॥

Rāja Nighaṅṭu, Āmrādi Varga, 40-46

अ. कदली

कदली सुफला रम्भा सुकुमारा सकृत्फला ।
मोचा गुच्छफला हस्ति-विषाणी गुच्छदन्तिका ॥
काष्ठीरसा च निःसारा राजेष्टा बालकप्रिया ।
उरुस्तम्भा भानुफला वनलक्ष्मीश्च षोडशः ॥

ब. बालफलम्

बालफलं मधुरमल्पतया कषायं
पित्तापहं शिशिररुच्यमथापि नालम् ।

पुष्पं कन्दपर्णञ्च

पुष्पं तदप्यनुगुणं क्रिमिहारि कन्दं

पर्णञ्च शूलशमनं कदलीभवं स्यात् ॥

Rāja Nighaṅṭu, Āmrādi Varga, 36-38

पक्करम्भाकदलीफलम्

रम्भापक्कफलं कषायमधुरं बल्यञ्च शीतं तथा
पित्तं चास्त्रविमर्दनं गुरुतरं पथ्यं न मन्दानले ।
सद्यः शुक्रविवृद्धिदं क्लमहरं तृष्णापहं कान्तिदं
दीप्ताग्नौ सुखदं कफामयकरं सन्तर्पणं दुर्जरम् ॥

Rāja Nighaṅṭu, Āmrādi Varga, 39

‘कदल्याः कुसुमं स्निग्धं मधुरं तुवरं गुरु ।
वातपित्तहरं शीतं रक्तपित्तक्षयप्रणुत् ॥’

Bhāvaprakāśa

‘सपक्वं पनसं मोचं राजादनफलानि च ।
स्वादूनि सकषायाणि स्निग्धानि च गुरूणि च ॥
कषायविशदत्वाच्च सौगन्ध्याच्च रुचिप्रदम् ।’

Cakradatta

सोमरोगे कदलीफलम्

कदलीनां फलं पक्वं धात्रीफलरसं मधु ।
शर्करासहितं खादेत्सोमधारणमुत्तमम् ॥

Bhāvaprakāśa, Somarogādihikāra, 69-70.

दाहशान्त्यर्थं कदलीदलशय्या

चन्दनाम्बुजकणास्यन्दि-तालवृन्तोपवीजितः ।
सुप्यादाहार्दितोऽम्भोज-कदलीदलसंस्तरे ॥

Cakradatta, Dāha cikitsā, 19-4.

कर्णरोगे

‘कदल्याः स्वारसः श्रेष्ठः कटूष्णः कर्णपूरणे ।’

Suśruta Saṃhitā, Uttara. 21-27.

ग्रहणयाम्

उत्स्वेद्य किमपि कदलीफलानि सत्रीय कल्पिता पोली ।
सन्तानिका विरहिणा दध्ना सह सेविता जयेद् ग्रहणीम् ॥

Siddha Bhaiṣajya Maṇimāla,

व्रणे

‘परिणतपरिशुद्धं पत्रसंङ्घं कदल्याः

प्रहरति परिकोषोद्भूतपूयं व्रणापहम् ।'

Vaidya Manoramā, 16-105.

मूत्रकृच्छ्रे

‘पिबेत् त्रुटिं क्षौद्रयुतां कदल्याः रसेन कैडर्यरसेन वापि ।’

Caraka Saṃhitā, Cikitsa. 26-55.

उदररोगे

विस्त्राव्य रम्भादलभस्ममध्यात् तोयं ततस्तेन कृता विलेपी ।

स्याद् भक्षिता सत्युदरामयानां नाशाय नूनं दिवसत्रयेण ॥

Gadanigraha, 2-32-139.

सिध्मकुष्ठे

‘क्षारेण वा कदल्याः रजनीमिश्रेण नाशयति ।’

Gadanigraha, 2-36-125.

श्वासे

रम्भाकुन्दशिरीषाणां कुसुमं पिप्पलीयुतम् ।

षिष्ट्वा तण्डुलतोयेन पीत्वा श्वासमपोहति ॥

Bhāvaprakāśa, Cikitsā. 14-37.

श्वासायासविनाशार्थमाशयेत् कदलीफलम् ।

शृतं मूत्रेऽथवा भृष्टमथवाऽङ्गारपाचितम् ॥

Vaidya Manoramā, 3-17.

प्रदरे

‘योषिद्रजस्य नितरां समभिप्रवृत्तौ सर्पिर्युतानि

यदि वा कदलीफलानि ।’

Rāja Martanḍa, 31-3.

Gada Nigraha, 6-1-50.

KADAMBA

Botanical name

Anthocephalus chinensis (Lamk.) A. Rich.
Anthocephalus indicus Miq. Syn. *Anthocephalus cadamba*
(Roxb.) Miq.

Family : Rubiaceae

Classical name : Kadamba

Common name : Kadamb, Kadam

Sanskrit names

Kadamba, Priyaka, Nipa, Vṛttapuṣpa, Halipriya, Alipriya, Girikadambaka, Vṛttavihāraka, Prāvṛṣṇya, Kutsitāmbha, Kādambari, Pulakī, Parvatāhva.

Regional names

Kadamb, Kadam (Hindi); Kadamgachh (Bengla); Rajakadamba (Marathi); Kadamba (Gujarati).

Description***Anthocephalus chinensis* (Lamk.) A. Rich.**

Large deciduous trees, up to 10 meters high. Leaves 12-25x5-10 cm. ovate or elliptic-oblong, coriaceous, acute, pubescent beneath, subcordate at base, stipules, caducous, lanceolate. Inflorescence a solitary terminal head.

Flowers small, pentamerous, orange, united, by the confluent calyx tube. Calyx segments oblanceolate. Corolla funnel-shaped on 7 mm. long. Stamens 5. Ovary 4 celled above, 2-celled below; stigma white. Pseudocarp large, fleshy, cu. 5-6cm diam., Seeds minute, angular.

***Mitragyna parviflora* (Roxb.) Korth. *syns. Nauclea parviflora* Roxb., *Stephegyne parviflora* Korth.**

Large branched trees up to 18 meters high. Leaves broadly ovate or sub-orbicular 5-9 cm. long, acute or obtuse, glabrous; stipules oblong, deciduous. Flowers heads globose, usually solitary, creamy- white, ca 2cm. across, shortly peduncled. Capsules in globose heads, black, persistent. Flowering in August and fruiting in September-January.

Flowering and fruiting time

Spring, summer and rainy seasons. Flowering May-July and fruiting persisting till next year.

Distribution

Plant is occurring from Himalayan terai and Nepal to Burma, and it is found in Mysore (Karnataka) and Western ghats. It is grown in Assam and Andamans islands.

Kinds and Varieties

There are three main kinds of Kadamba in classical texts (nighaṅṭus) viz. Dharakadama Dhulikadamba and Bhūmikadamba.

Chemical Composition

Bark of Kadamba (**Anthocephalus indicus Miq.**) an active principle resembling cinchotannic acid, and other alkaloids, steroids and reducing sugars.

Pharmacodynamics

Rasa	: Tikta, Kaṣāya
Guṇa	: Rūkṣa
Vīrya	: Śīta
Vipāka	: Kaṭu
Doṣakrma	: Tridoṣośāmaka

Properties and Action

Karma	: Vedānasthāpana Śothahara, Vraṇaśodhana-Vraṇaropana, Dīpana-pācana, Grāhī, Trṣṇānigrahaṇa-Chardinigrahaṇa, Viṣṭambhi (Viṣṭambhakarajana) Raktastambhana-śothahara, Kāśahara, Mūtrajanana-Mūtravirecjanīya, Aśmariśarkarā nāśana Śukraśodhana, Stanyaśodhana, Yonidoṣahara, Varṇya, Āmapācana-jvaraghna, Dāhapraśamana, Viṣaghna.
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Roga	: Vraṇa-vraṇaśoṭha-vedanā Netrābhiṣyanda, Mukharoga, Vedanā, Atisāra-Grahaṇī Jvarajanya pipāsā Raktātisāra Raktapitta Śoṭha, Kāsa
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Aśmarī-śarkarā
 Mūtrakṛchra
 Śukrameha
 Yonivyāpada,
 Pradara,
 Stanyakṣaya,
 Kṣudraroga-vyaṅga-nyaccha
 Jvara-jvaradāha,
 Dourbalya-viṣa.

Therapeutic uses

Externally the plant's parts are used in different ailments. The mature and clean leaves of Kadamba are warmed and put on local inflammation and painful organ. Leaves of Kadamba (Kadamba patra) are also used to cover wounds.

The bark of plant drug Kadamba is pasted around the eyes in conjunctivitis. Decoction of leaves of Kadamba is used as Vraṇas'odhana for washing ulcers and in stomatitis as mouth wash internally (mukhagaṇḍūṣa).

The decoction of bark is given in diarrhoea with blood or without blood. Root of Kadamba is suggested to use with warm water to alleviate the ailments of gravels and gravels.

In infestation of worms (Krimi), the cakes prepared with the leaves of Kadamba (*Anthocephalus cadamba*), *Bhr̥ṅgarāja* (*Eclipta alba*) and *Nirguṇḍī* (*Vitex negundo*). In discolouration of urine and dysuria (mūtravaivarṇya and mūtrakṛchra). Powder or juice of bark of the drug Kadamba mixed with jīraka and sugar powder is orally given for checking vomiting. Juice of fruits is given to allay over thirst. Decoction of bark is used in calculus (as'marī). Leaves juice or decoction in leucorrhoea (pradara). In spermatorrhoea and vaginal complaints, the bark of kadamba is considered to be useful. As an antipyretic, the bark or powder of Kadamba is used to allay burning sensation and fever. Bark and leaves are useful in intrinsic haemorrhage (raktapitta) and oedema (śoṭha).

Parts used : Bark, leaves, fruits, root.

Dose

Decoction 50-100 ml., Bark Powder 3-6 gms., Fruit juice 3-6 gms.

Guṇa

Vedanāsthāpana, Śukraśodhana, Vamanopaga (Caraka Saṁhitā), Nyagrodhādi Rodhrādi, (Suśrut Saṁhitā).

KADAMBA (कदम्ब)

- क. कदम्बः प्रियको नीपो वृत्तपुष्पो हलिप्रियः ।
 ख. कदम्बो मधुरः शीतः कषायो लवणो गुरुः ।
 सरो विष्टम्भकद्रूक्षः कफस्तन्यानिलप्रदः ॥

Bhāvaprakāśa Nighaṇṭu, Puṣpa Varga, 36.

नीप-राजकदम्बः

- अ. सुगन्धिपुष्पः स्वादुम्लः पक्कसस्यो महोन्नतिः ॥
 मधुकपत्रसदृशपत्रो राजकदम्बकः ।

राजकदम्बफलम्

- ब. फलं राजकदम्बं स्यान्नीपं राजकदम्बकम् ।
 स. नीपं स्वादु कषायाम्लं गरदोषहरं परम् ।
 द. तत्फलं मधुरं शीतं गुरु पित्तास्रवातजित् ॥

कदम्बः

- क. कदम्बको वृत्तपुष्पः पुलकी पर्वताह्वयः ॥
 कादम्बर्यः कुत्सिताम्मो परो नृत्तविहारकः ।
 अलिप्रियः प्रावृषेण्यो नीपो गिरिकदम्बकः ॥
 ख. कदम्ब शिशिरो ग्राही कषायो लवणो गुरुः ।
 निहन्ति योनिदोषास्त्रकृच्छ्र दाह विष व्रणान् ॥

कदम्बपत्रम्

- ग. शीतवीर्यं तत्प्रवालं कषायं दीपनं लघु ।
 रक्तपित्तातिसारघ्नमरोचकविनाशनम् ॥

कदम्बफलम्

- घ. अम्लं तस्य फलं रुच्यं वीर्योष्णं श्लेष्मलं गुरु ।

पक्वं वातहरं साम्लं कफपित्तप्रकोपनम् ॥

Kaiyadeva nighaṇṭu, Oṣadhī Varga, 955-959.

त्रिकदम्बगुणाः

त्रिकदम्बाः कटुर्वर्ण्या विषशोफहरा हिमाः ।

कषायाः पित्तलास्तिका वीर्यवृद्धिकराः पराः ॥

Rāja Nighaṇṭu, Prabhadrādi Varga, 102.

क. धाराकदम्बः

धाराकदम्बः प्रावृष्यः पुलकी भृङ्गवल्लभः ।

मेघागमप्रियो नीपः प्रावृषेण्यः कदम्बकः ॥

ख. धूलीकदम्बः

धूलीकदम्बः क्रमुकप्रसूनः परागपुष्पो बलभद्रसंज्ञकः ।

वसन्तपुष्पो मकरन्दवासो भृङ्गप्रियो रेणुकदम्बकोऽष्टौ ॥

ग. भूमीकदम्बः

ग. भूमीकदम्बो भूनिम्बो भूमिजो भृङ्गवल्लभः ।

लघुपुष्पो वृत्तपुष्पो विषघ्नो व्रणहारकः ॥

Rāja Nighaṇṭu, Prabhadrādi Varga, 99-101.

विकाराणां कदम्बप्रयोगाः

क्रिमिरोगे

‘नीपमार्कवनिर्गुण्डीपल्लवेष्वप्ययं विधिः ।’

Aṣṭaṅga Hr̥daya, cikitsā. 20-30.

रक्तातिसारे

‘.....पिबेद् रक्तातीसारवान् ।

शुष्ठीकदम्बत्वक्काथं पिबेद् रात्रौ दिनत्रयम् ॥

Vaidya Manoramā, 6-8.

व्रणे

कदम्बार्जुननिम्बानां पाटल्याः पिप्पलस्य च ।

व्रणप्रच्छादने विद्वान् पत्राण्यर्कस्य चादिशेत् ॥

Caraka Saṁhitā, Cikitsā. 25-95

मूत्रवैवर्ण्ये मूत्रकृच्छ्रे च

विदारीभिः कदम्बैर्वा.....शृतम् ।

घृतं पयश्च मूत्रस्य वैवर्ण्ये कृच्छ्रनिर्गमे ॥

Caraka Samhitā, Cikitsā. 18-154.

अश्मरीशर्करासु

अजमोदा कदम्बस्य मूलं बिल्वस्य चौषधम् ।

पीतानि शर्करा सिन्धुः सुखोष्णोदकेन वा ॥

Aṣṭāṅga hṛdaya, Cikitsā. 11-29.

KĀJŪTAKA

Botanical name : *Anacardium occidentale* Linn.

Family : Anacardiaceae

Classical names : Kājūtaka

Sanskrit names

Kājūtaka, Guccapuṣpa, Śitaphala, Aruṣkara, Vṛttapatra, Pārvatī, Kājūta, Pṛthagbīja, Snigdhapala

Regional names

Kaju (Hindi, Mar., Guj.); Kajukuli (Mevarh); Kajugurhi (Marwarh); Hijali Badam (Beng.); Badame phirangi (Pers.); Cashew-nut (Kernel). Cashew-nut tree (tree).

Description

Evergreen trees, up to 10 meters high; bark grey. Leaves 3.5-12 × 3-7.5 cm., obovate-oblongate, margin entire, apex rounded or emarginate, base attenuate; petiole 1-2 cm. long.

Flowers white or pale pink in terminal, up to 25cm. long, pubescent panicles. Sepals 3-4 mm. long, ovate-lanceolate. Petals 6.5-10 mm. long, linear-lanceolate, apex acute, deflexed. Stamens 9-10, one longer and always fertile, the rest often sterile. Ovary 2-3 mm. long, style lateral, stigma minute, ovule-solitary.

Drupe 2-3 cm. long, hypocarp 2.5 - 6 cm. long, yellowish-orange. Generally tree begins to produce fruit (drupe) after 3 years and in full swing at age of 10 years.

Flowering and fruiting time

Plant begins flowering in November-December and

fruiting in springs and onwards Fruits ripen by April-May. Generally the flowering and fruiting stages during the period from September to June. Fruits are collected during summer (May) season.

Distribution

Plant is native of America (Mexico, Peru and Brazile). Introduced in India by Portugese. Presently it is planted frequently in Southern India specially western coastal regions Maharashtra, Mysore, Travencore-Cochine, Goa, Tamilanadu and other adjacent regions. Cultivated in Orissa, Madhya Pradesh, West Bengal and other states in India.

Chemical Composition

Cashew-nut kernel contains protein 21.2% fatty portion 46.9%, carbohydrates 22.3% and minerals 2.4% (calcium, potassium, iron etc.). Kernel yields 40-50% fixed oil which contains obic acid 73%, linobic acid, stearic acid, palmitic acid glycerides. Pericarp of fruit (drupe) contains black vesicant oil (juice counter-irritant) containing chiefly anacardiac acid and cardol Cashew potency of tar is obtained Kernal remains for about two years but it is for longer period in case of oil. Tree trunk of Cashew-nut produces a gum also.

Pharmacodynamics

Rasa	: Madhura, Kaṣāya
Guṇa	: Laghu, Snigdha
Virya	: Uṣṇa
Vipāka	: Madhura
Doṣākarma	: Vātakapha śamaka.

Properties and Action

Karma	: Br̥ṇhaṇa - balya - dhātuvṛddhikara Kṛmighna Vraṇaropana Dīpana Kuṣṭhaghna Arśoghna Jvraghna Vedanāsthāpana
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	Raktaśodhaka
	Nāḍībalya-mastiṣkabalya
	Snehana
	Vṛṣya-vājīkaraṇa
	Keśya
	Mūtrala
	Vescicant-counter irritant
Roga	: Dhātukṣaya-Dourbalya
	Kṛmi
	Vraṇa
	Agnimāndya-anāha
	Saṅgrahaṇī
	Arśa
	Kuṣṭha-śvetakuṣṭha
	Gulma-udararoga
	Nāḍīdourbalya-mastiṣkadourbalya.

Therapeutic action

The drug Kājūtaka is anabolic, anthelmintic, febrifuge and carminative. It is used in abdominal diseases ascites, colitis, dyspepsia, piles, tympanitis, vitiligo, weakness and worms.

Kājūtaka is cashew-nut obtained from fruits (drupes) which are roasted and hard, bright and smooth pericarp is removed and a reddish-white thin covering (testa) is also cleared up. Thus kidney-shaped whitish cashew-nut (kernel) Known as Kājūta or Kājūtaka (market or trade name Kājū) is made available for use as a common dry fruit and useful medicinal fruit-drug.

In addition to fruit or drupaceous nut (kernel of kidney-shaped nut), the peduncle and thalamus are swollen and become fleshy; and they are also eaten in ripen stage and some kind of alcoholic drink is also prepared (beverage). Actually the kidney-shaped nut is joined or connected with peduncle and thalamus and the swollen and fleshy portion is also known as 'Cashew apple' which becomes yellow or reddish in colour in ripen stage.

Parts used : Kernel, oil.

Dose : Kernel 6-12 gm., Oil 3-6 gm.

KAJUTAKA (काजूतक)

काजूतको वृत्तपत्रो गुच्छपुष्पश्च पार्वती ।
स्निग्धशीतफलश्चैव पृथग्बीजो ह्यरुष्करः ॥

Śivadatta.

काजूतकस्तु तुवरो मधुरोष्णो लघुः स्मृतः ।
धातुवृद्धिकरो वातकफगुल्मोदरज्वरान् ॥
कृमिब्रणाग्निमांद्यानि कुष्ठं च श्वेतकुष्ठम् ।
सङ्ग्रहण्यर्शमानाहान् नाशयेत् इति कीर्तितम् ॥

Nighaṅṭu Ratnākara

KĀKĀDANĪ (ŚAKRALATĀ)

Botanical name : *Cardiospermum halicaccabum* Linn.

Family : Sapindaceae

Classical name : Kākādanī, Śakralatā

Sanskrit names : Kākādanī, Śakralatā

Regional names

Kanphuta, Kanphuti (Hindi).

Description

Climbing, annual (sometimes perennial) herbs, up to 3 meters long. Stem and branches furrowed. Leaves 5-6.5 cm. long; petioles 2-3.5 cm. long. Leaflets opposite, 4-4.5 × 1.25 cm., ovate or ovate-lanceolate, apex acute to acuminate, base rounded.

Flowers white, in 3-4 flowered axillary cymes. Sepals two outer ca 2 mm. long, orbicular, ciliate, two inner ones 3-4 mm. long, oblongovate, glabrous. Petals two upper ones with a crested, inflexed appendage. Stamens 8; filaments hairy; pistillode present in male. Ovary 2-2.5 mm. long, obvoid, hairy; style 3-fid, segments bearing inner stigmatic surfaces; staminodes 8 in. the female.

Capsules 1-1.5 × 2-3 cm.; trigonous, angles winged, pyriform; each locule 1-seeded; seeds black, 4-5 mm. in diam., aril white, 3-4 mm. long, cordate.

Flowering and fruiting time

Almost throughout the year.

Distribution

Plant is commonly climbing on bushes and hedges along road-sides, forest-clearings, grasslands and in dry deciduous forests, also common in cultivated fields. It is distributed in all hotter parts of India and in Sri Lanka. Plant is 4,000ft. ascending parts on the western Himalaya; also in most other hotter, tropical and subtropical countries.

Pharmacodynamics

Rasa	: Tikta,
Guṇa	: Laghu, rūkṣa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Vātakaphahara- Tridoṣaghna.

Properties and Action

Karma	: Viṣaghna Kāśahara Jvaraghna Sannipatodarahara.
Roga	: Viṣa-Sthāvara Vṛddhiroga Khālitya Pāṇḍu Kāmalā Udararoga-sannipātodara Sarpa-mūṣikaviṣa-jāṅgamaviṣa. Jvara-Kāsa.

Therapeutic uses

The roots of plant drug are pounded with sour gruel and this mixture is recommended as intake or local application against snake-poison. In rat poisoning, ghee processed with juice of Kākādani (*Cardiospermum halicacabum* Linn.) and Kākamācī (*Solanum nigrum* Linn.) is given.

The drug is an ingredient of Laśunādi Kaṣāya, Daśasvarasa ghr̥ta, Nilibhr̥ṅgādi taila and Aṭaloṭakādi Kaṣāya which are chiefly prescribed in scrotal enlargement

(vṛddhi), Anaemia (pāṇḍu) and Jaundice (Kāmalā) and cough with fever (sajvarakāsa) respectively.

Various parts of the plant are used medicinally. Leaves are cooked and eaten as vegetable.

Parts used : Root, leaves.

Dose : Powder 1-3gm.

fomulations

Ātalataḥkādi kaṣāya, Dośasvarasa ghṛta, Nīlibhṛṅgādi taila, Laśunādi Kaṣāya.

KĀKĀDANĪ (ŚAKRALATĀ)

काकादनी (शक्रलता)

सर्पविषे

अपहरति गण्डलिविषं पानेनालेपनेन वा सद्यः ।

काकादन्याः मूलं काञ्जिकपरिपेषितं पुंसाम् ॥

Rājamārtaṇḍa, 29-7.

मूषिकविषे

‘काकादनीकाकमाच्योः स्वरसेष्वथवा कृतम् ।’

Suśruta Saṃhitā, Kalpa. 7-31

पाण्डुकामलारोगयोः

‘दशस्वरसघृते’

Sahasrayogaḥ, p. 312.

सज्वरे कासे

आटलोटकादिकषाये ।

Sahasrayogaḥ, p. 7

सान्निपातोदरे

दद्यादापृच्छ्य तज्जातीन् पातुं मद्येन कल्कितम् ।

मूलं काकादनीगुञ्जाकरवीरकसम्भवम् ॥

पानभोजनसंयुक्तं दद्याद् वा स्थावरं विषम् ॥

Aṣṭāṅga Hṛdaya, Cikitsā. 15-78.

खालित्ये

नीलीभृङ्गादितैले ।

Sahasrayogah, p.264.

वृद्धौ

लशुनादिकषाये ।

KĀKAMĀCĪ

Botanical name : Solanum nigrum Linn.

Family : Solanaceae

Classical name : Kākamācī

Sanskrit names

Kākamācī, Dhvankh(kṣa)amācī, Kakamātā, Jaghanaphalā, Sarvatiktā, Bahuphalā, Vāyasī, Kakini, Rasāyanavarā, Gudaphalā, Sundarī, Gucchaphalā, Varā

Regional names

Makoy, Makoi (Hindi); Gudkamai (Bengla); Maki (Punjabi); piludi (Guj.); Munnatakali (Tam.); Kacch-
ipundu (Tel.); Inbussalub, Khvah turbuk (Arab.); Black
nightshade (Eng.).

Description

Diffuse much branched herbs up to 1m. high. Leaves ovate to ovate-lanceolate, sinuate or lobed. Flowers in umbelliform, extra-oxillary cyme; peduncle 1-5 cm. long, appressed hairy. calyx lobes ovate-rounded, puberulous. Crolla pubescent outside only lobes subacute. Berries round, smooth up to 6mm. across. Seeds minutely pitted, yellow.

Flowering and fruiting time

Greater part of the year.

Distribution

Plant is very common in agricultural fields, gardens, waste places and shady localities throughout india ascending to 7,000 ft.elevation.

Chemical Composition

Leaves contain protein 5.9, fat 1, mineral 2.1, carbohydrate 8.9 percent; calcium 410, phosphorous 70, iron

20.5 mg. (per 100 gm.). rivoflavin 0.59, nicotinic acid 0.92, vitamin c 11 and p - carotene 0.74 mg. (per 100 gm.)

Raw green fruits four stiroidy glyco-alkaloid, solamargine, solasonine and solanigrine A and B. First two principles are also found in leaves of plant. Total alkaloid is 0.101 - 0.431 percent. Ripe fruits contain glucose and fructose (15-20%), vitamin c and p-carotene. Seeds yield a greenish yellow oil (15-20%).

Pharmacodynamics

Rasa	: Tikta
Guṇa	: Laghu, Snigdha
Vīrya	: Anuṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Tridoṣaghna

Properties and Action

Karma	: Śothahara
	Hṛdya
	Rāktaśodhana
	Raktabhārahārāsaka
	Vraṇaśodhana
	Vedanāsthāpana
	Savarṇikaraṇa
	Dīpana
	Yakṛduttejaka-pittasāraka-recana
	Kaphagāna-kāsaghna
	Śvāsahara
	Hikkānigrahaṇa
	Mūtrala
	Svedajanana-Kuṣṭhaghna
	Viṣaghna
Jvaraghna-kaṭupauṣṭika.	

Roga	: Śoṭha
	Hṛdroga
	Kuṣṭha
	Vātarakta
	Āmavāta
	Raktavikāra
	Sandhivāta
	Vṛṣaṇaśoṭha

Yakṛcchotha
 Udararoga
 Karṇāśūla
 Nāsāroga
 Netraroga
 Kuṣṭha-śvitra
 Angimāndya-chardi
 Yakṛdvikāra-Yakṛdvṛddhi
 Plīhā vikāra-plīhāvṛddhi
 Arśa
 Jirṇa pravāhikā
 Kāsa-śvasa-hikkā-svarabheda
 Vṛkkaroga-Pūyameha-Mūtrakṛchra
 Jirṇajvara
 Daurbalya
 Viṣa-ahiphenaviṣa
 Kṣayaroga.

Therapeutic uses

In urticaria (śītapitta-koṭha), Śunthī (Zingiber officinale) pounded with juice of Kākamācī (Solanum nigrum) is used for alleviating urticarial patches (Koṭha). Vegetable of herb (Kākamācī śāka) is cooked without salt in water and oil and it is given in cases of urustambha. In combination some other suitable vegetable like Vāstuka (Chenopodium album) and other bitter vegetables (tikaśāka) are also useful.

The drug Kākamācī is antiallergic, antidiabetic, aphrodisiac, astringent, cordiotonic, febrifuge, laxative, restorative and diuretic.

It is used in anasarca, eye diseases, fever, heart diseases, hiccough, piles, skin affections, urinary tract diseases vomiting, oedema, liver complaints and rheumatic disorders. It is also used in cough, splenic disorders and other ailments and cirrhosis of liver.

Kākamācī is recommended as Rasāyana drug. The decoction of drug with jaggery (guḍa) and Marica (Piper nigrum) and Pippalī (Piper longum) is prescribed for promoting strength. Similarly Ghee (Ghṛta) is cooked with juice of herb Kākamācī and it is orally given as Rasāyana

Yoga. In condition of rat-poisoning, Ghee cooked with juice of Kākamācī or Kākāmācī ghr̥ta is used for countering rate-bite poison (mūṣikaviṣa). The paste of whole plant of drug (Kākamācī lepa) is applied in disease of Kuṣṭha.

Parts used : Whole plant, fruit.

Doses

Expressed juice 10-20ml.; fruit powder 1-3 gms.;
Aqua 20-50 ml.

Formulations (Yoga)

Kākamācī Arka (Arka Makoya).

KĀKAMĀCĪ (काकमाची)

- क. काकमाची ध्वाङ्गुमाची काकाह्वा चैव वायसी ।
ख. काकमाची त्रिदोषघ्नी स्निग्धोष्णा स्वरशुक्रदा ॥
तिक्ता रसायनी शोथकुष्ठाशौज्वरमेहजित् ।
कटुर्नेत्रहिता हिक्काच्छर्दिहृद्रोगनाशिनी ॥

Bhāvaparakāsa Nighaṅṭu, Guḍūcyādi Varga, 246-247.

- अ. काकसाह्वा काकमाची कामाता जघनेफला ॥
सर्वतिक्ता बहुफला स्वादुपाकफला स्मृता ।
कामाची काकिनी ज्ञेया कुष्ठघ्नी वायसी तथा ॥
ध्वाङ्गुक्षमाली गुघफला रसायनवरा कटुः ।
ब. काकमाची कटुस्तिक्ता सोष्णा स्निग्धा रसायनी ॥
हृद्या वृष्या सरा स्वर्या त्रिदोषघ्नी लघुर्जयेत् ।
कुष्ठशोफप्रमेहार्शः श्वासकासारुचिज्वरान् ॥
कटुर्नेत्रहिता हिक्काच्छर्दिहृद्रोगनाशिनी ।

Kaiyadeva Nighaṅṭu, Ośadhi Varga, 708-712.

काकमाची

काकमाची ध्वाङ्गुमाची वायसाह्वा च वायसी ।
सर्वतिक्ता बहुफला कटुफला च रसायनी ॥
गुच्छफला काकमाता स्वादुपाका च सुन्दरी ।
वरा चन्द्राविणी चैव मत्स्याक्षी कुष्ठनाशिनी ।
तिक्तिका बहुतिक्ता च नाम्नामष्टादशः स्मृताः ॥

कामकाचीगुणाः

काकमाची कटुस्तिक्ता रसोष्णाः कफनाशनी ।

शूलार्शःशोफदोषघ्नी कुष्ठकण्डूतिहारिणी ॥

Rāja Nighaṇṭu, Prabhadrādi Varga, 133-135.

श्वित्रकुष्ठे वायस्यादिगुटिका

Cakradatta, Kuṣṭha Cikitsā, 50-66.

कोठे

‘स्वरसेन काकमाच्याः पिष्टा शुण्ठी जयेत् कोठान् ।’

Vaidya Monoramā, 16-140.

मूषिकविषे

‘काकादनीकाकमाच्योः स्वरसेष्वथवा कृतम् ।’

Suśruta Saṁhitā, Kalpa. 7-31.

शोथे

सुवर्चला गृञ्जनकं पटोलं सवायसीमूलकवेत्रनिम्बम् ।

शाकार्थिनां शाकमिति प्रशस्तं भोज्ये पुराणश्च यवः सशालिः ॥

Caraka Saṁhitā, Cikitsā. 12-63.

उरुस्तम्भे

शार्करलवणैर्दद्याज्जलतैलोपसाधितैः ।.....

वायसीवास्तुकैरन्यैस्तिक्तैश्च कुलकादिभिः ॥

Caraka Saṁhitā, Cikitsā. 27-26/27.

रसायने

गुडेन पिप्पलीभिर्वा मरिचेनान्वितशृता ।

काकमाची भवेद् बल्या तद्रसेन हविः शृतम् ॥

Vaidya Manoramā, 4-3.

गर्भनिष्क्रामणे

श्यामापरूषकफलिनीकाकमाची शिफाः पृथक् ।

पिष्टा नाभेरयोलितः गर्भनिष्क्रामणप्रदाः ॥

Vaidya Manoramā, 13-28.

वातजकासे

वास्तुको वायसी शाकं..... ।

शस्यते वातकासे तु स्वाद्वृत्तलवणानि च ।

Caraka Saṁhitā, Cikitsā. 18-81/82.

नेत्ररोग-पिल्ले

काकमाचीफलैकेन घृतयुक्तेन बुद्धिमान्।
धूपयेत् पिल्लरोगार्तं पतन्ति कृमयोऽचिरात् ॥

Vṛndamādhava, 61-243.

Baṅgasena, Netraroga, 546 61-243.

गर्भस्थापने

काकमाची शिफां पुष्पे कामं निष्पीड्य कन्यया।
रसं स्नाता पिबेन्नारी लभेद् गर्भमनुत्तमम् ॥

Vaidya Manoramā, 13-12.

मूषिकविषे

‘काकादनीकाकमाच्योः स्वरसेष्वथवा कृतम्।’

Suśruta Saṁhitā, Kalpa. 7-31.

कुष्ठे

शैरीषत्वक्, पुष्पं कार्पास्या राजवृक्षपत्राणि।
पिष्टा च काकमाची चतुर्विधः कुष्ठनुल्लेपः ॥

Caraka Saṁhitā, Sūtra. 3-17, Cikitsā 7-16.

KĀKODUMBARA

Botanical name : *Ficus hispida* Linn.f.

Family : Urticaceae

Classical name : Kākodumbara-Kākodumbarikā

Sanskrit Names

Kākodumbara, Kākodumbarikā, Phalugu, Jaghanephalā, Kāṣṭhodumbara, Śvitrabhaiṣajya, Malayu-Malapu, Mūlakarkaṭī, Stambhavṛttikā, Kharapatrī, Rājika, Ajākṣī.

Regional names

Kathumar, Kathgular (Hindi); Gobla Raksa, Ghegsha, Gebha (U.P. hills), Kakadumbar (Bengla); Bhuidambar (Marathi); Bokhada (Maharashtra); Dedadavari (Gujarati); Kattu-athith (Tamil); Adavi-alhith (Telugu); Tin basin (Arabic); Ajirdasti (Persian).

Description

Shurub or medium-sized trees small pubescent trees; all parts more or less hispid pubescent; bark grey,

pulling off in irregular flakes. Leaves up to 20 x 10 cm. usually opposite, ovate-oblong or subovate, dentate-serrate, hispid-sabrid above, hispid-pubescent beneath; petiole densely hispid. Dirty grey Branch or young shoots hollow.

Receptacle hispid, turbinate, obovoid or subpyriform yellow at age. Male flowers many, near the apex of the receptacle mixed with galls; perianth 3, concave, hyaline, filaments short, Gall flowers without perianth. Female flowers in lower part of receptacle; perianth absent; ovary glabrous, smooth; style lateral; stigma cylindrical tubular.

Flowering and fruiting time

New leaves appear in spring season (February-March). on April to May or summer season—Flowering and fruiting or round the year.

Distribution

Plant occurs throughout India and it is generally found in Punjab, Bengal, Madhya Pradesh, Rajasthan, Southern India, Uttar Pradesh (Doab) and other areas specially in shady places and along rivers and Nallas. Plant is occasionally planted in gardens. Generally the plant is found all over the country.

Chemical composition

Bark contains tannin, glucoside, wax and saponin.

Pharmacodynamic

Rasa	: Tikta, Kaṣāya
Guṇa	: Laghu, rūkṣa
Vīrya	: Śīta
Vipāka	: Kaṭu
Doṣakarma	: Vātapitta śāmaka

Properties and Action

Karma	: Kuṣṭhaghna Vraṇaśodhana Śothahara Vāmaka Recaka Pittasāraka Raktaprasādana-soktastambhana
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	Stanyajanana
	Jvaraghna-niyatakālikajvara-
	pratibandhaka,
	Balya-vṛṣya-br̥mhaṇa
	Stanyajanana
	Viṣaghna,
	Kaṭupouṣṭika
Roga	: Kuṣṭha-svitra-kilāsa
	Carmavikāra
	Kṣudraroga-dadru
	Vraṇa
	Mukharoga-upakuśa
	Gaṇḍamālā
	Udararoga-ānāha
	Arśa
	Atisāra,
	Vātavyādhi-avabāhuka
	Pāṇḍu-Kāmalā
	Raktavikāra
	Raktapitta
	Śoṭha
	Sutikāroga-stanyakṣaya
	Pradara-asṛgdara
	Viṣamajvara
	Dourbalya
	Viṣa-alkaviṣa.

Therapeutic uses

The juice of the fruits of Kākodumbara (*Ficus hispida*) is mixed with honey and same mixture is orally given to females suffering with pradara (asṛgdara). Such patients using Kākodumbarika phalarāsa yoga are also advised to consume diet of cereals with milk and sugar. In rabies (alarka viṣa), the root of plant drug Kākodumbara is mixed with seeds of Dhattūra (*Datura metel*) and rice water (taṇḍula toya) is orally given.

The root of drug Kākodumbara is pounded with rice-water (taṇḍulodaka) and given in condition of intrinsic haemorrhage (raktapitta) from mouth, in order to check vocal haemorrhage effectively.

The drug is anabolic, antihistaminic, antiseptic, aphrodisiac and astringent. It is used in anaemia, diarrhoea, dysentery, emaciation, jaundice, skin diseases, vitiligo and wounds.

It is a medicine of vitiligo as used in traditional practics. The young fruits are made into curries. The leaves are lopped for cattlefodder. The bark of young shoots gives a strong fibre considered good for rope.

Parts used : Root bark, fruit, latex.

Does : Bark powder 1-3 gms., Decoction 50-100 ml.

KĀKODUMBARA-KĀKODUMBARIKĀ

(काकोदुम्बर-काकोदुम्बरिका)

काकोदुम्बरिका फल्गुर्मलयूर्जघनेफला ।
मलयुः स्तम्भकृत्तिका शीतला तुवरा जयेत् ॥
कफपित्तव्रणशिवत्रकुष्ठपाण्ड्वर्शकामला ।

Bhāvaprakāśa Nighaṅṭu, Vaṭādi Varga, 10.

काकोदुम्बरिका

क. कृष्णोदुम्बरिका चान्या खरपत्री च राजिका ।
उदुम्बरी च कठिना कुष्ठग्री फल्गुवाटिका ॥
अजाक्षी फल्गुनी चैव मलयूश्चित्रभेषजा ।
काकोदुम्बरिका चैव ध्वाङ्क्षनान्त्री त्रयोदशः ॥

ख. काकोदुम्बरिका शीता पक्का गौल्याऽम्लिका कटुः ।
त्वग्दोषपित्तरक्तग्री तद्वत्कं चातिसारजित् ॥

Rāja Nighaṅṭu, Āmrādiphala Varga, 132-134.

श्वित्रे

मथितेन पिबेच्चूर्णं काकोदुम्बर्यवल्गुजम् ।
शङ्खेन्दुकुन्दधवलं श्वित्रं संसेवितो हरेत् ॥

Bhāvaprakāśa, Kuṣṭharogādihikāra, 54-155.

दन्तचिकित्सायां काकोदुम्बरिकापत्रे स्रावणम्

काकोदुम्बरीकागोजीपत्रैर्विस्रावयेद्भिषक् ।

क्षौद्रयुक्तैश्च सङ्गृह्य कवलं तस्य प्रतिशोधयेत् ॥

Cakradatta, Mukharoga cikitsā, 56-12.

प्रदररोगे काकोदुम्बरिकाफलरसः

क्षौद्रयुक्तं फलरसं काष्ठोदुम्बरजं पिबेत् ।
असृग्दरविनाशाय सशर्करपयोऽन्नभुक् ॥

Cakradatta, Asṛgadara cikitsā, 9.

उपकुशे

(मुखरोगे)

Vṛndamādhava, 63-9.

‘काकोदुम्बरिकागोजीपत्रविस्त्रावयेद्भिषक् ।’

Vṛndamādhava, 58-98.

अपरायातने

चर्मपूतिकरञ्जस्य वायसीदुम्बरस्य वा ।
पिष्टं तुषाम्बुना पीत मपरां पातयेत् क्षणात् ॥

Vaidya Manoramā, 13-37.

अलर्कविषे

काकोदुम्बरिकामूलं धतूरकफलान्वितम् ।
पीतं तण्डुलतोयेन सारमेयविषापहम् ॥

Rāja Mārtaṇḍa, 29-27.

रक्तपित्ते

काकोदुम्बरिकामूलं पिष्टं तण्डुलवारिणा ।
पानान्निवारयत्याशु प्रवृत्तं वदनादसृक् ॥

Rāja Mārtaṇḍa, 5-3.

श्वित्रचिकित्सायां काकोदुम्बर (मलयूः) प्रयोगाः

भद्रासंज्ञोदुम्बरीमूलतुल्यं दत्त्वा मूलं क्षौदयित्वा मलख्याः ।
सिद्धं तोयं पीतमुष्णे सुखोष्णं स्फोटञ्छित्रे पुण्डरीके च कुर्यात् ॥

Suśruta Saṁhitā, Cikitsā. 9-95.

श्वित्रे संसनमग्र्यं मलयूरस इष्यते सगुडः ।
तं पीत्वा सुस्निग्धो यथाबलं सूर्यपादसन्तापम् ॥
संसेवेत् विरिक्तस्त्र्यहं पिपासुः पिबेत् पेयाम् ।
शित्रेऽङ्गे ये स्फोटा जायन्ते कण्टकेन तान् भिन्द्यात् ॥
स्फोटेषु विसृतेषु प्रातः प्रातः पिबेत् पक्षम् ॥

मलपूमसनं प्रियङ्गुं शतपुष्पां चाम्भसा समुत्क्राथ्य ॥
पालाशं वा क्षारं यथाबलं फाणितोपेतम् ॥

Caraka Samhitā, Cikitsā. 7-162/165.

कासे श्वासे च

काकोदुम्बरपल्लवं शकलितं दुग्धे गवां पाचितम् ।
किञ्चिन् मिश्रितमागधं दिनमुखे पीत्वा पयः तादृशम् ।
कासश्वासमशेषमाशुः शमयेद् ।

Vaidya Manoramā, 3-22.

अवबाहुके

काकोदुम्बरिदुग्धैः सरामठैर्हरित् सर्वयोगविच्च ।
कपिकच्छुमूलयुक्तैर्नस्यैरवबाहुजां पीडाम् ॥

Baṅgasena, Vātavyadhī. 121.

KALĀ-KHĀKASĪ (KHUBAKALAN)

Botanical name : *Sissymbrium irio* Linn.

Family : Cruciferae

Classical name : Kalā-Khākasi

Common name : Khumbakalan

Sanskrit names

Khākāsī, Sarṣapikā, Vanya Sarṣapa, Khāsabījā, Kalā.

Regional names

Khubakalan, Khakasi, Khaksi (Hindi); Maktarusa (Sindh); Jangli sarson (Punj.) Parjan (Ma.); Rantikhi (Ma.); Khubb (Arabic); Khubkalan, Khākachi (Pers.); Hedge—mustard (Eng.).

Description

Erect 20-60 cm. tall, annual-biennial branched, glabrous herbs. Lower leaves petiolate, lyrate-pinnatifid or pinnatipartite, segments remote, toothed, upper one larger.

Racemes 50-80 flowered. Flowers up to 30 cm. long in fruit with pods over topping young flowers and buds.

Sepals 2-2.5 cm. long. Petals 3-4 × 1 mm. usually slightly longer than the sepals. Stamens about 2 or 3 mm. long; anthers about 0.5 mm. long.

Pods 30-45 × 1 mm. linear, often slightly, upcurved, faintly 3-nerved; style inconspicuous; seeds 20-40 in each locule, oblong, ellipsoid brown.

Flowering and fruiting time

Plant flowers and fruits during the period from december to March.

Distribution

It is found in different parts of country and plant grows in northern India from Rajasthan to Punjab. It occurs Afghanistan, Iran and Europe.

Chemical composition

Leaves contain vitamin A and C, protein and minerals. Seeds contain isorhamnetin and an oil 18-20 percent.

Pharmacodynamics

Rasa	: Kaṭu
Gūṇa	: Snigdha, guru, picchila
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Vātaśāmaka Kaphniḥsāraka

Properties and Action

Karma	: Chedana (śleṣmahara) Āmapācana-svedana Jvaraghna Bṛmhāṇa-balya Vātānulomana Tṛṣṇānigrahaṇa Chardinigrahaṇa Śothahara-vedanāsthāpana.
Roga	: Kāsa-jīrṇakāsa-svarabheda-śvāsa Jvara-visphoṭa jvara-masūrikā Tvagdoṣa Ādhmāna-viṣucikā Tṛṣṇā-viṣucikā Netra-stanaśoṭha Dourbalya.

Therapeutic uses

The drug Kalā or Khākasi, commonly known as khubkalan, is an expectorant (kaphaniḥsāraka or chedana) medicine which is given in cough, asthmā and horreness or sore-throat (Kāsa, śvāsa and svarabheda); it is taken in fever specially with cough and allied symptoms (vātakaphajvara). Drug is also specific in fevers particularly eruptive fevers (Viśphoṭajvara, masūrikā and other similar conditions) in order to early appearance of eruptions (in successive stages) and gradually lowering down the temperature in febrill condition of patient as the drug is diaphoretic (svedajanana) and digesting immature rasa (āmpācana).

The seeds of plants drug are externally as well as internally used. In flatulence and gastro enteritis, the seeds, powder mixed in aqua rose (gulab jal) is taken to check overthirst and vomiting. (viṣūcikājanya tṛṣṇā vamaṇa and ādhmāṇa). It is tonic and strengthening to body tissues (balya-br̥mhaṇa).

It is useful in skin diseases (tvagdoṣa), vātakapha vikāra and kapha roga. (ailments caused by provocation of vāta Kapha doṣa). Externally the seeds are applied on inflammatory condition of eyes, breasts and other organs on account of anti-inflammatory (śothahara) and analgesic (vedanāsthāpana) properties of drug.

The minute, yellowish-red, mucilaginous (while macrated or soaked in water) and pungent seeds which are even smaller than white poppy seeds or khaskhas (ahiphenabīja) and mustard or sarron (sarṣapabīja). Seeds give taste somewhat like mustard when kept in mouth and become rancid after sometime. Taste of seeds may be pungent sweetish (kaṭu-rasa and anurasa madhura) and hence semi-hot in potency (uṣṇa or iṣaduṣṇa vīrya). Seeds are ingredient of tonic preparations (paka-majun in yunani medicine) and also of vanapsādi kvātha used in cough fever.

Seeds are also sprinkled on bed of patient of small pox and eruptive fever which is a traditional practice. Seeds are collected after they become matured. Seeds are

mostly collected in the manner of mustard seeds collection after cutting of plants, harvesting and procurement of seeds. Finally seeds material is kept and stored (in airtight containers in non-humid cold place) properly.

Parts used : Seeds.

Dose : Powder 3-6 gm.

KĀLAMEGHA

Botanical name

Andrographis paniculata (Burm.b.) Wall ex. Nees.

Family : Acanthaceae

Classical name : Kalamegha-Bhūnimba

Sanskrit names

Kālamegha, Bhūnimba, Kalpanātha, Yavatiktā, Śāṅkhinī.

Regional names

Kalamegh, Kalmeg, Kiryat (Hindi); Palikirain (Mar.); Lilu Kariyatu (Guj.); *Andrographis*, Kiryat. Creat (Eng.)

Description

Erect, weak, glabrous shrubs or herbs up to 1 meter or 30-90 cm; tall; Stems quadrangular. Leaves sessile or subsessile, ovate-lanceolate, acute; lvs. $7.5 \times 1.25-2$ cm., narrow at both ends.

Flowers rose-coloured, 1-nate, distant, in axillary and terminal racemes and panicles. Bracts lanceolate, bracteoles absent. Sepals linear-lanceolate, glandular pubescent. Corollas hairy outside; tube slightly enlarged below limb; upper lip 2-toothed at apex, lower deeply 3-lobed. Filaments flattened, hairy in the upper part; anthers bearded at base.

Capsule linear-oblong, tapering at ends. Seeds subquadrate, rugosely pitted.

Flowering and fruiting time

Autumn to spring season. October-February.

Distribution

Plant is found throughout India, in plantal or in

wild state; specially in West Bengal, Plant is abundantly scattered in rural areas. Generally it is found in gardens and waste places. Central India, Kerala, Assam, Andhra Pradesh, Bihar, West Bengal and other provinces in India.

Chemical composition

Plant contains two crystalline form alkaloids including Kalmeghin, lactone, andrographolid, andrographide, tannin and volatile oil in little quantity.

Pharmacodynamics

Rasa	: Tiktā
Guṇa	: Laghu, Rūkṣa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphapīttahara

Properties and Action

Karma	: Yakṛduttejaka Pittasāraka Recana Kṛmighna Svedaḥana Kuṣṭhaghna Jvaraghna-Viṣamajvara pratibanadhaka Kaṭupouṣṭika.
Roga	: Jvara-Viṣamajvara Jīrṇajvara Yakṛdvikāra Kṛmiroga Agnimāndya-Vibandha Raktavikāra Śoṭha Carmavikāra Dourbalya.

Therapeutic uses

The drug Kālamegha is bitter, febrifuge, stomachic, anthelmintic, bitter tonic and anti histaminic. It is used in allergic condition, abdominal diseases, ansarea, ascites, cardiac disorders, helminthic manifestation and skin diseases.

Kālamegha is mainly acting drug on liver and it is used as a cholagogue and liver functions stimulant. It is blood purifier and given in ailments caused by blood impurity. The powder of Kālamegha plant mixed with Marica cūrṇa in malaria and chronic fever. The drug is taken in debility after recovery of fever. Liquid extract of Kālamegha is used in medicine.

Kālamegha is substitute of Kirātatikta on account of bitterness and it is also an adulterant of Kirātatikta.

Parts used : Whole plant

Dose : Powder 1-3 gm., Juice 5-10ml., Decoction 20-40ml., Liquid extract 1/2ml.

Formulation : Liquid Extract Kālamegh.

KĀLAMEGHA (कालमेघ)

शङ्खिनी तिक्तला चैव यवतिक्ताऽक्षिपीडकः ।
 ते गुल्मगरहद्रोगकुष्ठशोफदरादिषु ॥
 विकसितीक्षणमरूक्षत्वाद् योज्ये श्लेष्माधिकेषु तु ।
 नातिशुष्कं फलं ग्राह्यं शङ्खिन्या निस्तुषीकृतम् ॥

Caraka Samhitā, Kalpa.

यवतिक्ता

- क. यवतिक्ता महातिक्ता दृढपादा विसर्पिणी ।
 नाकुली नेत्रमीला च शङ्खिनी पत्रतण्डुली ॥
 तण्डुली चाक्षपीडा च सूक्ष्मपुष्पी यशस्विनी ।
 माहेश्वरी तिक्तयवा यावी तिक्तेति षोडश ॥
- ख. यवतिक्ता सतिक्ताऽम्ला दीपनी रुचितत्परा ।
 क्रिमिकुष्ठविषघ्नाम दोषघ्नी रेचनी च सा ॥

Rāja Nighaṅṭu, Guḍūcyādi Varga, 76-78.

यवतिक्तातैलम्

यवतिक्तोद्भवं तैलं किञ्चित्तिकं रसायनम् ।
 मेधाकरं त्रिदोषघ्नं पथ्यं लेखनदीपनम् ॥

Kaiyadeva Nighaṅṭu, Taila Varga, 326.

शङ्खिनीतैलम्

शङ्खिनी सम्भवं तैलं तीक्ष्णं कट्वस्त्रपित्तकृत् ॥

अर्शःकुष्ठकृमिश्लेष्मशुक्रभेदोऽनिलापहम् ।

Kaiyadeva Nighaṅṭu, Taila Varga, 333-334.

कालमेघ-भूनिम्बः

कालमेघस्तु भूनिम्बो यवाकारफलस्तथा ।

सुतिक्तः लघुरूक्षोष्णः कफपित्तविनाशनः ॥

दीपनः स्वेदनो ज्ञेयः कृमिघ्नः पित्तसारकः ।

यकृद्दरोगे क्रिमौ कुष्ठे ज्वरे चासौ प्रशस्यते ॥

Dravyaguna Vijñāna, Dvitiya bhāga, p.546.

KALĀYA

Botanical name : Lathyrus sativus Linn.

Family : Fabaceae (Papilionaceae)

Classical name : Kalāya-Triputa

Sanskrit names : Kalaya, Triputa, Khaṇḍikā.

Regional names

Khesari (Hindi); Khesra, Latri, Kassar Kansari, Batura (Common); Khesari (Beng.); Lakh (Mar.); Lang (Guj.); Khesra (Oriya); Khesari teora (Assam); Kesari (Bihar); Kissar, Chural, Karas, Karil (Punj.); Kesari (Nepal); Chickling Letch, Grass Pea (Eng.)

Description

An annual much branched glabrous herb with narrowly winged stem; glabrous or subglabrous, suberect or trailing herbs. Leaves paripinnately compound; leaflets 2, liner-lanceolate, acuminate, entire, 2-10 cm. long, 1-3 mm. broad; stipules semi-sagittate, lanceolate; rachis of median and upper leaves usually terminating in trifid tendrils. Leaflets linear lanceolate oblong, sharply acute, glabrous, upto 8 cm. long petiole up to 8cm. long.

Flowers solitary axillary on long peduncles, blue. Calyx 5-10 mm. long, teeth subequal or unequal. Corolla 10-

25 mm. long. fls. red blue or white 3-6 cm. long, on slender peduncle.

Pods 2.5-4 cm. long, winged on the back, 3-5-seeded.

Flowering and fruiting time

Colder months or post-autumn to spring season. November to March or January to May.

Distribution

It is cultivated for fodder and seeds as pulses in various regions in country. Farming as a crop in Bihar, Uttar Pradesh and Madhya Pradesh more or less and other provinces.

Chemical composition

Analysis of seeds gave the following values: moisture 100, protein 28.2, fat (ether extract) 0.6, carbohydrates 58.2, and mineral matter 3.0 percent.

Seeds contain starch (34.8%), Sucrose 1.5%), pentosans (6.8%), phytin (3.6%), lignin (1.5%), stachyose, raffinose and pectins. The starch consists of amylose (30.3%) and amylopectin (69.7%).

Pharmacodynamics

Rasa	: Kaṣāya, Madhura
Guṇā	: Laghu
Vīrya	: Śīta
Vipāka	: Madhura
Doṣakarma	: Vātajanana-Pittakaphaśāmaka.

Action and Properties

Karma	: Dāhapraśamana Vātakara Śūlapraśamana
Roga	: Śūla Pariṇāmaśūla Vraṇa Amlapitta.

Therapeutic uses

The seeds are used as pulse but regular and excess consumption in humans is quite harmful and causing a disease known as lathyrism. It is also adulterated in pulses and other food articles. It has medicinal properties and used in

pariṇāmaśūla, vraṇa and amlapitta. It allays burning sensation. It is strengthening to human body. It increases vāta doṣa.

Parts used : Seeds

Dose : Power 5-10gms.

Formulation : Kalāya cūrṇa guṭikā.

A. KALĀYA (कलाय)

कलायो वर्तुलः प्रोक्तः सतीनश्च हरेणुकः ।

कलायो मधुरः स्वादुः पाके रूक्षश्च शीतलः ॥

Bhāvaprakāśa Nighaṇṭu, Dhānya Varga, 57.

सतीनः

क. सतीनको वर्तुलको हरेणुः स्वल्पवर्तुलः ।

ख. सतीनो मधुरः पाके रसे रूक्षो हिमो लघुः ।

कषायो वातलो ग्राही कफपित्तनिषूदनः ॥

Kaiyadeva Nighaṇṭu, Dhānya Varga, 65-66.

हरेणुः

‘हरेणुको हिमो रूक्षः ग्राही समधुरो लघुः ।’

Kaiyadeva Nighaṇṭu, Dhānya Varga, 67.

कलायो मुण्डचणको हरेणुश्च सतीनकः ।

त्रासनो नालकः कण्ठो सतीनश्च हरेणुकः ॥

कलायः कुरुते वातं पित्तदाहकफापहः ।

रुचिपुष्टिप्रदः शीतं कषायश्चामदोषकृत् ॥

Rāja Nighaṇṭu, Sālyādi Varga, 96-97.

कलायशाकम्

‘कलायशाकं भेदि स्याल्लघु तित्तं त्रिदोषजित् ।’

Bhāvaprakāśa Nighaṇṭu, Śāka Varga, 46.

शूल (चिरकालीनपरिणामशूल) शमनाय कलाययूषस्य सक्तोश्च सेवनम्—

यः पिबति सप्तरात्रं सकूनेकान कलाययूषेण ।

स जयति परिणामरुजं चिरजामपि किमुत नूतनजाम् ॥

Cakradatta, Pariṇāmaśūla Cikitsā,

Vṛndamādhava, 27-9. 27-12.

दुर्जराम्लपित्ते कलायगुटिका

कलायचूर्णभागो द्वौ लोहचूर्णस्य चापरः ।
कारवेल्लपलाशानां रसैनेव विमर्दितः ॥
कर्षमात्रां ततश्चैकां गुडिकां भक्षयेन्नरः ।
मण्डानुपानाज्जयति जरत्पित्तं सुदुर्जरम् ॥

Cakradatta, Pariṇāma Cikitsā, 27-80 81

कलायचूर्णगुटिका

Vṛndamādhava, 27-50/51.

Baṅgasena, Pariṇāmaśūla, 27-50-57.

व्रणे

‘कलायविदलीपत्रं कोशाम्रास्थि च पूरणात् ।’

Vṛndamādhava, 44-44.

B. KALĀYA-TRIPUṬA (त्रिपुट)

- क. त्रिपुटः खण्डिकोऽपि स्यात्कथ्यन्ते तद्गुणा अथ ।
ख. त्रिपुटो मधुरस्तिक्ततुवरो रूक्षणो भृशम् ।
कफपित्तहरो बल्यो ग्राहकः शीतलस्तथा ।
किन्तु खञ्जत्वपङ्गुत्वकारी वातातिकोपनः ॥

Bhāvaprakāśa Nighaṇṭu, Dhānya Varga, 58-59.

कलाय-त्रिपुटः

- अ. कलायः खण्डिको शेषस्त्रिपुटः क्षुद्रखण्डिकः ।
ब. कलायो मधुरस्तिक्तः सकषायो विरूक्षणः ।
कफपित्तहरः शीतं सङ्ग्राही प्रचुरानलः ॥

त्रिपुटशाकञ्च

- स. तद्वत्रिपुटकस्तेषां शाकं पित्तबलासजित् ।

Kaiyadeva Nighaṇṭu, Dhānya Varga, 67-69.

त्रिपुटकलायः

त्रिपुटः खण्डिकोऽपि स्यात् कथ्यन्ते तद्गुणा अथ ।

Bhāvaprakāśa.

परिणाम शूले

यः पिबति सप्तरात्रं सक्तूनेकान् कलाययूषेण ।
स जयति परिणामरुजं चिरजामपि किमुत नूतनजाम् ॥

Vṛndamādhava, 27-9

कलायचूर्णगुटिका

Vṛndamādhava, 27-50/5. Baṅgasena, Pariṇāmaśūla, 111-112.

KĀLINDA**Botanical name**

Citrullus lanatus (Thumb.) Matsumara *Citrullus vulgaris* Schrad.

Syn. *Colocynthis citrullus* (Linn.) Kuntze.

Family : Cucurbitaceae

Classical name : Kalinda

Sanskrit names

Kṛṣṇabīja, Suvartula, Kaliṅgaka, Kaliṅga, Māmsaphala, Citraphala, Citru-vallika, Citravallika, Madhuraphala, Tṛṣṇāphala.

Regional names

Tarbuj, Kalinda (Hindi); Turbuj, Tarbuz, Tarmuj (Urdu, Beng. & Mar.); Water Melon (Eng.).

Description

Annual herbs with angular villose stems. Leaves 8-20 × 5-15 cm; Triangular-ovate, cordate, trifid, lobes pinnatifid, terminal lobe acute, others round; tendrils bifid.

Male flowers: peduncles elongate, villous, 1-3 cm. long; calyx-tube broadly campanulate, villous; corolla greenish, villous, lobes ovate-obate-oblong, obtuse, 10-15 × 3-4mm. Female flowers: peduncles 2-6 cm. long; calyx and corolla as in male flowers; ovary oblong; style 4-5 mm. long. Fruits large, ca 25 cm. in diam; sub globose or ellipsoid, smooth, green or variegated; seeds black, red or variable.

Flowering and fruting time

Summers to Rainy season. April to July.

Distribution

Plant is frequently cultivated in sandy soils in hotter parts of country. Seasonal farming for fruits in Uttar Pradesh, Rajasthan, Madhya Pradesh and other regions, undertaking several cultivated forms which vary in size, shape, colour and sweatness of the pulp.

Chemical composition

Analysis of the fruit gives the following values: moisture 95.7, protein 0.1, fat (ether extractives) 0.2, mineral matter 0.2, Carbohydrates 3.8, Ca 0.01 and P 0.01%, Fe 0.2 mg./100g., carotene, traces. The juice contains eitruline to the extent of about 0.17%. It is poor in pro-vitamin A and in vitamin C. Fruit is rich source of pectin.

Pharmacodynamics

Rasa	: Madhura
Guṇa	: Guru
Vīrya	: Śīta
Vipāka	: Madhura Pittaśāmaka
Doṣakarma	: Pittajanana, Kaphavātaśāmaka (pakva-ripe).

Action and properties

Karma	: Santarpaṇa Tṛṣṇānigrahaṇa Śramahara Balya Dāhpraśamana Vṛṣya-vīrya-puṣṭi vivardhna Grāhī Mūtrala
Roga	: Mutrakṛcchra-mūtrāghāta Dāha Tṛṣṇā Dourbalya.

Therapeutic uses

Kālinda is edible and tasty fruit. The pulp of fruit and seeds have medicinal properties. It is refrigerant, diuretic, tonic, aphrodisiac, cooling and it allays burning sensation. Seeds are used as diuretic in urinary troubles. Ex-

cess use of fruit-pulp is heavy in digestion and it may cause abdominal discomfort or any other problem (including specific type of ajirṇa). Seed Kernel is also edible. Seeds our considered to be cooling and diuretic.

Parts used : Fruit, leaves, seeds.

Dose : 3-6gm. -Pulp edible, 1-3 gm. - seed powder (kernel).

KĀLINDA (कालिन्द)

कालिन्दं कृष्णबीजं स्यात्कालिङ्गञ्च सुवर्तुलम् ।

कालिन्दं ग्राहि दृक्पित्तशुक्रहृच्छीतलं गुरु ॥

पक्वन्तु सोष्णं सक्षारं पित्तलं कफवातजित् ॥

Bhāvaprakāśa Nighaṇṭu, Āmrādiphala Varga, 43.

कालिङ्गम्

कालिन्दकं स्यात् कालिङ्गं कृष्णबीजं प्रकीर्तितम् ।

कालिङ्गं ग्राहि दृक्पित्तशुक्रहृच्छीतलं गुरु ॥

पक्वन्तु पित्तलं सोष्णं सक्षारं कफवातजित् ।

कालिङ्गपत्रं रुचिरं स्थापनं तिक्तमुच्यते ॥

Kaiyadeva Nighaṇṭu, Ośadhi Varga, 535-536.

कालिङ्गम् त्रपुसविशेषः

अ. मांसफलः कलिङ्गचित्रफलश्चित्रवल्लिकश्चित्रुः ।

मधुरफलो वृत्तफलो तृष्णाफलो मांसलो नवधा ॥

ब. कलिङ्गो मधुरः शीतः पित्तदाहश्रमापहः ।

वृष्यः सन्तर्पणो बल्यो वीर्यपुष्टिविवर्द्धनः ॥

Rāja Nighaṇṭu, Mūlakādi Varga, 167-168

KAMALA

Botanical name

Nelumbo nucifera Gaertn.

Syns. *Nymphaea nelumbo* L., *Nelumbium speciosum* Willd.

Family : Nymphaeaceae

Classical name : Kamala

Sanskrit names

Kamala, Padma, Nalina, Sahasrapatra, Śatapatra, Pankeruha, Tāmarasa, Visaprasūna, Puṣkara, Ambhoruha, Rājīva, Sārasa, Mahotpala, Kuśeśaya.

Regional names

Pādapa-puṣpa (plant-flower) : Kamala, Purain (Hind.); Padma (Beng.); Kamal (Mar.); Kamal (Guj.); Tamarai (Tam.); Aiji Tamar (Tel.); Kamal (Kann.); Tamar (Mal.); Pamposha (Ka.); Katillunahal (Arabic); Sacred Lotus (Eng.).

Navapallava : Saṁvartikā. Pañcāṅga (Whole plant): Padminī, Kamalinī.

Kamalakanda : Śālūka, Karahāṭaka' Lodha (Guj.);

Kamalabījakośa : Karṇikā, Varaṭaka, Bījakośa; Kamal ke chhatta (Hindi); Dhangud, Dhanparhi (Mar.); Ghitelan (Guj.).

Bija (Seeds) : Padmabija; Kamalākṣa; Kamalagatta (Hindi).

Kamalanāla : Mṛṇāla; Murar (Hindi).

Bhoumika Kāṇḍa : Bisa, Padmakarkaṭī; Bhen, Bhis, Bhansid, Bhanside, Bhinsad (Hindi); Bhinse (Mar.,Guj.), Kamal Kakarhi, Bhasinda (Mar., Guj.).

Description

Perennial aquatic herbs with rhizomatic rootstock, plant floating in tank. Leaves orbicular, petate, up to 35 cm. across glaucous above; petioles and peduncles sparsely prickly. Flowers solitary, pinkish or white; petals numerous. many seriate, 4-12 cm. long. Fls. red, white, or rarely yellow; 4-10 in diam. Anthers appendaged. Carpels many, spongy torus, stigma peltate.

A large handsome aquatic herb with milky. Rootstock creeping, much branched. Peduncles and leaf-stalks 3-6 ft. long, full of spiral vessels, smooth or with small scattered prickles. Leaves 2-3 ft. in diam., orbicular, entire, memberanous glaucous, cupped. Flowers solitary, 4-10 in.

in diam, white or rose. Petals elliptic concave. Torus in fruit 2-4 in in diam.

Flowering and fruiting time

April to November (flowers) and December to January (fruits). August-October.

Distribution

Plant grows throughout India in tanks, ponds, Jhils and marshes, as a major aquatic plant, popular for its beautiful flowers. It is often cultivated in aquatic habitat. It occurs throughout India, as far, as north as Kashmir; also in Persia, north Africa, Malay Islands, China, Japan and Tropical Australia. Warmer parts in India.

Kinds and varieties

There are several popular varieties of flowers in different colours from plants cultivated or wild.

Chemical composition

The rhizomes and seeds contain resin, glucose, metarbin, tannin, fat, nupharfin and nupharine alkaloidal substance.

Pharmacodynamics

Rasa	: Kaṣāya, madhura, tikta
Guṇa	: Laghu, snigdha, picchila
Vīrya	: Śīta
Vipāka	: Madhura
Doṣakarma	: Kaphapittaśāmaka

Properties and Action

Karma	: Dāhapraśamana Varṇya-tvagdoṣahara Medhya-śāmaka Chardinigrahaṇa Tṛṣṇānigrahaṇa Stambhana-raktastambhana Hṛdya-śoṇitāsthāpana Prajāsthāpana Mūtravirecanīya-mūtravirajaniya Jvaraghna Balya Viśaghna.
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Roga	: Dāha Vraṇavikāra Mastiṣkadourbalya Mānasika udvega-anidrā Vamana-trṣṇā Atisāra-pravahikā Hṛdroga Raktātisāra-Pradara-Raktārśa Raktapitta Garbhassrāva Mutrakṛcchra-Paittika prameha Carmaroga Jvara-dāha-trṣṇā.
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Therapeutic uses

The drug Kamala (lotus) is sweet, astringent and bitter; and it is cold in potency (śīta vīrya). Drug is useful to pacify burning sensation, excessive thirst and nervous or mental tension. It is pacifying agent (śāmaka auśadhī) in general. Kamala is haemostatic, cardiogenic, diuretic, tonic, anti-pyretic and galactagogue. It counters poison and checks vomiting. It promotes or preserves lusture or complexion of body. Drug is brain tonic and anti-dermatosis. Besides medicinal properties of Kamala is general, specific propertion and action alongwith medicinal utility of kinds (varieties) of Kamala as well as different parts of plant drug have been mentioned in classical texts (materia medica and medicine) considering potentialities of Kamala and its medicinally useful parts, in addition to ornamental value for its most beautiful flowers of high aesthetic significance with socio-cultural and religious importance in country. Some parts of Kamala (lotus) are of vegetable and dietary utility. For the instance, the roots stem and receptacle (torus) are commonly used as vegetable.

The tender leaves (samvartikā or navapatra) of lotus (Kamala) are pounded and mixed with sugar. It is taken by patient of prolapse of rectum (gudabhramśa). A regular use of butter mixed with sugar and lotus stamens (Kamala Kesara or kiñjalka) or sesamum (tila-Sasamum indicum) is

used to eradicate bleeding piles or haemorrhoids (raktārśa).

The powder of lotus seeds (padmabīja) mixed with honey is used in cough caused by pitta (pittaja kāsa) for prompt relief. Root of lotus (Kamala mūla) is indicated for chewing in condition of dental carries (Krimidanta). The lotus-stalk (Kamala-nāla or mṛnala) lotus-stem (kamala nāla), pippali (Piper longum) and Harīṭala (Terminalia chebula) are mixed with honey (madhu). It is taken with cold water or this mixture (with honey) is given followed with water, in condition of alcoholism (madātyaya). The leaves of Kumuda and Utpala are treated with sandal aqua (candanāmbu) or its water is sprinkled over leaves of two drug plants (both kinds of lotus) and the close contact or touch (sapaśa) with body of patient of alcoholism (madātyaya) is suggested to be beneficial particularly in stage of excessive burning sensation ('dāhe madya-samutthite' : Caraka Samhita, Cikitsā. 24/156-157). Kamala and its allies are possessing the medicinal properties of pacifying burning sensation and also cold potency or śīta vīrya) and such drugs belong to dahapraśamana group of action.

Parts used : Whole plant specially flowers, seeds and roots.

Dose : Seeds powder 3-6 gms., Roots juice 10-20 ml.

Formulation : Aravindāsava

Groups (gana)

Utpalādi (Suśruta) Mūtra virajenīya (Caraka).

KAMALA (कमल)

कमलं शीतलं तिक्तं स्वादु वर्णकृत् ॥

कफपित्तास्रविस्फोटदाहतृष्णाविनाशनम् ॥

Kaiyadeva Nighaṅṭu, Ośadhi Varga, 1445-1446.

नीलोत्पलं रक्तोत्पलञ्च

तस्मादल्पान्तरगुणे विद्यात् कुवलयोत्पले ।

Kaiyadeva Nighaṅṭu, Ośadhi Varga, 1449.

नीलोत्पलकन्दः

क. कन्दस्तूपलजः पित्तनाशनो गुरुबृंहणः ॥
असृग्दरहरो गर्भं स्थापयेच्चापि तर्पणः ।

रक्तोत्पलकन्दः

ख. रक्तोत्पलस्य कन्दस्तु मधुरः पित्तनाशनः ॥
चक्षुष्यो रक्तविकृतिं हरेद् बलकरो गुरुः ।

Kaiyadeva Nighaṅṭu, Oṣdhai Varga, 1449-1451.

पद्माक्षम्

पद्मबीजं हिमं स्वादु कषायं तिक्तकं गुरु ॥
विष्टम्भि वृष्यं रूक्षञ्च गर्भसंस्थापकं परम् ।
कफवातहरं पक्वं ग्राहि पित्तास्रदाहनुत् ॥

Bhāvaprakāśa Nighaṅṭu, Āmrāphladi Varga, 89-90

संवर्तिका (नवपत्रम्)

संवर्तिका हिमा तिक्ता कषाया दाहत्द्रुणुत् ॥
मूत्रकृच्छ्रगुदव्याधिरक्तपित्तविनाशिनी ॥

Bhāvaprakāśa Nighaṅṭu, Puṣpa Varga, 9

कर्णिका (बीजकोशः)

पद्मस्य कर्णिका तिक्ता कषाया मधुरा हिमा ।
मुखवैशद्यकृल्लघ्वी तृष्णाऽस्रकफपित्तनुत् ॥

Bhāvaprakāśa Nighaṅṭu, Puṣpa Varga, 10

किञ्जल्कः (केशरः)

किञ्जल्कः शीतलो वृष्यः कषायो ग्राहकोऽपि सः ।
कफपित्ततृषादाहरक्ताशोविषशोथजित् ॥

Bhāvaprakāśa Nighaṅṭu, Puṣpa Varga, 11.

कासे पद्मबीजचूर्णम्

‘मधुना मद्मबीजानां चूर्णं पैत्तिककासनुत् ।’

गुद्रभ्रंशे पद्मिनीपत्रप्रयोगः

कोमलं पद्मिनीपत्रं यः खादेच्छर्कराऽन्विताम् ।
एतन्निश्चित्य निर्दिष्टं न तस्य गुदनिर्गमः ॥

Cakradattu, 55-27.

उत्पलादिचूर्णम्

उत्पलं दाडिमत्वक् च पद्मकेसरमेव च ।

पीतं तण्डुलतोयेन ज्वरातीसारनाशनः ॥

Bhāvaprakāśa, Jvaratisāra, 3-11.

वातरक्ते मृणालादिमिश्रकतैलम्

*Bhāvamiśrasya Bhāvaprakāśa,
Vātaraktādhikāra, 21/45-147.*

गर्भस्त्रावे उत्पलादिगणम्

Bhāvaprakāśa, Yonirogādhikāra, 70-75-76.

पद्मिनीकण्टकरोगे

‘पद्मनालकृतः क्षारः पद्मिनी हन्ति लेपतः ।’

Cakradatta, Kṣudraroga cikitsā, 55-22.

मृणालं शालूकञ्च

मृणालं शीतलं वृष्यं पित्तदाहास्त्रजिद् गुरु ॥

दुर्जरं स्वादुपाकञ्च स्तन्यानिलकफप्रदम् ।

सङ्ग्राहि मधुरं रूक्षं शालूकमपि तद्गुणम् ॥

Bhāvaprakāśa Nighaṅṭu, Puṣpa varga, 12-13.

कमलभेदांस्तदगुणांश्च

क. विशेषतः सितं पद्मं पुण्डरीकमिति स्मृतम् ।

रक्तं कोकनदं ज्ञेयं नीलमिन्दीवरं स्मृतम् ॥

ख. धवलं कमलं शीतं मधुरं कफपित्तजित् ।

तस्मादल्पगुणं किञ्चिद् यत्ररक्तोत्पलादिकम् ॥

Bhāvaprakāśa Nighaṅṭu, Puṣpa Varga, 4-5.

कमलम्

अ. पाथोजं कमलनभञ्च नलिनाम्भोजाम्बुजन्माम्बुजं

श्रीपद्माम्बुरुहाञ्चपद्मजलजान्यम्भोरुहं सारसम् ।

पङ्केजं सरसीरुहं च कुटपं पाथोरुहं पुष्करं

बीर्जं तामरसङ्गुशेशयकजे कञ्जारविन्दे तथा ॥

शतपत्रं विसकुसुमं सहस्रपत्रं महोत्पलं वारिरुहम् ।

सरसिजसलिलपङ्केरुहराजीवानि वेदवह्निमितानि ॥

ब. कमलं शीतलं स्वादु रक्तपित्तश्रमार्तिनुत् ।

सुगन्धि भ्रान्ति सन्तापशान्तिदं तर्पणं परम् ॥

Rāja Nighaṅṭu, Karavīrādi Varga, 173-175.

पुण्डरीकम्

अ. पुण्डरीकं श्वेतपत्रं सिताब्जं श्वेतवारिजम् ।

- हरिनेत्रं शरत्पद्मं शारदं शम्भुवल्लभम् ॥
 ब. पुण्डरीकं हिमं तिक्तं मधुरं पित्तनाशनम् ।
 दाहास्रश्रमदोषघ्नं पिपासादोषनाशनम् ॥

Raja Nighaṇṭu, Karavīrādi Varga, 176-177.

कोकनदम्

- अ. कोकनदमरुणकमलं रक्ताम्भोजं च शोणपद्मं च ।
 रक्तोत्पलमरविन्दं रविप्रियं रक्तवारिजं वसवः ॥
 ब. कोकनदं कटुतिक्तं मधुरं शिशिरं च रक्तदोषहरम् ।
 पित्तकफवातशमनं सन्तर्पणकारणं वृष्यम् ॥

Rāja Nighaṇṭu, Karavīrādi Varga, 178-179

उत्पलम्

- अ. उत्पलं नीलकमलं नीलाब्जं नीलपङ्कजम् ।
 नीलपद्मं च वाणाह्वं नीलादिकमलाभिधम् ॥
 ब. नीलाब्जं शीतलं स्वादु सुगन्धि पित्तनाशकृत् ।
 रुच्यं रसायने श्रेष्ठं केश्यञ्च देहदाढ्यदम् ॥

Rāja Nighaṇṭu, Karavīrādi Varga, 180-181

मदात्यये, दाहं निवारणार्थं कुमुदोत्पलपत्राणां प्रयोगः

कुमुदोत्पलपत्राणां सिक्तानां चन्दनाम्बुना ॥
 हिताः स्पर्शा मनोज्ञानां दाहे मद्यसमुत्थिते ॥

Caraka Samhitā, Cikitsā. 24-156/157

विसर्पशमनाय पद्मिनीपङ्कादिलेपः

‘पित्ते तु पद्मिनीपङ्कं पिष्टं.... ।....घृतान्वितम् ॥’

Cakradatta, 53-9.

केशकृष्णीकरणार्थमुत्पललेपः

उत्पलं पयसा सार्द्धं मासं भूमौ निधापयेत् ।
 केशानां कृष्णकरणं स्नेहनञ्च विधीयते ॥

Cakradatta, Kṣudraroga cikitsā 55-117

चिरकालीनदारुणरोगे नीलोत्पलादिलेपः

सह नीलोत्पलकेशरयष्टीमधुकतिलैः सदृशमामलकम् ।
 चिरजातमपि च शीर्षे दारुणरोगं शमं नयति ॥

Cakradatta, Kṣudraroga cikitsā, 55-87.

वाराहदंष्ट्रायाम्

राजीवमूलकल्कः पीतो गव्येन सर्पिषा प्रातः ।
शमयति शूकरदंष्ट्रं दंष्ट्रीभूतं ज्वरं घोरम् ।

Bhāvaprakāśa, Cikitsā. 61-114

बालरोगे

श्वेतकमलकिञ्जल्कं समपिष्टं तण्डुलाम्बुना ।
मत्स्यपिण्डमधुसंयुक्तं क्षिप्रं हन्ति प्रवाहिकाम् ॥

Baṅgasena, Bālaroga. 48.

नेत्ररोगे

एकं वा पुण्डरीकञ्च गवां क्षीरावशोषितम् ।
रागासृग्वेदनां हन्यात् क्षतपाकाजकास्तथा ॥

Baṅgasena, Netraroga. 200

गर्भपाते

सशर्करं नीलसरोजकन्दचूर्णं निपीतं सह माक्षिकेण ।
गर्भस्यपाते शमनं व्यथायाः शीतैश्च तोयैः परिषेचनानि ॥
पद्मेन्दीवरपत्राणि माक्षिकं शर्करा तथा ।
परिस्रवत्सु गर्भेषु पयसा पानमुत्तमम् ॥

Gadanigraha, 6-3-18

क्रिमिदन्तके

मूलानि.....कमलिन्या.....वा ।
यान्ति घुणं.....दन्तैः सञ्चर्व्यमाणानि ॥

Rāja Mārtaṇḍa, 5-14.

रक्तार्शासि

शर्कराम्भोजकिञ्जल्कसहितं सह वा तिलैः ।
अभ्यस्तं रक्तगुदजान् नवनीतं नियच्छति ॥

Aṣṭāṅga Hṛdaya, Cikitsā 8-118

पित्तजकासे

चूर्णन्तु पद्मबीजानां मधुना सम्प्रयोजितम् ।
पित्तकासार्दितां लिह्यात् स्वास्थ्यं स लभते क्षणात् ॥

Gadanigraha, 2-10-35.

रसायने

पेथ्यैर्मृणालबिसकेशरपत्रबीजैः सिद्धं सहेमशकलं पयसा च सर्पिः ।

पञ्चारविन्दमिति तत् ग्रथितं पृथिव्यां प्रभ्रष्टपौरुषबलप्रीतिभैर्निषेव्यम् ॥

Aṣṭāṅga Hṛdaya, Uttara. 39-48.

मूत्रकृच्छ्रे

तैलेन पद्मिनीकन्दं पक्वं गोमूत्रमिश्रितम् ।
पिबेन् मूत्रनिरोधे तु सतीब्रवेदनान्विते ॥

Hārīta Saṁhitā, 3-30-4.

गुदनिर्गमे

कोमलं पद्मिनीपत्रं यः खादेच्छर्करायुतम् ।
एतन्निश्चित्य निर्दिष्टं न तस्य गुदनिर्गमः ॥

Vṛndamādhava, 51-24.

मदात्यये

मृणालबिसकृष्णा वा लिह्यात् क्षौद्रेण साभयाः ।
दुरालभां वा मुस्तां वा शीतेन सलिलेन वा ॥

Aṣṭrāṅga Hṛdaya, Cikitsā 7-10.

KAMPILLAKA

Botanical name : Mallotus philippinensis Muell.-Arg.

Family : Euphorbiaceae

Classical name : Kampillaka

Sanskrit names

Kampillaka, Raktāṅga, Recana, Karkaśa,
Raktacūrṇaka, Virekī, Raktaśamana, Vraṇaśodhana.

Regional names

Kabila (Hindi); Kamalagundi (Beng.); Rohini,
Roini (U.P. hills); Kambel (Jaunsar hills, U.P.); Kapila,
Shendari (Mar.); Kamilo (Guj.); Kungumam (Tam.);
Kunkum (Tel.); Kunkundamar (Kann.); Kurmadakku
(Mal.); Kunkumo (Uri.); Kapilo gundi (Orissa); Lokhan
(Assam.); Kambil (Arabi.); Kamala tree (Eng.).

Description

Generally a small evergreen tree, but occasionally upto 50ft. high and 5ft. in girth. Bark thin, dark-grey, somewhat rough. Young branches rusty.

Wood smooth hard and close grained; sapwood white; heart wood light, red to darker, red towards the centre in large stems. Annual rings indistinct; weight 48 lbs. per c. ft. Tree coppices exceedingly well.

Leaves alternate, simple, very variable both in size and shape, usually 3-9 in long, ovate, ovate-oblong or lanceolate, entire or, if of luxuriant coppice-shoots, closely toothed, glabrous above, pubescent and with closeset red glands beneath, 3-nerved at the base; petiole about half the length of the blade, rusty-pubescent.

Inflorescence and flowers brown or brick-red. Calyx 3-cleft. Petals and disk none. Male flowers: clustered, anther-calls distinct and globose. Female flowers: solitary. Ovary 3-celled; cells 1-ovuled; styles 3; papillose inside.

Fruit a 3-lobed capsule, 3.5 in diam; covered with a erimson powder or brick red powder in dust form when ripe. Seeds about 1 in. diam.; globose, smooth, black.

Flowering and Fruiting time

It flowers in September-November and fruits in March-May. Flowering and fruting stages fall during postrainy season to summers.

Distribution

Mostly tropical regions of Asia and Australia. In India, it occurs in the Himalayan regions from Kashmir to Nepal. It is growing wild in Himalayan terai in Uttar Pradesh (Uttarakhand region) and terai of Nepal. It is found in West Bengal, Orissa, Madhya Pradesh, Punjab, Himachal Pradesh, Maharastra and Andman Islands. It also occurs in Burma, Singapore and Sri Lanka.

Pharmacodynamics

Rasa	: Kaṭu
Guṇa	: Laghu, rūkṣa, tikṣṇa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphavātaśāmaka.

Chemical composition

Most of the part of Kamela fruit forms resinous colouring matter which mainly contains rottelerin. It is

red-yellowish crystal form which is fully insoluble in water and partially soluble in alcohol, but it is fully soluble in aqueous solution with alkalies. It gives red colour.

Properties and Action

Karma	: Kṛmighna-kṛminiṣkāśaka (sphītakṛmi) Recana Raktaśodhaka Aśmarībheda Gorbhanirodhaka Kuṣṭhaghna Jantughna Viṣaghna.
Roga	: Kṛmiroga-sphītakṛmi Udararoga Gulma Vibandha-Anāha Raktavikāra Kuṣṭha Aśmarī Prameha Carmavikāra-Kaṇḍu-Pāmā-Kuṣṭha Vraṇa-Kṣata.

Therapeutic uses

The drug Kampillaka is pungent (Kaṭu in rasa or taste and vipāka) and hot (uṣṇa) in potency (vīrya). Its chief action is anthelmintic (Krimighna) against abdominal worms (udarakrimi). Being anthelmintic or vermifuge and virecaka or cathartic (laxative) in higher dose, it is used frequently in worms affections and abdominal disorders. In smaller or normal doses, it is useful in other some diseases.

The hairs over fruits or red dust with brownish or brownish shade (rakta raja) or brick colour powdery substance (collected from fruits possessing glandular and non-glandular hairs) forms the drug Kampillaka mainly which also contains sometimes smaller pieces or traces of fruit-coat. The drug material is admixed with red coloured

dust or soil and other similar substances collected from same plant. Such adulterated or admixed raw material when put into water leaves precipitate of undesirable soily portion; and actual drug part remains insoluble in water and it is light then weighty soil etc. Most content (part) of drug kampillaka is resinous colouring matter and leaves some red colour water and aqueous solution in of alkalines being soluble to some extent and soluble in alcoholic solution fully, giving red dark solution after mixing the drug material. The matured or ripe fruits are collected (generally in summers or summer-end) and red dust (powder) with brownish, minute crystalline (traces) powder which in almost inodorous and tasteless. It is insoluble in cold water, soluble to certain extent in warm water and quite soluble in alcohol and ether smelling melon-like odour. Besides the characteristic solubility of genuine Kamela or Rottlera (Kamala or Glandular Rottlerae) powdery raw drug, the drawing of line with drug-dust by wet finger on a white paper (surface) leaves bright yellow colour or mark sign (lining) or turns into smooth (masṛṇa) linear streak or band, straining yellow finally. The kamala powder is properly collected of genuine and standard quality which is properly stored in airtight containers.

The drug Kampillaka is anthelmintic, bitter, cathartic and styptic. It is used in worms affections, abdominal disorders, blood diseases, calculus, flatulence, leprosy and skin diseases. Traditionally it is used for expelling worms in children. Powder is useful to apply on herpes (zoster) vesicles, and it gradually checks herpetic neuralgia.

The powder of drug Kampillaka is orally administered in proper dose (child and adult) as an anthelmintic in suitable form and with vehicle (anupāna) for expelling moun abdominal worms. Kampillaka is given with jaggery (guḍa) falls all the worms out at the bowels.

The bark is sometimes used for tanning. The crimson powder, Kamela or Kamila, which covers the ripe fruit. is used for dyeing silk, and also in medicine and Hindu religious ceremonies.

Parts used : Fruit-hairs, flowers.

Dose

0.5-1 gm. (hairs).; powder 1-3 gm., Vermifuge dose :
3-6 gm., Child dose: 625 mg.

KAMPILLAKA (कम्पिल्लक)

काम्पिल्लः कफपित्तास्रकृमिगुल्मोदरव्रणान् ।

हन्ति रेची कटूष्णश्च मेहानाहविषाश्मनुत् ॥

Bhāvaprakāśa Nighaṇṭu, Harīṭakyādi varga, 147.

- क. काम्पिल्लको रोचनको रञ्जनो रक्तचूर्णकः ॥
रक्ताङ्गी रक्तशमनो विरेकी व्रणशोधनः ।
ख. काम्पिल्लो रेचनी दीपनो कटूष्णः कफवातजित् ॥
व्रणगुल्मोदरानाहमेहाश्मविषजन्तुहा ।

कम्पिल्लकशाकम्

- ग. तच्छाकं शीतलं तिक्तं वातलं ग्राहि दीपनम् ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 948-950.

कम्पिल्लकम्

कम्पिल्लको विरेची स्यात् कटूष्णो व्रणनाशनः ।

गुल्मोदरविबन्धाध्मश्लेष्मकृमिविनाशनः ॥

Dhanvantari Nighaṇṭu.

कृमिरोगे

कम्पिल्लचूर्णकर्षार्द्धं गुडेन सह भक्षितम् ।

पातयेत्तु क्रिमीन्सर्वानुदरस्या न संशयः ॥

Bhāvaprakāśa, Kṛmīrogādhikāra, 7-22.

पैत्तिकगुल्मे कम्पिल्लकचूर्णम्

‘विरेकाय सितायुक्तकम्पिल्लं वासमाक्षिकम् ।’

Bhāvaprakāśa, Gulmādhikāra, 32-26.

गुल्मे

द्राक्षामयरसं गुल्मे पैत्तिके सगुडं पिबेत् ।

लिह्यात् कम्पिल्लकं वापि विरेकार्थं मधुद्रवम् ॥

Caraka Saṁhitā, Cikitsā, 5-130.

स्निग्धोष्णे पित्तगुल्मे तु कम्पिल्लं मधुना लिहेत् ।
रेचनार्थं रसं वाऽथ द्राक्षायाः सगुडं पिबेत् ॥

Vṛndamādhava, 30-14.

रक्तगुल्मे

गुण्डारोचनिका चूर्णं शर्करामाक्षिकान्वितम् ।
विदधीताशु गुल्मिन्या मलसञ्चक्रमाय च ॥

Bhāvaprakāśa, Cikitsā, 32-49.

व्रणे

दूर्वास्वरससंसिद्धं तैलं कम्पिल्लेन वा ।
दावी त्वचश्च कल्केन प्रधानं व्रणरोपणम् ॥

Caraka Saṁhita, Cikitsā. 25-93.

प्रमेहे काम्पिल्लकप्रयोगः

Caraka Saṁhitā, Cikitsā. 6-65/66.

KĀNCHANĀRA

Botanical name

Bauhinia variegata Linn.

Syn. *Phanera variegata* (L.) Benth.

Family : Caesalpiniaceae

Classical name : Kañchanāra

Sanskrit names

Kañchanāra, Gaṇḍāri, Camarika, Jugapatraka,
Karbudāra, Svalpakesarī.

Regional names

Kachnar (Hindi); Kachnal, Kularh (Punjabi);
Kanchan (Beng.); Koral Koral (Mar.); Kapakati (Guj.);
Mandare (Tam.); Devakanchanamu (Tel.)

Description

Bauhinia variegata Linn.

Small to medium-sized trees with hairy branches.
Leaves 4.5-15 cm. long, as broad as or broader than long,
cleft one-fourth to one-third way down, 9-15- nerved, lobes
obtuse base cordate.

Flowers in lax corymbose racemes, from leafless axils or terminating lateral branches; bracts and bracteoles detoid. calyx 2-2.7 cm. long, pubescent, spathaceous, 5-toothed at apex. Petals 4-5 cm. long, obovate-oblong, clawed, the uppermost darker with purple veins. Stamens 5 fertile; staminodes absent. Ovary pubescent.

Pods 15-30 × 15-25cm. flat, glabrous; seeds 10-15.

Bauhinia purpurea L.

Mediumsized trees with greyish to dark brown bark and pinkred blaze; young parts pubescent. Leaves 7.5 × 20 cm. long, longer than broad, 9-11 nerved, cleft about half way down into two acute or rounded lobes. Flowers rose-purple, in a few flowered terminal corymbose or panisulate tomentose racemes. Calyx 2-2.5 cm. long, oblanceolate with purple claws and mouth; stipulate. Pods 15-25×15-2 cm., flat slightly falcate; seeds 12-15mm., flattened, roundish, dark brown. Flowering and fruiting from October to March.

Bauhinia racemosa Lamk.

Syns. *Philiostigma racemosa* (Lamk.) Benth.

Small trees with spreading crown; bark greyish black with vertical cracks. Leaves broader than long, 2-5 × 2.5 cm., divided one-third to half way down into two lobes, glabrous above, hairy below, usually cordate at base.

Flowers white, in terminal or leaf opposed simple 5-10 cm. long racemes. Calyx tube 6-8 mm. long, spathaceous, reflexed. Petals about 1 cm. long oblanceolate, acute. Stamens 10, fertile; filaments hairy at base. Ovary hairy, stigma sessile.

Pods 10-25 cm. long, falcate; seeds 10-20, oblong, compressed black. Flowering and fruiting from April to August.

Flowering and fruiting time

September to March (flowers) and October to April (fruits). Almost leafless trees *Bauhinia variegata* Linn. flower during springs and becomes in fruiting stage by beginning of summers.

Distribution

It occurs almost throughout India ascending to about 5,000 ft. elevation.

Kinds and varieties

There are three varieties of Kāñcanāra on the basis of flower-colour viz. White (śveta), yellow (pīta) and red (rakta). White and red varieties of kāñcanāra are of Kovidāra which is botanically identified as *Bauhinia purpurea* Linn., commonly known as Koilar and also Koliar and Peddare. Kovidāra flowers in śarada ṛtu (autumn) and fruits in śītartu (winter) which kāñcanāra (*Karbudāra*) flowers in spring (Basanta) as indicated in classical description (Cakrapāṇi annotating Caraka Samhitā, Cikitsā. 4-70 and other texts) specifying two varieties of Kovidāra.

Morphologically the flowers are showy more than 3 mm. long generally in three species of *Bauhinia* viz. *B. racemosa* Lamk., *B. variegata* L. and *B. purpurea* Linn. Besides other characteristic difference (stamens fertile 10 in *Bauhinia racemosa* Lamk. while into others fertile stamens 3-5), mainly the characters of leaves and also flowers differentiate both species: Leaves cleft to about half way down, hypanthium shorter than the calyx and fertile stamens three in *Bauhinia purpurea* Linn. when the leaves cleft to about one-third way down, hypanthium equalling the calyx and fertile stamens five in *Bauhinia variegata* Linn. Another kind of Kančanāra or Pīta Kančanāra is botanically identified as *Bauhinia tomentosa* Linn. that bears yellow flowers and it occurs in north-western India particularly and Sri Lanka.

Pharmacodynamics

Rasa	: Kaṣāya
Guṇa	: Laghu, rūkṣa
Vīrya	: Śīta
Vipāka	: Kaṭu
Doṣakarma	: Kaphapittaśāmaka

Properties and Action

Karma	: Gaṇḍamālānāśana Vraṇśodhana-vraṇaropaṇa
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	Kuṣṭhaghna
	Śothahara
	Stambhana
	Kṛmighna
	Vāmaka
	Raktastambhana
	Lasikāgranthiśothahara
	Kāsahara
	Mūtrasaṅgrahaṇīya
	Ārtavasrāvahrāsaka
	Lekhana-medāpanayana
Roga	: Galagaṇḍa-Gaṇḍamālā
	Granthi śoṭha
	Vraṇa
	Lasikā
	Granthi-Arbuda
	Kuṣṭha
	Carmavikāra
	Mukhapāka
	Atisāra-Pravāhikā
	Arśa-gudabhramśa-parikartikā
	Kṛmi
	Vibandha
	Raktapitta
	Prameha
	Raktapradara
	Medoroga
	Carmavikāra-dadru.

Therapeutic uses

The drug Kāñcanāra is astringent, antiallergic and vermifuge. It is used in cough, menstrual disorders, glandular diseases and prolapse of the rectum. Drug is frequently used in traditional medicine in glandular ailments.

The drug Kāñcanāra (*Bauhinia variegata* Linn.) is an excellent medicine for galagaṇḍa, gaṇḍamālā, granthi and similar other ailments in Āyurveda. The fresh bark of Kāñcanāra mixed with Śuṅṭhī (ginger) is pounded with sour gruel and given in gaṇḍamālā (Cakradatta, 41-18).

The decoction of Kāñcanāra bark (tvacaḥ), added with Śuñṭhī powder is given in gaṇḍamālā. Decoction of Kāñcanāra bark added with three myrobalans or triphalā (*Terminalia chebula*, *Terminalia belerica* and *Emblica officinalis*) and pippalī cūrṇa (fruits powder of *Piper longum* Linn.) is recommended in gaṇḍamālā as well as galagaṇḍa (goitre). Besides these recipes, thriphālā ghr̥ta, diet of barley (yava) and green gram (mudga) are advised in texts of clinical medicine in the management of gaṇḍamālā (cervical adenitis-chain of swollen glands in neck). Kāñcanāra bark is pounded in rice water (taṇḍulodaka) and given to patient of gaṇḍamālā. Kāñcanāra guggulu is a prominent formulation in Indian medicine which is frequently administered for treatment of galagaṇḍa, gaṇḍamālā, granthi and allied diseases.

The plant drug Kovidāra (*Bauhinia purpurea* Linn.) is of almost similar medicinal importance. The powder of the Kovidāra root-bark may be taken with butter milk in arśa or piles (*Aṣṭāṅga Hṛdaya*, *Cikitsā*, 8-31). It is recommended for treatment of raktapitta, (intrinsic haemorrhage). The powdered flowers of Kovidāra, Śālmali, Khadira and Priyaṅgu are given to patient (*Caraka Saṁhitā*, *Cikitsā*. 4-70). Similarly another recipe contains two plants Kāsmarī and Śālmali with Kovidāra. It is taken in some kind of ailment (s). Kovidāra also enters in a recipe containing śīrīṣa, Arka and Kaṭabhī which is indicated against snake-poisoning or sarpaviṣa (*Suśruta Saṁhitā*, *Kalpa*. 5-18). The flowers of Kovidāra is specially indicated for raktapitta in medical texts as they have grāhi (saṅgrāhi) and other medicinal properties.

In pox (masūrikā), the decoction of Kāñcanāra bark added with svarṇamākṣikā bhasma is considered useful. Kāñcanāra is useful in various other diseases such as kāsa, śvāsa, pradara, kṣaya, kṛmi, kuṣṭha, gudabhraṁśa, vraṇa, mūtrakṛcchra, atisāra, pravāhikā, prameha, medoroga, carmavikāra, parikartikā and other diseases.

Parts used : Bark, flowers.

Doses

Bark powder 1-6 gms. Decoction 40-80 ml., Flowers juice 10-20 ml.

Formulations

Kāñcanāra Guggulu, Kāñcārādi Kvātha, Kāñcana guḍikā.

Gāna

Vamanopaga (Caraka Samhitā), Urdhvabhāga hara, Kaṣāyavarga (Suśruta Samhitā).

A. KĀNCANĀRA (काञ्चनार)**B. KOVIDĀRA (कोविदार)**

काञ्चनारो हिमो ग्राही तुवरः श्लेष्मपित्तनुत् ।

कृमिकुष्ठगुदभ्रंशगण्डमालाव्रणापहः ॥

Bhāvaprakāśa Nighaṇṭu, Guducyādi-Varga, 101-102

काञ्चनारद्वयपुष्पम्

कोविदारोऽपि तद्वत्स्यात्तयोः पुष्पं लघुस्मृतम् ।

रूक्षं सङ्ग्राहि पित्तास्रप्रदरक्षयकासनुत् ॥

Bhāvaprakāśa Nighaṇṭu, Guducyādi Varga, 104

कोविदारगुणाः

कोविदारो हिमो ग्राही कषायः कफपित्तजित् ।

गण्डमालागुदभ्रंशव्रणकुष्ठकृमीन् जयेत् ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 934

काञ्चनार गुणाः (काञ्चनारद्वयपुष्पम्)

कषायं मधुरं पाके रसे सङ्ग्राहि रोचनम् ॥

रूक्षं कासक्षयश्वासपित्तास्रप्रदरापहम् ।

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 936-937

कोविदारः कषायः स्यात् सङ्ग्राही व्रणरोपणः ।

दीपनः कफवातघ्नो मूत्रकृच्छ्रनिवर्हणः ॥

Rāja Nighaṇṭu, Karavīrādi Varga, 25

कोविदारः कषायस्तु सङ्ग्राही व्रणरोपणः ।

गण्डमालागुदभ्रंशशमनः कुष्ठकेशहा ॥

Dhanvantari Nighanṭu.

कोविदारपुष्पम्

‘कोविदारपुष्पाणि मधुराणि मधुरविपाकानि रक्तपित्तहराणि ।’

Suśruta Saṁhitā.

‘पुष्पं ग्राहि विशेषेण रक्तपित्तं प्रशस्यते ।’

Caraka Saṁhitā.

गण्डमालायाम्

‘नित्यं (पिष्ट्वा) ज्येष्ठाम्बुना पेयाः काञ्चनारत्वचः शुभाः ।

विश्वभैषजसंयुक्ता गण्डमालाहरः परः ॥’

Vṛndamādhava, 41-19.

Cakradatta, Gaṇḍamālā Cikitsā, 41-18.

मसूरिकायाम्

‘काञ्चनारत्वचः कषायः ताप्यचूर्णावचूर्णितः ।’

Bhāvaprakāśa Cikitsā 60-49.

रक्तपित्ते

‘कोविदारस्य पुष्पाणि..... ।

अन्नपानविधौ पाकं यच्चान्यद् रक्तपित्तनुत् ।’

Caraka Saṁhitā, Cikitsā, 4-39.

‘.....कोविदारस्य..... ।

पुष्पचूर्णानि मधुना लिह्यान्ना रक्तपित्तकः ॥’

Caraka Saṁhitā, Cikitsā. 4-38

मर्पदष्टे

‘कोविदारशिरीषार्ककटभीर्वाऽपि भक्षयेत् ।’

Suśruta Saṁhitā, Kalpa. 5-17

मेधावर्धनार्थम्

सर्पिश्चतुः कुवलयं सहिरण्यपत्रं

मेध्यं गवामपि भवेत् किमु मानुषाणाम् ॥

Aṣṭāṅga Hṛdaya, Uttara. 39

अर्शःसु

‘कोविदारस्य मूलानां मथितेन रजः पिबेत् ।’

Aṣṭāṅga Hṛdaya, Cikitsā. 8.

कोविदारः

‘कोविदारोऽप्सरः शम्यः कोविदारश्च काञ्चनः ।
पूर्वः सितोऽपरो रक्तो युक्तपत्रावुभावपि ॥

Ratnakōṣaḥ.

कोऽप्ययं दारुरित्याहुः अजानन्तो यतो जनाः ।
कोविदारस्त्विति ख्यातः ततः स तरुपुङ्गवः ॥

Harivamsa.

कोविदारः श्वेतपुष्पो सुशिम्बो युग्मपत्रकः ।
दृढकाष्ठो रक्तसारः पादपः पर्वते भवेत् ॥

Śivadatta

काञ्चनारो महान् किञ्चित् युग्मपत्रोऽयं शिम्बकः ।
कषायो रक्तपुष्पश्च काननादौ प्रजायते ॥

कोविदार-कर्बुदारयोर्मध्ये पार्थक्यम्

‘कोविदारः स्वनामख्यातः स शरदि पुष्प्यति ।
कर्बुदारः काञ्चनारः स बसन्ते हि पुष्प्यति ॥’

Cakrapāṇi, Caraka Samhitā, Kālpa. 2-14

रक्तपित्ते कोविदारपुष्पचूर्णम्

खादिरस्य प्रियङ्गुणां कोविदारस्य शाल्मलेः ।
पुष्पचूर्णानि मधुना लिह्यान्ना रक्तपित्तिकः ।

Caraka Samhitā, Cikitsā. 4-70.

सर्पविषे

‘कोविदारशिरीषार्ककटभीर्वापि भक्षयेत् ।’

Suśruta Samhitā, Kālpa. 5-18.

अर्शसि

‘कोविदारस्य मूलानां मथितेन रजः पिबेत् ।’

Aṣṭāṅga Hṛdaya, Cikitsā. 8-31.

कोविदारादिवृन्तवस्ति-परिकर्त्तिकानाशनार्थम्

कर्बुदाराढकीनीपविदुलैः क्षीररसाधितैः ।
बस्तिः प्रदेयो भिषजा शीतः समधुशर्करः ॥
परिकर्त्ते तथा वृन्तः श्रीपर्णी कोविदारजैः ।

(देयो बस्तिः सुवैद्यस्तु यथावद्विदितक्रियैः) ।

Caraka Samhitā, Siddhi. 10-34/35.

गण्डमालाचिकित्सायां काञ्चनारः

काञ्चनारत्वचः क्वाथः शुण्ठीचूर्णेन संयुतः ।
माक्षिकादयः सकृत्पीतः क्वायो वरुणमूलजः ॥
गण्डमालां हरत्याशु चिरकालानुबन्धिनीम् ॥

Bhāvaprakāśa, Madhyakhaṇḍa, 44-37.

पलमर्द्धपलञ्चापि पिष्टां तण्डुलवारिणा ।
काञ्चनारत्वचं पीत्वा गण्डमालां व्यपोहति ॥

Bhāvaprakāśa, Madhyakhaṇḍa, 44-38.

गलगण्ड-गण्डमालाग्रन्थ्यर्बुदाधिकारे

काञ्चनारगुग्गुलुयोगः

Bhāvaprakāśa, Madhyakhaṇḍa, 44/39-44.

मसूरिकायां काञ्चनारत्वचः

उत्थिता प्रविशेद्या च तां पुनर्वाह्यतयो नयेत् ।
काञ्चनारत्वचः क्वाथस्तान्यचूर्णावचूर्णितः ॥

Bhāvaprakāśa, Masūrīkādhikāra 60-49.

गण्डमाला-चिकित्सायां काञ्चनारप्रयोगाः

काञ्चनारत्वचः कषायः शुण्ठी चूर्णेन नाशयेत् ।
गण्डमालां तथा क्वाथः क्षौद्रेण वरुणत्वचः ॥

Vaidya Manoramā, 13-37.

सकाञ्चनारत्रिफलाजले शृतः प्रशम्यते मागधिकावचूर्णिताः ।
सगण्डमाले गलगण्डरोगिणी फलत्रिकाज्यं यवमुद्गभोजनम् ।

Cikitsā Kalpavalli 1-83.

KAÑCĀṬA

Botanical name

Ludwigia adscendens (L.) Hara

Syns. *Jussiaea repens* Linn., *J. adscendens* L.

Family : Onagraceae

Classical name : Kañcāṭa

Sanskrit name : Kañcaṭa

Rigional names

Kesara-dam (Beng.); Dhabani, Kesariba (Bihar).

Description

Aquatic or semi-aquatic herbs with a cruping stem rooting at the nodes, usually with pseudo-pneumatophores.

Leaves alternate, elliptic-oblong, 1-7 × 1-2.5 cm., glabrous, rounded at the apex, narrowed at base; petioles 6-16 mm. long, sparsely pubescent; bracteoles deltoid.

Flowers solitary, axillary, pentamerous. Sepals 5, deltoid-acuminate, 5-10 × 2-2-3.2, mm. Petals 5, white, obovate, 9-18 × 6-10 mm.

Capsules terete, sparsely pubescent or glabrous, thick-walled; irregularly dehiscent, 12-27 × 3-4 mm., 10-ribbed; seeds uniseriate in each cell, pole brown, numerous.

Flowering and fruiting time

Plant flowers and fruits in January to June or winters to summers.

Distribution

Plant grows along marjins of tanks, streams and lakes in Madhya Pradesh, Central India and her regions in country.

Pharmacodynamics

Rasa	: Tikta, Kaṣāya
Gūṇa	: Laghu
Vīrya	: Uṣṇa
Vipāka_	: Kaṭu
Doṣakarma	: Vātapittahara.

Properties and Action

Karma	: Saṅgrāhī, Atisāraghna. Śūlahara.
Roga	: Atisāra Raktātisāra Grahaṇī, Udaraśūla.

Therapeutic uses

The plant is considered an anti-diarrhoeal medi-

cine. Leaves are oally in cases of diarrhoea. Leaves of plant drug alongwith tender fruit of Bilva (*Aegle marmelos* Correa), mixed in butter, are given internally in condition of diarrhoea with blood and griping. It is also used in Grahaṇī diseases. Decoction of leaves is useful in abdominal and diarrhoeal disorders.

The herb is used as a paste or in poultice for applying on ulcers and skin complaints.

Parts used : Whole plant, leaves.

Dose : Juice 5-10 ml., Decoction 50-100 ml.

Formulation : Kañcaṭādi Kvātha

KAÑCATA (कञ्चट)

अतिसारे

कञ्चटजम्बूदाडिमशृङ्गाटकपत्रबिल्वह्वीवेरम् ।

जलधरनागरसहितं गङ्गामपि वेगिनी रुन्ध्यात् ॥

Cakradatta, 3-38.

सुस्विन्नकञ्चटं बालबिल्वं सनवनीतकम् ।

लिह्याद् रक्तातिसारे च सशूले ग्रहणीगदे ॥

Baṅgasena, Atiśara. 116.

KAÑKOLA

Botanical name : *Piper cubeba* Linn.

Family : Piperaceae

Classical name : Kañkola

Sanskrit names

Kañkola, Gandhamarica, Sthūlamarica, Kaṭukaphala, Sapucchamarica, Navapariṇītāvadhū phala, Mādhavocitam, Kolāka, Koṣaphala, Vṛttaphala, Kaṭuphala, Kola, Bahuphala.

Regional names

Kababchini, Shitalchini (Hindi); Kababchini (Bengla); Hisimi (Mar.); Tadmire (Guj.); Valmilaku (Tam.

Mal.); Tokamiriyalu (Telugu); Bala menasu (Andhra.) Kababsini Habul-urus (Arab.); Kababchini (Persian); Cubeb (Eng.). Cubabae Fructus, Tailed Papper.

Description

Perennial climber, stem tender, smooth, glandular at nodes, nodular; Leaves glabrous, ovate, oblong with cordate or rounded base, entire, patioled, obliquely cordate, coriaceous; venation clear (conspicuous). Male and female flowers on separate plants; fls. on spikes.

Fruits globose drupes resembling with fruits of Marica or black pepper (*Piper nigrum* Linn.); Fruit sub-globose, 6-8 meredian somewhat appiculate, stalked; fruit almost globular; 3-6 mm. diam., with a slender stalk like portion upto 7mm., attached with its base (hence cubebs also known as stalked pepper); the upper part of the fruit globular covered with greyish brown raticulated pericarp (extened at the base into a straight stalk upto 7 mm. in length). Anatomically structure of paricarp distinguishes it from black peper and the adulterants. Pericarp thecaphore. Fruits form drug material of Kaṅkola (known as Kababchini or Shital chini in trade). Fruits being stalked are also known as Tailed pepper.

Flowering and fruiting time

Plant flowers and fruits during Autumn season.

Kinds and varieties

The fruits of *Piper ribesioides* wall. and *Piper sumatrana* Dc. are similar to Kankola but larger in size. They are named Bṛhat kankola. The fruits of some species of *Piper* genus are taken as subtitutes and adulterants viz. *Piper crassipes* karth, *P. cannum* Blume, *P. Baccatum* Blume, *Piper clussuii* Dc. and *P. guinecense* Dc. Fruits of *Litsea cubeba* Pers. are also admixture.

Distribution

Plant is occasionally cultivated in certain regions. Exported from Singapore to Bombay market in India. Plant Grown and drug prouced in Sumatra, Java, Borneo, Malaya and other islands in South-east Asia. Cultivated at small seale in Southern India. Plant is also cultivated in Mysore (Karnataka).

Chemical composition

The most characteristic constituent of Cubeb is the essential oil (Oil of Cubeb), the proportion of which varies from 5 to 20 percent. (13 ml. oil obtained from 100 gm. fruits material as per average or minimum calculation).

In addition the fruits contain resinous matter (6.4-8.5%), gum, colouring matter, fixed oil, starch and nitrogenous substance. Resinous matter is composed of several acidic and neutral substances of undermined composition including cubebin having a bitter taste, cubebol and cubebic acid.

Pharmacodynamics

Rasa	: Katu, tikta
Guṇa	: Laghu, rūkṣa, tikṣṇa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphavātaśāmaka

Action and Properties

Karma	: Rocana-Dīpana-Pācana-Anulomana Hṛdya Sleṣmaniḥsāraka-kaphaghna Vājikaraṇa-Ārtavajanana Raktotkleśaka-uttejaka Śothahara Durgandhanāśana Vraṇaropaṇa
Roga	: Śothavedanā (yukta vikāra) Mukharoga-galaroga-dantaroga Śīroroga-śīraḥśūla Dehadourgandhya Agnimāndya-aruci-viṣṭambha Arśa Hṛddourbalya Kāsa-śvāsa Kaṣṭārtava-rajorodha Dhvajabhaṅga-napumsakatā Jīrṇa puyameha-Mutrakṛcchra.

Therapeutic uses

The drug Kaṅkola is appetizer, aromatic, cardio-

tonic, carminative, emmenagogue, diuretic and urogenital antiseple. It is used in cardiac weakness, constipation, cough, cystitis, dysmenorrhoea, gonorrhoea, lack of appetite, piles, respiratory disorders and urinogenital disorders.

The powder of fruits is given in cough, asthma, dyspepsia and haemorrhoids. The oil is applied on wounds. In dental ailments, the powder is mixed with dental powder (dantamanjana). It is snuffed in headache. The drug is orally taken or kept in mouth in ailments of mouth and throat.

The powder is externally applied to male genital organ (śiśna) for promoting sexual instinct and pleasure (kāmasampraharṣa janana) in coitus. Hence, it is known as Hajbul-urus (in Unani medicine) and 'Bridegroom Berry' accordingly. Drug is useful in impotency.

It is mixed with paste to be applied on body for checking foul smell. The drug is used in chronic gonorrhoea, dysuria, painful or scanty menses, heart troubles (Weakness), worms affections. Drug allays diseases caused by provocation of Kapha vāta dosa. Kankola is a sugandhi dravya (aromatic drug) in Indian medicine. Fruits are also used as spice Phytochemically, the therapeutic value of cubeb is attributed to be largely due to cubebic acid present in fruits besides other active constituents.

Parts used : Fruits

Dose : Powder 1-3 gm., Oil 1-3 drops, (5-30 drops).

KANKOLA (कङ्कोल)

कङ्कोलं सुगन्धिद्रव्यम्

कङ्कोलं कोलकं प्रोक्तं तथा कोषफलं स्मृतम् ।
कङ्कोलं लघु तीक्ष्णोष्णं तिक्तं हृद्यं रुचिप्रदम् ।
आस्यदौर्गन्ध्यहृद्दोगकफवातामयान्ध्यहृत् ॥

Bhāvaprakāśa Nighaṅṭu, Karpūrādi Varga, 116.

क. कङ्कोलकं कटुफलं मारीचं माधवोचितम् ।
कूलं बहुफलं कोलं कटुकं कटुकाफलम् ॥

- ख. कङ्गोलं लघुतिकोष्णं तीक्ष्णं हृद्यं रुचिप्रदम् ।
कफानिलास्यदौर्गन्ध्यहृद्दोगकृमिमान्द्यजित् ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 1331-1332.

कङ्गोल-कङ्गोलम्

- अ. कक्कोलकं कृतफलं कीलकं कटुकं फलम् ।
विद्वेष्यं स्थूलमरिचं कर्कोलं माधवोचितम् ।

कङ्गोलगुणाः

- ब. कङ्गोलं कटु तिकोष्णं वक्त्रजाड्यहरं परम् ।
दीपनं पाचनं रुच्यं कफवातनिकृन्नम् ॥

Rāja Nighaṇṭu., Candanādivarga, 79-80.

कङ्गोलकं.....कटुतिकं कफापहम् ।
लघु तृष्णापहं वृष्यं वक्त्रदौर्गन्ध्यनाशनम् ॥

Suśruta Samhitā, Sūtra. 46.

KĀNDĪRA

Botanical name : Ranunculus Scalaratus Linn.

Family : Ranunculaceae.

Classical name : Kaṇḍīra, Jaladhanyaka

Common name : Jaldhaniya

Sanskrit names

Kāṇḍīra, Kāṇḍakaṭuka, Toyavalli, Sukāṇḍaka,
Kāravalli.

Regional name

Jaldhaniya, Devkandar (Hindi); Palika (Bihar); Sim
(Kumaon); Kabikajaj (Arabic); Karafs dashti (Persian);
Celery-leaved crowfoot (English).

Description

Erect glabrous annual aherbs, 20-70 cm. tall, much
branched. Lower leaves up to 15 cm. across with cuneate,
obtusely-toothed segments, petiolate, upper leaves 3-fid,
shortly stalked or sessile, uppermost usually simple, linear,
sessile.

Flowers yellow, 0.6–1 cm. diam., numerous, termi-

nating the branchlets, and from the forks. Sepals spreading and reflexed.

Fruiting receptacle slightly hairy. Achenes many rather turgid, not margined, glabrous, on an oblong hairy receptacle.

Flowering and fruting time

Winters to spring season. December to March.

Distribution

Plant grows commonly along river beds, on moist river and along other aquatic and moist localities (nalas, ponds, tanks etc.). It generally occurs from Kashmir to Assam upto Tropical hilly regions (up to 5,000 ft. elevation).

Pharmacodynamics

Rasa	: Kaṭu, tikta
Guṇa	: Rūkṣa, tīkṣṇa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphavātaśāmaka

Properties and Action

Karma	: Bāhya Raktotkleśāka Sphoṭajanana Jantughna Ābhyantara Dīpana Pācana Kṛmighna Rasagranthiśothahara Ārtavajanana Viśākta-atitīkṣṇa
Roga	: Udararoga Gulma Plihā Udaraśūla Agnimāndya Kṛmi Rasagranthi śoṭha Raktavikāra

Rajorodha
 Dhvajabhaṅga
 Carma vikāra
 Āmavāta.

Therapeutic uses

It is very irritant, vesicant and toxic plant, hence precaution should be taken while using it orally, and due care is also desired when it is topically applied.

The plant drug is considered useful in plague since the same is externally applied as a paste on glandular swelling or swollen gland in plague. In general the paste is recommended for topical application on swollen lymphatic glands. In impotency the local application of drug is prescribed for which an oil prepared with leaves and other parts of drug plant may be used externally. In addition the drug is locally applied to skin affections, gout and rheumatic joints. Its external application is suggested to be made as germicidal.

The drug is recommended as preventive prophylactic as well as curative remedy in plague disease. The drug is useful in abdominal diseases, abdominal colic, splenic disorder, dyspepsia, worms and other ailments of digestive system. It is useful in case of dysmenorrhoea. Externally the drug is applied to ulcers and wounds, but precaution is required keeping the intense irritant nature in view.

Traditional practice of herbal drugs in rural and tribal regions is making uses of Kaṇḍīra or Jaldhaniya in some ailments and medicinal purposes. It also includes use of leaves or branches with leaves, flowers and fruits for preparing (cooking) an oil (in sesamum, mustard and coconut oil—anyone oil considered suitable) under normal process of oil preparation (tailapāka vidhi). This oil is suggested to be applied externally over penis (only on skin movable or foreskin) for limited time. In case of impotency in order to strengthen erectile power of male genital organ (dhavajotthāna vikṛti : Klaihya or napuṁsakatva), but a restricted application is advisable as its general external use always needs precautionary consideration.

Parts used : Whole plant, leaves.

Dose : 1-3 gms.

KĀNDĪRA (काण्डीर)

काण्डीरः काण्डकटुको नासासंवेदनः पटुः ।

उग्रकाण्डस्तोयवल्ली कारवल्ली सुकाण्डकः ॥

काण्डीरः कटुतिकोष्णः सरो दुष्टव्रणार्तिजित् ।

लूतागुल्मोदरप्लीहशूलमन्दाग्निनाशनः ॥

*Dhanvantari Nighantu, Rāja Nighantu,
Guḍūcyādi Varga, 123-124.*

KĀṄGUKA

Botanical name : *Setaria italica* Beauv.

Family : Poaceae (Gramineae)

Classical name : Kaṅguka

Sanskrit names

Kāṅguka, Kaṅgu, Kaṅguni-Kaṅguṇī, Cīnaka,
Pītaṅḍula, Vātala, Sukumāraka.

Regional names

Kaṅguni, Koni (Hindi); Kangu (Beng.), Kangu
(Mar.) Kang (Guj.), Korralu (Tel.), Tenai (Tam.), Millete
(Eng.).

Description

An erect, often robust, tufted, annual grass with fasciculated and prominently jointed culms, 0.6-1.5 meters high, somewhat branching from the crown; stems sometimes decumbent near the base and rooting at the lower joints.

Leaves flat, linear or lanceolate, tapering to a setaceous point, 15-45 cm, long, 0.75-3.3 cm. broad, glabrous, panicles, erect or nodding, continuous and cylindric or more or less lobed, having 2-4 spikelets in each involucre.

Bristles 2-9, hairy, nearly smooth, twice as long as

the spikelets, sometimes bearing to extra spikelets at the tip in some cases; spikelets persistent, broadly-oblong to broadly elliptic, 2.0 - 3.5 cm. long, lower floret barren, upper floret hermaphrodite, caryopsis ellipsoidal or globose-ellipsoidal, 1.8×2.5 mm. long with persistent glumes, smooth, shining, with varying colours.

Flowering and fruiting time

Forming season of millet crop.

Distribution

It is under agro-farming of millet crop (with background of domestication suitability) for food grains, with cosmopolitan distribution in India. Itallian millet (Kaṅguni) has been grown as a cereal crop from the time immenaoride. The species is highly variable and also under hybridization process-rendering selected types for agro-cultivation of Italian millet grown in various states in India mainly as food crop well as fodder crop occasionally.

Millet is essentially a dry land crop and can be grown throughout the year. It is suited to tracts of low rainfall, ranging from 50 to 75 cm. and is cultivated in the Himalayas upto 1,800 meters and also sometimes upto 3,300 meters.

Chemical composition

There is considerable variation in the composition of grains result from varietal differences, cultural practices, and enviromental conditions. The figures of proximate composition reported are regarded as indicative.

Analysis of a dehusked sample (79% of whole grain) gave the following values (drymatter basis) : moisture 11.2, protein 12.3, fat 4.3, minerals 3.3, crude fibres 8.0 and other corbohydrates 60 to 9%; and with calories value 331.

The mineral constituent present in these grains follow : mg/100 g. dehusked material contains Ca 31, Mg 120, P. 290, phytin P. 193, Fr. 12.9 (ionizable Fe. 2.5), Na 4.6, K. 250, Cu. 0.35, S. 171 and Cl, 37. Iodine and Vimains also present in the grains are part nutritive value of millet.

Pharmacodynamics

Rasa : Madhura

Guṇa	: Kaṣāya
Vīrya	: Uṣṇa
Vipāka	: Madhura
Doṣakarma	: Vātakaphahara

Properties and Action

Karma	: Ropaṇa-Vraṇaropaṇa Balya Sāraka-anulomana Vedanāsthāpana
Roga	: Vraṇa Nāḍivraṇa Dourbalya Garbhasrāva Sūtikāroga Āmavāta.

Therapeutic uses

The roots of plant are obtained and ground duly mixed with equal quantity of sugar and the preparation (or in powder form) is recommended for orally use in cases of sinus (nāḍivraṇa) specially with incessant discharge of thick pus. Another formulation is also prescribed for wound healing. Kaṅguka mixed with Triphala (three myrobalans), Lodhra (Symlocos (racemousus), Śravaṇī or Muṇḍī (Sphaeranthus indicus), bark of Dhava (Anoegissus latifolia) and Aślakarṇa and they are used in powder form in condition of wound.

Kaṅguka (millet) belongs to dhānya varga comprising food grains or cereals. Kaṅguka (Kanguni) is an article of food in rural and tribal belts; it is cooked as rice and consumed, besides other traditional uses as food of folks in villages, for routine preparations (such as roti, khir, bhat) and other dietary preparations under different conventions in rural areas in the plains and also in hills. Certain dietary items are considered wholesome in some ailing conditions such as ulcer, sinus, haemorrhage, pus formation and debility.

The plant drug is source of food grains which have medicinal value, and roots are also medicine. In general it

is considered to be sweet, acrid and aphrodisiac and it is used as sedative to the gravel uterus. It is a popular remedy of pain parturition. Grains possess heating properties and when taken alone or excess can cause sometimes diarrhoea. It is astringent, diuretic and laxative. Grains are externally applied to rheumatic organs.

Parts used : Seed (Grains), roots.

Dose : Powder 3-6 gms., Food grains.

KANĠUKĀ-KANĠUNĪ

(कङ्कुक-कङ्कणी)

व्रणरोपणार्थम्

कङ्कुकं त्रिफला रोध्रं कासीसं श्रवणाह्वय ।
धवाश्वकर्णयोस्त्वक् च रोपणं चूर्णमिष्यते ॥

Suśruta Saṁhitā, Sūtra. 37-27.

नाडीव्रणे

यः कङ्कणीमूलसमांशखण्डमश्नाति नित्यं पुरुषोऽभियुक्तः ।
नाडीव्रणे रोहति तस्य शीघ्रमनारतप्रस्तुतसान्द्रपूयः ॥

Rajāmārtanḍa. 26-15.

KANĠUṢṬHA

Botanical name

Garcinia moralla Desv.

Syn. *Hebradendron cambogioides* Grahani.

Family : Gutiferae

Classical names : Kankuṣṭha

Sanskrit names

Kankuṣṭha, Raṅgadā (niryās; Tamala, resin),
Tāpiccha (vṛkṣa-tree).

Regional names

Vṛkṣa-tree : Tamal (Hindi); Makki (Tam.);
Revandchini (Tel.); Hagdal (Kann.); Chingiri (Mal.); Kuji

Thekera (Arabic); Indian Gambosa tee (Eng.). Niryās-Resin: Ushare-revand (Hindi); Revancini Shri (Guj.) Pharphiram (Arabic); Gotaoganva, Usare revand (Arab.); Gambose.

Description

A middle-sized tree, branchlets-quarangular. Leaves 3-5 in., thinly coriaceous, broadly lanceolate.

Flowers greenish-white, sessile in the axils of fallen leaves. Mala flowers: 2-3, together; anthers 3-celled dehiscing transversely, filaments short, on a central thick 4-sided column. Female flowers; staminodes 12, connate at base in a ring round the globular 4-celled ovary, stigma peltate, irregularly lobed and tubercled.

Fruit 3/4 in. diam., seeds 4.

Flowering and fruiting time

Plant flowers in November, and its fruiting in February-March.

Distribution

Plant occurs in North Kanara, evergreen forests, South Kanara, moist forests of the plains and ghats to 3,000 ft. Kankustha is also imported to India, procured from *Garcinia hanbury* Hook. J. in Indochina

Generally Kaṅkuṣṭha drug forms resinous substance of red-yellowish or orange colour, smooth, cylindrical, odourless and pungent with slight acid taste.

Chemical composition

The raw drug material contains three resinous acids known as garcinolic acids responsible for activity of kaṅkuṣṭha (*Garcinia morella* Desu.) Seedcoat, stem and leaves contain an yellow colouring matter morellin which is germicide. Seeds contain 30% fat like kokam water.

Pharmacodynamics

Rasa	: Kaṭu, tikta
Guṇa	: Laghu, rūkṣa,
Vīrya	: Uṣṇa (Karma)
Vipāka	: Kaṭu
Doṣakarma	: Kaphapittaśāmaka

Properties and Action

Karma	: Recana-tīvra virecaka (higher dose) Jantughna-Vraṇahara (śodhana-ropaṇa) Śothahara-raktabhārahāsaka Krmighna
Roga	: Koṣṭhagātavāta-Koṣṭhabaddhatā- Vibandha Vibandhajanya gulma-udavarta-śūla Śoṭha Raktabhāra Vraṇa.

Therapeutic uses

The drug Kaṅkuṣṭha is a drastic purgative, It is anthelmintic, germicide, wound healing, anti-inflammatory and hypotensive drug. It is used both as externally as well as internally in medicine.

The drug in the form of resinous substance is orally used within limit of doses which is normally given in constipation and its presence as symptom in other abdominal diseases such as colic, flatulence and gulma, its use in higher dose is acting as drastic cathartic causing vomiting, nausea and griping etc.

It is used in oedema and hypertension (high blood pressure). Its ointment is locally applied on wounds and ulcers. The drug is useful in diseases caused by vāta pitta doṣa and ailments of abdominal origin and vāta provocation.

The drug is often adulterated with certain vegetable or plant material (i.e. wheat, rice, starch or even sand etc.). In case of bad effect or complication after use of this drug, the suitable drugs and other diet articles (śīta vīrya, madhura and snigdha dravya). The intake decoction of root of Babbula (*Acacia arabica* Willd.) mixed with Jīraka and taṅkaṇa is suggested.

Another Kankuṣṭha is also incorporated in the group of uparasa in context of rasaśāstra. Probably Kaṅkuṣṭha (of plant origin) had been resin of Svarṇakṣīrī and than extract of *Rheum emodi* or revandchini and af-

terwards resinous substance of *Garcinia morella* Deauv has come in vague.

Parts used : Resin

Dose : 50-125 mg.

KANKUṢṬHA (कङ्कुष्ठ)

- क. कङ्कुष्ठं तिक्तकटुकं वीर्ये चोष्णं प्रकीर्तितम् ।
गुल्मोदावर्त्तशूलघ्नं रसरज्जं व्रणापहम् ॥
हिमवत्पादशिखरे कङ्कुष्ठमुपजायते ।
तत्रैकं नलिकाख्यं हि तदन्यद्रेणुकं मतम् ।
- ख. पीताभं गुरु स्निग्धञ्च श्रेष्ठं कङ्कुष्ठमादिमम् ।
श्यामपीतं लघु त्यक्तसत्त्वं नेष्टं हि रेणुकम् ॥
कङ्कुष्ठं तिक्तकटुकं वीर्योष्णं चातिरेचनम् ।
व्रणोदावर्त्तशूलार्त्तिगुल्मप्लीहगुदार्त्तिनुत् ॥

Rasaratna Samuccaya.

KANṬAKĀRĪ

Botanical name

Solanum surattense Burm. f.

Syn. *Solanum xanthocarpum* Sebr. & wende.

Family : Solanaceae

Classical name : Kanṭakārī

Sanskrit names

Kanṭakārī, Kṣudra, Duḥsparsā, Vyāghrī,
Nidigodhikā.

Regional names

Kateli, chhoti Kateli, Rengoni (Hindi); Kandiyari (Punj.); Bhuringini (Marathi); Bhoaringani (Guj.); Kantikari (Beng.); Kandanakatiri (Tamil); Kuda (Telugu); Badjan Barri (Arabic); Bardgan barri (Persian); Yellow-berried night shade (English).

Description

A very prickly diffused bright-green perennial herb,

somewhat woody at the base, stem somewhat zig-zag, branches numerous; the younger ones clothed with dense stellate tomentum, prickles compressed, straight, yellow, glabrous and shining, often exceeding 1.3 cm. long.

Leaves 5-10 × 2.5-5.7 cm., ovate or elliptic, sinuate or subpinnatifid, obtuse or subacute, usually rounded and unequal sides, stellately hairy on both sides, sometimes becoming nearly glabrous in age, armed on the midrib, and often on the nerves with long yellow sharp prickles, petioled 1.3-2.5 cm. long, stellately, hairy and prickly.

Flowers extra-axillary, few-flowered cymes, sometimes reduced to a single flower; peduncles short, pedicels short, curved stellately hairy, Calyx up to 1-3 cm. long densely, hairy and prickly; tube short, globose, lobes 5 each upto 11 mm. long, linear-lanceolate acute, prickly outside. corolla purple 2 cm. long, lobes 5 deltoid, acute, hairy outside. Stamens 5 free, filaments 1.5 mm. long, glabrous; anthers 8 mm. long, oblong-lanceolate opening by small pores. Ovary ovoid, glabrous, style glabrous.

Fruits berry 1.3-2 cm. diam. fleshy, yellow or white with green veins, surrounded by enlarged calyx. Seeds 2.5 mm. diam. glabrous, numerous, embedded in fleshy mucilaginous mass, flattened round with a curved and measuring 2-3 mm. in diam. and glabrous.

Flowering and fruiting time

Winters to summers.

Distribution

Plant occurs wild almost throughout India, Sri Lanka, South-east Asia, Malayasia and tropical Australia.

Kinds and varieties

The drug Kaṅṭakārī is of two types viz. Nīla puṣpā (blue-flowered variety) and śveta puṣpā (White flowered variety). Nīla puṣpā Kaṅṭakārī is commonly available in natural state, while Śvetapuṣpā Kaṅṭakārī is very rarely found and the plant is also claimed to be another classical drug Lakṣamaṇā which is a valuable drug known for its anati-sterility (specific to promote conception of male child) effect. White flowered variety plant is of similar

habit, but strikingly and only differs in flower colour (White). The fruits in mature state are collected and their seeds are obtained which are sown (in pots or beds) for raising new and more plants and their seeds are particularly recommended for oral use in sterility cases. There is specific mode of administration and also method of collection of drug (seeds, root and plant). Lakṣamanā, by keeping the time factor and sanctity of collector (nakṣatra, tithi, śuci and abhimantraṇa) in view, as incorporated in classical texts of medicine. It is specifically indicated in Pūmsavana Karma. White-flowered variety or Śveta Kaṇṭakāri is also useful therapeutics in general.

Chemical composition

The roots and fruits of plant contain solanine and solanidine, besides waxy substance, fatty acid and other constituents.

The phytochemical analysis finds that some nonprotoplasmic cell contents like alkaloid, tannin, sugar, starch, fat, oil, protein, mucilage, lignin, cutin and calcium oxalate present in the plant react positively with different concentrations of acids, alkalies, salts and dyes. Diosgenin is isolated from the fruits. The chromatographic studies have been conducted and observations in regard to various important constituents are recorded.

Pharmacodynamics

Rasa	: Tika, Kaṭu
Guṇa	: Laghu, rūkṣa, tūkṣṇa
Virya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphavātaśāmaka

Properties and Action

Karma	: Kāśahara-kaṇṭhya-śvāsahara Hikkānigrahaṇa Mūtrala Garbhāśayasankocaka Vājīkaraṇa Garbhasthāpana -Pūmsavana (Śvetakaṇṭakāri) Jvaraghna
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Roga

Sajñāprovodhana-Vātahara
 Raktaśodhaka-śothahara
 Vedanāsthāpana
 Kṛmighna
 Dīpana-pācana-recana
 : Kāsa-śvāsa-pārśvaśūla
 Svarabheda-hikkā
 Aśmari-puyameha-mūtrakṛcchra
 Rajorodha-Kaṣṭhaprasava-Klaiyya
 Garbhasrāva
 Agnimāndya-vibandha
 Kṛmi
 Raktacāpa-raktavikāra
 Kuṣṭha-phiraṅga-ānavāta
 Carmavikāra
 Jvara.

Therapeutic uses

The root is pungent, bitter, appetiser, laxative, stomachic and anthelmintic. It is useful in bronchitis, asthma and fever. The drug is useful to check provocation of Kapha and Vāta doshas (body humors.) Roots are used in lumbago, pain, piles, thirst, urinary infection and diseases of the heart. Root is an expectorant forming an ingredient of well-known combination (group or formulation of ten drugs) Daśamūla in Ayurveda.

It is recommended frequently in treatment of cough, chest pain and vātavikāra (diseases caused by provoked vāta); it is commonly given to mothers after delivery in view of efficacy (Daśamūla kvātha) of decoction in sūtikā roga (puerperal stage and its ailments).

The root and whole plant are recommended effective remedy against cough, asthma and other diseases of respiratory system. Root is aphrodisiac. A decoction of the root is given with the addition of clove (Lavaṅga), Pepper (Pippalī) and honey (Madhu), in cough and catarrh, and rock salt (lavaṅa viśeṣa) and asafoetida (Hiṅgu) in spasmodic cough.

The pounded root mixed up with wine is given to check vomiting. The drug Kaṣṭakārī is classically

recognised anti-cough drug in Ayurved system of medicine. There are number of formulations in Indian medicine prescribed in treatment of various diseases respiratory system. The formulations based on drug kaṇṭakārī as principal component as well as with other ingredients are incorporated in management of cough, asthma, bronchial asthma and similar ailments. Besides respiratory diseases several classical formulations or compounds (yoga) are mentioned in medical texts such as Kaṇṭakārī ghṛta, Kaṇṭakāryāvāleha, Vyāghrī harītakī, Kaṇṭakāryādi kvātha, Laghu pañcamūla kvātha, Daśamūla kvātha, Bṛghu harītakī, Kaṇṭakārī taila, Kaṇṭakāryādi kaṣāya, Bṛhatyādi kaṣāya-kvātha and several other formulations are recommended in various other kinds of diseases which are covered under therapeutic utility of drug Kaṇṭakārī.

Besides the roots and whole plant, other parts of plant drug viz. stem, flowers and fruits etc. are medicinal useful. Stem, leaves, flowers and fruits are bitter and carminative. They are recommended for relief in burning sensation in the feet (also soles) by vesicular watery eruptions. Leaves are applied locally to relieve pain and also useful in local application for piles.

The fruit is promotion digesting and is improves appetite; the fruits are good and useful in heart diseases, pruritis, asthma and fever. It is anthelmintic, aphrodisiac and it causes biliousness. The juice of fruit (berries of plant) is useful in sore throat and throat affections.

The plant drug has diuretic properties and it is used in treating dropsy. The juice of herb mixed with other suitable drugs is given in fever. The juice of leaves, mixed with black pepper is orally given in rheumatism. Roots are considered an anti-dote of chicken pox in some regions.

In the treatment of piles, the drug Kaṇṭakārī is prescribed. The buttermilk (mathita) is kept overnight in a vessel pasted inside with Kaṇṭakārī fruit, and this kind of liquid is orally given to patient for elimination of piles. The post-drink processed with Kaṇṭakārī and Dhānyaka (*Coriandrum sativum*) is given to act as carminative and laxative medicine in the cases of piles.

Barley alongwith equal quantity of Kaṇṭakārī fruits is boiled in water and it is reduced to half quantity (erude drug 640 gm., water 2.56 litres and decoction 320ml.) and mixed with asafoetida (Hingu), it is given in condition of Udāvartta.

The water boiled with Kaṇṭakārī (fruit or other suitable part) is orally given in condition of overthirst or Kaṇṭakārī Kaṣāya (water) allays thirst. The juice of Kaṇṭakārī fruit is snuffed (nāvana) in case of epilepsy (apasmāra) which eliminates the attacks of epilepsy (epileptic stage) and helps restore consciousness to epileptic patient.

The drug Kaṇṭakārī is prescribed in fever, calculus, retention and supression of wine, alasa (lichen), eye diseases (conjunctivitis specially vātaja netrābhiṣyanda), ear disease, chronic cough in children (jirṇa bāla kāsa) and cardiac ailments in various forms.

The whole plant (Kaṇṭakārī pañcāṅga) is cooked by closed heating; the juice is obtained and added with Pippalī (piper longum) powder, and it is orally given for alleviating cough, bronchial asthma and other kapha disorders. The soup of green gram (mudga yūṣa.) prepared in decoction of Kaṇṭakārī, duly added with green ginger (ārdraka) and sours (amla) is prescribed to use in all types of cough (kāsa roga). The decoction of Kaṇṭakārī (Solanum surattense) alongwith Guḍūcī (Tinospora cordifolia) and Śuṅṭhī (Zingiber officinale) is prepared and powder of Pippalī (Piper longum) is added. This recipe has been recommended in cases of cough, asthma, facial paralysis, chronic coryza, anorexia, hoarseness of voice, abdominal pain, indigestion and fever. In chronic coryza (pīnasa), Vyāghrī taila is prescribed in the texts. Several uses and recipes are given in medical texts of medicine which have therapeutically been formulated in different contexts of management of various diseases.

The white flowered variety of plant drug, named as śveta kantakārī (or śveta bṛhatī also) and rarely available, has specially been prescribed in puṁsavana karma (classical measures for reversal of sex in foetus during preg-

nancy) in Indian midical science for the purpose of sex change after conception or at the time of conception as this specific variety is similarly recommended to render concieve (by expecting females particularly sterile or having habitual aborting tendency and also extraordinarily delaying conception). There is classical method and prescription carrying ancient textual base and appreciation in this context, which is unique of its kind.

The root of white Kaṇṭakāri is pounded with milk and then instilled into rightside nostril (nāsārandhra dakṣiṇa) for want of son or male child and the same is put into leftside nostril (vāma nāsārandhra) for desire of daughter or female child.

Since Śveta Kaṇṭakāri (white-flowered variety of *solanum surattense*) is considered to be Lakṣamaṇā, another most rare and wonderful drug (but undetermined identity from botanical point of view), this drug has been recommended generally in clasical texts. The root as well as seeds are prescribed for oral used (under special mode of use etc.) for conception in women.

The drug plant Kaṇṭakāri (*Solanum surattense* Burm. f.) is chemically potent. The dried plant gives ash 10.8% and soluble ash 7.6% consisting mainly of potassium nitrate, carbonate and sulphate. It contains 1.6% total sugar (reducing sugar as glucose 0.3%). Alcoholic extracts of the plant contains fatty and resinous substances. Solasodine is present in the fruits and the glycoalkaloidal content of fruits (plants from Jammu and Kashmir region) is reported to be 3.5% with total alkaloid percentage 1.1. The presence of diosgenin in plant is reported, besides solasodine. It is estimated that the alkaloids can form a source for cortisone and sex hormone. Seeds (20.7% of fresh wt. of the fruit) yield 19.3% of a greenish yellow, semi-drying oil with characteristics odour. The component fatty acids of the oil are oleic, inoleic, plamitic, stearic and arachidic. The unsaponifiable matter contains two sterols one of which is carpesterol. Methods have also been evolved modifying phytochemical estimation and process for getting high alkaloidal yield. Experimental studies on

this aspect have been found to be suitable; and for the instance, they yield pure solasodine, a steroidal alkaloid, (5 gm.). Solasodine contents of *Solanum surattense* (0.028%) and some other *Solanum* species (*Solanum viarum* 0.54%, diploid *Solanum nigrum* 0.04% tetraploid s. *nigrum* 0.06%). Modified acid-dye method for detection of solasodine was found suitable in isolation of solasodine from *Solanum* species. A single step method involving extraction and hydrolysis with acid (followed by basification of the alkaloidal salt to give free base from the powdered berries of *Solanum surattense*) was also evolved with determining optimum conditions of hydrolysis of the glucoside linkage.

Certain chemical constituent of the plant drug are quite medicinally active and the pharmacological action of drug. Pharmacologically, the aqueous and alcoholic extracts of the plant possess hypotensive effect which is partly inhibited by atropine, the more persistent secondary fall in the blood pressure and broncho-constriction are inhibited by antihistaminic drugs. Both glycoalkaloid and fatty acid fractions of the extract cause liberation of histamine from chopped lung-tissue. The beneficial effect of the drug on bronchial asthma may be attributed to the depletion of histamine from bronchial lung-tissue.

The gluco-alkaloid saponin fraction was active in much smaller doses (0.5-2 mg./Kg.) in increasing cardiac contractility and tension of isolated ventricular and papillary muscles of cat in 0.4×10^5 concentration, indicating a positive inotropic effects. The glucoalkaloidal fraction of the drug seems to possess cardiostimulant effect which are important extra of clinical investigation.

The alcoholic leaf extract, resinous and crystalline fractions caused contraction of dog tracheal chain while gluco-alkaloid and alcoholic stem extract after initial potentiation caused refractoriness to the constrictor responses of acetylcholine and histamine. Extracts of the whole plant show antiviral activity against Ranikhet disease virus and also against sarcoma 180 in the mice. Extracts of the plant shoot and fruit of drug *Kañtakāri* has been micro-

biologically studied and their observations indicate antibacterial activity against *Staphylococcus aureus* and *Escherichia coli* in phosphate buffer, Ph 9.0. Antibacterial studies and activity of the drug have considerable relation with clinical potentiality since some plant parts carry antimicrobial efficacy against certain micro-organisms or pathogens.

Further, the pharmacological studies have found that solasodine alkaloid isolated from plant drug *Kaṅṭakārī* (*Solanum surattense* Burm. f.) caused a significant inhibition in the motility of human and bovine spermatozoa as evident from the reduction in motile sperm count, in a dose-dependent and duration-dependent manner. The effects of crude alcoholic extract of the seeds of plant at dose of 20, 60 and 100 mg./kg. body wt. per day for 30 and 60 days on fertility, epididymal sperm profile, serum testosterone levels and androgenic parameters of reproductive organs of adult male rats. The probable androgen deprivation effect of the extract is explained by decreased levels of circulatory testosterone levels, seminal vesicles fructose, prostate acid, phosphate and an elevated cholesterol in treated rats under biological experimental process for assessing pharmacological action of drug.

Various studies on different aspects of phytochemical, biochemical, pharmacological and biological areas have been conducted on drug *Kaṅṭakārī* and the results are helping to understand pharmacotherapeutic profile and clinical efficacy of this common drug for its medicinal uses of wide range in medicine.

Generally the drug *Kaṅṭakārī* is useful as an expectorant, febrifuge, laxative, cardiogenic, diuretic and stimulant. It is very useful in asthma, cough, bronchitis and enteric fever. The drug is a valuable therapeutic agent for dislodging tenacious phlegm. It is widely given in influenza, cough fever and allied complaints in traditional practice of medicine in rural regions of country.

Parts used : Whole plant, roots.

Dose : Decoction 40-80/50-100 ml.

Formulations

Vyāghrīharītakī, Vyāghrītaila, Kaṇṭakārighṛta,
Nigigdhakādi kvātha, Daśamūlāriṣṭa.

Guṇa

Kāсахara, Kaṇṭhya, Hikkānigrahaṇa, Śothahara,
Śītapraśāmana, Aṅgamardapraśamana (Caraka saṁhitā),
Bṛhatyādi, Varuṇādi, Tvakpañcamūla (Suśruta Saṁhitā),
Daśamūla, Laghupañcamūla.

KANṬAKĀRĪ (कण्टकारी)**कण्टकारीगुणाः**

कण्टकारी कटुस्तिक्ता रूक्षोष्णा भेदनी लघुः ॥
दीपनी पाचनी हन्यात् कफवातज्वरारुचीः ।
हृद्रोगश्वासकासाशमपार्श्वरुकृच्छ्रपीनसान् ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 54-55.

(द्वे) कण्टकारीफलम्

तयोः फलं विपाके च कटुकं कटुकं रसे ।
भेदनं रोचनं हृद्यं तिक्तं पित्ताग्निकृल्लघु ॥
हन्यात् श्लेष्मरुत्कण्डूकासमेहकृमिज्वरान् ।

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 56-57

तयोः फलं कटु रसे पाके च कटुकं भवेत् ।
शुक्रस्य रेचनं भेदि तिक्तं पित्ताग्निकृल्लघु ॥
हन्यात्कफमरुत्कण्डूकासमेदःकृमिज्वरान् ॥

Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi Varga, 42.

श्वेतपुष्पाकण्टकारी

क. सितसिंही चन्द्रपुष्पा क्षुद्रमाता प्रियङ्करी ॥
दुर्लभा वनजा क्षुद्रा दूतिका श्वेतलक्ष्मणा ।

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 53-54.

ख. श्वेताफलं भेदि निहन्ति कासश्वासक्षयाशःकृमिवातरोगान् ।
पित्तप्रदं वह्निकरं कटूष्णं क्षारं कषायं कटुकं कफघ्नम् ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 62.

ग. 'तद्वत्प्रोक्ता सिता क्षुद्रा विशेषाद् गर्भकारिणी ।'

Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi Varga, 43.

कण्टकारी

कण्टकारी सरा तिक्ता कटुका दीपनी लघुः ।
रूक्षोष्णा पाचनी कासश्वासज्वरकफानिलान् ।
निहन्ति पीनसं पार्श्वपीडाकृमिहदामयान् ॥

Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi Varga, 40-41.

कण्टकारी कटूष्णा च दीपनी श्वासकासजित् ।
प्रतिश्यायार्त्तिदोषघ्नी कफवातज्वरार्त्तिनुत् ॥

Rāja Nighaṇṭu, Śatāhvādi Varga, 32

सितकण्टकारिका

श्वेतकण्टकारिका रुच्या कटूष्णा कफवातनुत् ।
चक्षुष्या दीपनी ज्ञेया प्रोक्ता रसनियामिका ॥

Rāja Nighaṇṭu, Śatāhvādi Varga, 36

(द्वे) कासचिकित्सायां व्याघ्री हरीतकी (अवलेहयोगः)

Cakradatta, Kāsa Cikitsā, 11/66-69.

कासे चिकित्सायां बृहत्कण्टकारीघृतम्

Cakradatta, Kāsacikitsā, 11/51-54.

शिशोः कासे

व्याघ्री कुसुमसञ्जातकेसरैरवलोहिकाम् ।
जगध्वपि चिरतो जातं शिशोः कासं व्यपोहति ॥

Baṅgasena, Bālaroga. 59.

श्वासे

निदिग्धिकाञ्चामलकप्रमाणां हिङ्गवर्धयुक्तां मधुना सुयुक्ताम् ।
लिहेन्नरः श्वासनिपीडितो हि श्वासं जयत्येव बलात् त्र्यहेः ॥

Suśruta Samhitā, Uttara 51-55.

Aṣṭāṅga Hṛdaya, Uttara. 51.

अश्मरीभेदनार्थम्

'.....बृहतीद्वयञ्च ।

ओलङ्म दध्ना मधुरेण पेयं दिनानि सप्ताश्मरीभेदनाय ॥'

Caraka Samhitā, Cikitsā 26-62.

‘निदिग्धकारसो वापि सक्षौद्रः कृच्छ्रनाशनः ।
कण्टकारीरसे सिद्धो मुग्दयूषः सुसंस्कृतः ।
सगौरामलकः साम्लः सर्वकासभिषग्जितम् ॥’

Caraka Samhitā, Cikitsā 18-184.

कासे कण्टकारीघृतम्

समूलफलपत्रायाः कण्टकार्या रसाढके ।
घृतप्रस्थ.....रास्त्रागोक्षुरकैः पचेत् ॥
कल्कैस्तत् सर्वकासेतु हिक्काशवासेषु शस्यते ।
कण्टकारीघृतं ह्येतत् कफव्याधिनिसूदनम् ॥

Caraka Samhitā, Cikitsā. 18-125/128.

कासचिकित्सायाम् अपरकण्टकारीघृतम्

Cakradatta, Kāsa. 11-50.

कण्टकारीघृतम्

Caraka Samhitā, Cikitsā. 18-35.

कण्टकार्यादियुषः

Caraka Samhitā, Cikitsā 18-184.

कण्टकायादिकषायः

Caraka Samhitā, Chikitsā. 6-62.

बृहतीकाकमाचीलेपः

Caraka Samhitā, Cikitsā 12-73

बृहत्यादिकषायः

Caraka Cikitsā 30-210; Cikitsā. 3/2/3/214

बृहत्यादि योग

Caraka. Cikitsā 7/128-129

बृहत्यादिवर्तिः

Caraka. Cikitsā. 26-240.

बृहत्यादिबस्तिः

Caraka. Siddhi. 10-38.

बृहत्यादिबस्तिः (यापना)

Caraka. Siddhi. 12-16.

कासे

कण्टकारीकृतः क्वाथः सकृष्णः सर्वकासदा ।

कण्टकार्याः कणायाश्च चूर्णं समधु कासहत् ॥

Bhāvaprakāśa, Kāsarogādhikāra, 12-34.

कण्टकार्यावलेहम्

Bhāvaprakāśa, Kāsarogādhikāra, 12-43/47.

पित्तजकासे कण्टकारीद्वयाद्ययोगः

कण्टकारीयुगद्राक्षा-वासाकचूरबालकैः ।

नागरेण च पिप्पल्या क्वथितं सललं पिबेत् ॥

कासे भृगुहरीतकी (अवलेहयोगः)

Bhāvaprakāśa, 24; Kāsarogādhikāra, 12-43/47.

पीनसे व्याघ्रीतैलम्

Sārṅgadhara Samhitā 2-9-180.

मूत्रकृच्छ्रे कण्टकारीस्वरसः

निदिग्धिकायाः स्वरसं कुडवं मधुसंयुतम् ।

मूत्रदोषहरं पीत्वा नरः सम्पद्यते सुखम् ॥

Bhāvaprakāśa, Mutakṛcchrādhikāra, 35-39.

नासारोगे (पीनसे) व्याघ्रीतैलम्

व्याघ्रीदन्तीवचा शिगुसुरसाव्योषसिन्धुजैः ।

सिद्धं तैलं नसि क्षिप्तं पूतिनासागदापहम् ॥

Bhāvaprakāśa, Nāsārogaadhikāra, 65-40.

बन्ध्यत्वनिवारणाय गर्भधारणे लक्ष्मणा (श्वेतपुष्पाकष्टकारी)

पुष्योद्धृतं लक्ष्मणाया मूलं दुग्धेन कन्यया ।

पिष्टं पीत्वा ऋतुस्नाता गर्भं धत्ते न संशयः ॥

Bhāvaprakāśa, Yonirogaadhikāra, 70-27.

सर्वकासे कण्टकारीक्वाथः

‘कण्टकारीकृतः क्वाथः सकृष्णः सर्वकासहा ।’

Cakradatta, Kāsacikitsā, 11-25.

कासे कण्टकारीघृतम्

कण्टकारीगुडूचीभ्यां पृथक् त्रिंशत्पलाद्रसे ।

प्रस्थः सिद्धो घृताद्वात कासनुद्वह्निदीपनः ॥

Cakradatta, Kāsacikitsā, 11-49.

त्रिदोषजन्यमूत्रकृच्छ्रे बृहत्यादिक्वाथः

बृहतीधावनीपाठायष्टीमधुकलिङ्गकः ।

पाचनीयो बृहत्यादिः कृच्छ्रदोषत्रयापहः ॥

Cakradatta, Mūtrakṛcchra Cikitsā, 32-15.

अजगल्लिकाचकित्सायां कण्टकारीकण्टप्रयोगः कण्टकबेधनार्थम्

नवीनकण्टकार्य्यास्तु कण्टकैर्वेधमात्रतः ।

कठिनां क्षारयोगैश्च द्रावयेदजगल्लिकाम् ॥

Cakradatta, Kṣudraroga-cikitsā, 55-2.

दन्तनाडीरोगे कण्टक्यादितैलम्

Cakradatta, Mukharoga Cikitsā, 56-24.

गर्भधारणार्थं श्वेतकण्टकारीमूलप्रयोगः

सिंह्यास्तु श्वेतपुष्पाया मूलं पुष्पसमुद्धृतम् ।

जलपिष्टमृतुस्नाता नस्यादर्भन्तु विन्दति ॥

Cakradatta, Yonivyāpaccikitsā, 35.

श्वेतकण्टकारी पुंसवनकर्म

क्षीरेण श्वेतबृहतीमूलं नासापुटे स्वयम् ।

पुत्रार्थे दक्षिणे सिञ्चेद् बामे दुहितृवाञ्छया ॥

Aṣṭāṅga Hr̥daya, Sārvira. 1-40.

कासे

कासे निदिग्धिका ।

Aṣṭāṅga Hr̥daya, Uttara - 40 - 56.

कासचिकित्सायां कण्टकारीघृतम्

‘कण्टकारीकृतः क्वाथः सकृष्णः सर्वकासहा ।’

Vṛndamādhava, 11-21. Vaidyājīvanam, 3-9.

कासे श्वासे च

पचेत् क्षुद्रां सपञ्चाङ्गां पुटपाकेन तदरसः ।

पिप्पलीचूर्णसंयुक्तः कासश्वासकफापहः ॥

Śārṅgadhara Saṁhitā, 21-35.

निदिग्धिकामृताशुण्ठीकषायं पाययेद् भिषक् ।

पिप्पलीचूर्णसंयुक्तं स्वासकासार्दितापहम् ।

पीनसारुचिवैस्वर्यशूलाजीर्णज्वरच्छिदम् ।

Śārṅgadhara Saṁhitā, 2-2-48.

उदावर्त्ते

यवप्रस्थं पलैः सार्धं कण्टकार्याः जलाष्टके ।
पक्त्वार्धप्रस्थशेषं तु पिबेद्धिङ्गुसमन्वितम् ॥

Suśruta Saṁhitā, Uttara. 1-55.

ज्वरे

बस्तिपार्श्वशिरःशूली व्याघ्रीगोक्षुरसाधितम् ।

Aṣṭāṅga Hṛdaya, Cikitsā. 1-28.

नेत्ररोगे वाताभिष्यन्दे

‘कण्टकार्याश्च मूलेषु सुखोष्णं रोचनं हितम् ।’

Suśruta Saṁhitā, Uttara. 9-12.

अलसे

‘सिद्धं रसे कण्टकार्यास्तैलं वा सार्धं हितम् ।’

Suśruta Saṁhitā, Uttara. 9-12.

तृष्णायाम्

‘तृष्यते सलिलं चास्मै.....कण्टकार्याऽथवा शृतम् ।’

Caraka Saṁhitā, Cikitsā. 12.

मूत्राघाते

‘कण्टकारिकास्वरसं वा समाक्षिकम् ।’

Aṣṭāṅga Hṛdaya, Cikitsā. 13-5.

Aṣṭāṅga Hṛdaya, Cikitsā. 11-11, Gadanigraha 2-28/29.

अपस्मारे

नावनं स्वरसैः खर्वकण्टकारीफलोद्भवैः ।

अपस्मारं विनिर्धूय सद्यो बोधाय कल्पते ॥

Siddhabhaiṣajya maṇimālā, 4-456.

अर्शासि

मथितं भाजने क्षुद्रबृहतीफललेपिते ।

निशां पर्युषितं पेयमिच्छद्भिः गुदजक्षयम् ॥

Aṣṭāṅga Hṛdaya, Cikitsā. 8-44.

कण्टकार्या शृतं वापि शृतं नागरधान्यकैः ।

अनुपानं भिषक् दद्याद् वातवर्चोऽनुलोमनम् ॥

Caraka Saṁhitā, 14-129.

KANTAKĪ KARAṆJA

Botanical name : *Caesalpinia crista* Linn.

Syn. *Caesalpinia bonduc* (L.) Roxb., *C. bonducella* (L.) Flem.

Family : Caesalpinaceae

Classical name : Karañja-Kaṇṭakī karañja (kuberākṣa)

Sanskrit names

Kaṇṭakī Karanja, Kuberākṣa, Karanja, Karanjī, Latā karanja.

Regional names

Kantakaranj, Karanjuva (Hindi); Natakaranj (Bengla); Sagargota (Marathi); Kankach (Guj.), Kajichikay (Tamil); Gacchakaya (Tel.); Kanjanchikkuru (Mal.); Gajkkayi (Kann.); Fever Nut (Eng.).

Description

A prickly climber. Leaves leafless many, small, with stipules. Flowers in disk-linked tube, lobes 5, imbricate, the uppermost is the innermost, stamens 10, free, declinate, filaments glandular at base, anthers uniform, ovary sessile, base free from the disk, few-ovuled, style terete, stigma terminal, minute, truncate. Fruits oblong pod, armed with abundant wiry, prickles; seeds ovate, transverse and exalbuminous.

Seed-drug

It is stony hard, more or less rounded, slightly flattened measuring 2-2.5cm. in diam., greyish green, smooth and with micropyle at one end. Cracked seeds as differentiated into stony hard seed-coat and hard cream-coloured obovate nut consisting of two thick cotyledons with undulated surface showing an embryo in between the two.

Flowering and fruiting time

Plant flowers during rainy season and fruits winters or spring season.

Distribution

It occurs throughout the hotter parts of India up to 2,000ft. in hilly regions; it is also commonly growing West Bengal and South India.

Chemical composition

The cotyledons of the seeds contain besides starchy matter, 25.15% of a fixed oil, 1.925% of a non alkaloid bit-

ter principle soluble in alcohol and chloroform called natin, but the active principle occurs more in the bark of the root. Seeds consist of 58% hard outer shell and 42% of kernel. Fatty oil from the seeds has been found to contain the glycerides of some acids. two phytosterols, one m.p. 122°-123° and the other sitosterol and hydrocarbon m.p. 58°-59°.

A non-alkaloidal bitter principle was obtained from the kernels as white powder (Bonducin) to which the physiological properties were attributed. It was found to be insoluble in water but soluble in oils. The bitter principle bonducin of the kernels was found to be the mixture of complex resinous bodies. An alkaloid present in the seeds was suggested to be the same natin for it.

The seeds kernel yielded 0.080% of diosgenin, though the yield of the diosgenin is less, but its recurrence is of chromatotaxonomic importance. Seeds contain palmitic, stearic lignoceric, obic and inobic acids.

Phytochemical screening generally finds that the kernal of seeds of *Caesalpinia crista* Linn. contain a bitter glycoside bounducin, fixed oil 20%, alkalies 23.4%, protein 20% and starch 35.5%; the seeds oil also contains various chemical constituents.

Some nonprotoplasmic cell contents like alkaloid, tannin, sugar, starch, fat, protein, mucilage, cutin and gum resin are present in both the root-bark and saponin in present in the seed. These contents react positively with different concentrations of acids, alkalies, salts and dyes.

Pharmacodynamics

Rasa	: Tikta, Kaṣāya
Guṇa	: Laghu, Rūkṣa
Vīrya	: Uṣṇa
Vipaka	: Kaṭu
Doṣakarma	: Tridoṣaśāmaka.

Properties and Action

Karma	: Jvaraghna-Viṣamajvaraghna Kuṣṭhaghna-Kaṇḍūghna Śothahara Vedanāsthāpana
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	Raktaśodhaka
	Garbhanirodhaka
	Pramehaghna
	Kaphaghna-śvāsahara
	Dīpana-yakṛduttejaka-
	chardinigrahaṇa
	Grāhī
	Śūlapraśamana
	Kṛmighna
Roga	: Jvara-viśamajvara
	Kaṇḍū-kuṣṭha
	Carmavikāra
	Raktaduṣṭi-raktavikāra
	Śoṭha-vedanā
	Āmavāta-sandhivāta
	Prameha
	Agnimāndya-Gulma-Śūla-Pravāhikā-
	chardi
	Arśa
	Ykṛtplihāvikāra
	Kṛmi

Therapeutic uses

The seed-kernel of Kaṇṭakī karanja with sour-gruel in morning is recommended for alleviating dysentery with mucus, blood and gripping. Seed-kernel is commonly prescribed alongwith other suitable adjuncts for treatment of malarial fever and cases of fever. Seeds powder mixed with Marica (Kalimirca) is given in malarial fever. The drug is major ingredient in anti-malarial formulations.

Young leaves of karañja alongwith Śunṭhi (Ginger) and Hiṅgu, mixed with rock salt are suggested to be given in morning in conditions of anorexia, vomiting and excessive saturation.

Pharmacologically speaking, the nut of Karanja has antidiarrhoeal activity and anti-inflammatory activity, and the seeds also have effect on reproductive system. The ethanolic extracts of the defatted seeds kernels of plant drug shows promising antimalarial activity.

The leaf extract of plant drug shows some

fungitoxic activity against *Curvularia tuberculata*, a casual organism of die-back disease of citrus.

The seeds of Kaṇṭaka Karañja are used as antiperiodic, antipyretic, tonic and febrifuge. It is also used in asthma and snake-bite. Tender leaves are used in disorders of the liver. Leaves and bark are used as febrifuge and anthelmintic. The water extract of root bark of plant drug is often given orally in the early stage of small pox. The seeds and leaves are generally used as poultice in inflammation. Leaves and bark possess emenagogue properties and useful in menstrual trouble.

Seeds are recommended as a good remedy in fever, specially malarial fever and for this purpose, the seeds of Kaṇṭaka karañja alongwith other suitable drugs are often given in the form of powder pills or any other recipe therapeutically considered to be prescribed in various febrile conditions particularly viṣama jvara.

As an anti-malarial drug, the seeds kernel of plant drug Kaṇṭaka Karañja is frequently prescribed; the powder of seeds kernel is orally given with worm water in Viṣama Jvara or periodic fevers. In malarial fever, the seeds kernel of Kaṇṭaka Karañja, bark of Saptaparṇa, root of Kaṭuka and whole plant of Kirātatikta are mixed suitably and recommended as an effective remedy for oral use in cases of malaria. Seeds kernel of Kaṇṭaka karañja is also given alongwith one or two herbal drug (s) depending on requirement of febrile conditions and patients.

Parts used : Seeds-seed, kernel, Leaves.

Dose : Seed (Kernel powder 1-3 gms.)

Formulation : Viṣamajvaraghni vaṭī, Saptaparṇaghana vaṭī, Kuberākṣa vaṭī.

KANṬA(KA)KARAÑJA KANṬAKIKARAÑJA (KUBERĀKṢA)

कण्ट(क)करञ्ज-कण्टकिकरञ्ज (कुबेराक्ष)

निर्गन्धी तुवरा तिक्ता सतिक्ता सोषणा जयेत् ॥

बलासपित्तशोफार्शःशूलाध्मानव्रणकृमीन् ।

Kaiyadeva Nighantū, Ośadhi Varga, 972-973.

करञ्जः कटुकस्तीक्ष्णो वीर्योष्णो योनिदोषहत् ।

कुष्ठोदावर्तगुल्मार्शो व्रणक्रिमिकफापहः ॥

Bhāvaprakāśa Nighantū, Guḍūcyādi Varga, 120.

करञ्जपत्रम्

तत्पत्रं कफवातार्शःकृमिशोथहरं परम् ।

भेदनं कटुकं पाके वीर्योष्णं पित्तलं लघु ॥

Bhāvaprakāśa Nighantū, Guḍūcyādi Varga, 2.

करञ्जफलम्

तत्फलं कफवातघ्नं मेहार्शःकृमिकुष्ठजित् ।

घृतपूर्णकरञ्जोऽपि करञ्जसदृशो गुणैः ॥

Bhāvaprakāśa Nighantū, Guḍūcyādi Varga. 122.

करञ्ज....फलं जन्तुप्रमेहजित् ।

रूक्षोष्णं कटुकं पाके लघुवातकफापहम् ॥

Suśruta Saṁhitā, Sūtra46.

‘करञ्ज तैलानि तीक्ष्णानि लघून्यूष्णवीर्याणि
कटूनि कटुविपाकानि सराण्यनिलकफकृमि-
कुष्ठप्रमेहशिरोरोगहराणि च ।’

Suśruta Saṁhitā, Sūtra. 45.

प्रवाहिकायाम्

यक्षलोचनमज्जानं काञ्जिकेन पिबेत् प्रगे ।

सश्लेष्मरक्तातीसारं कोष्ठशूलं जयेद् द्रुतम् ॥

Vaidyamanoramā, 6-6.

अग्निमान्द्ये

यक्ष्याक्ष्यस्तरुणाग्रकाण्डमगुशश्छित्वा जले पाचयेत् ।

तासां तद्विगुणे तदम्भसि गते प्रस्थेन युक्तं पटोः ॥

दुग्धप्रस्थमजस्य तेन विपचेत् तस्मिन् रसोनोषणम् ।

तैलाज्यं च पलद्वयं प्रतिवपेत् तद् दीपनं स्यात् परम् ॥

Vaidyamanoramā, 6-31.

शूलापहरणार्थम्

करञ्जमज्जो द्वितयं त्रयं वा विभज्यं साकं पटुना निगीर्णम् ।

शूलं समूलं हरति प्रसह्य कूलं यथा निर्झरिणी प्रवाहः ॥

Siddhabhaiṣajya maṇimālā, 4-510.

पूतिकरञ्ज-कुबेराक्षीगुणकर्माणि

स्रंसनं कटुकं पाके लघु वातकफापहम् ।
शोधघ्नमुष्णवीर्यं च यत्र पूतिकरञ्जकम् ॥

Suśruta Saṁhitā, Sūtra. 46

‘विरेचने प्रयोक्तव्या पूतिकः ।’

Caraka Saṁhitā, Sūtra.

कुबेराक्षी यकृत्प्लीहावातघ्नी व्रणरोपणी ।
पत्रं पूतिकरञ्जस्य लघु वातकफापहम् ॥
भेदनं कटुकं पाके वीर्योष्णं शोफनाशनम् ।

Śoḍhala Nighaṅṭu.

शरीरदौर्गन्ध्ये

‘....परिणततिन्तिडीकान्विपूतिकरञ्जोत्थबीजं वा ।’

Śoḍhala Nighaṅṭu.

कफजश्लीपदे

‘पिबेत्.....श्लीपदानां निवृत्तये ।
पूतिकरञ्जपत्राणां रसं वापि यथाबलम् ॥

Śoḍhala.

अपरायातनार्थम्

‘चर्म पूतिकरञ्जस्य..... ।
पिष्टं तुषाम्बुना पीतमपरां पातयेत् क्षणात् ॥’

Vaidya Manoramā.

जलोदरे

‘....पूतिकरञ्जबीजम् ।
काञ्चीकपीतं शमयेज्जलोदरम् ॥’

Baṅgasena.

अम्लपित्ते

‘पूतिकरञ्जशुङ्गानि रोगिणे ।
निवेद्य भोजने कार्यं वमनं सोष्णवारिणा ।’

Baṅgasena.

मसूरिकायाम्

रसं पूतिकरञ्जस्य चामलक्याः रसं तथा ।
पिबेत्सशर्कराक्षौद्रं शोफनुत् कफपैत्तिके ॥

Baṅgasena.

ज्वरचिकित्सायां कुबेराक्षः

करञ्जमज्जा प्रसूतिप्रमाणो गद्याणयुग्मं घृणवल्लभायाः ।
सितासहायान्यनयोः रजांसि वल्लद्वयानि ज्वरमुज्जयन्ति ॥

Siddhabhaiṣajya maṇimālā, 4-108.

करञ्जमज्जातिविषे मरीचं छदैस्तुलस्यास्त्रिगुणैर्विमर्द्या ।
चणप्रमाणा गुटिका हिनस्ति ज्वरातिसारानलमार्दवानि ॥

Siddhabhaiṣajyamaṇimālā, 4-105.

छर्द्यादिषु

प्रयान्ति तद् भक्षयतां प्रभाते कुबेनेत्राभिनवं प्रवालम् ।
नृणां शमं छर्द्यरुचिप्रसेकाः ससैन्धवं नागरामठं वा ॥

Vaidyamanoramā, 4-7.

कफपित्तज्वरे

मज्जः करञ्जस्य कणामतल्ल्याः भाषाः पृथग् द्वादश कल्पनीयाः ।
बब्बूलपत्रं जरणो विलक्षो गद्याणगद्याणमितावुभौ स्तः ॥
जलेन वस्तून्यखिलानि पिष्ट्वा परुषकल्पा वटिका विधेयाः ॥
बलासपित्तज्वरजर्जराय प्रातस्तथा सायमपि प्रदेयाः ॥

Siddhabhaiṣajya maṇimālā 4-106/107.

करञ्जभेदाः

क. करञ्जः

करञ्जः कटुरुष्णश्च चक्षुष्यो वातनाशनः ।
तस्य स्नेहोऽतिस्निग्धश्च वातघ्नः स्थिरदीप्तिदः ॥

Rāja Nighaṇṭu, Prabhadrādi Varga, 62.

ख. घृतकरञ्जः

घृतकरञ्जः कटुष्णो वातहृद व्रणनाशनः ।
सर्वस्त्वग्दोषशमनी विषस्पर्शविनाशनः ॥

Rāja Nighaṇṭu, Prabhadrādi Varga, 64.

ग. महाकरञ्जः

महाकरञ्जस्तीक्ष्णोष्णः कटुको विषनाशनः ।
कण्डूविचर्चिकाकुष्ठत्वग्दोषव्रणनाशनः ॥

Rāja Nighaṇṭu, Prabhadrādi Varga, 67.

घ. पूतिकरञ्जः

प्रकीर्यो रजनीपुष्पः सुमनाः पूतिकर्णिकः ।
पूतिकरञ्जः कैडर्यः कलिमालवः ससधा ॥

Rāja Nighaṇṭu, Prabhadrādi Varga, 68

ङ. गुच्छकरञ्जः

करञ्जः कटुतिक्तोष्णो विषवतार्तिकृन्तनः ।
कण्डूविचर्चिकाकुष्ठस्पर्शत्वग्दोषनाशनः ॥

Rāja Nighaṇṭu, Prabhadrādi Varga, 70.

च. रीठाकरञ्जः

रीठाकरञ्जस्तिक्तोष्णः कटुः स्निग्धश्च वातजित् ।
कफघ्नः कुष्ठकण्डूति-विषस्फोटवि नाशिनः ॥

Rāja Nighaṇṭu, Prabhadrādi Varga, 72.

सर्वश्लेपदे करञ्जपत्ररसप्रयोगः

पिबेत् सर्षपतैलेन श्लेपदानां निवृत्तये ।
पूतिकरञ्जच्छदजं रसं वाऽपि यथाबलम् ॥

Cakradatta, Ślīpada cikitsā, 42-10.

मसूरिकाप्रथमाविर्भावकाले

‘....सोषणा वाथ पूतिः ।
प्रथममथ गदे दृश्यमाने प्रयोज्या ॥’

Cakradatta.

शूले

एक एव कुबेरक्षः सर्वशूलापहारकः ।
किं पुनः स त्रिभिर्युक्तः पथ्यारुचकरामठैः ॥

Hārīta Saṃhitā, 3-7-58.

श्लेपदे

‘पिबेत्.... ।

पूतिकरञ्जपत्राणां रसं चापि यथाबलम् ।'

Suśruta Samhitā, Cikitsā 19-60.

उदरे

'पूतिकरञ्जक्षारं वा अम्लशृतं विडङ्गलवणपिप्पलीयुक्तम् ।'

Suśruta Samhitā, Cikitsā. 19-60.

कृमिरोगे

'पूतिकस्वरसैर्वाऽपि पिबेद्वा मधुना सह ।'

Suśruta Samhitā, Uttara. 42.

गुल्मे

'खादेद्वाऽङ्कुरान् भृष्टान् पूतिकनृपवृक्षयोः ।'

Suśruta Samhitā, Uttara. 42.

गुल्मादिषु

यक्षदृग्विश्वलशुनैर्वेदवृगतुभागिकैः ।

क्वाथो गुल्मोदरानाह शूलोदावर्तवृद्धिहा ॥

Vaidyamanoramā, 8-16.

दुष्टव्रणेषु

करञ्जपूतिकस्त्रेहाः दुष्टव्रणेषूपयुज्यन्ते ।

Suśruta Samhitā, Cikitsā. 6.

शरीरदौर्गन्ध्ये

'परिणतपिडिकाञ्चापि पूतीकरञ्जोत्थबीजं वा ।'

Bhāvaprakāśā, Sthoulyādhikāra, 39-71.

यकृद्भोगे पूतिकक्षारः

क्षारं वा विडकृष्णाभ्यां पूतिकस्याम्लविस्त्रुतम् ।

प्लीहयकृतशान्त्यर्थं पिबेत् प्रातर्यथाबलम् ॥

Cakradatta, Plīhayakṛccikitsā 38-5.

KĀPHĪKA-KĀPHĪ

Botanical name : Coffea arabica Linn.

Family : Rubiaceae

Classical name : Kāphika-kāphī

Common name : Kaphi-Coffea

Sanskrit names : Kāphī, Hṛdyapeya.

Regional names:

Kaphi, Kaphi. (Hi., Beng.); Bund, Bundadana (Mar., Guj.); Kapikottai (Tam.); Kapivittutit (Tel.); Kahava, Kahaba, Bunn (Arabic, Pers.); Arabian Coffee (Eng.).

Description

***Coffea arabica* Linn.**

A glabrous evergreen shrub or small tree. Leaves elliptic-oblong, 5-7 in. long, narrowed into short petiole. Calyx-limb, Truncate; Corolla funnel-shaped, tube 1/4-1/3 in. long, lobes oblong, as long as tube, filaments shorter than anthers. Berry fleshy, purple when ripe.

Flowering and fruiting time

Flowering during the period from March to June.

Distribution

Plant is cultivated. Indigenous in Abyssinia and the Sudan.

***Coffea bengalensis* Roxb.**

A deciduous shrub, youngest shoots slightly pubescent. Leaves membranous, not shining 2-6 in., suddenly contracted into the short petiole, stipule subulate from a broad basis.

Flowers pure white, fragrant, solitary or in parts, calyx with 5 broad often indistinct teeth, divided into numerous linear segments; corolla one to one and half inches across, tube 1/4-1 in.

Fruits 1/2 in. long, black.

Flowering and fruiting time

Plant flowers in February-April.

Distribution

Plant grows in subhimalayan tract and outer hills from the Jamuna eastwards, Sikkim Terai, Assam, Sylhet, Chittagong, Tenasserin and Upper Burma. Native of Abyssinia.

Pharmacodynamics

Rasa : Tikta

Guṇa : Laghu, rūkṣa

Virya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphavātaśāmaka, Pittavardhaka.

Chemical composition

Seeds contain caffeine which is an important constituent of coffee and the one responsible for the stimulating effect of the coffee drink. It is present in the bean.

Properties and Action

Karma	: Hṛdayottejaka-hṛdaya balya Śothahara Śvasanottejaka-Kāśahara-śvāsahara Tivramūtrala Dīpana-Vātānulomana-grāhī Agnimāndyakara-Viṣṭambhi (higher dose or excess use) Vātaśāmaka-nāḍyuttejaka-sphūrtidā Nīdrānivāraka Śrama-avāsāda nivāraka- soumanasyajanana Vatavardhana (higher dose or excess use) Śarīra-dhātu poṣaṇa Dhātuśoṣaṇa-dhātuṣyakara- viṣaghna (higher dose or excess use) Jvaraghna.
Roga	: Hṛddourbalya-hṛdrogajanya śoṭha Mānasikāvasāda-śaithilya-pralāpa Śiraḥśūla-apatānaka-ākṣepaka Vātajaroga-sandhivāta-āmavāta Kāsa-Kukkurakāsa Mūtrakṛcchra-aśmarī Viśūcikā (Bālaroga) Viśamajvara-ātisāra-pravāhikā Dantakṛmi-mukhadurgandhi.

Therapeutic uses

It is most popular drink taken infusion mixed with milk and sugar alike tea. It is medicinally useful.

It is a cardiac stimulant and cardio tonic. It is stomachic digestive, carminative, astringent and respiratory stimulant. It is febrifuge and countering poison. It is active diuretic and hypertensive agent.

In excess or higher dose, it is flatulent or loss of appetite (digestive fire) and increasing (provoking) Vāta doṣa and causing loss of body tissues (dhātukṣaya).

It is suggested to be intaken as medicine or helping drink in various ailing conditions within normal dose and use. Higher dose intake as well as excess or regular use may cause toxic symptoms and adverse effects, and also developing an addiction.

Parts used : Leaves (Coffee)

Dose

Leaves decoction 20-40 ml., Seeds (caffeine) 120-300 mg., Common hot drink (coffee)

KĀPHĪKA-KĀPHĪ (काफीक-काफी)

काफी तिक्ता कटु पाके हृद्योष्णा कफवातनुत् ।

स्फूर्त्तिदा श्वासकासघ्नी परं निद्रानिवारिणी ॥

Dravyaguna Vijnāna, part II, p.218.

KAPIKACCHU

Botanical name : *Mucuna prurita* Hook.

Family : Fabaceae (Papilionaceae).

Classical name : Kapikacchu-Kapikacchū.

Sanskrit names

Kapikacchu, Kapikacchū, Vānarī, Ātmaguptā, Kaṇḍurā, Markaṭī, Śūkaśimbī, Svayamguptā, Lāṅgulī, Kuṇḍalī, Caṇḍā, Durabhigrahā.

Regional names

Kebanch, Kaunch (Hindi); Alkushi (Punj). Khūjkuhili (Mar.); Kauncha, Kavach (Guj.); Punaik kali (Tamil); Piliyadugu (Telugu); Namukunni (Kann.);

Nikorna (Mal.); Baikhujni (Uriya); Cowhage, Cowitch (English).

Description

Annual hairy pea-like climber (twining herb) on shrubs and trees. Branches tomentose when young. Stipule deciduous; petiole 10-15 cm. long; leaflets up to 19 × 16 cm., pubescent on both sides; lateral leaflets very oblique and shorter than flowred raceme. Calyx companulate, cleft half way down, clothed with shinning hairs. Corolla violet-purple Keel exceeding standard and wings. Pods sigmoid, 5-8 cm. long, 5-6 seeded; irritating bristles caducous. Pods turgid, turned upto the end, longitudinally ribbed, covered with dense pale-brown bristles.

Seed drug :

Seeds are matured, blackish white or black (mottled with black) abruptly hooked at the tip and smooth which are obtained from ripe or matured pods. The collection of pods for procurement of seeds is tidious job which requires careful precaution consequent to intense irritating nature of pods. Certain traditional method of plucking the pods from hanging (rather in drying stage) on trees and shrubs, and further eliminating seeds from pod-covers are followed by the plant drugs collectors (handling them with trained skill and practice) in order to avoid contact of skin with pod. Pods are covered with dense-pale brown bristles, clothed with very pungently irritating/subpersistent pale-brown or grey bristles in combage of faltd moss of hairs. Hairy bristles 1mm. or (upto) 2.5 mm. long, pointly. sharply, 60-100 mm. diam.

Flowering and fruiting time

Colder monthes to hot months January-April. Climber growes during rainy season and flowers in September-November and fruiting afterwards, in January-April.

Distribution

Plant is occurring throughout tropical regions in India. It is found throughout country from Himalaya to Ceylon and Burma plain regions in wild state. Plant is also cultivated.

Kinds and varieties

Kolaśimbī or Śūkaraśimbī (Madanādi Nighaṇṭu, 7-33) is referred in this context.

Mucuna nigricans (Lour.) Steud. Syns. *Citta nigricans* Lour., *Mucuna imbricate* Dc., *Mucuna monosperma* Wall.

Kolaśimbī, Śūkaraśimbī (Sanskrit), Gaunchi (Garhwali, U.P. hills); Kasi (Beng.); Kaosa (Nepal); Dangyamirk (Lepcha); Mekuri-ghila (Assam); Bhainslagalo (Hindi, U.P. hills)

Large woody climber with slender follow glabrescent branches. Leaves pinnately 3-foliolate, 9-15 in. Long stipules linear 1/4 in. long. Leaflets 5-7 in. long, membranous, glabrous or with a few appressed hairs beneath, ovate-oblong, cuspidate, rounded at the base, the lateral ones obliquely so; stipels subulate, setaceous, .15 in. long. Racemes usually axillary, laxly flowered, on long, slender, pendulous, peduncles upto 12 in. or more in length; pedicels .5 in. long, in the axils of large, roundish, imbricating concave, deciduous bracts, 1-3 flowered. Calyx .7-1 in. long, velvety and with a few scattered brown bristles; teeth nearly as long as the tube. Corolla 2-2.5 in. long, dull purple; standard about half as long as the abruptly inflexed keel; wings .5 in. broad, as long as the keel. Pod oblong, 4-6 in., long by about 2 in. broad, clothed with deciduous brownish-yellow irritating bristles, obliquely paited on the faces and winged along both surfaces. Seeds 2-4.

Chemical composition

Seeds contain humidity 9.1, protein 25.03, fibres 6.75, and minerals 6.95 percent. Seed also contains 0.16, phosphorus 0.47, iron 0.02 percent, sulphur and manganese. Seeds yield Dopa (1.5%), glutathione, lecithin, gallic acid, a glucoside, and several alkaloids (total 0.53%), nicotin, prurianine, prurianidine and other substances. Seeds Kernel yield a viscid white oil.

Pharmacodynamics

Rasa : Madhura, tikta

Guṇa	: Guru, snigdha
Vīrya	: Uṣṇa
Vipāka	: Madhura
Doṣakarma	: Vātaśāmaka Kaphapittavardhaka

Properties and Action

Karma	: Vṛṣya Balya-Bṛmhāṇa Nāḍībalya Ārtavajanana Yonisaṅkocaka Mūtrala Kṛmighna Vātahara Vraṇa viśodhana Garbhadhāraka
Roga	: Klaiivya-śukrakṣaya-kāmaśaitya Kṣaya-Kārśya-dourbalya Kaṣṭāratava Mūtrakṛcchra-mūtrāghāta Vṛkkaroga Kṛmi-gaṇḍūpadakrimi Vātavyādhi Nāḍīdourbalya Atisāra Raktapitta Duṣṭavraṇa.

Therapeutic uses

The decoction of seeds of kapikacchu (seeds of *Mucuna pruri* Hook.) is prescribed to use orally for a month for regaining the strength in arms (vātavyādhi : Cakradatta, 22-27) Māṣabalādi kvātha is also indicated in these group of disorder.

Being excellent an aphrodisiac drug, kapikacchu is frequently used in different forms as single drug as well as a major ingredient of compounds. Vānari vaṭikā is an important classical formulation esteemed as an aphrodisiac (Vājīkaraṇa rativardhana yoga mentioned in Bhāvaprakāśa, Cikitsā. 72/71-75 with method of prepara-

tion and administration). The powder of kapikacchu and Iksuraka (*Astercantha longifolia* Nees.) mixed with sugar, is taken along with milch-warm milk (dhāroṣṇa dugdha) by a person suffering from deficiency of semen (śukravardhana yoga) as prescribed in medical text (Suśruta Saṁhitā, Cikitsā. 26-30). The wheat-flour (godhūma cūrṇa) is mixed with powder of Kapikacchu seeds and cooked with milk which is also mixed with ghee (practically fried). This preparation is eaten followed by intake of milk, for good effects as aphrodisiac medicine. The hairs or irritating bristles on pod or fruit (śimbiroma) are yut within the pulps and mouth with ghee. This recipe is useful in worms, gastro-enteritis and haematemesis (Siddha Bhaiṣajya Maṇimālā, 4-280). Precaution is desirable while collecting and using pods hairs which are good anthelmintic (Kṛmighna). The root of plant drug is useful as yonisaṅkocaka (vaginal constrictive medicine. Yonisaṅkīrṇa yoga as single drug application is given (by Bhāvaprakāśa) which recommends external use of decoction of root of drug.

For treatment of Vātavyādhi, Māṣabalādi kvātha containing Kapikacchu is prescribed. The paste of kapikacchu root is taken in diarrhoea (pakvātisāra). Dietary articles processed with roof of Kapikacchu is also suggested to the patient of dairrhoea. Seeds of drug are useful in raktapitta. Ātmagupta bīja tailam is mentioned with medicinal utility in text of materia medica.

In case of Unmāda (insanity), Vānari or kapikacchu is suggested to be used externally as rubbing measure (gharṣaṇam). Svayamguptādi cūrṇam (Ākradatta, 33/17-18) is prescribed for dysuria. The root of kapikacchu is recommended for use to concieve male child (Bhāvaprakāśa, 70-31). Traditional use of root of kapikacchu as effective aphrodisiac is practiced in tribal medicine. A piece of root is kept in mouth during coitus by male partner enjoying with delayed ejaculation.

Parts used : Seeds, Roots, Pod-hairs.

Dose

Seed powder 3-5 gms., Pod-hairs 125-250 ml., Root decoction 50-100 ml.

Formulations

Vānarī Guṭikā, Māṣabalādi Pācana, Vānarī Vaṭikā

Gāṇa

Balya, Madhuraskandha (Caraka Saṁhitā),
Vidarigandhādi, Vāta samsāmana (Suśruta Saṁhitā).

KAPIKACCHU (कपिकच्छु)

कपिकच्छूः स्वादुतिक्ता वातपित्तकफास्त्रजित् ।
शीतलं बृंहणं वृष्यं माषतुल्यं तयोः फलम् ।

Kaiyadeva Nighaṇṭu, Oṣadhivarga, 608.

कपिकच्छूरात्मगुप्ता स्वयंगुप्ता महर्षभी ।
लाङ्गुली कुण्डली चण्डा मर्करी दुरभिग्रहा ॥

Rāja Nighaṇṭu, Guḍūcyādi varga, 53.

कपिकच्छुफलम्

कपिकच्छुफलं वृष्यं शीतं स्वादुरसं गुरु ।
रक्तपित्तानिलहरं दुष्टव्रणविशोधनम् ॥

Kaiyadeva Nighaṇṭu, Oṣadhi varga, 609.

कपिकच्छूर्भृशं वृष्या मधुरा बृंहणी गुरुः ।
तिक्ता वातहरी बल्या कफपित्तास्त्रनाशनी ॥

Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi Varga, 130.

कपिकच्छुबीजम्

‘तद्बीजं वातशमनं स्मृतं बाजीकरं परम् ।’

Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi Varga, 131.

कपिकच्छुगुणाः

कपिकच्छूः स्वादुरसा वृष्या वातक्षयापहा ।
शीतपित्तास्त्रहन्त्री च विकृता व्रणनाशिनी ॥

Rāja Nighaṇṭu, Guḍūcyādi Varga, 53

कपिकच्छू रसे स्वादुस्तिक्ता शीतानिलापहा ।
वृष्या पित्तास्त्रहन्त्री च दुष्टव्रणविनाशिनी ॥

Dhonvantarī Nighaṇṭu.

योनिःसङ्कीर्णकरणे

कपिकच्छूभवं मूलं क्वाथयेद्विधिना भिषक् ।
योनिः सङ्कीर्णतां याति क्वाथेनानेन धारयेत् ॥

Bhāvaprakāśa.

वातव्याधौ

माषबलादिक्वाथे ।

Cakradatta, 22-24.

‘.....तथाऽऽत्मगुप्तास्वरसं पिबेद्वा..... ।

.....मासाद् भवेद् वज्रसमानबाहुः ॥’

Cakradatta, Vāta vyādhi cikitsā. 22-27.

वाजीकरणार्थम्

क्षीरं पक्वास्तु गोधूमानात्मगुप्ताफलैः सह ।
शीतान् कृतयुगान् खादेत्ततः पश्चात्पिबेत्पयः ॥

Suśruta Samhitā, Cikitsā. 26-30

पुत्रजन्मार्थम् (गर्भधारणार्थम्)

शूकरशिम्बी मूलं मध्यं वा दधिफलस्य सपयस्कम् ।
पीत्वाऽथो भवलिङ्गी बीजं कन्यां न सूते स्त्री ॥

Bhāvaprakāśa, Yonirogādhikāra, 70-31.

अतिसारे

कच्छुरामूलकल्कं वा ह्यदम्बरफलोपमम् ।
.....पक्वातिसारयोगोऽयं जयेत्पीतः सशोणितम् ॥

Suśruta Samhitā, Uttara. 40-74.

‘भोजने च हितं कच्छुरामूलसाधितम् ।’

Suśruta Samhitā, Uttara. 40-110.

रक्तपित्ते

‘शूकशिम्बिभवं धान्यं रक्ते शाकं च शस्यते ।’

Aṣṭāṅga Hṛdaya, Cikitsā. 2.

‘काकाण्डोलाऽत्मगुप्तानां माषवत्फलमादिशेत् ।’

Cāraka Samhitā, Sūtra. 27-32.

आत्मगुप्ताबीजतैलम्

‘गुरूष्णं स्निग्धमधुरं कषायमात्मगुप्तजम् ।’

Dhanvantari Nighaṅṭu.

उन्मादे वानरीघर्षणम्

‘कपिकच्छ्वाऽथ वा तसैर्लोहतैलजलैः स्पृशेत्।’

Bhāvaprakāśa, Unmādādhikāra, 22-39.

रतिवर्द्धनार्थं वानरीवटिका

बीजानि तु कपिकच्छ्वाः कुडवमितानि च स्वेदयेच्छनकैः।

प्रस्थे गोभवदुग्धे तावद् यावद् भवेद् गाढम्॥

त्वग्रहितानि च कृत्वा सूक्ष्मसम्पेषयेत्तानि।

पिष्टिकया लघुवाटिकाः कृत्वा गव्ये पचेदाज्ये॥

द्विगुणितशर्करया ता वटिकाः सम्पक्का लेप्याः।

वटिका माक्षिकमध्ये मज्जनयोग्येऽखिला याप्याः॥

Bhāvaprakāśa, Vājīkaraṇādhikāra, 72/71-75.

मूत्राघातचिकित्सायां स्वगुमादिचूर्णम्

Cakradatta, Mūtraghāta cikitsā, 33/17-18.

वाजीकरणार्थं स्वयङ्गुमादिचूर्णम्

स्वयङ्गुसेक्षुरकयोर्बीजचूर्णं (फलचूर्णं) सशर्करम्।

धारोष्णेन नरः पीत्वा पयसा न क्षयं ब्रजेत्॥

Cakradatta, Vṛṣyādhikāra, 66-6.

Suśruta Saṁhitā, Cikitsā. 26-33

क्रिमिरोगे

गर्भे गुडस्य पिहितानि तनुत्र शिम्ब्यो रोमाणि वक्त्रमभितो हविषा विलिप्य।

द्विस्त्रिगिलेत्क्रिमिजरुक्षु विसूचिकायामुद्रिरक्तरक्तवमथावपि शर्मकामः॥

Siddhabhaiṣajya maṇimālā 4-280.

KAPITTHA

Botanical name

Limonia elephantianum (Correa) Panigrahi. Syn. *Feronia limonia* (Linn.) Swingle., *F. limonia correa*, *F. acidissima* L. *Feronia elephantum* Correa.

Family : Rutaceae

Classical name : Kapittha

Sanskrit names

Kapittha, Kapipriya, Dadhiphala, Surabhicchada, Puṣpa phala, Dadhittha, Grāhiphala, Mālūra, Granthi-

phala, Kucaphala, Kapīṣṭha, Vṛttaphala, Dantaśaṭha, Karavallabha.

Regional names

Kainth, Kait, Kavit (Hindi); Kathabel (Beng.); Velaga (Tel.); Byala (Kan.), Kambath (Mar.); Kothu (Guj); Elephant Wood-apple (Eng.).

Description

A small deciduous glabrous trees, or medium sized up to 30 meters tall, armed with strong straight axillary thorns. Leaves alternate, imparipinnate thick. Bark dark grey or poorly black, wrinkled, and with longitudinal shallow furrows. Leaflets sessile, entire cuneate to obovate, rachis sometimes narrowly winged. Flowers dull red to whitish. Sepals minute. Petals imbricate. Filaments subulate from a broad base. Seeds many, not covered by mucilage, embedded in sour, tasty, fleshy, pulp. Fruits globose, grey, rough, 2-3 in. diam., rind hard, woody, fruit pulp edible.

Flowering and fruiting time

Plant flowers during summers or April-May and becomes in fruiting stage during cold season.

Distribution

Plant occurs in Indian sub-continent and Java. Generally it is planted in gardens, along avenues or house premises and sometimes in forest composition, particularly in hotter regions. It is wild in Southern India.

Chemical composition

Fruit pulp contains plenty citric acid and mucilage. Dried pulp of fruit contains citric acid ranging up to 15 percent. Ash contains potassium, calcium and iron salts. Ash is deliquescent in humidity. Leaves contain 0.73% volatile oil which is also present like leaves of *Acgle marmelos* (L.) *Correa*. (Bilva).

Kinds and varieties

Kapittha patrā (Kaideva Nighaṇṭu, 1-421) Kapitthapatrī (Aṣṭāṅga Nighaṇṭu, 135), Kapitthaparṇī (Hemādri, Aṣṭāṅga Hṛdaya, Sūtra. 15-30 and some other Sanskrit names of kapittha patrā or Kapitthapatrī deserv-

ing reference in this context, is an independant and separate drug mentioned in texts of indigenous medicine. 'Kapitthapatrā' has resemblance with 'Kapittha' in regard to leaves mainly and also odour etc. The botanical sources of both drugs belong to same genus (Limonia) and family (Rutaceae).

Kapittha is botanically known as *Limonia elephantianum* (Correa) Paniagrahi Syn. *Feronia limonia* (Linn.) Swingle and it is a well familiar plant particularly growing common in tropical areas. Kapitthapatrā is suggested to be botanically identified as *Limonia crenulata* Roxb. Syn. *Limonia acidissima* W. & A. which is a Himalayan plant and also in southern, eastern and western India (ascending to 4,000 ft. in hills).

Difference in stages and types (unripe and ripe as well as taste) of fruit.

Pharmacodynamics

Rasa	: Kaṣāya, amla
Guṇa	: Laghu, rūkṣa
Vīrya	: Śīta
Vipāka	: Kaṭu
Doṣakarma	: Tridoṣahara-Vātapitta śāmaka.

Properties and Action

Karma	: Lekhana	
	Grāhī	
	Durjara-viṣṭambhi	
	Rocana-hṛdya	
	Tṛṣṇānigrahaṇa	
	Kaṇṭha viśodhana-kāśahara	
	Viṣaghna	
	Hikkānigrahaṇa	
	Roga	: Aruci-agnimāndya
		Kāsa-śvāsa-hikkā
		Viṣa-mūśakadamśa-kaṇṭhagataviṣa
		Kaṇṭhavikāra-svarabheda
		Mūtradoṣa
Vraṇa		
Tṛṣṇā		

Atisāra-pravāhikā

Arśa

Vyaṅga-nyaccha-nīlikā

Chhardi.

Therapeutic uses

The drug Kapittha is acidic or sour, astringent and sweet in (taste) and cold (in potency) which differ to unripe (āma) and ripe (pakva) stages as well as taste (rasa) of madhurāmla (sweet-acid) and madhura (sweet) with kaṣāya (astringent) type of fruits possessing distinction in medicinal properties. Unripe fruit allays kapha and increases vāta pitta doṣa, while ripe fruit allays tridoṣa or vāta pitta doṣa and accordingly the medicinal properties differ with their action as considered in texts. Specific medicinal effects of other parts of Kapittha are also indicated such as seeds (bīja), leaves (patra), flowers (puṣpa), bark (tvak) oil (taila) and gum (niryāsa) which are medicinally useful, in addition to common utility as edible fruit. Generally the pulp of fruit is eaten as tasty (suādu or madhurāmla) item and used in different forms as household food article.

Kapittha is useful in several ailments and it enters in various medicinal recipes recommended in treating different diseases by utilising fruit (pulp) and also some other parts of plant drug. The drug plant has both modes of administration orally and externally as medicine.

The soup of Kapittha (*Ferronia limonia correa*) and (or) Bilva (*Aegle marmelos corr.*) is given in piles which is recommended by Caraka (Caraka Saṁhitā, Cikitsā. 14-93). Kapittha with trikaṭu is taken with honey for checking and vomiting (chardi) hiccough (hikkā). The powder of Pippalī fruit (*Piper longum* Linn.) impregnated with Kapittha juice and it is taken after mixing with honey to check vomiting (Chhardi); it needs be taken frequently (murmuhu) for immediately controlling vomiting as prescribed in texts (Suśruta saṁhitā, Uttara. 49-27; Aṣṭāṅga Hṛdaya, Cikitsā. 6-12) In hiccough (hikkā), the juice of Kapittha and Āmlaka (*Emblia officinalis* Gaertn.) is mixed with pippalī powder in honey. It is given to patient for promptly checking it.

Another recipe of Kapittha is prescribed for treatment of hiccough (Vaidyamanorama, 3-26). The powder of Kapittha leaves or a clod heated in the sun and then sprinkled with cold water Hribera; it is for inhaling to check hiccough.

The fruit-pulp of Kapittha, mixed with trikaṭu, honey and sugar, is given in diarrhoea (atisāra). In dysentery (pravāhikā), kapittha with dhātakī, badarī leaves, is mixed together with curd and it is given to patient (Bhāvaprakāśa, Cikitsā. 2-120) Kapittha and several other plant drugs are mentioned for using after processing with curd (dadhi) in cases of diarrhoea (Suśruta Saṁhitā, Uttara. 40-113).

In conditions of poisoning (viṣa), Kapittha is suggested to be used in different types. The ghee (ghṛta) processed with five parts of kapittha is given in rat-poisoning or ākhu viṣa (Aṣṭāṅga Hṛdaya, Uttara. 38-25).

Parts used : Fruit, leaves, flowers, bark, root, gum.

Dose : Decoction 50-100 ml.

Formulation : Kapitthāṣṭaka cūrṇa.

KAPITTHA (कपित्थ)

अ. कपित्थः

कपित्थको दधित्थः स्यात् तक्रच्छित् सुरभिच्छदः ।

अक्षिसस्यो दधिफलो ग्राही ग्राहिफलो दधिः ॥

हृद्यः कषायाम्लफलश्चिरपाकी कपिप्रियः ।

कपित्थगुणाः-आमफलम्

आमं कपित्थं सङ्ग्राहि कषायं लघु लेखनम् ॥

रूक्षाम्लं विषकण्ठघां कफजित् वातपित्तकृत् ।

Kaiyadeva Nighantu, Oṣadhi Varga, 413-415.

कपित्थः पक्वफलम्

पक्वं गुरु कषायाम्लं स्वादु हिक्कात्रिदोषजित् ॥

वमिकासतृषाश्वासशमनं कण्ठशोधनम् ।

सङ्ग्राहि रोचनं हृद्यं दुर्जरं मूत्रदोषजित् ॥

Kaiyadeva Nighaṅṭu, Oṣddhi Varga, 415-416.

कपित्थबीजम्

कपित्थबीजं गरहत् तन्कृपालविसर्पनुत् ।

कपित्थपत्रम्

कपित्थपत्रं हिक्काघ्नं धर्द्यतीसारनाशनम् ॥

कपित्थपुष्पम्

पुष्पाखुविषं हन्यात् कपित्थस्य विशेषतः ।

Kaiyadeva Nighaṅṭu, Oṣdahi Varga, 417-418.

कपित्थतैलम्

कषायं स्वादु कापित्थं तैलमाखुविषापहम् ।

कफपित्तहरं ग्राहि वमिहिक्काविषापहम् ॥

Kaiyadeva Nighaṅṭu, Taila Varga, 337.

कपित्थः

कपित्थस्तु दधित्थः स्यात्तथा पुष्पफलः स्मृतः ।

कपिप्रियो दधिफलस्तथा दन्तशठोऽपि च ॥

कपित्थगुणाः

कपित्थमामं सङ्ग्राहि कषायं लघु लेखनम् ।

पक्वं गुरु तृषाहिक्काशमनं वातपित्तजित् ॥

स्यादम्लं तुवरं कण्ठशोधनं ग्राहि दुर्जरम् ॥

Bhāvaprakāśa Nighaṅṭu, Amradiphala Virga, 61-62.

कपित्थः

मालूरस्तु कपित्थो मङ्गल्यो नीलमल्लिका च दधि ।

ग्राहिफलश्चिरपाकी ग्रन्थिफलः कुचफलो दधिफलश्च ॥

गन्धफलश्च कपीष्टो वृत्तफलः करभवल्लभश्चैव ।

दन्तशठः कठिनफलः करण्डुफलकश्च सप्तदशसंज्ञः ॥

कपित्थगुणाः

क. कपित्थो मधुराम्लश्च कषायस्तिक्तशीतलः ।

वृष्यः पित्तनिलं हन्ति सङ्ग्राहि व्रणनाशनः ॥

ख. आमं कपित्थमम्लोष्णं कफसङ्ग्राहि वातलम् ।

दोषत्रयहरं पक्वं मधुराम्लरसं गुरु ॥

Rāja Nighaṅṭu, Āmrādi Varga, 179-182.

पक्कापक्कतो विभिन्नावस्थतया विशेषगुणाः

- अ. आमं कण्ठरुजं कपित्थमधिकं जिह्वाजडत्वावहं
तदोषत्रयवर्द्धनं विषहरं सङ्ग्राहकं रोचकम् ।
ब. पक्कं श्वासवमिश्रमक्लमहरं हिक्काऽपनोदक्षमं
सर्वं ग्राहि रुचिप्रदं च कथितं सेव्यं ततः सर्वदा ॥

Rāja Nighaṅṭu, Āmrādi varga, 183.

कपित्थतैल गुणाः

कषायं स्वादु कापित्थं तैलमाखुविषापहम् ।
कफपित्तहरं ग्राहि वमिहिक्काविषापहम् ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 418-419.

कपित्थफलगुणाः

मधुराम्लकषायत्वात्सौगन्ध्याच्च रुचिप्रदम् ।
परिपक्कं सदोषघ्नं विषघ्नं ग्राहि गुर्वपि ॥

Caraka Samhitā.

कपित्थः

कपित्थमाममस्वर्यं कफघ्नं ग्राहि वातलम् ।
कफानिलहरं पक्कं मधुराम्लरसं गुरु ॥
श्वासकासारुचिहरं तृष्णाघ्नं कण्ठशोधनम् ।

Dhanvantari Nighaṅṭu.

प्रवाहिकायाम्

धातकी बदरीपत्रं कपित्थं..... ।
..... एकतो दघ्ना पिबेत् प्रवाहिकार्दितः ॥

Bhāvaprakāśa, Cikitsa, 2-120.

अर्शःसु

‘दधित्थबिल्वयूषं वा..... ।’

Caraka Samhitā, Cikitsā. 18-93.

व्यङ्गन्यच्छनीलिकासु

‘कपित्थराजादनयोः कल्के वा हितमुच्यते ।’

Suśruta Samhitā, Cikitsā. 20-36.

छद्याम्

‘खादेत् कपित्थं सव्योषं मधुना वा दुरालभाम् ।’

Aṣṭāṅga Hr̥daya, Cikitsā. 6-21.

दधित्थरससंयुक्तां पिप्पली माक्षिकान्वितम् ।
मुहुः मुहुर्नरो लीढ्वा छर्दिभ्यः प्रविमुच्यते ॥

Suśruta Saṁhitā Uttara. 49-27.

विषे

विषसंसृष्टाञ्जने

क. कपित्थमेषशृङ्गयाश्च पुष्पं भल्लातकस्य वा ।
एकैकं कारयेत् पुष्पं बन्धुकाङ्कोटयोरपि ॥

Suśruta Saṁhitā, Kalpa. 1-71.

कण्ठगतविषे

ख. 'कपित्थमामं ससिताक्षौद्रं कण्ठगते विषे ।'

Caraka Saṁhitā, Cikitsā. 23-184.

मूषिकदंशजविषे

ग. 'आस्फोटमूलसिद्धं वा पञ्चकपित्थमेव वा ।'

Suśruta Saṁhitā, Kalpa. 7-40

Aṣṭāṅga Hṛdaya, Uttara. 38-25.

'कपित्थगोमयरसे मधुमानवलेहम् ।'

Aṣṭāṅga Hṛdaya, Uttara. 38-24.

अतिसारे

कपित्थमध्यं लीढ्वा तु सव्योषक्षौद्रशर्करम् ।
कट्फलं मधुयुक्तं वा मुच्यते जठरामयात् ॥

Caraka Saṁhitā, Cikitsā. 19-112.

Aṣṭāṅga Hṛdaya, Cikitsā. 9-106.

हिक्कायाम्

कपित्थपत्राणि विमर्दितानि हिककासु जिघ्रेदथवाऽर्कतप्तम् ।
मृत्पिण्डमत्यन्तसुशीततोयैः सितां तु ह्रीवेरकवारिणाक्तम् ।

Vaidyamanoramā. 3-26.

ब. कपित्थपत्रा

कपित्थपत्रा सरसा फणिजा रूपपत्रिका ॥
कूलजा वनजा ज्ञेया निर्जरा पुष्पपत्रिका ।
तुम्बपत्रिका चारुपत्री विरूपा चित्रपत्रिका ॥

कपित्थपत्रागुणाः

कपित्थपत्रिका तिक्ता कषाया कटुपाकिनी ।

तीक्ष्णोष्णा नाशयेत् श्लेष्ममेदोमेहविषकृमीन् ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 419-421.

KARAMARDA

Botanical name

Cariss congesta W. Syn. *Carissa carandus*.

Family : Apocynaceae

Classical name : Karmarda

Sanskrit names

Karamarda—pāṇimarda, Karāmla, Suṣeṇa, Kṛṣṇapāka.

Regional names

Karonda, Karounda, Karwand (Hindi); Garna, Garaunda (Punjab); Karanda (Mar.); Kavali, Garji (Kan.); Kalivi, Kalli (Tel.).

Description

Carissa carandas Linn. A large erect evergreen shrub or small tree, glabrous except the inflorescence. Bark yellow-brown, scaly. Branchlets usually alternate, armed at their base with a pair of about glabrous spreading spines, 1-1.5 in. long, the branches generally unarmed. Wood suitable for turnery and branches make excellent hedges.

Leaves shortly petioled, 1.5-3 in. long by 1-2 in. wide, elliptic or obovate, obtuse or shortly mucronate, cuneate at the base, coriaceous dark green and shining above.

Flowers white or pinkish, faintly scented, arranged in terminal sessile or peduncled pubescent corymbose cymes; bracts linear, pubescent. Calyx pubescent, divided more than half way down into lanceolate ciliate segments, Corolla tube about 1/2 in. Long, dilated upwards; lobes lanceolate, acute, about half as long as the tube, pubescent and ciliolate. Ovary glabrous; cells 4-ovuled.

Berry 4-or more-seeded, 1/2-1 in. long, ellipsoid, smooth, purplish when ripe, white-yellowish in unripe or raw state, sometimes blackish in ripen state.

Flowering and fruiting time

Plant flowers in during the period from January to April; and fruiting begins afterwards.

Distribution

It is wild or cultivated throughout India and in Ceylon, extending to Burma and Malaya. Central India, Uttar Pradesh, Madhya Pradesh and other provinces.

Carissa opaca Stapf. syn. **C. spinarum** Auct. Bl. non Linn. *Carissa villosa* Roxb., *Carissa diffusa* Roxb., *C. hirsuta* Roth.

A small thorny evergreen shrub with light-grey bark and green branches, spines 5-1 in. Long, often forked, generally at the base of the branches. Wood hard, smooth and close-grained.

Bushy, diffuse shrubs; thorns up to 5 cm. long, simple or forked. Leaves broad-ovate, elliptic or suborbicular, 1.5-4.0 cm. long. Flowers white in corymbose cymes. Calyx divided near to the base, lobes lanceolate ciliate. Corolla hypocrateriform, 1; lobes lanceolate shorter than tube. Stamens included, anther apiculate. Berry subglobose or ellipsoid, 2-seeded, up to 7 mm. across.

Leaves opposite, 1-1.5 by 7.1 in., ovate, acute, mucronate, glabrate or pubescent, beneath, coriaceous, dark-green and shining above.

Flowers white, scented, in few-flowered corymbose cymes at the ends of the branches. Calyx-teeth 5; lanceolate, ciliate. Corolla-tube 0.5 in. long, cylindrical; tubes 5, elliptic lanceolate, slightly shorter than the tube. Stamens included in the corolla-tube. Ovary 2-celled, ovules 2 in each cell.

Berry sub-globose or elliptic, 2-3 in. long, shining in pruinose, dark-purple and juicy when ripe. Seeds 2, concavo-convex, not hairy.

Flowering and fruiting time

Flowering in January-May. Leaves generally renewed in March. Plant flowers in April-June and it fruit during cold season.

Distribution

It occurs in various parts of country; It is found in northern and central India. It is extremely common and gregarious in scrub jungles along the foot of Sivaliks and in open glades and stony-soils and in the lower valleys up to 4,000 ft. in Uttar Pradesh hilly region. Trans-Indus. Sub-Himalayan tract and outer valleys, ascending to 3,000 ft. Plains of northern India, Bengal, Central Provinces, western Peninsula. Dry regions of the Irawady valley from upwards.

Pharmacodynamics

Rasa	: Amla
Guṇa	: Guru, Sara
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Vātaśāmaka, Pittakaphakara.

Chemical composition

Fruits contain moisture 18.2, protein 2.3, fat 9.6, carbohydrate 67.1 and mineral matter 2.8 percent.

Properties and Action

Karma	: Rocana-hṛdya Pācaka Tṛṣāśāmaka Pittaśāmaka Balya.
Roga	: Aruci Agnimāndya Raktapitta Praśītāda Pittavikāra Yakṛdvikāra Kāsa-śvāsa Viṣamajvara Dourbalya Tṛṣā Pāṇḍu.

Therapeutic uses

The fruits are edible as acidic fruit and used in dif-

ferent forms for eatable purposes. Fruits and roots have medicinal properties.

Karamarda is stomachic, digestive, tonic and it allays thirst (overthirst) and countering poison. It is rucivardhana (increasing and stimulating desire for food or relishing food). Different stages (ripe, unripe and semiripe: pakva, āma or apakva and ardhapakva) of fruit as well as tastes (rasa : amla, madhurāmla, satiktāmla, atymla) make variation in medicinal properties suggesting their suitable medicinal activity and therapeutic use accordingly.

Karamarda is causing rakta and pitta (acidic fruit used in excess), but normal use of ripe fruit is tasty of acidic kind useful as stomachic (dīpana) and promoting desire of food intake (rocana).

The half-ripe fruit is eaten as a pickle, and the ripe fruit is also much eaten both raw and as a preserve.

Wood is economically useful; it is utilised for turning and for making combs. It is an excellent fire-wood. The branches are in great demand for dry fences, and the leaves are greedily eaten by sheep and goats. The ripe berries have a sub-acid sweet taste, and are much eaten by men and birds.

Parts used : Fruits, roots.

Dose : 1-3 gm., Fruits edible.

KARAMARDA (करमर्द)

क. करमर्दः सुषेणः स्यात्कृष्णपाकफलस्तथा ।
तस्माल्लघुफला या तु सा ज्ञेया करमर्दिका ॥
Bhāvaprakāśa Nighaṇṭu, Āmrāphalādi Varga, 81.

ख. करमर्दद्वयं त्वाममाम्लं गुरु तृषाहरम् ।
उष्णरुचिकरं प्रोक्तं रक्तपित्तकफप्रदम् ॥
तत्पक्वं मधुरं रुच्यं लघु पित्तसमीरजित् ।
Bhāvaprakāśa Nighaṇṭu, Āmrāphalādi Varga, 82.

करमर्दः सुषेणश्च कराम्लः करमर्दकः ।

अविग्रः पाणिमर्दश्च कृष्णपाकफलो मुनिः ॥

करमर्दः तिक्तकाम्लो वान्तो दीपनपाचकः ।

पक्कास्त्रिदोषशमनोऽरुचिघ्नो विषनाशनः ॥

Rāja Nighaṅṭu, Āmrādiphala Varga, -207-208.

तच्छुष्कं पक्कसदृशं गुणैर्ज्ञेयं विचक्षणैः ।

Nighaṅṭu Ratnākara.

गुरूष्णवीर्यं वातघ्नं सरञ्च करमर्दकम् ।

नातिपित्तकरं पक्कं शुष्कं च करमर्दकम् ॥

अम्लं तृषापहं रुच्यं पित्तकृत् करमर्दकम् ॥

Aṣṭāṅga Hṛdaya.

KARANJA

Botanical name

Pongamia pinnata (L.) Pierre.

Syns. *Derris indica* (Lam.) Benn. *Cytisus Pinnatus*

L. Pongamic glabra Vent.

Family : Fabaceae (Papilionaceae)

Classical name : Karanja-Ghṛtakaranja

Sanskrit names

Karanja, Naktāmāla, Udakīrya, Ghṛtapūra, Snigdhapūra, Gucchapuṣpaka.

Regional names

Paper, Kanji, Kanja (Hindi); Karanj (Oudh.); Honge (Kan.); Kanuya (Tel.); Ponga (Tam.); Thinwin (Burmese).

Description

Moderate-sized spreading trees, up to 25 meters tall; wood yellowish white; bark smooth or soft. Leaves imparipinnate, glabrous. up to 35 cm. long; leaflets ovate or elliptic sharply acuminate, bright green. Flowers 2-4-nate in simple, long-peduncled racemes. Bracts caducous. Calyx teeth obsolete. Corolla purple to white; vexillum auricled at base, wings slightly adherent to keel. Pod indehiscent; turgid, almost woody, seeds reniform; pods more or less falcate; 1-seeded, 1-1.5 or 2 in. long, seeds only.

Flowering and fruiting time

It flowers in March-May and fruits in rainy months.

Distribution

Plant occurs central and eastern Himalayas ascending to 4,000 ft., Himalayan terai, foothill (Siwaliks and others) and gangetic plains. It is found in southern India and Sri Lanka especially the coastal regions. It is also planted in gardens.

Kinds and Varieties

Generally there are two kinds of Karanja in classical texts (Samhitas and nighaṅṭus) viz. Karañja and Kaṅṭakī Karañja which are botanically known as *Caesalpinia crista* Linn. and *Pongamiaa pinnata* Pierre. The term 'Karanja dvaya' indicates Pūtika and Naktamāla. Pūtika and Naktamāla are considered to be *Cirabilva* and *Karanja* respectively. Later 'Karanja dvaya' has become 'Karanja traya' after addition of Kaṅṭakī Karañja. *Cirabilva* is botanically named as *Holopteba integrifolia* Planch.

Chemical composition

Seeds contain viscid yellow oil 27 percent which is known as *Pongamia* oil and the oil becomes solid at 8° centigrade. Bark yields a bitter alkaloid which is soluble in ether, alcohol and water. *Pongamia* oil (*Karanja taila*) is 27-29 percent. It contains *karanjin* which an active constituent and germicidal agent. *Pongamol* is also found.

Pharmacodynamics

Rasa	: Tikta, Kaṣāya
Guṇa	: Tikṣṇa
Vīrya	: Uṣṇa
Vipaka	: Kaṭu
Doṣakarma	: Kaphavāta śāmaka

Properties and Action

Karma	: Arśoghna Kṛmighna Kuṣṭhaghna-Kaṅṭūghna Dīpana-pācana Śothahara
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	Grāhī
	Chardinigrahaṇa
	Viṣaghna
	Medohara
	Vranaśothana-ropaṇa
	Bhūtaghna
	Romasanjana
Roga	: Kaṇḍū-pāmā-kacchu-vicarcikā
	Kuṣṭha-śvitra
	Raktapitta
	Vājīkaraṇa
	Upadamśa
	Vraṇa-vidradhi (antarbāhyaja)- nāḍīvraṇa-visphoṭa
	Kṛmi
	Arśa
	Yoniroga
	Bhūtavādha-Bālaroga-ahipūtana
	Udāvarta-Gulma
	Śīroroga
	Prameha
	Medoroga
	Netraroga
	Granthi
	Visarpa
	Viṣa-vṛścikadamśa
	Kṣudraroga
	Urustambha
	Udararoga-plihodara
	Keśaroga.

Therapeutic uses

The drug Karaṇja is anthelmintic, antidiabetic and carminative. It is used in allergic conditions, anorexia, dyspepsia, flatulence, piles, inflammation, morbid conditions of vagina, skin diseases and worms.

In traditional practices of medicine, the plant drug is used in various ailments; it is used in malarial fever, night blindness and glandular diseases.

The seeds oil is externally on skin affections, ulcers and vātavyādhi. Bark and leaves are used as germicidal, antipruritis and anti-inflammatory drug. The oil is an anthelmintic medicine and given in worms affections. The juice of bark and leaves in loss of appetite, dyspepsia, indigestion, haemorrhoids and abdominal disorders.

The drug is used in rheumatic disorders, blood impurities, oedema. Seeds powder is given in whooping cough and only seeds rubbed in water, are also used. The garland of seeds is also prepared to be used by children suffering from whooping cough.

This drug is given in prameha, iksumeha (specially flowers) and various skin diseases.

Yoga : Krañjādi cūrṇa, Karanjādyā ghr̥ta, Karanjādi taila.

Guna

Kaṇḍūghna, Virecana, Katukaskandha, Tikta-kandha (Caraka Saṁhitā), Śyāmādi, Sirovirecana, Kapha-saṁśamana, Āragvadhādi, Varuṇādi, Arkādi (Suśrutā Saṁhitā).

Parts used : Fruit, seeds, seed Kernel leaves, oil, root.

Dose

Powder 3-5 gms., Oil (seeds)- External use., Decoction 50-100 ml.

KARANJA-UDAKĪRYA (NAKTAMĀLA)

करञ्ज-उदकीर्य (नक्तमाल)

करञ्जः कटुकः पाके रसे तिक्तः कषायकः ।

कटुको गुणतस्तीक्ष्णो वीर्योष्णो विनियच्छति ॥

बलासपित्तकुष्ठास्त्रणमेदोदरक्रिमीन् ।

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 966-967.

करञ्जपत्रम्

तत्पत्रं कटुकं पाके वीर्योष्णं पित्तलं लघु ।

भेदनं कफवाताशो जन्तुशोफत्रणान् जयेत् ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 967.

Kaiyadeva Nighaṅṭu, Oṣadhi-Varga, 967-968.

करञ्जाङ्गुरम्

अङ्गुरः कटुकः पाके रसे दीपनपाचनम् ॥
कफवातापहः शोफविषार्शः कृमिकुष्ठजित् ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 968-969.

करञ्जिका

करञ्जिका कटुः पाके सतिक्ता तुवरा कटुः ॥
वीर्योष्णा ग्राहिणी हन्ति मेहकुष्ठवमिकृमीन् ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga 970-971.

करञ्जी

करञ्जी स्तम्भनी तिक्ता तुवरा कटुपाकिनी ।
वीर्योष्णा वमिपित्तार्शः कृमिकुष्ठप्रमेहजित् ॥

Bhāvaprakāśa Nighaṅṭu, Guḍūcyādi Varga, 124.

करञ्ज.....फलं जन्तुप्रमेहजित् ।

रूक्षोष्णं कटुकं पाके लघु वातकफापहम् ॥

Suśruta Saṁhitā, Sūtra. 46.

‘करञ्जतैलानि तीक्ष्णानि लघून्यूष्णवीर्याणि कटूनि कटुविपाकानि
सराण्यनिलकफकृमिकुष्ठप्रमेहशिरोरोगहराणि च ।’

Suśruta Saṁhitā, Sūtra. 45.

करञ्जतैलम्

करञ्जतैलं नयनार्तिनाशनं वातामयध्वंसनमुष्णतीक्ष्णकम् ।
कुष्ठार्तिकण्डूतिविचर्चिकापहं लेपेन नानाविधिचर्मदोषनुत् ॥

Rāja Nighaṅṭu, Kṣīrādi Varga, 115.

करञ्जोश्चोष्णतिक्तः स्यात् कफपित्तास्रदोषजित् ।

व्रणप्लीहकृमीन् हन्ति भूतघ्नो योनिरोगहा ॥

Dhanvantari Nighaṅṭu.

करञ्जः कटुकस्तीक्ष्णो वीर्योष्णो योनिदोषहत् ।

कुष्ठोदावर्तगुल्मार्शोव्रणकृमिकफापहः ॥

Nighaṅṭu Ratnākara.

पत्रं फलञ्च

तत्पत्रं कफवातार्शः कृमिशोथहरं परम् ।

भेदनं कटुकं पाके वीर्योष्णं लघुः पित्तलम् ॥

तत्फलं कफवातघ्नं मेहार्शः कृमिकुष्ठजित् ।

Nighaṅṭu Ratnākara. Cakradatta, 44/80-82.

व्रणचिकित्सायां करञ्जाद्यधृतम्

Cakradatta, 44/80-82.

अर्शांसि

प्राग्भक्तं यमके भृष्टान् सक्तुभिश्चावचूर्णितान् ।
करञ्जपल्लवान् दद्याद् वातवर्चोऽनुलोमनम् ॥

Caraka Saṃhitā, Cikitsā. 14-101.

Aṣṭāṅga Hṛdaya, Cikitsā. 8-53.

विद्रध्याम्

करञ्जास्थीनि सम्पेष्य वितुषीकृत्य चूर्णयेत् ।
स्लुग्दलस्वरसेनैव मृदित्वा रविसन्निधौ ॥
तैलं गृहीत्वा ततैलं बाह्याभ्यन्तरुपयोजयेत् ।
अन्तर्विद्रधिमाश्वेव नाशयेद् बाह्यजं तथा ।

Vaidya Manorama 8-2/3.

वाजीकरणार्थं करञ्जबीजप्रयोगः

बीजं बृहत्करञ्जस्य कृतमन्तः सपाददम् ।
सुवेष्टितं न्यस्ते बद्धे बीजधृक् मतम् ॥

Cakradatta, Vṛsyādhikāra, 66-50.

अर्शःसु

प्राग्भक्तं यमके भृष्टान् सक्तुभिश्चावचूर्णितान् ।
करञ्जपल्लवान्दद्याद्वातवर्चोऽनुलोमनम् ॥

Caraka Saṃhitā, Cikitsā, 14-101.

Aṣṭāṅga Hṛdaya, Cikitsā. 8-53.

कुष्ठे

‘.....कुटजकरञ्जयोः फलम् ।
.....लेपः कुष्ठापहः सिद्धः ॥’

Caraka Saṃhitā, Cikitsā, 7.

‘कुष्ठे करञ्जबीजान्येडगजः कुष्ठसूदनो लेपः ।’

कुष्ठे क्रिमिरोगे च

.....पिप्पली करञ्जफलम् ।
नस्यं स्यात् सविडङ्गं क्रिमिकुष्ठकफप्रकोपनम् ॥

Caraka Saṃhitā, Cikitsā, 7-48.

‘.....करञ्जनिम्बखदिराश्च ।

स्नाने पाने लेपे कृमिकुष्ठनुदः सगोमूत्राः ॥'

Caraka Samhitā, Cikitsā, 7-48,

कुष्ठचिकित्सायां विषतैलम्

Cakradatta, 50/46-149

रक्तपित्ते

'करञ्जबीजमेवं वा सिताक्षौद्रयुतं पिबेत् ।'

Suśruta Samhitā, Uttara. 45-25

छर्द्याम्

'पिबेद् यवागूमथवा सिद्धां पत्रैः करञ्जैः ।'

Suśruta Samhitā. 49-29.

कच्छुपामाविचर्चिकासु

'तैलं वा नक्तमालजम् ।'

Suśruta Samhitā, Cikitsā. 27

उपदंशे करञ्जाद्यघृतम्

Bhāvaprakāśa, Madhyakhaṇḍa, 51-38.

पुष्पहरी करञ्जादिवर्तिः

पलाशपुष्पस्वरसैर्बहुशः परिभावितम् ।

करञ्जबीजं तद्वर्तिर्दृष्टेः पुष्पं विनाशयेत् ॥

Bhāvaprakāśa, Netrarogādhikāra, 63-205.

उपदंशचिकित्सायां करञ्जाद्यघृतम्

Cakradatta, Uppadamśa cikitsā, 47-14.

कुष्ठं (श्चित्र) - ब्रणार्शनाडीब्रणञ्चोपचारार्थं पूतिकादिलेपः

Cakradatta, Kuṣṭha Cikitsā, 67.

अलसकप्रतिकारार्थं करञ्जादिप्रलेपः

'करञ्जबीजं.....लेपोऽयमलसे हितः'

Kṣuudra-roga cikitsā, 55-15.

अर्शःसु

तक्रभुक् नक्तमालस्य गोमूत्रपरिपेषितम् ।

अर्शां नाशनं मूलमापिबेद्विवसत्रयम् ॥

Śodhala, Gadanigraha.

वृश्चिकदंशे

करञ्जार्जुनशेलूनां कटभ्याः कुटजस्य च ।

शिरीषस्य च पुष्पाणि मस्तुना दंशलेपनम् ॥

Aṣṭāṅga Hṛdaya, Uttara. 37-36.

अरुचौ

कारञ्ज दन्तकाष्ठं च विधेयमपचौ सदा ।

Śodhala, Gadanigraha, 2-13-31.

विस्फोटके

करञ्जतरुबीजानि युक्तानि तिलसर्षपैः ।

एरण्डफलयुक्ता वा दुग्धिका स्फोटनाशिनी ॥

Śodhala, Gadanigraha, 2-40-39.

नेत्ररोगे

‘बहुशः पलाशकुसुमस्वरसैः परिभाविता जयत्यचिरात् ।

नक्ताह्वबीजवर्तिः कुसुमचयं च दृक्षु चिरजमपि ॥’

Cakradatta, Netraroga cikitsā.

विसर्पे

‘सुखोष्णया प्रदिह्यात्..... ।

.....नक्तमालत्वचाऽपि वा ।’

Caraka Samhitā, Cikitsā. 11-123.

उरुस्तम्भे

‘अग्निमन्थकरञ्जौ च जलेनोत्क्लाथ्यं सेचयेत् ।

प्रलेपो मूत्रपिष्टैर्वाऽप्यूरुस्तम्भनिवारणः ॥

Caraka Samhitā, Cikitsā. 27-57.

कुष्ठे

‘कारञ्जं वा सार्षपं वा क्षतेषु, क्षैप्यं तैलम्.... ।’

Suśruta Samhitā, Cikitsā. 9-53.

ग्रन्थिविसर्पे

शुष्कमूलकल्केन नक्तमालत्वचाऽपि त्वा ।

.....विभीतकत्वचां वापि कल्केनोष्णेन लेपयेत् ॥’

Caraka Samhitā, Cikitsā. 21-124.

प्लीहोदरे

अम्लस्रुतं विडकणाचूर्णादयं नक्तमालजम् ।

शोभाञ्जनस्य क्वाथं सैन्धवाग्निकणाचितम् ॥
.....युञ्जति च यथाबलम् ।

Aṣṭāṅga Hṛdaya, Cikitsā. 15-87/88

विद्रधौ (अन्तर्बाह्यजं च)

‘करञ्जास्थीनि सम्पेष्य वितुषीकृत्य चूर्णयेत् ।
सुगुदलस्वरसेनैव मृदित्वा रविसन्निधौ ॥
तैले गृहीत्वा तत्तैलं बाह्यान्तरुपयोजयेत् ।
अन्तर्विद्रिधिमाश्व नाशयेद् बाह्यजं तथा ॥’

Vaidya Manoramā, 8-2/3.

करञ्जबीजविश्वोग्राकरञ्जक्वाथपेषिताः ।

पीताः प्रभाते निःशेषं घन्त्याभ्यन्तरविद्रधिम् ॥

Vaidya Manoramā, 8-1.

उरुस्तम्भे

वल्मीकमृत्तिकामूलं करञ्जस्य फलं त्वचम् ।
इष्टकानां तप्तशूर्णेः कुर्यादुत्सादनं भृशम् ॥

Caraka Samhitā, Cikitsā. 27-49.

नाडीव्रणे

‘प्रक्षालने चापि करञ्जनिम्बजान्यक्षपीलुस्वरसः प्रयोज्यः ।’

Suśruta Samhitā, Cikitsā. 17-24.

व्रणे

‘करञ्जाद्यघृतम् ।’

Suśruta Samhitā, Cikitsā. 16-16/21.

‘करञ्जारिष्टनिर्गुण्डीरसो हन्याद् व्रणक्रिमीन् ।’

Vṛndamadhava, 44-43.

रोमसञ्जनने

कासीसं नक्तमालस्य पल्लवांश्चैव संहरेत् ।

कपित्थरसपिष्टानि रोमसञ्जननं परम् ॥

Suśruta Samhitā, Cikitsā. 1-103.

रक्तपित्तोपचारार्थम्

सुखोष्णं लवणं बीजं करञ्जं दधिमस्तुना ।

पिबेद् वापि त्र्यहं मर्त्यो रक्तपित्ताभिपीडितः ॥

Suśruta Samhitā, Uttara. 45-26.

‘करञ्जबीजमेव वा सिताक्षौद्रयुतं पिबेत्।’

Suśruta Samhitā, Uttara. 45-25.

क्षुद्रोगे

वचादावीसर्षपैर्वा तैलं वा नक्तमालजम्।

सारतैलमथाभ्यङ्गे कुर्वीत कटुकैः शृतम्॥

Suśruta Samhitā, Cikitsā. 5-37

बालरोगे अहिपूतने च

‘करञ्जत्रिफलातिकैः सर्पिःसिद्धं शिशोर्हितम्।’

Vṛnda Mādhava, 57-22.

KĀRAVELLAKA

Botanical name : Momordica charantia Linn.

Family : Cucurbitaceae

Classical name : Kāravellaka

Sanskrit names

Kāravellaka-Kāravella, Kāravellī, Kāravellaka-suṣavī, Pītapuṣpā, Maṇḍapī, Cīritacchadā, Cīriṣatrā, Karillaka, Sūkṣmavallī, Kaṇṭaphalā, Ambuvālika.

Regional names

Karela (Hindi); Karala; Ucche (Bengla); Karle (Marathi); Kareli (Guj.); Pakka pakal (Tamil); Kakar (Tel.); Kaippa (Mal.); Hagal (Kaann.); Bitter Gourd (Eng.).

Description

Plants monoecious; stems branched, puberulous. Leaves prominently nerved, up to 12 cm. long and almost equally broad, reniform or suborbicular, glabrous; lobes ovate-oblong; tendrils simple, slender, pubescent. Male flowers solitary, peduncles slender; corolla up to 2 × 1 mm. yellow; segments obovate, obtuse or emarginate. Female flowers ovary fusiform, restrat, muricate.

Fruits oblong, 8-20 cm. long, muricate-tuberculate, trivalved, dehiscent at apex, tapering at both ends; seeds compressed, ca 12 × 8 mm., subtridentate at both ends, sculptured, corrugate, in red aril (ripe fruit).

Flowering and fruiting time

Its flowering and fruiting stages are from July to October generally and in also other months depending on crop season.

Distribution

Plant is commonly cultivated for fruit-vegetable. Generally two crops for producing fruits as market vegetable.

Kinds and varieties

Momordica charantia L. var. *muricata* (Willd.) Chakravarty. is similar to var. *charantia* except for faintly nerved leaves and smaller fruits not tapering at both ends.

There are two crops cultivating it on large scale for supply as vegetable fruits to the summer markets viz. rainy season (*barasati*) and summer season (sowing in February-March) and known as *Vaisakhi*). Two types are generally found: large variety (*Kāravellaka*) and small variety (*Kāravelli*), besides other some varieties. White or whitish variety is also found in certain regions (e.g. Malawa and Rajsthan) and it is quite longer fruit. Plants grown wild in forests produce smaller and very bitter fruits called *Kareli* or *Vana Karela*, having other morphological variations.

Pharmacodynamics

Rasa	: Tikta, Kaṭu
Guṇa	: Laghu, rūkṣa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphapittaśāmaka.

Properties and Action

Karma	: Pittasāraka Rocana-dīpana-pācana- āmadoṣapācana Kṛmighna Raktaśodhaka-śothahara Hṛdya Avṛṣya Kaphaghna Madhurikahrāsaka Ārtavajanana
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	Stanyaśodhana
	Kuṣṭhaghna
	Jvaraghna
	Viṣaghna
	Medohara
	Vraṇaśodhana-ropaṇa
	Dāhapraśamana.
Roga	: Kuṣṭha-Udarda-Koṭha
	Vraṇa-gambhīravraṇa
	Arśa
	Dāha
	Aruci-Agnimāndya-Vibanda
	Āmadoṣa-viṣūcikā
	Yakṛdvikāra
	Kṛmi
	Śoṭha-raktavikāra
	Kāsa-śvāsa
	Rajorodha
	Stanyavikāra
	Prameha-Madhumeha
	Jvara
	Pāṇḍu
	Vātarakta
	Netravikāra
	Yonibhramśa
	Masūrikā-romāntikā

Therapeutic uses

Kāravellaka or bitter gourd is anthelmintic, hypoglycaemic (antidiabetic), antipyretic, cardiogenic, carminative, diuretic and depressant of sexual urge. It is used in anorexia, heart troubles, cough, diabetes, fever, intestinal worms, renal calculus, respiratory diseases and skin affections.

The plant drug Kāravellaka is one of the most common fruit-vegetable in country and it is highly medicinal. Fruits and other parts are used in medicine.

The fruits are well-known anti-diabetic drug. The juice of fruits is recommended for oral use in diabetic patients. It is an effective hypoglycaemic agent which is fre-

quently prescribed in treatment of diabetes; and the same is commonly suggested and used as wholesome vegetable (pathya śāka) as well as vehicle or adjutant (anupāna or ghaṭaka-sahāyaka) medicinal item. The fruits as well as fruit juice are used for these purposes, besides the same is utilised in pharmaceutical preparation of many anti-diabetic formulations. Fruits are preventive and curative in diabetes (madhumeha).

Parts used : Fruit, whole plant, leaves, roots.

Dose : Juice 10-20 ml. or 5-10 ml.

Gaṇa

Tiktaskandha (Caraka Samhitā), Śākavarga (Suśruta Samhitā).

KĀRAVELLAKA (कारवेल्लक)

‘कारवेल्ली पीतपुष्पा मण्डपी चीरितच्छदा ।’

Śivadatta.

क. कारवेल्लं सकटुकं कटुपाकमवातलम् ।
दीपनं भेदनं तिक्तमवृष्यमहिमं लघु ॥
हन्त्यरोचकपित्तास्रकफपाण्डुव्रणक्रिमीन् ।
श्वासकासप्रमेहाशमकोठकुष्ठज्वरानपि ॥

वन्यकारवेल्लीफलम्

ख. कारवेल्लीफलं वन्यं ज्वरार्शःकृमिनाशनम् ।
कासघ्नं दीपनं हृद्यं सतिक्तं कफवातजित् ॥

Kaiyadeva Nighaṇṭu.

कारवेल्ली-कारवेल्ली

अ. करका कारवेल्ली च चीरिपत्रः करिल्लका ।
सूक्ष्मवेल्ली कण्टफला पीतपुष्पाऽम्बुवालिका ॥

कारवेल्लीगुणाः

ब. कारवेल्ली सुतिकोष्णा दीपनी कफवातजित् ।
अरोचकहरा चैव रक्तदोषहरी च सा ॥

Rāja Nighaṇṭu, Mūlakādi Varga, 185-186.

‘कोलकं कार्कशं....कफपित्तहरं तिक्तं शीतं कटु विपच्यते।’

Caraka Samhitā, Śāka Varga.

‘कारवेल्लमवृष्यञ्च रोचनं कफपित्तजित्।’

Rājaballabha Nighaṅtu

‘तद्वत् कर्कोटकं विद्यात् कारवेल्लकमेव च।’

Suśruta Samhitā

विषूचिकारोगे

‘सतैलं कारवेल्लयम्बु नाशयेद्धि विषूचिकाम्।’

Bhāvaprakāśa, Jaṭharāgnivikārādhikāra, 6-110.

मसूरिकाशान्त्यर्थं रोमान्तिकानिवारणार्थञ्च सुषवीपत्रस्वरसः

सुषवीपत्रनिर्यासं हरिद्राचूर्णसंयुक्तम्।

रोमान्तीज्वरविस्फोटमसूरीशान्तये पिबेत् ॥’

Vrnda Mādhava, 26-3

Cakradatta, Maśurikā cikitsā, 54-3.

अन्तःप्रविष्टयोनिबहिर्निगमनार्थं सुषवीमूललेपम्

‘सुषवीमूललेपेन प्रविष्टान्तर्बहिर्भवेत्।’

Cakradatta, Yonivāpac Cikitsā, 16.

योनिभ्रंशे

‘योनिः स्त्रीणां निर्गतापि प्रवेशप्राप्तोत्वन्तः

कारवेल्लीजटाभिः।’

Rāja Mārtaṇḍa, 31-43.

विरेचनार्थम्

‘स्वरसे कारवेल्लिका।’

Suśruta Samhitā, Sūtra. 44-2

ज्वरे

कारवेल्लककर्कोटकबालमूलकपर्पटैः ।

वार्तार्कनिम्बकुसुमपटोलफलपल्लवैः ॥

अत्यन्तलघुभिर्मासैर्जाङ्गलश्च हिताः रसाः ।

Aṣṭāṅga Hṛdaya, Cikitsā. 1-75.

गम्भीरव्रणे

सुषवीपत्र धतूरकर्णमोटकुठारकाः ।

पृथगेतेन लेपेन गम्भीरव्रणरोपणाः ॥

Vrnda Mādhava, 44-36.

नेत्ररोगे

मूलेन कारवेल्लवास्तुरङ्गमूत्राचितेन पिष्टेन ।
परिपूरितनयनानां नीलीदोषः शमं याति ॥

Gadanigraha, 3-3-368.

वातरक्ते

‘कारवेल्लकक्राथमात्रसिद्धं वा ।’

Suśruta Saṁhitā, Cikitsā. 5-12.

KARAVĪRA

Botanical name : *Nerium indicum* Mill.

Family : Apocynaceae

Classical name : Karavīra

Sanskrit names

Karavīra, Aśvamāraka-Hayamāraka, Aṅgulipatraka.

Regional names

Kaner, Kanail (Hindi); Karavi (Beng.); Kanher (Mar.); Kaner, Karena (Guj.); Alari (Tam.); Jamerat (Tel.); Sammulhisar (Arab.); Kharjahara (Pers.); Indian oleander (Eng.)

Description

***Nerium indicum* Mill.**

Syn. *Nerium odorum* Soland.: Karavīra (Śveta and Rakta) An evergreen shrub with silvery-grey bark.

Leaves usually in whorls of 3,4,6 by 5-1 in., linear-lanceolate or oblong, thickly coriaceous, acuminate, smooth, dark-green and shining above, rough and dotted beneath; midrib stout; lateral nerves numerous, parallel and transverse; petiole short.

Flowers 1.5 in. diam., red, white or rose-coloured generally sweet-scented, double under cultivation, in large terminal racemose cymes. Sepals broad-subulate. Corolla funnel-shaped; lobes spreading, overlapping to the right. Corona-appendages laciniate into numerous irregular segments. Stamens near the top of the stigma; calls with long twisted appendages.

Fruit 6-7 by 3-4 in-, rigid. Seeds linear, ribbed, vil-
lous with and having a coma of greyish-brown hairs.

Flowering and fruiting time

Plant flowers in April-June or summer season and
flowering often throughout the year. Fruiting during cold
season.

Thevetia peruviana (Pers.) K. Schum. : Karavira
(pīta) Syns, *Cerbera peruviana* Pers., *Thevetia nerifolia*
Juss ex Steud. Shrubs or small trees, up to 7 meters high.
Leaves linear, up to 15cm. long, revolute, dark-green
above, peler beneath. Flowers pure yellow or suffused with
red, in sub-terminal, few flowered cyne. Sepals long-
acuminate, spreading. Crolla funnel-shaped, lobes overlap-
ping to left. Stamens 5, inserted in the corolla throat. An-
thers incumbent on the stigma. Fruit an indehiscent fleshy
drupe, angular, broader than long.

Flowering and fruing time

Major part of the year.

Distribution

It is commonly grown in gardens, parks and house
premises including temples and religious campus in the
plain as well as hills. Plant occur throughout neotropics.

Pharmacodynamics

Rasa	: Kaṭu, tikta
Guṇa	: Laghu, rūkṣa, tīkṣṇa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphavātaśāmaka

Kinds and varieties

Classically the drug Karavira is botanically known as
Nerium indicum Mill. having white or red flowers in varia-
tion. Another plant *Thevetia peruviana* Pers. is later con-
sidered Pita.

Properties and action

Karma	: Hr̥dya Raktaśodhaka Śvāsaghna
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	Kuṣṭhaghna-Svedajanana-
	Kaṇḍūghna
	Jvaraghna-Viṣamajvarapрати-
	bandhaka
	Vraṇaśodhana-ropana
	Śothahara
	Dīpana-Vidāhi-bhedana
	Tivraviṣa
Roga	: Kaṇḍu-pāmā-Kikkisa-kacchu
	Vraṇa-duṣṭvraṇa-nāḍivraṇa
	Bhagandara
	Pāliya-Indralupta
	Upadomśa-Phiraṅga
	Aśmarī-śarkarā
	Netrābhiṣyanda-netrakopa
	Hṛdroga-raktavikāra
	Śvāsaroga
	Udararoga-agnimāndya-vibandha
	Jvara-viṣamajvara
	Tvagdoṣa-carmavikāra-Kṣudraroga.

Chemical composition

Whole plant or all the part of plant drug are toxic or poisonous. Several glycosides have been isolated from the root, bark and seeds of plant *Nerium indicum* Mill. Roots of red or white flowered-variety of *Karavīra* (*Nerium indicum* Mill.) contain an active substance meriodorein which is insoluble in water, and another substance is meriodorein. Both are bitter and non-crystalline active principles which are severe toxicant to heart. Another active constituent is nariene.

The seeds and bark of *Thevetia nerifolia* Juss. (*Pīta Karavīra* or *Pila Kaner*) Contain thevetin which is a very toxic glucoside (more toxic or poisonous). It is considered fatal even to animals (horse).

Therapeutic uses

The plant drug *Karavīra* is toxic and poisonous to fatal extent if consumed in excess or overdose which most adversely effects heart and respiration resulting into death. Hence, the drug is advised to be used medicinally within

strict posological consideration specially for oral use. The drug belongs to Upaviṣa varga (group of auxillary poisons in classical texts of Indian medicine) which normally requires purification (śodhana) and other precautions before clinical use of the drug Karavīra (Nerium indicum Mill.) with white and red flowered varieties (śveta and rakta Karavīra).

Besides the cardiotoxic effects, the drug Karavira is antianthelmintic, antipyretic and antiseptic. It is used cardiac asthma, circulatory disorders, fever, leprosy, respiratory disorders, skin diseases and worms.

The drug Karavīra is medicinally useful in various diseases by administering different parts of the plant both externally and internally. Karavira has been recommended in various ailments in classical texts of indigenous medicine. The oil cooked with root of Karavīra and aconite along with cow's urine destroys carmadala, siddhma, pīḍikā, krimi and kiṭibha belonging to group of Kṣudra roga or minor skin diseases. The oil cooked with Karavīra should be applied to eczeema or pāmā. Karavīra and Dugdḥikā are pounded together with milk and this paste is applied over head (skull) in the condition of grey hairs (pālitya) after removing grey hairs. The juice of Karavīra is recommended for external application in baldness (Indralupta). Oil (cooking leaves) is applied on skin affections.

Parts used : Root, root-bark, leaves.

Dose : Powder 30-125 mg.

Formulations

Karvīrādya taila, Karvīra yoga, Śveta Karvīrādya taila, Śveta Karvīra pallavadya taila.

Gaṇa

Tiktaskandha, Kuṣṭhaghna (Caraka Saṁhitā), Lakṣādi, Śirovirecana (Suśruta Saṁhitā).

KARAVĪRA (करवीर)

क. रक्तः रक्ताश्वजः कटुः पाके तिक्तश्चोष्णो विषापहा ।

चक्षुष्यः कृमिकण्डूघ्नः प्रलेपाद् विषमन्यथा ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 1544.

ख. पीतः पाटलिकातिशीता स्यात् श्लेष्मवातशिरोऽर्त्तिनुत् ।

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 1545.

ग. श्वेतः करवीरः कटुस्तिको वीर्योष्णस्तुवरो लघुः ।

भक्षितो विषरूपोऽक्षिकम्पकण्डूव्रणापहः ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 1541.

करीरद्वयं श्वेतरक्तकरवीरौ

करवीरद्वयं तिक्तं कषायं कटुकञ्च तत् ।

व्रणलाघवकृत्रेत्रकोपकुष्ठव्रणापहम् ॥

वीर्योष्णं कृमिकण्डूघ्नं भक्षितं विषवन्मतम् ।

Bhāvaprakāśa Nighaṇṭu. Guḍucyādi Varga, 83-84.

करवीरः

करवीरः कटुस्तीक्ष्णः कुष्ठकण्डूतिनाशनः ।

व्रणार्त्तिविषविस्फोट-शमनोऽश्वमतिप्रदः ॥

Rāja Nighaṇṭu, Karavīradi Varga, 13.

रक्तकरवीरः

रक्तस्तु करवीरः स्यात्कटुस्तीक्ष्णो विशोधकः ।

त्वग्दोषव्रणकण्डूति-कुष्ठहारी विषापहः ॥

Rāja Nighaṇṭu, Karavīrādi Varga, 15.

चतुर्विधकरवीरजातयः

पीतकरवीरकोऽन्यः पीतप्रसवः सुगन्धिकुसुमश्च ।

कृष्णस्तु कुसुमश्चतुर्विधोऽयं गुणे तुल्यः ॥

Rāja Nighaṇṭu, Karāvīrādi Varga, 16.

श्वेतकरवीरपल्लवाद्यतैलम्

श्वेतकरवीराद्यतैलम्-

Caraka Samhitā, Cikitsā. 105/107.

पलिते

भिषजा क्षीरपिष्टौ वा दुग्धिकाकरवीरकौ ॥

उत्पाट्य पलिते देयौ तावुभौ पलितापहौ ।

Caraka Samhitā, Cikitsā. 26-266/267.

करवीरः कटुस्तिको वीर्यं चोष्णो ज्वराहपहः ।

चक्षुष्यः कुष्ठकण्डूघ्नः प्रलेपाद् विषमन्यथा ॥
करवीरद्वयं तिक्तं सविषं कुष्ठजित्कटु ।

Dhanvantari Nighaṅṭu.

उपदंशे

करवीरस्य मूलेन परिपिष्टेन वारिणा ।
असाध्याऽपि व्रजत्यस्तं लिङ्गोत्था रुक् प्रलेपनात् ॥

Bhāvaprakāśa, Madhyakhaṇḍa, 51-35.

नेत्रकोपे

करवीरतरुणकिशलयच्छेदोद्भवो बहुलसलिलसम्पूर्णम् ।
नयनयुगं भवति दृढं सहसैव तत्क्षणात् कुपितम् ॥

Cakradatta.

पामायाम्

‘लेपाद् विनिहन्ति पामां तैलं करवीरसिद्धं वा ।’

Cakradatta.

व्रणदारणार्थम्

‘.....चित्रकौ हयमारकः.....दारणम् ॥’

Cakradatta, Vraṇaśoṭha Cikitsā.

पालित्ये

‘.....क्षीरपिष्टौ वा दुग्धिकाकरवीरकौ ।
उत्पाद्य पलितं देयौ तावुभौ पलितापहौ ॥’

Caraka Saṁhitā, Cikitsā. 26-263.

कुष्ठे

‘स्नाने पाने च मताः तथाऽष्टमश्चाश्वमारस्य ।’

Caraka Saṁhitā, Cikitsā. 7-95.

उपदंशे

‘.....करवीरस्य पत्राणि..... ।
प्रक्षालने प्रयोज्यानि..... ॥’

Suśruta Saṁhitā, Cikitsā. 15-19.

भगन्दरचिकित्सायां करवीरादितैलम्

Bhāvaprakāśa, Bhagandarādhikāra, 50-32.

Cakradatta, Bhagandara Cikitsā, 46-25.

उपदंशे करवीरमूलप्रयोगः

लेपः पूगफलेनाश्वमारमूलेन वा तथा ।

सेवेन्नित्यं यवान्नञ्च पानीयं कौपमेव च ॥

Cakradatta, Upadamśa Cikitsā, 47-11.

नेत्राभिष्यन्दे करवीरद्रवक्षूरणम्

करवीरतरुणकिशलयच्छेदोद्भवबहुल-सलिलसम्पूर्णम् ।

नयनयुगं भवति दृढं सहसैव तत्क्षणात् कुपितम् ॥

Cakradatta, 59-7.

अश्मर्या शर्करायां च

‘करवीरस्य क्षारं पेयोऽविमूत्रेण शर्करानाशनः परः ।’

Aṣṭāṅga Hṛdaya, Uttara. 24-29.

इन्द्रलुमे

‘प्रलेपयेत्.....करवीरसेन वा ।’

Aṣṭāṅga Hṛdaya, Uttara. 24-29.

गर्भिण्याः कण्डूकिक्किसनाशनार्थम्

‘अश्वपत्रसिद्धेन तैलेनाभ्यज्य मर्दयेत् ।’

Aṣṭāṅga Hṛdaya, Śarīra. 1-61.

KARCŪRA

Botanical name : *Curcuma zedoria* Rosf.

Family : Zingiberaceae

Classical name : Karcūra

Sanskrit names

Karcūra, Vedhamukhya (Ka), Draviḍa, Kalpaka, Karśa, Gandhamūlaka, Gandhasāra, Jaṭila, Durlabha.

Regional names

Kachura, Narakachura (Hindi); Kachora (Mar.); Satkachuro, Kachuro, (Guj.); Kachuram (Tel.); Jharambad (Arab.); Zedoary (Eng.). Jurambad, Jarambad (Pers.), Urukul Kaphur (Arabic); Shati, Konchur, Shodi (Beng.); Kachuri (Kath.).

Description

Herbaceous plant, about 45 cm. tall (height upto 1.5 feet); plant resembling with turmeric plant (*Curcum domestica*: Haridrā) in appearance (but entirely differs in rhizome as well as habitat).

Leaves 4-6 in number; 30-60 cm. long (1-2 feet); oblong, acuminate, narrowed to the base; petiole longer than the blade; veins brownish-bluish or reddish.

Spikes vernal 15 × 7.5 cm. broad; flowering bracts 3.75 cm., ovate green, often slightly tinged with red; bracts of the coma many, spreading bright red. Flowers yellow in colour or pale yellow, rather shorter than the bracts; calyx whitish, obtusely toothed, scarcely half as long as the corolla tube; corolla tube funnel shaped; lateral segments oblong upper rather longer ovate, convex, lip 1.25 cm. broad orbicular, deflexed. obscurely 3 lobed, emarginate.

Capsule ovoid, trigonous, smooth, dehiscent, irregularly; seeds oblong, aril, lanceolate, white.

Root-stock ovoid; tubers many, some 2.5 cm. in diam., sessile cylindrical and many oblong terminating fibres. Tubers white, bitter, pungent and aromatic (camphor-like).

Rhizome drug :

Transection shows a few layers of periderm, well differentiated wide cortex with scattered large and small vascular bundles, thin walled suberized endodermoid layer, followed immediately by a plaxus of irregular congested vascular bundles at the periphery of the central cylinder. The parenchymatous ground tissue is studded with scattered tannins containing cells and large conspicuous oil ducts. Parenchyma cells are deeply packed with simple starch grains pointed end and eccentric hilum.

Distribution

Plant occurs in Himalayan region. Eastern Himalayan, Terai and Chittagong (Bangladesh). Ceylon. Cultivated in some parts of south India.

Chemical composition

The tuber of plant contains volatile oil, resin, curcumin and other substances 3.79%, resin, sugar 0.90%, gum and organic acid 15.22%, starch 17.20%, crude fiber 1.92%, ash 6.06% and albuminoides. The oil obtained from the tubers is yellowish-white, viscid or sticky camphoraceous in odour and taste. Tuber yields zedorin.

Pharmacodynamics

Rasa	: Kaṭu, tikta
Guṇa	: Laghu, Tikṣṇa
Vīrya	: Uṣṇa
Vipaka	: Kaṭu
Doṣakarma	: Kaphavātaśāmaka.

Properties and Action

Karma	: Kaphaghna-Śvāsahara Uttejaka-śothahara-raktaśodhaka Śoṭhaśāmaka-vedanāsthāpana- Kuṣṭhaghna Rocana-dīpana-pācana-anulomana Ykṛduttejaka Kṛmighna Ārtavajanana-Vājikaraṇa Mūtrajanana Jvaraghna
Roga	: Śvāsa-Kāsa-hikkā Sandhivāta-Śoṭha Carmaroga Aruci-agnimāndyā-adhmana-śūla Udara-roga-gulma Arśa Kṛmi Hṛddourbalya-śoṭha-raktavikāra Rajorodha-Kaṣṭhārtava-dhajaḅhaṅga Prameha-mūtrakṛcchra Vraṇa-nādivraṇa Kaphavātavikāra.

Therapeutic uses

The drug Karcūra is anthelmintic, aromatic, cardio-
tonic, carminative, cooling, deuretic, stomachic and stimu-
lant.

It is used in cough (Kāsa), hiccough (hikkā), piles
(arśa), respiratory disorders, skin diseases (tvagvikāra),
spleenic disorders (plīha vikṛti), worms (Kṛmi) and
wounds (Vraṇa).

The matured of tuberous roots are collected from

plants are dried up which form drug karcūra. Leaves of green plant (*Curcuma zedoria* Roscoe.) are also medicinally useful. Tubers are chiefly used in medicine (śugandhi kanda-viśeṣaḥ': Kaiyadeva Nighaṇṭu, 1-1388). Root (rhizomatous portion) possessing campor-like odour, bitter, pungent (intense) in whitish or greyish-buff colour and in the form of cut-pieces are available in market as raw drug material of drug Karcūra, generally known in trade as Kachur (northern region). Tuberos root is used for medicinal purposes in indigenous system of medicine in different forms.

Karcūra taila (oil) is also madicinally useful which has been prescribed in sinus or nāḍivraṇa, duṣṭavraṇa and visarpa (Bhāvaprakāśa, 49-26). Expressed juice of Karcūra is cooked in mustard oil (Kaṭutaila or sārṣapa taila) and mixed with sindūra for preparing oil (tailapāka vidhi). Karcūra taila is indicated for external use in ulcer, sinus, chronic dirty or foul ulcers and wounds.

The drug karcūra is bitter and pungent (in taste) and hot in poteneity (Uṣṇa vīrya). It allays vātakapha doṣa. Drug is carminative, stomachic, analgesic, stimulant, aphrodisiac, liver stimulant and emmenagogue. It is mainly anti-inflammatory and anti-asthmatic; and it is also used in śoṭha (inflammatory conditions), kāsa (cough), śvāsa (asthma), hikkā (hiccough) and sandhigata śoṭha (inflamed joints). The drug is useful in worms affections, urinary menstrual troubles and, liver complaints, abdominal disorders (udararoga, gulma), heart trouble (hṛddourbalya), oedema (śoṭha), skin diseases and ailments caused by kapha vāta doṣa in general. The rhizomatous roots are employed by medicinal purpose and their powder and infusion (cūrna and phāṇṭa) are used as single as well as poly herbal preparations (as an ingredient). It is also useful in galagaṇḍa (goitre) and piles (arśa).

Parts used : Rhizome, leaves

Dose

Poder 3-6 gms. or 1-2 gms., Juice 10-20 ml. (Lvs.).

Formulations : Karcūra taila.

KARCŪRA (कर्चूर)

- क. कर्चूरो वेधमुख्यश्च द्राविडः कल्पकः शटी ।
 ख. कर्चूरो दीपनो रुच्यः कटुकस्तिक एव च ॥
 सुगन्धिकटुपाकः स्यात्कुष्ठाशोघ्नश्च कासनुत् ।
 उष्णो लघुहरिद्श्वासं गुल्मवातकफक्रिमीन् ॥
Bhāvaprakāśa Nighaṅṭu, Karpurādī Varga, 94-95.
- अ. जीमूतमूलं कर्चूरो द्राविडो वेधमुख्यकः ॥
 काश्यः काप्यो गन्धमूलः कल्पको दुर्बलः शटी ।
 ब. कर्चूरः कटुकस्तिकः सुतीक्ष्णो दीपनो लघुः ॥
 रोचनः कटुपाकोऽस्त्रपित्तकृत् कफवातजित् ।
 श्वासकासकृमिप्लीहकुष्ठाशोघ्नगुल्मनुत् ॥
Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 1388-1390.

कर्चूरः

कर्चूरो द्राविडः काशीं दुर्लभो गन्धमूलकः ।
 वेधमुख्यो गन्धसारो जटिलश्चाष्टनामकः ॥

कर्चूरगुणाः

कर्चूरः कटुतिक्तोष्णः कफकासविनाशनः ।
 मुखवैशद्यजननो गलगण्डादिदोषनुत् ॥

Rāja Nighaṅṭu, Pippalyādi Varga, 117-118.

नाडीव्रणे कर्चूरतैलम्

कर्चूरकस्य स्वरसे कटुतैलं विपाचयेत् ।
 सिन्दूरकल्कितं नाडीदुष्टव्रणविसर्पनुत् ॥

Bhāvaprakāśa, Nāḍīvraṇādhikāra, 49-26

कर्चूरकरसे तैलं पुरसिन्दूरकल्कितम् ।
 पामादुष्टव्रणं नाडीं हन्यात्सर्वव्रणान्तकृत् ॥

Bhāvaprakāśa, Nāḍīvraṇādhikāra, 29-27.

KARĪRA

Botanical name

Capparis decidua Edgew.

Syns. Capparis aphylla Roth., Sodala decidua Forsk.

Family : Capparidaceae

Classical name : Karīra

Sanskrit names

Karīra, Krakarīpatra, Granthika, Marubhūruha, Mr̥duphala, Tīkṣṇasāra, Hutāśana, Ganthila, Krakaca, Tīkṣṇakaṇṭaka, Suphala, Śākapuṣpa, Apatra, Kaṇṭakivṛkṣa.

Regional names

Karil (Hindi); Tent, Tenti (Brijbhumi, U.P.); Kari (Punj.); Nevati (Mar.); Kair (Guj); Sengam (Tam.); Kariramu (Tel.); Chippuri (Kann.).

Description

Nearly leafless glabrous shrubs or small trees; much-branched, glaucous; branches slender; bark corky, greyish-white longitudinally furrowed; thorns in pairs, straight.

Leaves only on young shoots, glabrous pungent, linear-oblong with spinescent apex, caducous; 1/4-1/3 in. long; buds pubescent.

Flowers red or scarlet, about 2 cm. across, in short corymbs on short lateal shoots. Outer sepals subvalvate, ciliate; inner very sarcate. Stamens 18-20. Fl. in. in diam.; red, brown or scarlet; in many flowered corymbs.

Fruits 0.8-1.5 cm., globose, smooth, red when ripe; ft. globose or ovoid, glabrous.

Flowering and fruiting time

Plant begins flowering in February-March and April. It bears fruits during summers to rains or May-July. New leaves on young shoots appear from November to March.

Distribution

Plant occurs in drier and warmer regions of country. It is found in Uttar Pradesh (Western and Southern Doab, Brijbhumi, Bundelkhand), Madhya Pradesh (Madhya Bharat), Rajsthan, Punjab and other regions of similar geographical conditions. Central India and the Deccan, extending westward to Arabia; Nubia and Egypt.

Chemical composition

Bark contains two alkaloids and other substances. Flowers and fruits contain various substances. Seeds contain glucocapparis-glucocide. A neutral bitter principle is isolated from the root bark of plant (which is resembling to senegin found in senega plant). Buds (and unripe or raw fruits) contain capric acid and glucoside.

Pharmacodynamics

Rasa	: Kaṭu, tikta
Guṇa	: Laghu, rūkṣa
Vīrya	: Uṣṇa
Vipaka	: Vipāka
Doṣakarma	: Kaphavātaśamaka

Properties and Action

Karma	: Arśoghna Rocana-pācana-bhedana Kṛmighna Jantughna-Vraṇaśodhana- Vedanāsthāpana Uttejaka-śothahara Śvāsahara Svedajanana Kaṭupouṣṭika-viṣaghna.
Roga	: Arśa-raktārśa Aruci-āmadoṣa-vibandha Udararoga-śūla Kṛmi Hṛddourbalya-śoṭha Āmavāta-sandhivāta-vātarakta Śvāsaroga Carmaroga Dourbalya Viṣa Pādapraharṣa.

Therapeutic uses

The drug Karīra (*Capparis decidua* Edgew.) is digestive, laxative and it increases digestive fire. It is anthelmintic, germicide, stimulant and bitter tonic. It is

diaphoretic, analgesic, anti-inflammatory and wholesome for eyes. Drug is anti-haemorrhoidal and antipruritis. It is useful against poison.

The fruits of Karīra are powdered and taken for alleviating oedema (śoṭha). The tender fruits of Karīra are steamed and then dried in sunlight. It may be taken with supernatant fatty layer of curd in morning which is useful to pacify bleeding piles or haemorrhoids. Karīra fruits along with salt, Arka patra (leaves of *Calotropis gigantea*) are mixed with wine and sours; and this mixture is burnt in closed heating in order to prepare alkali (kṣāra). The alkali is taken with tepid water (sukhodaka), wine (madya) or sour juice (amla rasa), in case of piles for their eradication. Karīra fruits are processed in closed heating and are mixed in curd along with salt (lavaṇa), yavaḥṣāra, Jīraka, Yavānī, Trikaṭu and Hiṅgu and then dried in the sun. They are swallowed in night for effect as laxative.

The flower-buds (pasi) and young fruits are cooked and eaten as a pot-herb and also preserved as a pickle. The ripe fruit is also pickled. Achar prepared of fruits (tenti) is used in rural areas.

The vegetable of Karīra and some other suitable medicinal plant are cooked in ghee and they are beneficial (wholesome) for eye-sight (dṛṣṭihita). The oil extracted of the fress stem of Karīra (by pātāla yantra) is indicated to applied and rubbed on the affected part in disease of Vātarakta, for alleviating tingling sensation and disorders caused by blood impurities.

Parts used : Root bark, fruits, stem-oil.

Dose : Decoction 50-100 ml., Powder 1-3 gms.

KARĪRA (करीर)

क. करीरः क्रकरीपत्रो ग्रन्थिको मरुभूरुहः ।

ख. करीरः कटुकस्तिक्तः स्वेद्युष्णो मेहनः स्मृतः ॥

दुर्नामकफवातामगरशोथत्रणप्रणुत् ॥

Bhāvaprakāśa Nighaṅṭu, Vatādi Varga, 63.

- अ. करीरको मृदुफलः तीक्ष्णसारो हुताशनः ॥
शाकपुष्पो गूढपत्रः करीरो ग्रन्थिलो मतः ।
सुफलः क्रकचस्तीक्ष्णकण्टकः कटुतिक्तकः ॥
- ब. करीरः कटुकस्तिक्तः स्वेद्युष्णो भेदनो जयेत् ।
दुर्नामकफवातामगरशोफकृमिव्रणान् ॥

करीरपुष्पम्

स. तस्य पुष्पं तु तुवरं वातकृत् कफपित्तजित् ।

करीरफलम्

द. फलं तिक्तं कषायोष्णं कटुकं रसपाकयोः ।
विकासि मधुरं रूक्षं सङ्ग्राहि कफपित्तजित् ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 376-380.

करीरकुसुमम्

‘करीरकुसुमानि कटुविपाकानि वातहराणि सृष्टमूत्रपुरीषाणि च ।’

करीरफलम्

‘करीरफलानि च स्वादुतिक्तकटूष्णानि कफवातहराणि च ।’

Suśruta Saṁhitā, Sūtra. 46.

करीरगुणाः

करीरः कटुको भेदी तीक्ष्णोष्णः कफवातजित् ।
व्रणशोथविषाशोन्नं तत्पुष्पं कफपित्तजित् ॥
फलं ग्राहि कषायोष्णं मधुरं श्लेष्मपित्तहृत् ।

Madanapāla Nighaṅṭu.

करीरं कटुकं ग्राहि फलमुष्णं रुचिप्रदम् ।
कफपित्तकरं किञ्चित्कषायं वातहृद्भ्रमम् ॥

Kṣemakutūhalam.

‘करीरो गूढपत्रो मरुदेशे जातप्रसिद्धः कण्टकिवृक्षः ।’

Dalhana, Suśruta Saṁhitā.

करीरमाध्मानकरं कषायं, कटूष्णमेतत् कफहारि भूरि ।
श्वासानिलारोधकसर्वशूलविच्छर्दिखर्जूव्रणदोषहारि ॥

Rāja Nighaṅṭu.

सुखविरेचने

निरुद्धधूममुत्स्वेद्य फलानि मरुशाखिनः ।

लवणक्षारजरणदीप्यत्र्यूषणहिङ्गुभिः ॥
 मर्दिते दधि निक्षिप्य शोषयेदातपे चिरम् ।
 सायं तानि निगीर्णानि प्रातः साधु विरेचयेत् ॥

*Siddha Bhaiṣajya Maṇimālā,
 Udāvartādhikāra. 4-519/579.*

अर्शःसु वातार्शसि

लवणं ह्यर्कपत्राणि करीरतरुजान्यपि ।
 मद्यैरम्लैश्च युक्तानि युक्त्या क्षारं दहेत्पुटे ॥
 सुखोदकेन मद्यैर्वा रसैरम्लैश्च पाययेत् ।
 पीतः क्षारो ह्ययं हन्याद्वातार्शस्यचिरेण तु ॥

Gada Nigraha, Arśorogādhikāra, 2-4-50/51.

दृष्टेः हिताय

‘.....करीरजानि ।
 शाकानि..... ।’

Suśruta Samhitā, 3-17-51.

पादप्रहर्षे

नूतनकरीरकाष्ठश्चोतनकं बलिनिकाययन्त्रेण ।
 अभ्यङ्गतोऽस्त्रजनिते निहन्ति पादप्रहर्षकालुष्ये ॥

Siddha Bhaiṣajya Maṇimālā.

शोथे

पलमानानि वानानि शलाटूनि मरुद्भुतः ।
 जर्जरीकृत्य गीर्णानि निघ्नन्ति स्वयथुं क्रमात् ॥

*Siddha Bhaiṣajya Maṇimālā,
 Sopharogādhikāra, 4-671.*

रक्तार्शसि

संस्वेद्य कोमलकरीरशलाटुकानि क्षिप्त्वा कटे खरतरातपतः प्रशोष्य ।
 भुञ्जीत भेदुसरेण सुजातदघ्ना रक्तार्शसां प्रशमनाय वशी प्रभाते ॥

Siddha Bhaiṣajya Maṇimālā, 4-220

वातरक्ते

नूतनकरीर काष्ठाच्योतनकं बलिनिकाययन्त्रेण ।
 अभ्यङ्गतोऽस्त्रजनिते निहन्ति पादप्रहर्षकालुष्ये ॥

Siddha Bhaiṣajya Maṇimālā, 4-490.

चक्षुष्यप्रयोगे

पटोल..... करीरजानि ।

शाकानि शिग्रुवार्तगलानि चैव हितानि दृष्टैर्धृतसाधितानि ॥

Suśruta Samhitā, Uttara. 17-51.

प्रजास्थापने

कार्पासशलाटूनां कल्कं क्षीरे पिबेतु सप्ताहम् ।

वन्ध्या पुत्रोत्पत्तिं वाञ्छन्ती पुष्पदिवसेषु ॥

Vaidya Manoramā 13-9.

मदात्यये

‘कार्पासिनीमथ च नागबलां च तुल्यां

पीत्वा सुखी भवति साधु सुवर्चलां वा ।’

Suśruta Samhitā, Uttara. 47-34.

शुक्राभिघातजे मूत्रकृच्छ्रे

‘कार्पासामूलं..... क्रमः स्यात् ।’

Caraka Samhitā, Cikitsā. 26-69/71.

कासे

‘कार्पासास्थ्यश्वगन्धा च धूमः कासविनाशनः ।’

Caraka Samhitā, Cikitsā. 18-75.

वनकार्पासी

अपच्याम्

वनकार्पासीकामूलं तण्डुलैः सह योजितम् ।

पक्त्वा पूपलिकां खादेदपचीनाशनाय च ॥

Vṛndamādhava, 41-21. Baṅgasena, Gaṇḍamālā, 6.

मसूरिकायाम्

उत्तुण्डिकस्य मूलं पिबन्ति तण्डुलजलेन ये पिष्टम् ।

गोजिह्विकाजटां वा तेषां न भवन्ति शीतलिकाः ॥

Rājamārtanḍa, 30-2.

स्तन्यवृद्धये

वनकार्पासिकेक्षुणां मूलं सौवीरकेण वा ।

विदारीकन्दं सुरया पिबेद् वा स्तन्यवर्धनम् ॥

Vṛndamādhava, 65-32/33.

KARKATAŚRŅĠĪ

Botanical name : Pistacia integerrima Stewart ex Brandis.

Family : Anacardiaceae

Classical name : Karkataśrᅇᅇᅇᅇ

Sanskrit names

Karkataśrᅇᅇᅇᅇ, Ajaśrᅇᅇᅇᅇ, Kulīraśrᅇᅇᅇᅇ, Śrᅇᅇᅇᅇ,
Kulīraviśāᅇᅇᅇᅇ.

Regional names

Kakrhasingi (Hindi); Kankrhasringi (Beng., Tam.,
Tel.); Kakrhasing (Mal.)

Description

A middle-sized deciduous tree with rough, grey, bark. Sapwood white, heartwood mottled with yellow and green streaks. It is very hard and durable, valued for ornamental timber, weight 54 lbs. per c. ft.

Leaves alternate, pair or imparipinnate, 6-9 in. long. Leaflets 4-6 pairs, subopposite, minutely petioluled, 3-6 by 1-1.7 in., lanceolate, long-acuminate, entire, hard, coriaceous, glabrous; main lateral nerves about 20 pairs, slender, base oblique.

Inflorescence a lateral panicle. Flowers small apetalous, dioecious. Male flowers: panicles 2-4 in. long, compact, pubescent; calyx gamosepalous, 3-5-fid; stamens 5-7 on a small disk; anthers large, red. Female flowers: panicles 6-10 in. long, lax, thyrsoid; sepals 4, free, linear, deciduous; ovary sessile, 1-celled; styles 3, cohering only near the base.

Drupe .25 in. diam., oblique, broader than long, glabrous, rugose.

Galls, produced by Hemipterous insect, galls in shape of a horn attaining 3-6 in. length, dull-red in colour, galls produced on branches. Galls used as drug Karkataśrᅇᅇᅇᅇ.

Flowering and fruiting time

New foliage appears along with flowers during the period from spring to summer seasons, and plant becomes in fruiting stage during a period from June to October.

Distribution

Plant occurs in western Himalaya and Indus valley to Kumaon region. It is found wild in Uttar Pradesh hilly region at 3,000-6,000 ft. altitude.

Chemical composition

It contains essential oil 1.3%, tannin 60%, mastic gum 5%, a resinous substance, crystalline acids and also crystalline form hydrocarbons 3-4 percent.

Pharmacodynamics

Rasa	: Kaṣāya, tikta
Guṇa	: Laghu, rukṣa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphavātaśāmaka

Properties and Action

Karma	: Kāśahara-kaphaghna- kaphaniḥsāraka-Hikkanigrahaṇa Śothahara-raktarodhaka Vraṇa-Kṣata ropaṇa Dīpana-Vātānulomana-grāhī Garbhāśayaśoṭha-srāvarodhaka Jvaraghna Kaṭupouṣṭika.
Roga	: śvāsa-kāsa-hikkā-galaśoṭha Kṣaya-rājayakṣmā Dantamūla raktasrāva-vikāra Vraṇa-kṣata Agnimāndya-Udāvarta-aruci-chardi Atisāra-pravāhikā Bālaroga-dantodbheda janya vikāra Pradara-pūyameha Jvara-vātaślaiṣmikajvara.

Therapeutic uses

The drug Karkaṭaśṛṅgī is quite effective medicine for diseases of respiratory system. It is an important plant drug for cough, hiccough, asthma, and allied diseases. The drug is also useful in children diseases particularly cough, diarrhoea, hiccough, teething troubles (dantod-

bhedajanya vikāra) and similar oilments. Karkaṭaśṛṅgī is useful in yakṣmā (tuberculosis), pārśvaśūla (chest pain), vomiting, excessive thirst, diarrhoea, loss of appetite, leucorrhoea, gonorrhoea, influenza and throat complaints (galaśoṭha-galaroga). It is also useful in garbhāśaya śoṭha, śoṭha and raktasrāva. The drug is useful as an aphrodisiac (Vājīkarna). The paste of Karkaṭaśṛṅgī galls dissolved in milk is orally given to a person (keeping him on diet of cereals with sugar, ghee and milk) for attaining strong sexual power (sambhoga śakti) as prescribed in medical text.

The powder of drug Karkaṭaśṛṅgī (galls powder) is used in cough, asthma, hiccough, vātakaphajvara, throat and chest complaints and vomiting. Powder is given orally with honey or lukewarm water (sukhoṣṇa jala) and any other suitable vehicle or adjutant. The gruel cooked with Karkaṭaśṛṅgī is useful for giving for those suffering from asthma and hiccough as recommend in medical texts of indigenous medicine (Caraka Saṁhitā, Cikitsā. 17-101). The powder of Karkaṭaśṛṅgī and seeds of radish are mixed with honey and ghee and this recipe is prescribed in children for alleviating asthmā (Baṅgasena, Bālaroga, 62). The powder of Karkaṭaśṛṅgī is licked with oil for alleviating vātaja kāsa (cough caused by vāta). It is leha (in licking mode of administration) prayoga of Karkaṭaśṛṅgī. The powder of Karkaṭaśṛṅgī is mixed with ghee, sugar and honey, and the same is licked by patient of cough, by following intake of milk (Aṣṭāṅga Saṅgraha, Cikitsā. 4-32). The powder of Karkaṭaśṛṅgī mixed with mustaka (root of Cyperus rotundus) is used for checking vomiting caused by kapha (Caraka Saṁhitā, Cikitsā. 20-38).

Parts used : Galls

Dose : Powder 1-3 gms.

Formulations

Śṛṅgyādi cūrṇa, Karkaṭādi cūrṇa, Bālacāturbhadra.

Gaṇa

Kāsaḥara, Hikkānigrahaṇa (Caraka Saṁhitā), Kākolyādi (Suśruta Saṁhitā).

KARKATAŚRŪŢĪ (कर्कटशृङ्गी)

शृङ्गी तिक्ता कषायोष्णा कफवातक्षयज्वराम् ।
श्वासोर्ध्ववातट्कासहिष्मारुचिवमीर्जयेत् ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 1133.

शृङ्गी कषाया तिक्तोष्णा कफवातक्षयज्वरान् ।
अजशृङ्गी च चक्रा च कर्कटाख्या च कीर्तिता ॥
श्वासोर्ध्ववातट्कासहिष्काऽरुचिर्वमीन्हरेत् ।

Bhāvaprakāśa Nighaṅṭu, Hārītakṛyādi Varga, 179.

तिक्ता कर्कटशृङ्गी तु गुरुरुष्णाऽनिलापहा ।
हिष्कातीसारकासघ्नी श्वासपित्तास्त्रनाशनी ॥

Rāja Nighaṅṭu, Pippalyādi Varga, 157.

कुलीरशृङ्गीचूर्णञ्च मूलकस्य फलं तथा ।
युक्तोऽयं मधुसर्पिभ्यां लेहः श्वासापहः शिशोः ॥

Baṅgasena.

तिक्ता कर्कटशृङ्गी च गुरुश्चोर्ध्वसमीरजित् ।
कासश्वासार्तियक्ष्मघ्नी वान्तिर्तृष्णारुचीर्जयेत् ॥

Dhanvantari Nighaṅṭu.

‘शृङ्गी कफानिलश्वासकासहिष्काज्वरापहा ।’

Śodhala, Gadani-graha.

कर्कटस्य च शृङ्गी स्यात् तिक्तोष्णा तुवरा गुरुः ।
वातहिष्कातिसारघ्नौ बालानां च हिता वहा ।
कासं श्वासं रक्तदोषं पित्तं जूर्तिकफं क्षयम् ।
वान्ति हिष्मां चोर्ध्ववातं कृमितृष्णाक्षतक्षयम् ॥
अरुचिं नाशयत्येव ऋषिभिः परिकीर्तिता ॥

Nighaṅṭu Ratnākara.

शिशोः श्वासे

कुलीरशृङ्गीचूर्णञ्च फलं तथा ।
युक्तोऽयं मधुसर्पिम्यां लेहः श्वासापहः शिशोः ॥

Baṅgasena, Bālaroga Cikitsā, 62.

वातजे कासे

‘लिह्यात् कर्कटशृङ्गी च कासे तैलेन वातजे ।’

Caraka Saṁhitā, Cikitsā. 18-50.

कफच्छर्दिनिग्रहणार्थम्

‘.....मुस्तायुतां कर्कटस्य शृङ्गीम् ।

..... मधुसम्प्रयुक्ताम् ।’

Caraka Samhitā, Cikitsā. 20-36.

रतिवर्धनार्थम्

कुलीरशृङ्गीचूर्णञ्च मूलकस्य फलं तथा ।

युक्तोऽयं कुलीरशृङ्ग्या यः कल्कमालोड्य पयसा पिबेत् ।

सिताधृतपयोऽन्नाशी स नारीषु वृषायते ॥

Aṣṭāṅga Hṛdaya, Uttara 40.

दन्तशब्दरोगे (दन्तरोगे) कर्कटशृङ्गी (घृत) प्रयोगः

कर्कटाङ्घ्रिक्षीरपक्वघृताभ्यङ्गेन नश्यति ।

दन्तशब्दः कर्कटाङ्घ्रिलेपाद्वा दन्तयोजितात् ॥

Cakradatta, Mukharoga (Dantaroga) Cikitsā, 56-6.

(केचित् ‘कर्कटाङ्घ्रि’शब्दे ‘कर्कटपादम्’ इत्यर्थः)

Cakradatta, Mukharoga (Dantaroga) Cikitsā 56-6.

वाजीकरणे

कुलीरशृङ्ग्याः यः कल्कमालोड्य पयसा पिबेत् ।

सिताधृतपयोऽन्नाशी स नारीषु वृषायते ॥

Aṣṭāṅga Saṅgraha, Uttara. 50-44.

KARKOTAKA

Botanical name

Momordica dioica Roxb. ex willd.

Syn. *Momordica balsamina* (wall.) W. & A.

Family : Cucurbitaceae

Classical name : Karkoṭaka-Karkoṭakī

Sanskrit names : Karkoṭkakī, Pītapuṣpā, Mahājālinī.

Regional names

Kokorha (Hi.); Bankarela, Murela, Kakora (Hindi).

Description

Momordica dioica R. ex. W. Dioecious climbers with tuberous roots, perennial, Stem glabrous. Leaves 5-10.

across, memberanous, glabrous, broadly ovate, cordate, entire or shallowly 3-5-lobed, scabrid, remotely denticulate, cordate and base; short petioled. Male flowers solitary, peduncle 5-13 cm. long; corolla 2.5-3.0 cm. long; lobes lenceolate, acuminate. Female flowers peduncle minutly bracteate at base or ebracteate. Fruit ovoid, marrowed at ends, muricate 2.5-5.0 cm. long, densely covered with short spines. Seeds broadly ellppsoid, slightly compressed, numerous, 6-7 mm. long, corrugated on margin, nearly smooth on the faces.

Flowering and fruiting time

Plant is in flowering and fruiting during rainy season to winter season.

Distribution

Plant is occasionally found on shrubs. Throughout India to Ceylon ascending to 5,000 ft. on the Himalaya. It is commonly found in Upper Gangetic Plains and Siwalik and adjoining sub-Himalayan tracts.

Kinds and varieties

There are two kinds i.e. Karkoṭaka or Karkoṭakī and Bandhyakarkoṭarī, botanically known as *Momordica dioica* Roxb. ex Willd. and male plant of *Momordica dioica* Roxb. ex Willd. *Momordica cochinchinensis* Spreng. is also referred as Vandhyā Karkoṭakī.

***Momordica cochinchinensis* Spreng.**

An extensively climbing perennial with a tuberous root. Leaves 1-5 in. in diam., suborbicular in outline, cordate, ovate, usually 3-lobed, glabrous or nearly so, entire or undulate dentate, firm, punotat beneath; petiole glandular.

Flowers dioecious, large, whitish. Male peduncle 3-6 in., usually shorter than the leaves; bract embracing the expunded flower, often hairy. Calyx teeth large, oblong-lanceolate, acute, coriaceous, dark-green. Petals 1-2 in. white tinged with yellow, 3 with black spots, 2 with yellow glands. The 3 anthered filaments not 3-fid. Female peduncle 1-2 in., bracts small, near the middle.

Fruit 4-5 in., ovate, pointed, bright-red, fleshy, not ribbed, aculeate with conical points. Seeds many, com-

pressed, black, corrugate on margin, sculptured on the faces.

Flowering and fruiting time

Rainy season.

Distribution

It is found in central and northern India, Bundelkhand, U.P.. Plant occurs in Southern India, Burma; also in Malaya, China and in the Philippines.

Pharmacodynamics

Rasa	: Kaṭu, tikta
Guna	: Rūkṣa, laghu
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Tridoṣaghna, Vātapittahara-Kaphahara Pittakaphahara (Phala-fruit).

Properties and Action

Karma	: Dīpana-pācana Pittasāraka Kaṭupouṣṭika Raktaśodhaka Anulomana Vāmaka Kuṣṭhaghna Keśya Vraṇaśodhana
Roga	: Gulma Śūla Pittavikāra Prameha Kāsa-śvāsa Jvara Viṣa Vraṇa

Therapeutic uses

The root of Karkoṭaka is used as snuff (nasya) in jaundice (Kāmalā). Karkoṭaka (*Momordica dioica* Roxb. ex Willd.) is taken with milk for ten days and it breaks and expels calculi and gravels (aśmari-aśmaśarkarā) as mentioned in texts. In fever (jvara), Karkoṭaka and some other

plant drugs (e.g. parpaṭa, gojihvā, tender radish and guducī leaves) are used as vegetable. The roots and fruits are used in other diseases.

The root of Bandhyā Karkoṭakī is pounded with breast-milk (stanya) and the same is used as snuff (nasya karma) which alleviates filaria (ślīpada). The root of Bandhyakarkoṭakī is given with ghee for alleviating both types of poison (viṣa). The root is soaked in goat's urine and then pounded with sour gruel. It is used as snuff which is useful in poisoning.

Roots are used as emetic, Fruits are commonly household vegetable (śāka).

Parts used : Root, fruit.

Dose : Root powder 3-5 gms.

Gaṇa : Fruit vegetable (śāka)

KARKOṬAKĪ B. BANDHYĀKARKOṬAKĪ (अ. कर्कोटकी ब. बन्ध्याकर्कोटकी)

कर्कोटीमूलिका पीता दशाहं पयसा सह ।
भित्त्वाऽश्मशर्कराः शीघ्रं पातयत्येव खण्डशः ॥

Śodhala.

कर्कोटकी कटूष्णा च तिक्ता विषविनाशिनी ।
वातघ्नी पित्तहृच्चैव दीपनी रुचिकारिणी ॥

Rāja Nighaṇṭu.

कर्कोटकी

- क. कर्कोटकी पीतपुष्पा महाजालीति चोच्यते ।
ख. कर्कोटी मलहत् कुष्ठहल्लासरुचिनाशनी ।
श्वासकासज्वरान् हन्ति कटुपाका च दीपनी ॥

Bhāvaprakāśa Nighaṇṭu, Śāka Varga, 86.

बन्ध्याकर्कोटकी

- बन्ध्याकर्कोटकी तिक्ता कटूष्णा च कफापहा ।
स्थावरादिविषघ्नी च शस्यते सा रसायने ॥

Rāja Nighaṇṭu, Gudūcyādi Varga, 63.

ककोटकीपत्रम्

- अ. ककोटक्याः कृमिघ्नं दलममृतरसं सर्वदोषापहारि ।
रुच्यं वृष्यं ज्वरघ्नं क्षयकसनहरं श्वासहिक्कार्शसां च ॥
- ब. ककोटकफलं गुल्मशूलपित्तकफापहम् ।
त्रिदोषकुष्ठमेहघ्नमीषन्मधुरतिक्तकम् ॥
श्वासकासज्वरहरं मारुतघ्नं परं लघु ।

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 598-600.

- क. बन्ध्याककोटकीदेवी विषप्रशमनी स्मृता ॥
कुमारिका नागारिपुर्विषकण्टकिनी तथा ।
निष्फला मज्जदमनी मनोज्ञा विषकण्टिका ॥
- ख. (बन्ध्या ककोटकी लघ्वी कफनुत् व्रणशोधिनी ।)
बन्ध्या तिक्ता कटुस्तीक्ष्णा लघुव्रणविषास्त्रनुत् ॥
बलाससर्पदर्पघ्नी विसर्पविषहारिणी ।

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 595-598.

‘तद्वत्ककोटकं कुष्ठकिलासारुचिनाशनम् ।’

Madanapāla Nighaṇṭu.

- अ. बन्ध्यादेवी बन्ध्यककोटका स्यान्नागरातिर्नागहन्त्री मनोज्ञा ।
पथ्या दिव्या पुत्रदात्री सुकन्दा श्रीकन्दा सा कन्दवल्लीश्वरी च ॥
सुगन्धा सर्पदमनी विषकण्टकिनी वरा ।
कुमारी भूतहन्त्री च नान्त्रमित्यूनविंशतिः ॥
- ब. बन्ध्याककोटिकी तिक्ता कटूष्णा च कफापहा ।
स्थावरादिविषघ्नी च शस्यते सा रसायने ॥

Rāja Nighaṇṭu, Guḍūcyādi Varga, 61-63

ककोटकी

ककोटक्याः कृमिघ्नं दलममृतरसं सर्वदोषापहारि ।
रुच्यं वृष्यं ज्वरघ्नं क्षयकसनहरं स्वासहिक्कार्शसां च ॥

ककोटकीफलम्

ककोटकफलं शूलगुल्मपित्तकफापहम् ।
त्रिदोषकुष्ठमेहघ्नमीषन्मधुरतिक्तकम् ॥
श्वासकासज्वरहरं मारुतघ्नं परं लघु ।

Nighaṇṭu Ratnākara.

कामलायाम्

नस्यं कर्कोटमूले स्याद् घ्रेयं वा..... ।

Sodhala, Gadanigraha, Pāṇḍurogādihikāra. 2-7-52.

सर्पविषे

‘शिफां.....’

‘बन्ध्याकर्कोटकी वाऽपि पिबेत्फणिविषापहम् ।’

Sodhala, Gadanigraha, Sarpaviṣādihikāra.

‘बन्ध्याकर्कोटकजं मूलं छागमूत्रेण भावितम् ।

नस्यं काञ्जिकसम्पिष्टं विषोपहतचेतसः ॥’

Sodhala, Cakradatta, Viṣacikitsā, 9 Sarpaviṣādihikāra.

शर्करायाम्

कर्कोटीमूलिका पीता दशाहं पयसा सह ।

भित्वाऽश्मशर्करां शीघ्रं पातयत्येव खण्डशः ॥

Sodhala, Gadanigraha, Mūtrakṛcchādihikāra, 2-27-46

स्तनरोगे

‘लेपो निहन्ति मूलं बन्ध्याकर्कोटिकीभवं शीघ्रम् ।’

Bhāvaprakāśa, Yonirogā (strīrogā) dhikāra, 70-175.

श्लेपदे

बन्ध्याकर्कोटकीमूलं स्तःयेव परिपेषितम् ।

नाशयत्याशु दुर्वारं श्लेपदं नस्यकर्मणा ॥

Sodhala, Gadanigraha, Ślīpadādihikāra, 4-22-33.

ज्वरे शाकार्थम्

‘कर्कोटकं पत्रं..... ।

शाकार्थे ज्वरितानां प्रदापयेत् ॥’

Suśruta Samhitā, Uttara. 39-158.

विषे बन्ध्याकर्कोटकी

बन्ध्याकर्कोटिकामूलं पाटलायाः जटा यथा ।

घृतेन बिल्वमूलं वा द्विविधं नाशयेद् विषम् ॥

Śārṅgadhara Samhitā 2-5-24

बन्ध्या कर्कोटकीमूलं छागमूत्रेण भावितम् ।

नस्यं काञ्जिकसम्पिष्टं विषोपहतचेतसः ॥’

Vṛndamādhava, 68-12 Gadanigraha, 7-3-26.

KARMARAṄGA

Botanical name : *Averrhoa carambola* Linn.

Family : Oxalidaceae

Classical name : Karmaraṅga

Sanskrit names

Karmaraṅga, Śirāla, Karīmāra, Karmaraka,
Pittaphala, Karmara, Karmāraka, Mudgaraka,
Mudgaraphala, Dharaphala.

Regional names

Kamrakh (Hindi); Kamarak, Kamaranga,
Kamarakh (Common); Pulichī (Mal.); Soung gya (Burm.);
Carambola (Eng.).

Description

Densely leafy trees up to 20 meters tall; or small handsome evergreen tree 15-30 feet. high branches often drooping. Leaves 5-6 jugate; leaflets entire, sub-opposite; lvs. sensitive. Leaflets ovate, acuminate, 2-5 pair.

Flower heterodistylous; small, variegated, white and purple; in scattered thyrses; bracts small, caducous. Calyx glabrous. Sepals bright red, fading to yellow brown. Petals clawed tinged with pink. Shorter stamens antheriferous; filaments subulate, often with swollen base. Ovary elliptic adpressed puberulous mainly on ribs. Fls. springing from the bark.

Fruits yellow or greenish (colour differs in stages); a rich amber or golden yellow colour) ellipsoid, 3 in. long, with 5 prominent ridges. Funicle of seed dilated into a fleshy bilabiate, irregularly on arillus, Ft. oblong, fleshy, indehiscent, very acidic in taste; slightly furrowed; Seeds without arillus, when green fruits are astringent but on ripening, develop a sweetish acid taste.

Flowering and fruiting time

Plant flowers in June-September and fruits during cold season, often up to April.

Distribution

It is often planted in gardens. Plant is found in India

and China. Largely cultivated all over the hotter parts of India for the sake of fruit cultivated also in Burma.

Some authorities of taxonomy prefer to keep the genus under family Averrhoaceae instead of Oxalidaceae.

Generally the fruits obtained from the plants found or cultivated in various parts of country are very acidic; but there is a Bengal variety, which is of sweetish or sweet fruits.

Kind and Varieties

Another plant species with very acidic fruits is *Averrhoa bilimbi* Linn., known as Bilimbi (Hindi). and belonging to same family Geraniaceae, It is also cultivated and planted in gardens and it runs wild in tropical India. Naturalised as an escape. in hotter parts of India.

Pharmacodynamics

Rasa	: Amla, madhura
Guṇa	:
Vīrya	: Śīta
Vipāka	: Madhura
Doṣakarma	: Kaphavātaśāmaka

Properties and Action

Karma	: Rucivardhana
	Hṛdya-rocana
	Grāhī
	Raktaśodhaka
	Arśoghna
Roga	: Aruci
	Atisāra
	Raktaduṣṭijanya vikāra.

Therapeutic uses

Fruits of *Karmaraṅga* are very acidic or sour usually, and there is, however, sweet variety (in certain regions). Fruits are liked of acidic sweetish taste as edible fruits. They are astringent (Kaṣāya rasa) in taste when they are green or raw state and fruits become of sweetish acid taste (madhurāmla rasa). Fruits are watery and juicy.

The reddish purple flowers appear during the hot season and the very acid or sour fruits ripen during the rainy season. Ripe fruits are pickled and often used in curries, or preserved in sugars. Though these no established

horticultural varieties, the two forms, sour and sweet, are sometimes distinguished, the latter is being frequently found in Bengal. Propagation of both varieties of plants is done by seed, but budding and grafting are also possible. Fruits of *Averrhoa bilimbi* Linn. are acidic or sour, edible and pickled.

The fruits of sweet variety have been found to contain moisture 93.0, protein 0.5, fat 0.2, carbohydrate 4.8, mineral matter 0.2%, iron 0.6mg. and vitamin A.

The fruits are made into stews, curries, puddings and tarts. The sweeter ones are eaten as desert. The slightly unripe one are made into jams, jellies, pickles and preserves. The flowers of drug plant *karmaraṅga* or *carambola* are also sometimes made into preserves. *Carambola* crush can be a refreshing drink. The acid fruits are often used for cleaning metal surfaces, especially for removing rust stains.

The fruits are medicinally useful and they are given to allay *kapha* and *vāta* doṣa. It is used in haemorrhoids or piles, diarrhoea, anorexia, scurvy and diseases caused by impurities of blood. It helps to normalise taste, as a tasty drug, for alaying tastelessness. It has blood purifying properties. Ripe fruits are eaten and used as household fruits vegetable in various forms.

Parts used : Fruit

Dose : Fruits edible; 3-6 gm. Juice 5-7 ml.

KARMARAṅGA (कर्मरङ्ग)

रक्त

कर्मरङ्ग शिरालं च बृहदम्लं रुजाकरम् ।

कर्मरङ्गं हिमं ग्राहि स्वादम्लं कफवातहृत् ॥

Bhāvaprakāśa Nighaṅṭu, Āmrāphalādi Varga, 141.

KĀRPĀSĪ

Botanical name : *Gossypium herbaceum* Linn.

Family : Malvaceae

Classical name : Kārpāsī-kārpāsa

Sanskrit names

Kārpāsa, Kārpāsī, Tuṇḍikeri, Samudrāntā, Ācchādanaphalā, Bhadrā, Sthūlā, Picu, Badarī-Badara, Bandhaphala, Nagnā. Cavya.

Regional names

Kapas (Hindi); Kapasi (Mar.); Kapas, Vina (Guj.); Kapas (Punj.); Panji (Tam., Mal.); Hani (Kann.); Karpasimu (Tel.); Cotton Plant (Eng.).

Description

Gossypium herbaceum Linn. An annual or perennial erect shrub, nearly glabrous or more or less hairy, and with a few scattered glandular points.

Leaves cordate, 3-5, rarely 7-lobed, usually with a gland on the under surface of the mid rib; stipules ovate, lanceolate, entire or slightly toothed.

Peduncle shorter than the petiole; bracteoles equaling the capsule. Calyx truncate or absolutely crenulate, much shorter than the bracteoles; petals obovate or cuculate.

Capsule ovate, globose, mucronate, 3.5 valved. Seeds 5-7 in. each cell, ovoid, cotton white, rarely yellowish, overlying a greenish or greyish down.

Distribution

Plant is commonly cultivated in different regions (of suitable soils, climate and land) particularly hot and dry areas. Extensive cotton forming on commercial scale (*Gossypium* species and several varieties) Gujarat, Madhya Pradesh, West Bengal and Maharastra and states in India for economic utility.

Gossypium hirsutum L. Annual or perennial bushes, sometimes small trees, branches often purplish. Leaves broadly ovate-orbicular, cordate, palmately 3-5 (-7)-lobed with the central lobe usually much larger, upper leaves sometimes entire.

Flowers usually terminal. Epicalyx lobes ovate-or-

bicular with long acuminate teeth, auricled at base. Calyx cupular; truncate or toothed. Corolla pale yellow, usually with a purple centre; petals obovate. Staminal column erect.

Capsules ovoid-fusiform, beaked, pitted; black seeds ovoid, with long white fine floss, usually with fuzz only at the hilum.

Flowering and fruiting time

January to April.

Gossypium arboreum L.

Shrubs or undershrubs, 1-2 meters high with slender, often prostrate-decumbent branches.

Leaves ovate or orbicular, palmately 3-7-lobed, frequently with an extra tooth in the sinuses, usually hairy. Epicalyx lobes broadly ovate; cordate, 1.5-3.5 cm. long, entire or toothed. Calyx cupular, truncate or minutely 5-toothed, ca 5 mm. long. Corolla mostly light yellow, with or without a purple centre, sometimes red-purple; petals 3-4 cm. long. Staminal column 15-20 mm. long. Capsules subglobose, beaked, pitted seeds with floss and fuzz; floss copious, fairly long.

Flowering and fruiting time

January to April.

Gossypium barbadense L.

Annual or perennial bushes, sometimes small trees, branches often purplish. Leaves broadly ovate-orbicular, cordate, palmately 3-5 (-7)-lobed with the central lobe usually much larger, upper leaves sometimes entire.

Flowers usually terminal. Epicalyx lobes ovate-orbicular with long acuminate teeth, auricled at base. Calyx cupular, truncat or toothed. Corolla pale yellow, usually with a purple-centre; petals obovate. Staminal column erect. Capsules ovoid, beaked, 2-5 cm. long, pitted; seeds with white floss and with fuzz. throuhout or only at the hilum.

Flowering and fruiting time

December to April.

Pharmacodynamics

Rasa	: Kaṭu, Kaṣāya (mulatvak-rootbark); Madhura (bīja-seeds)
Guṇa	: Laghu, Tikṣṇa (Rootbark); snigdha (seeds)
Vīrya	: Anuṣṇa-kiñcit uṣṇa
Vipāka	: Kaṭu (root bark); Madhura (seed)
Doṣakarma	: Vātapittaśāmaka (bīja-seeds) Vātapittavardhaka (mūlatvak- rootbark)

Properties and Action

Karma	: Garbhāśaya sañkocaka-ārtavajanana (root bark) Vedanāsthāpana Vraṇaropaṇa Nāḍī pouṣṭika-balya (seeds) Uttejaka-soumanasyajanana (flowers) Snehana-sraṃsana (seeds) Picchila (leaf juice) Yakṛduttejaka (flowers) Stanyajanana-vṛṣya (seeds) Mūtrajanana (seeds and leaves) Viṣamajvaraghna (seeds) Balya-Viṣaghna (seeds) Raktavardhaka (leaves) Viṣaghna (flowers)
Roga	: Kaṣṭhārtava-naṣṭhārtava (root) Stanya kṣaya (seeds)-Padara Klībatva (seeds) Mūtrakṛchra (seeds and leaves Juice) Dāha-śrama-bhrānti-mūrchā Śītajvara (seeds) Vibandha (seeds) Pravāhikā (leaves juice) Yakṛdvikāra-kāmalā (flowers) Mānsikavikāra-nāḍīdourbalya unmāda-apasmāra (seeds)

Mānasaroga (flowers)
 Dourbalya (seeds)
 Pāṇḍu (leaves)
 Hṛḍya
 Viṣa-Sarpaviṣa (seeds); Dhatturaviṣa
 (flowers and seeds); Vṛścikadaṁśā
 Śoṭha-vedanā (seeds)
 Vraṇa-Kṣata-agnidagdha-viṣa
 (seeds)
 Sandhivāta-siraḥśūla (seeds oil)
 Vraṇa-kṣata (cotton)
 Karṇavikāra (leaves)-Karṇa srāva
 Apacī
 Kuṣṭha-Kapālakuṣṭha
 Madātyaya
 Masūrikā.

Therapeutic uses

The drug Kārpāsa is an aphrodisiac, astringent, diuretic, emmenagogue and febrifuge. It is used in all types of uterus disorders, anaemia, genito-urinary diseases, inflammation of poisoning of Dhattura or dhatura and snake bite.

The drug is useful in different types of uterus disorders, anaemia, genito-urinary diseases, inflammation and poisons in various forms and modes by different parts of plant drug. Besides internal uses of plant, the cotton is applied as dressing material in surgical and other ailments.

Parts used : Root, Root-bark, flowers, seeds, cotton.

Dose : Decoction 50-100 ml., Seeds powder 3-6 gms.

Gaṇa

Bṛmhaṇīya (Caraka Samhitā), Vātaśamsamna (Suśruta Samhitā).

A. KĀRPĀSĪ B. VANAKĀRPĀSĪ

(अ. कार्पासी ब. वनकार्पासी)

कार्पासी तुण्डिकेरी च समुद्रान्ता च कथ्यते।

कार्पासकी लघु तीक्ष्णं मधुरा वातनाशिनी ॥

Bhāvaprakāśa Nighaṇṭu, Guḍucyādi Varga, 150.

तत्पत्रबीजयोर्गुणाः

तत्पलाशं समीरघ्नं रक्तकृन्मूत्रवर्द्धनम् ।

तत्कर्णपिडिकानादपूयास्त्रावविनाशनम् ॥

Bhāvaprakāśa Nighaṇṭu, Guḍucyādi Varga, 151.

तद्बीजं स्तन्यदं वृष्यं स्निग्धं कफकरं गुरु ।

Bhāvaprakāśa Nighaṇṭu, Guḍucyādi Varga, 152.

- अ. कार्पासी सरिणो चैव चव्या स्थूला पिचुस्तथा ।
बदरी बादरश्चैव गुणसुस्तुण्डकेरिका ।
मरुद्धवा समुद्रान्ता ज्ञेया एकादशाभिधा ॥
- ब. कार्पासी मधुरा शीता स्तन्या पित्तकफापहा ।
तृष्णादाहश्रमभ्रान्तिमूर्च्छाहृद्बलकारिणी ॥

Rāja Nighaṇṭu, Śatāhvādi Varga, 188-189.

अरण्यकार्पासी

वनजाऽरण्यकार्पासी भारद्वाजी वनोद्भवा ।

भारद्वाजी हिमा रुच्या व्रणशस्त्रक्षतापहा ॥

Rāja Nighaṇṭu, Śatāhvādivarga, 190.

कार्पासी

क. कार्पास्याच्छादनफला ग्राह्या नग्नावपन्यपि ॥

पटदाल्याः बन्धफलाः भद्रा कार्पासिकापि च ।

कर्पासः पटदस्तूलं पिचव्यो बादरः पिचुः ॥

कार्पासी गुणाः

ख. कार्पासिका किञ्चिदुष्णा कषाया मधुरा लघुः ।

कार्पासीपत्रम्

ग. तत्पलाशं समीरघ्नं रक्तहृत् मूत्रवर्धनम् ॥

कार्पासीबीजम्

घ. तद्बीजं श्लेष्मलं वृष्यं स्निग्धं स्तन्यविवर्धनम् ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 1095-1098.

‘भारद्वाजी हिमा रुच्या व्रणशस्त्रक्षतापहा ।’

Rāja Nighaṇṭu.

कार्पासफलमत्युष्णं कषायं मधुरं गुरु ।
वातश्लेष्महरं रुच्यं विशेषेणास्थिवर्जितम् ॥

Kṣemakutūhalam.

पुत्रोत्पत्तिलाभे

कार्पासशलाटूनां कल्कं क्षीरे पिबेत् सप्ताहम् ।
बध्या पुत्रोत्पत्तिं वाञ्छन्ती पुष्पदिवसेषु ॥

Vaidya Manoramā.

शोथे

समूलतूलं संशुष्कं कार्पासभस्मसात्कृतम् ।
तद्भस्म द्विगुणं शालितण्डुलं पयसोदनम् ॥
घृतेन सह भुञ्जीत सर्वश्वयथुनाशनम् ॥

Vaidya Manoramā, 11-2.

लिङ्गलूताविकारे

‘कार्पासस्यास्थिभिः पिष्टैः साधितं तिलसम्भवम् ।
लिङ्गलूताविकाराणां प्रतीकारो विलेपनात् ॥’

Vaidya Manoramā, 18-3.

कपालकुष्ठे

मूलत्वक्पत्रपुष्पाणां कार्पासस्य रसे शृतम् ।
तैलमकपालजान् कुष्ठान् जयेत्तक्राम्लसाधितम् ॥

Vaidya Manoramā.

अपचीचिकित्सायां वनकार्पासपूपिकाप्रयोगः

वनकार्पासिकामूलं तण्डुलैः सह योषितम् ।
पक्त्वा तु पूपिकां खादेदपचीनाशनं च ॥

Cakradatta, Galagaṇḍādi Cikitsā, 41-28.

स्तन्यवर्द्धनार्थम्

वनकार्पासकीक्षूणां मूलं सौवीरकेण वा ।

Cakradatta, 63-45.

वृश्चिकदंशे

कार्पासकीक्षूणां फलैः सम्यग्लेपयेत् श्लेष्मपेषितैः ।
दंशवृश्चिकदंशस्य शमार्थं घृतमिश्रितैः ॥

Śoḍhala, Gadanigraha, 7-5-2.

प्रदरे

‘.....मूलं कार्पासेव वा ।
पाण्डुप्रदरशान्त्यर्थं पाययेत्तण्डुलाम्बुना ॥’

Byndamādhava, Pradarādhikāra, 63-4.

कफजातिसारे

‘.....तद्वत् कार्पासपर्कटयोः स्वरसः समधुर्मतः ।’

Bynda, Atīsāracikitsā, 3-38.

कुष्ठे

‘..... त्वक् पुष्पं कार्पास्याः ।
पिष्ट्वा चतुर्विधः कुष्ठनुल्लेपः ॥’

Caraka Samhitā, Cikitsā. 7-96.

वाते

‘कार्पासास्थिकुलत्थानां रसे सिद्धे च वातनुत् ।’

Caraka Samhitā, Cikitsā. 28-136.

क्षतजतृष्णायाम्

सुतुण्डिकेराण्यथवा पिबेत्तु ।
पिष्टानि कार्पाससमुद्भवानि ॥

Suśruta Samhitā, Uttara. 48-27.

कर्णस्त्रावे

सर्जत्वक्चूर्णसंयुक्तः कार्पासीफलजो रसः ।
योजितो मधुना वापि कर्णस्त्रावे प्रशस्यते ॥

Suśruta Samhitā, Uttara. 21-43.

KARPŪRA

Botanical name : Cinnamomum Camphora Nees & Eberm.

Family : Lauraceae

Classical name : Karpūra

Sanskrit names

Karpūra, Ghanasāra, Candra, Himāhva.

Regional names

Kapur (Hindi); Kapur (Guj); Karpur (Beng.);

Karpuram (Tam., Tel.); Kaphur (Arabi); Kapur (Pers.); Camphor (Eng.); Camphor tree (source plant).

Description

A small tree with aromatic bark. Leaves long, acuminate, blade 2-4. Petiole 1.5 to 4 cm. Secondary nerves 2-3 paired, lowest proceeding from leaf base. Flowers small, bisexual in cymes. Fruit a berry. Fruits are dark green. ovoid, rather dry, globose and about 0.3 inch. in diam.

A large handsome tree, evergreen. attaining a height of 100 ft. and a girth of 6-8 ft. in natural habitat.

Flowering and fruiting time

Trees shed during February-March simultaneously with appearance of new leaves. Fruits ripen in October and turn black after ripening (not fertile).

Kinds and varieties

There are many forms of *Cinnamomum caphora* Nees & Eberm; some of them are morphologically differentiated but physiologically distinct since a few contain camphor while others produce only an aromatic oil (so they are considered merely forms having no importance is camphor tree).

There are various kinds and other sources of karpūra. Synthetic camphor is now available and used. Various kind and varieties of karpūra or camphor are considered and named on the basis of occurrence (habitat or source), production and colour of camphor.

Some other plants are sources of Karpūra such as *Ocimum kilimandascharicum* Guerke and *Blumea* species.

Distribution

It is cultivated to a limited extent at Nilgiris, Mysore and northern Malabar. Japan. Camphor tree; China, Japan and grown in gardens in India. It is planted as ornamental tree commonly; also planted as a source of camphor.

Chemical composition

All parts of tree contain Camphor which is obtained by distillation of wood chips, leaves etc. Camphor is crystalline ketonic substance obtained from the wood.

Pharmacodynamics

Rasa	: Tikta, Kaṭu, madhura
Guṇa	: Laghu, Tikṣṇa
Vīrya	: Śīta
Vipāka	: Kaṭu
Doṣakarma	: Tridoṣahara

Properties and Action

Karma	: Hṛdya-hṛdayottejaka- raktavahinisaṅkocaka-raktabhara- vardhaka Kaphaniḥsāraka-Kasaghna- śvāsahara-Kaṅṭhya Medhya-Vedanāsthāpana Kothaprasāmana-Raktotkleśaka Cakṣuṣya Mukhadourgandhyahara- mukhaśodhaka Tṛṣṣāśamanakara Jantughna-ākṣepahara Anulomana-tikṣṇa-lekhana- Vāntikara Nāḍī avasādaka-śaityakara Mūtrajanana Vajikaraṇa-Kāmottejaka (and also Kāmāvasādaka) Svedajanana-Dāhaprasāmana Dāhaprasāmana Viśaghna Stanyakṣayakara
Roga	: Hṛdroga-hṛdayaśaithilya Sannipātajvara-hṛdayasaṁrakṣaka Āmavāta-sandhiśūla Kāsa-śvāsa-pārśvaśūla-Kaṅṭharoga Carmavikāra-Vicarcikā-dāha-kṣata Netravikāra Nāḍīśūla-vedanā Dantaśūla-dantapūya Jirṇapraṭiśyāya Mastiṣkadourbalya

Vātavyādhi-apatantraka-Kampa-
ākṣepa
Mukharoga
Aruci-agnimāndya-ādhmāna
Atisāra-visūcikā
Vṛkkaroga
Klāivya-Atikāmottejanā
Medoroga
Viṣa.

Therapeutic uses

The drug karpūra is anodyne, aromatic, anthelmintic, antispasmodic, antipyretic, aphrodisiac, carminative, diuretic, diaphoretic, cardiac stimulant, cooling, depressant, expectorant, insecticidal and rubefacient.

It is used in asthma, bronchitis, diarrhoea, eye diseases, fever, female diseases, headache, inflammatory conditions, pneumonia, skin diseases, toothache and urino-genital disorders.

Parts used : Exudate (extract)-Solid form of Camphor oil. Camphor and oil.

Dose : 125-375 mg.

Formulations

Karpūra rasa (karpūra vaṭī), Karpūrāsava, Arkakarpūra, Amṛtabindu, Pancaguṇa taila.

KARPŪRA (कर्पूर)

कर्पूरो मधुरस्तिक्तः सुरिभः शीतलो लघुः ॥

चक्षुष्यो लेखनो वृष्यः कफमेदोविषापहः ।

दाहतृष्णास्यवैरस्यमलदौर्गन्ध्यनाशनः ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 1278-1279.

अपक्व कर्पूरः

क. त्रिविधः

ईशावासो हिमसंज्ञः पोलाख्य इति त्रिधा ।

ख. लक्षणम्

अपक्वे कथ्यते भेदः कर्पूरे तु भिषग्वरैः ॥

ईशावासो भृशं श्वेतो हिमसंज्ञस्तु पाण्डुरः ।
श्वेतः पीताश्रयः सर्वे रसवीर्यविपाकतः ॥

गुणा

ग. प्रभावेनापि ते प्रोक्ता पूर्वे पूर्वे गुणाधिकाः ।
तत्रापि यो न चक्षुः स्यात् स्फटिकाभः स उत्तमः ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 1280-1282.

ईशावासः कर्पूरः

ईशावासो मदोन्मादश्रमतृष्णामादाहनुत् ।
कृमिकासक्षयस्वेदहरो भेदोः वृषात्वकृत् ॥
तृड्दाहमोहशमनः स्वेदलः कटुको रसे ।

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 1283-1284.

हिमकर्पूरः

वृष्यश्च धवलः शीतः कर्पूरो हिमसंज्ञकः ।

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 1284.

पीताश्रयः कर्पूरः

पीताश्रयस्तु कर्पूरस्तृष्णादाहास्त्रपित्तनुत् ।
श्लेष्मघ्नः शीतलो वृष्यः सुस्वादुः कटुतिक्तकः ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 1285.

पक्कापक्कभेदेन द्विविधः कर्पूरः

(कर्पूरः द्विविधः प्रोक्तः पक्कापक्कभेदतः ।
पक्कात्कर्पूरतः प्राहुरपक्कं गुणवत्तरम् ।)
पक्कस्तु द्विविधः प्रोक्तः सदलो निर्दलस्तथा ।
दृढश्च पीतवर्णश्च विशेषाल्लघुतां गतः ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 1286.

भास्करः कर्पूरः

भास्करो विशदः श्लेष्म वातघ्नोष्णश्रियावहः ।
कटुः कृमिघ्नः कण्डूघ्नः सरो मेदो विषापहः ॥
जलस्रुतिं कृमीन् हन्ति दीपनः पित्तकोपनः ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 1287-1288.

पर्णाकर्पूरः

तिक्तः शुद्धिकरो मूत्रकरश्चोन्मादकारकः ।

पीनसं नाशयत्येव कर्पूरः पर्णसंज्ञकः ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Varga 1289.

चीनाककर्पूरः

चीनाकः कृमिघ्नः सर्वकर्पूरः व्याधिनाशनः ।

कुष्ठकण्डूवमिहरोकृमिघ्नस्तिक्त उच्यन्ते ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 1290.

चीनाकसंज्ञकः कर्पूरः कफक्षयकरः स्मृतः ।

कुष्ठकण्डूवमिहरस्तथा तिक्तसश्च सः ॥

Bhāvaprakāśa Nighaṇṭu, Karpūrādi Varga, 4

कर्पूरस्य सामान्यतो गुणकर्माणि

कर्पूरः शीतलो वृष्यश्चक्षुष्यो लेखनी लघुः ।

सुरभिर्मधुरस्तिक्तः कफपित्तविषापहः ॥

दाहतृष्णाऽस्यवैरस्यमेदोदौर्गन्ध्यनाशनः ।

Bhāvaprakāśa Nighaṇṭu, Karpūrādi Varga 2-3.

द्विविधकर्पूरः गुणत्वञ्च

कर्पूरो द्विविधः प्रोक्तः पक्कापक्कभेदतः ।

पक्कात्कर्पूरतः प्राहुरपक्कं गुणवत्तरम् ॥

Bhāvaprakāśa Nighaṇṭu, Karpūrādi Varga, 3.

कर्पूरो नूतनस्तिक्तः स्निग्धश्चोष्णोऽस्रदाहत् ।

चिरस्यो दाहदोषघ्नः स धौतः शमकृत्परः ॥

Rāja Nighaṇṭu, Candanādi Varga, 63.

कर्पूरलक्षणानि — कर्पूरभेदाः चीनाकः (कर्पूरविशेषः)

Rāja Nighaṇṭu, Candanādi Varga, 62-69.

तृष्णायाम्

कर्पूरचूर्णं तृष्णायां वदने धारयेत् सदा ।

Kāśyapa Samhitā, Viśeṣakalpa.

कुष्ठव्रणे

कुष्ठोद्भवं व्रणमपोहति शीघ्रमेव कर्पूरतैलमसकृत्

पिचुना निषिक्तम् ।

श्रासे

‘गुडकपूरवटिका श्रासं सद्यो व्यपोहति ।

Siddha Bhaiṣajya Manimālā.

नेत्ररोगे शुक्रे

वटक्षीरेण संयुक्तं श्रूक्ष्णं कपूरजं रजः ।

क्षिप्रमञ्जनतो हन्ति शुक्रं चापि घनोन्नतम् ॥

Vṛndamādhava, 61-97 Bamiṅgasena, Netraroga. 175.

सद्यःक्षते

सद्यः कपूरर्पिभ्यां पूरितो वस्त्रयन्त्रितः ।

शस्त्रप्रहारः संरोहत्यपूयः पाकवर्जितः ॥

Rājamārtanḍa, 26-1. Cakradatta, 44-55.

मूत्राघाते

कपूररसजा युक्ता वस्त्रवर्तिः शनैःशनैः ।

मेढ्रमार्गान्तरे न्यस्ता मूत्राघातं व्यपोहति ॥

Bhāvaprakāśa, Cikitsā. 36-67.

मूत्रे विबद्धे कपूरचूर्णं लिङ्गे प्रवेशयेत् ।

Cakradatta, 33-13.

घनसारस्य चूर्णेन बभ्रुवस्याथा विकाम्बुना ।

गुण्डयित्वा ध्वजे क्षिप्त्वा मूत्ररोधो जहाति तम् ॥

Bhāvaprakāśa, Cikitsā. 36-32.

परिलेहितकर्णपालीरोगे

बहुशो गोमयैस्ततैः स्वेदितं परिलेहितम् ।

घनसारैः समालिम्पेदजामूत्रेण कल्कितैः ॥

Yoga Ratnākara, p. 382.

स्वच्छं भृङ्गारपत्रं लघुतरविशदं तोलने तित्ककं चेत्

स्वादुं शैत्यं सुहृद्यं बहुलपरिमलामोदसौरभ्यादापि ।

निःस्नेहं दाढ्यपत्रं शुभतरमिति चेद्राजयोग्यं प्रशस्तं

कपूरं चान्यथा चेद्बहुतरशमने स्फोटदापि व्रणाय ॥

Rāja Nighaṅṭu

मूत्राघाते कपूरवर्तिः

मूत्रकृच्छ्रेऽश्मरीरोगे भेषजं यत्प्रकीर्तितम् ।

मूत्राघातेषु कृच्छ्रेषु तत्कुर्याद् देशकालवित् ॥
 कर्पूररसजा युक्ता वस्त्रवर्तिः शनैः शनैः ।
 मेढ्रमार्गान्तरे न्यस्ता मूत्राघातं व्यपोहति ॥

Bhāvaprakāśa, Mūtrāghātādhikāra, 39-67.

नेत्रशुक्रे कर्पूरयोगः

वटीक्षीरेण संयुक्तं श्लक्ष्णं कर्पूरजं रजः ।
 क्षिप्रमञ्जनतो हन्ति शुक्रञ्चापि घनोन्नतम् ।

Cakradatta, Netraroga Cikitsā, 59-77.

KĀŚA

Botanical name : Saccharum spontaneum Linn.

Family : Poaceae (Gramincae)

Classical name : Kāśa-Kāsa

Sanskrit names

Kāśa, Kāsa, Śvetacāmara, Kāsekṣu, Ikṣura, Ikṣvālīka, Poṭagala, Daṇḍekṣu, Svādukāṇḍa, Ikṣupuṣpaka, Vāyasekṣu, Iksuvālīkā.

Regional names

Kasa, Kans (Hindi); Kasai (Beng; Mar.); Kansarho (Guj.); Thatch-grass (Eng.).

Description

Tough grass with extensive, creeping rhizomes and erect; 1-2 meters tall culms hairy on nodes.

Leaves up to 50 cm. long, linear, filiform, often reduced to sheaths; ligule a scarious rim; sheath auriculate, glabrous except hairy throat.

Panicle up to 45 cm. long. Sessile and pedicelled spikelets similar, up to 4 cm. long, lanceolate, sharply acute; upper glume 4 mm. long, boat shaped, acuminate; lower lemma 3 mm. long, oblong, ciliate, empty epaleate; upper lemma 3 mm. long, linear-elliptical pointed, palea about 1 mm. long, fringed at apex; grain subglobose, 1.25 mm. long.

Flowering and fruiting time

Plant flowers and fruits in September to December.

Distribution

Plant occurs in pantropics. It is commonly growing wild along river beds, ponds, ditches or canals in open country and fallow land, in different regions in India ascending to 5,000ft. elevation.

Pharmacodynamics

Rasa	: Madhura, Kaṣāya
Guṇa	: Laghu, snigdha
Vīrya	: Śīta
Vipāka	: Madhura
Doṣakarma	: Vātapittaśamaka

Properties and Action

Karma	: Mūtravirecanīya-aśmarībhedana Stanyajanana Dāhapraśamana Balya Raktapittaśāmaka
Roga	: Mūtrakṛcchra-Aśmarī Raktapitta-Urahkṣata Ajīrṇa (paittika)-raktātīsāra Raktārśa Stanyakṣaya Raktapradara Dāha Kṣayaroga.

Therapeutic uses

The cold decoction of Kāsa, Kuśa, Gokṣura, Śatāvri etc., added with honey and sugar is taken in dysuria caused by pitta doṣa (mūtrakṛcchra). Kāsa is an ingredient of the group of five drugs known as Tṛṇa-pañcamūla (consisting Kuśa, Kāsa, Darbha, Śara and Ikṣu) which is an effective medicine as diuretic and most useful in dysuria particularly caused by pitta doṣa. In epilepsy (apasmāra) the milk processed with decoction of Kāsa, Vidāri, Ikṣu and Kuśa is useful.

The roots are used in diarrhoea with blood (raktātīsāra) haemorrhoids (raktārśa), leucorrhoea, menorrhagia, lactation problems (as galactagogue),

dysuria, calculus, burning sensation, consumption or pthisis (Kṣaya), uraḥkṣata (chest wound) and some other disease.

Parts used : Root

Dose : Decoction 50-100 ml.

Formulations

Tṛṇapañcamūla Kvātha, Kuśāvāleha, Kuśādyā ghṛta.

Gaṇa

Mūtraviracānīya, Stanyajanana (Caraka Saṁhitā),

Tṛṇapañcamūla (Suśruta Saṁhitā).

KĀSA-KĀŚA (कास-काश)

क. कासः कासेक्षुरुद्दिष्टः सस्यादिक्षुरसस्तथा ।
इक्ष्वालिकेक्षुगन्धा च तथा पोटगलः स्मृतः ॥

ख. कासः स्यान्मधुरस्तिक्तः स्वादुपाको हिमः सरः ।
मूत्रकृच्छ्राश्मदाहास्रक्षयपित्तास्त्ररोगजित् ॥

Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi Varga, 191-192.

अ. काण्डेक्षुः कासः कासेक्षुः दण्डेक्षुः श्वेतचामरः ।
हृषीकेक्ष्वालिका स्वादुकाण्डेक्षुश्चेक्षुपुष्पकः ॥
इक्षुकाण्डो वायसेक्षुः सुकाण्डश्चेक्षुबालिका ।

ब. कासेक्षुर्मधुरस्तिक्तः स्वादुपाको हिमो जयेत् ॥
मूत्रकृच्छ्राश्मरीदाहरक्तपित्तक्षयक्षयान् ।

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 1237-38.

काश-कासः

काशः काण्डेक्षुरिक्ष्वारिः काकेक्षुर्वायसेक्षुकः ।
इक्षुरश्चेक्षुकाण्डश्च शारदः सितपुष्पकः ॥
नादेयो दर्भपत्रश्च लेखनः काण्ड-काण्डकौ ॥
कण्ठालङ्कारकश्चैव ज्ञेयः पञ्चदशाह्वयः ॥

काशगुणाः

काशश्च शिशिरो गौल्यो रुचिकृत् पित्तदाहनुत् ।
तर्पणो बलकृद्वृष्य आमशोषक्षयापहः ॥

Rāja Nighaṇṭu, Sālmalyādi Varga, 87-89.

अशिरी-काशभेदः

अन्योऽशिरो मिशिर्गण्डा अखालो नीरजः शरः ।

मिशिर्मधुरशीतः स्यात् पित्तदाहक्षयापहः ॥

Rāja Nighaṇṭu, Sālmalyādi Varga, 10.

मूत्रकृच्छ्रे

‘शतावरीकाशकुश स्वदंष्ट्रा.....युक्तं पिबेत् पैत्तिकमूत्रकृच्छ्री ।’

Caraka Saṁhitā, Cikitsā, 26-50.

पञ्चतृणमूल ।

Cakradatta, 32-4.

अपस्मारे

‘तद्वत् काशविदारीक्षुकुशक्राथश्रुतं पयः ।’

Aṣṭāṅga Hṛdaya, Uttara. 7-28.

KĀSAMARDA

Botanical name : *Cassia occidentalis* Linn.

Family : Caesalpiniaceae

Classical name : Kāsamarda

Sanskrit names

Kāṣamarda, Arimarda, Kāsāri, Karkaśa, Kāsaghna, Kāsamardikā, Kāla, Kanaka, Janiṇa, Dīpaka.

Regional names:

Kasondi, Kasouji (Hindi); Kesenda (Beng.); Kasvinda (Mar.); Dongatakche (Ka.); Ponnnaviram (Mal.); Kasondari (Guj.); Peyaviri (Tam.); Kasind (Tel.); Negro Coffee (Eng.).

Description

Branches diffuse, subglabrous, furrowed, often purplish. Leaves foetid; leaflets ovate lanceolate, usually acuminate, 2.5-7.5 cm. long. Petiolar gland ovoid or subglobose.

Racemes few-flowered, axillary, and also forming terminal panicle; bracts caducous. Calyx glabrous, whitish or slightly tinged with pink. Petal nerve orange. Lower 3 stamens longer and with anthers larger than those of lat-

eral pairs; 3 upper reduced to staminodes. Stigma plumose on one lateral side.

Pad torulose, 20-30 seeded, seeds areolate, pointed at end and blunt at the other.

Flowering and fruiting time

June to November. Autumn to winters.

Distribution

Plant occurs throughout tropical regions. It is growing wild and very common along roads railway tracts, waste places and other areas in country.

Kinds and varieties

Another species is *Cassia sophera* Linn. The plant is larger and its leaves and flowers are also bigger. Remarkably the gland on petiole is not swollen. Branches are purplish (twigs). Root bark is black that appears to be somewhat burnt; it smells like musk.

***Cassia sophera* Linn.**

A diffuse subglabrous shrub, 8-10 ft. high, annual or sub-perennial; resembling with *Cassia accidentalis* Linn. But stouter and with more numerous leaflets. Leaves 8-10 in. long, foetid, rachis with a single gland at the base. leaflets 8-12 pairs (or 6-10 pairs), lanceolate, acuminate, 1-3 in. long by .3-.75 in. broad, cuneate at the base, glabrous and glaucous. Flowers in axillary, distinctly peduncled corymbose; bracts green, caducous. Petals subequal, yellow, hardly at all veined. Stamens as in *c. occidentalis*. Fls. colour orange-yellow.

Pods .3 by .4 in., straight or very slightly curved, subterrate. Seeds 30-40, dark. brown.

Plant occurs throughout India and Ceylon and Malay Peninsula, but much less abundant than *C. occidentalis* Linn. Central India and other provinces in country.

Both species in question differ mainly of number of leaflets (3-5 pairs in *C. occidentalis* while 8-12 pairs in *C. sophera*).

Chemical composition

The leaves of the plant drug contains cathartine

(like senna), Some colouring matter and salts. Seeds contain tannic acid, fatty acids 2.5%, mucilage 36%, emodine, chryserobin, sodium sulphate, phosphate, magnesium sulphate and a toxic principle tocalbumin.

Pharmacodynamics

Rasa	: Tikta, madhura
Guṇa	: Rūkṣa, laghu, tīkṣṇa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphavātaśāmaka, Pittasāraka.

Properties and Action

Karma	: Kāsaghna-Kaphaghna Mūtrala Kuṣthaghna Jvaraghna Viṣaghna Ākṣepaśamana-Vedanāsthāpana Dīpana-Vātānulomana-pittasāraka- recana
Roga	: Kāsa-śvāsa-hikkā-kukkurakāsa Agnimāndya-udararoga-pittavikāra- vibandha Apsmāra-apatantraka-ākṣepaka Kuṣtha-visarpa-ślipada Vraṇa-dadru-carmavikāra Mūtrakṛchra-Ikṣumeha.

Therapeutic uses

The drug, Kāsamarda is recommended for treatment of skin diseases (tvag vikāra). Root of plant (*Cassia occidentalis* Linn.) is pounded with sour gruel and the same is applied as paste. It is useful for eradicating ringworm, Kiṭibha and other skin diseases as mentioned in texts of indigenous therapeutics. The seeds of Kāsamarda and radish mixed with sulphur is an excellent remedy for sidhma. The paste of Kāsamrda root pounded with Jambīra juice (*Citrus limon* (Linn.) Burm. F. is an effective medicine for all types of eczema (Vicarcikā). An external application of drug Kāsamarda is made in different skin diseases.

The paste of root of plant drug (Kāsamarda) is mixed with cows urine (gomūtra) or cows ghee (goghṛta) is suggested to be used in filaria (ślīpada) orally, specifically vātajanya ślīpada. In scorpion-sting (Vṛścika daṁśa viṣa), Kāsamarda is useful. There is a classical indication. After keeping the root of plant drug in mouth, one should blow the ear of the patient for overcoming the scorpion poison.

Kāsamarda is effectively useful in diseases of respiratory system. The poup of Kāsamarda leaves, Śobhāñjaṇa (Moringa oleifera Lam.) and Bṛhatī (Solanum indicum Linn.) is added with honey (madhu) is given for alleviation of cough caused by Kapha. (kaphaja kāsa). The soup of Kāsamarda leaves, Śigru, Bhr̥ṅgarāja and dried radish is taken to alleviate hiccough and asthma.

Parts used : Seeds, leaves and roots

Dose

Leaves juice 10-20 ml., Seeds powder 3-6 gms., Root decoction 40-80 ml.

Gaṇa : Surasādi gaṇa (Suśruta Saṁhitā).

KĀSAMARDA (कासमर्द)

क. कासमर्दोऽरिमर्दश्च कासारिः कर्कशस्तथा ।

ख. कासमर्ददलं रुच्यं वृष्यं कासविषास्रनुत् ।

मधुरं कफवातघ्नं पाचनं कण्ठशोधनम् ।

विशेषतः कासहरं पित्तघ्नं ग्राहकं लघु ॥

Bhāvaprakāśa Nighaṇṭu, Śāka Varga, 43-44.

कासमर्दः

कालङ्कृतकः कासारि कासमर्दोऽरिमर्दकः ।

कासघ्नः कर्कशो ज्ञेयः सूषाऽन्या कासमर्दिका ।

कासमर्दः कटुस्तिक्तो मधुरः कण्ठशोधनः ।

पाचनो रोचनो रूक्षो दोषकासविषापहः ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 682-683.

कासमर्दः

कासमर्दोऽरिमर्दश्च कासारिः कासमर्दकः ।

कालः कनकः इत्युक्तो जरिणो दीपकश्च सः ॥

कासमर्दगुणाः

कासमर्दः सतिक्तोष्णो मधुरः कफवातनुत् ।

अजीर्णकासपित्तघ्नः पाचनः कण्ठशोधनः ॥

Rāja Nighaṅṭu, Śatāhvādi Varga, 171-172.

कासमर्दः

कासमर्दः सुतिक्तः स्यान्मधुरः कफवातजित् ।

विशेषतः पित्तहरः पाचनः कण्ठशोधनः ॥

Dhanvantari Nighaṅṭu.

विचर्चिकायाम्

जम्बीरस्वरसे पिष्टकासमर्दाङ्घ्रिलेपनम् ।

विचर्चिकानां सर्वेषां परमौषधमुच्यते ॥

Vaidya Manorama, 11-54 (6.26).

वातजश्लीपदे

कासमर्दशिफाकल्कं गव्येनाज्येन यः पिबेत् ।

श्लीपदं वातजं तस्य नाशमायाति सत्वरम् ॥

Baṅgasena, Śīpāda, 10.

वृश्चिकदंशे

यः कासमर्दमूलं वदने प्रक्षिप्य कर्णं फूत्कारम् ।

मनुजो दधाति शीघ्रं विषं वृश्चिकानां सः ॥

Cakradatta, Viṣacikitsā, 20. Vṛndamādhava, 68-17.

द्रुकिट्टिभकुष्ठेषु कासमर्दप्रलेपः

कासमर्दकमूलञ्च सौवीरेण च पेषितम् ।

द्रुकिट्टिभकुष्ठानि जयेदेतत् प्रलेपनात् ॥

Cakradatta, Kuṣṭha Cikitsā, 50-25.

सिध्मकुष्ठे कासमर्दप्रदेहः

कासमर्दकबीजानि मूलकानां तथैव च ।

गन्धपाषाणमिश्राणि सिध्मानां परमौषधम् ॥

Cakradatta, Kuṣṭha Cikitsā, 50-28.

कासे

‘कासमर्दाश्चविट्..... ।

सक्षौद्राः कफकासघ्नाः..... ॥’

Caraka Samhitā, Cikitsā. 18-117.

हिक्काश्वासयोः

‘कासमर्दपत्राणां यूषः..... ।

.....हिक्काश्वासनिवारणः ॥’

Caraka Saṁhitā, Cikitsā. 17-99,

Vṛndamādhava, 12-15.

कुष्ठे (सिध्मे) कासमर्दप्रयोगः

कासमर्दकबीजानि मूलकानां तथैव च ।

गन्धपाषाणमिश्राणि सिध्मानां परमौषधम् ॥

Cakradatta, Kuṣṭha Cikitsā, 50-28. Vṛndamādhava, 51-19.

त्यग्विकारे

कासमर्दकमूलं तु सौवीरेण च पेषितम् ।

दद्भुकिटिभकुष्ठानि जयेदेतत् प्रलेपनात् ॥

Vṛndamādhava, 49-11. Baṅgasena, Kuṣṭha. 61.

KĀSANĪ

Botanical name : *Cichorium intybus* Linn.

Family : Asteraceae (Compositae)

Classical name : Kāsani.

Regional names

Kasani (Hindi); Hinduba (Arabic); Kasani (Pers.);
Endive chicory, Bunk, Wild Endive, Wild Chicory, Wild
Succory (English).

Description

A perennial herb, 1-3 ft. high, with a fleshy tap root up to 2.5 ft. in length. Flowers blue, peduncle swollen in middle. Fruits light coloured. Roots about 2.5 feet long.

It is grown either for fodder or more often for the roots which form an article of commerce.

Kinds and varieties

There are two kinds of Kāsani viz. wild and cultivated (vanya and grāmya respectively) which botanically known as *Cichorium intybus* Linn. and *Cichorium endivia* Linn. respectively. Latter species is planted in gardens.

Flowering and fruiting time

Farming seasons.

Distribution

Plant is a native of the temperate parts of the old world. It is found wild in Punjab, N.W.F.P. and Hyderabad (Dn.) Plant cultivated in Gujrat and Maharastra.

Chemical composition

Seeds yield an oil. Roots contain cichorin, lactucin and intybin.

Pharmacodynamics

Rasa	:	Tikta
Guṇa	:	Laghu, Rūkṣa
Virya	:	Uṣṇa
Vipaka	:	Kaṭu
Doṣakarma	:	Kaphapittahara

Properties and Action

Karma	:	Yakṛduttejaka-pittasāraka Dīpana-tṛṣṇānigrahaṇa Hṛdya-raktaśodhaka Mūtrala Jvaraghna-dāhapraśamana Kaṭupouṣṭika Śāmaka-nidrājanana Śothahara
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Roga	:	Yakṛdvikāra-Kāmalā Raktavikāra Hṛdroga-hṛddrava Dāha-tṛṣṇā Paittika jvara-jīṛṇajvara Mūtrakṛcchra Rajorodha Agnimāndya-pittodara Dourbalya Mastiskodvega-anidrā.
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Therapeutic uses

The drug Kāsānī is useful as a liver stimulant, cholagogue, purgative and sedative drug. It is blood puri-

fier, diuretic febrifuge, diaphoretic, bitter-tonic, and allaying burning sensation. It is also externally useful for headache, urticaria, gout, inflammation (caused by pitta) and inflammation of liver.

The drug is useful as an emmenagogue and it has specific use externally in liver and splenic disorders. Seeds are used in insomnia and over excitement in brain complaints (mastiṣkodvega) as sedative or depressant. Seeds and roots are used in mutrakṛchra (dysuria). Root is used orally in menstrual problem especially painful and scanty menses. It is used in chronic fever, pitta jvara and dāha (burning sensation). It is also useful for alleviating general debility.

Parts used : Leaves, roots and seeds.

Dose

Leaves juice 10-20 ml., Roots powder 3-6 gm., Seeds powder 3-6 gm., Arka (Aqua) 50-100 ml.

Formulation : Arka Kāsani.

KĀSANĪ (कासनी)

कासनी लघुतिकोष्णा कफपित्तहरी कटुः ।

यकृद्विकारे हृद्रोगे मूत्रकृच्छ्रे च शस्यते ॥

Dravyaguṇa Vijñāna, Part II, P. 550.

KĀŚERUKA

Botanical name

Scirpus grossus Linn.

Syn. Scirpus kysoor Roxb.

Family : Cyperaceae

Classical name : Kāśeruka

Sanskrit names

Kaseruka, Kāśeruka, Mustakṛti, Svalpakanda, Vṛṣaparvā, Cicotaka.

Regional names

Kaseru (Hindi); Keshur (Beng.); Kasra, Kachera

(Mar.); Gundari (Guj.); Gundatungogatti (Tel.); Gudati-gagaddi (Tam.).

Description

A large, perennial, glabrous herb, 0.9-2.2 meters high. Leaves radical 60-50 × 13 mm. Spikelets sub-globosely ovoid, 4-10 mm. long in corymbiform, decomposed. terminal umbels. Nut obovoid, 2mm. long, ash grey or black.

Rootstocks stout, sometimes soloniferous, producing in dry season, dark coloured, hard, globose tubes, clothed and matted with fibers.

Distribution

Plant grows throughout India upto an altitude of 700 meters especially in swamps. Plants are propagated by means of stolons.

Chemical composition

Tubers contain carbohydrate 62-79% and protein 7.5-11.5 percent.

Pharmacodynamics

Rasa	: Madhura, Kaṣāya
Guṇa	: Guru, rūkṣa
Vīrya	: Śīta
Vipāka	: Madhura
Doṣakarma	: Kaphavātavardhaka, Pittaśāmaka.

Properties and Action

Karma	: Śukrastambhana-vṛṣya
	Prajasthāpana-stanyajanana
	Mūtrala
	Dāhapraśamana
	Balya
	Hṛdya-raktastambhana
	Tṛṣṇānigrahaṇa-Chardinigrahaṇa
	Viṣṭambhi-stambhana
	Cakṣuṣya-dāhapraśamana-
	vraṇaśothahara
Roga	: Śukradourbalya
	Garbhasrāva-stanyakṣaya
	Mūtrakṛcchra

Dāha-tṛṣṇā-pittajvara
 Dourbalya
 Hṛddourbalya
 Tṛṣṇā-chardi-atīsāra-visūcikā
 Netravikāra
 Dāha-visphoṭa-Vraṇaśoṭha.

Therapeutic uses

The drug Kaśeruka is sweet, astrignent and cold (in potency). It pacifies provoked pitta humor (pittadoṣa prakopa) and burning sensation. Being an anti-emesis (chardinigrahaṇa), it checks vomiting, thirst and nausea, specially bilary kind (pittaja chardi). It allays diarrhoea, intrinsic haemorrhage (raktapitta), heart weakness (hṛddourbalya) and general debility. It is useful as galactogogue (stanyajanana) and stabiliser of conception (garbhashāpana). Drug is aphrodisiac (Vṛṣya) and useful to check semen discharge (śukrastambhaka) and also as saman-promoting in seminal and sexual disorders.

Parts used : Tuber.

Dose : 5-10 gms.

Formulations : Kaśervādi paya.

KAŚERU - KASERUKA

(कशेरु-कसेरुक)

कसेरु चिचोढं च

कसेरु द्विविधं तत्तु महाराजसेरुकम् ।

मुस्ताकृति लघु स्याद्यत्तच्चिचोडमिति स्मृतम् ॥

कसेरुद्वयगुणाः

कसेरुद्वयं शीतं मधुरं तुवरं गुरु ।

पित्तशोणितदाहघ्नं नयनामयनाशनम् ।

ग्राहि शुक्रानिलश्लेष्मारुचिस्तन्यकरं स्मृतम् ॥

Bhāvaprakāśa Nighaṇṭu, Śākavarga, 112-113.

कसेरुकम् स्वरूपः भेदाश्च

मुस्ताकृति स्वल्पकन्दं वृषपर्वा कसेरुकम् ।

चिचोटकं कसेरुः स्यात् बृहद् राजकसेरुकम् ।

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 1617.

कसेरुकगुणाः

कसेरुकं हिमं रूक्षं मधुरं तुवरं गुरु ।
सङ्ग्राहि शुक्रलं स्तन्यकफमारुतवर्द्धनम् ॥
पित्तशोणितदाहघ्नं नयनामयनाशनम् ।
वृष्यं मेहतृषां हन्याद् विष्टम्भि कृमिकारि च ।

कसेरुकपुष्पम्

कसेरुकस्य पुष्पं तु पित्तघ्नं कामलापहम् ।

Kaiyadava Nighaṅṭu, Oṣadhi Varga, 1618-1619.

पित्तजहद्रोगे कशेरुकादिघृतम्

कशेरुकाशैवलशृङ्गवेरप्रपौण्डरीकं मधुकं विसस्यम् ।

ग्रन्थिश्य सर्पिः पयसा पचेतैः क्षौद्रान्वितं पित्तहृदामयघ्नम् ॥

Caraka Samhitā, Cikitsā. 26-94.

गर्भपाते

‘कशेरुत्पलशृङ्गाटकल्कं वा पयसा पिबेत् ।’

Bhāvaprakāśa, Yonirogādhikāra, 70-83

पित्तजविसर्पे कशेरुकादिलेपः

Cakradatta, 53-7.

नेत्रामयानामाश्च्योतनम्

कसेरुमधुकानाञ्च चूर्णमम्बरसंयुतम् ।

न्यस्तमप्स्वान्तरीक्षासु हितमाश्च्योतनं भवेत् ॥

Cakradatta, Neṭraroga cikitsā, 59-30.

गर्भस्त्रावे

‘कशेरुशृङ्गाटकशालूककल्कं वा शृतेन पयसा ।’

Suśruta Samhitā, 10-57. Śārīra. 10-57.

नेत्ररोगे

कशेरुमधुकाभ्यां वा चूर्णमम्बरसंवृतम् ।

न्यस्तमप्स्वान्तरीक्षासु हितमाश्च्योतनं भवेत् ॥

Suśruta Samhitā, Uttara. 12-10. Vṛndamādhava, 61-37.

KĀṢṬHADĀRU-ĀSAPALLAVA

Botanical name

Polyalthia longifolia Thw.

Syn. *Uvaria longifolia* Sonner.

Family : Annonaceae

Classical name : Kāṣṭhadāru

Sanskrit names

Kāṣṭhadāru, Kūrcavṛkṣa, Vīthitaru, Subṛkṣa-sutaru, Taraṅgitapatra, Haritapatrā, Chatravṛkṣa, Āsapallava.

Regional names

Asopalava, Nakli ashok, Devdari (Hindi); Asopalava (Guj.); Naranamidi (Tel., Tam.) Nettilingam (Tam.); Arana (Mal.); Ubbina (Kann.); Asupal (U.); Mast tree (Eng.)

Description

Evergreen straight and handsome, tall glabrous trees. Leaves 8-20 cm. long, narrowly-lanceolate, glabrous, long acuminate, margins undulate, shining, undulate, pellucid dotted.

Flowers numerous, fascicled, green. Petals lanceolate, acuminate, 0.7-1.25 cm. long. Sometimes the flowers are racemed on short, special lateral branches or elongated tubercles, with slender pedicels up to 2.5 cm. long. Fls. yellowish green on long slender pedicels.

Carpels 1-2 ovuled, 1-seeded; ripe carpels ovoid; stalked.

Flowering and fruiting time

April to August. Flowers appear with new leaves (foliage) in spring season, around February. Spring to summers.

Distribution

It is planted as avenue tree. Plant is considered native of Sri Lanka. It is planted almost throughout India.

Kinds and varieties

It is known as Nakali Ashok, being a substitute or

adulterant of Asali Ashok which is prominent drug Aśoka and botanically identified as *Saraca asoca* Roxb. De Wilde. syn. *Saraca Indica* auct non, L.

Chemical composition

A new diterpene acid, polyalthic acid has been isolated from the stem bark in a yield of about one percent in another species of *Polyalthia* i. e. *Polyalthia fragrans* Bedd.

Pharmacodynamics

Rasa	: Tikta, Kaṭu
Guṇa	: Laghu, rūkṣṇa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphapittaśāmaka

Properties and Action

Karma	: Jvaraghna
	Āmadoṣapācana
	Kṛmighna
	Anulomana
	Raktabhāraśāmaka
	Pramehaghna
Roga	Kuṣṭhaghna
	: Jvara
	Āmadoṣa
	Vibandha
	Kṛmiroga
	Raktabhārādhikya
	Prameha
	Carmavikāra.

Therapeutic uses

The drug *Kāṣṭhadāru* or *Āsapallava* is antipyretic (*Jvaraghna*). It is useful in hypertension, constipation, worms and skin affections. It is given in urinary anomalies (*prameha*) and condition of *āmadoṣa*.

The bark is employed for medicinal purposes. Its bark is an adulterant or substitute to an important plant drug *Aśoka* (*Saraca indica*) which is a specific medicine against female disorders (*strīroga*).

The fruits are reported to be eaten in times of scar-

city. Leaves are somewhat aromatic and are commonly used for decoration. The bark is also used as a febrifuge is often employed as substitute or adulterant of the bark of *Saraca indica*. The can be distinguished from one another by macroscopical and microscopical characters and by the behaviour of the bark powders when treated with chemical reagents and by their flourescent characters.

In experimental animals, the aqueous extract of the bark stimulates the isolated ileum and uterus; it depresses the heart, lowers blood pressure and stimulates respiration.

The bark of plant drug is used in constipation (*Vibandha*), *āmadoṣa* and worms (*kṛmiroga*). It is useful in *prameha*, hypertension, skin diseases and *kaphapittaja* ailments. Drug is antipyretic agent.

Parts used : Bark

Dose : Decoction 50-100 ml.

KĀṢṬHADĀRU (काष्ठदारु)

काष्ठदारुः लघू रूक्षस्तिक्तः सकटुकोऽहिमः ।

दीपनः कृमिहन् मेहे ज्वरे कुष्ठे च शस्यते ॥

Dravyaguna Vijnāna, Part III, p. 702.

KĀṢṬHALATĀ - KALAMBAKA

Botanical name : *Coscinium fenestratum* Colebr.

Family : Menispermaceae

Classical name : *Kāṣṭhalatā-Kalambaka*

Sanskrit names

Kalambaka, Dārvilatā, Haridrāvalli, Hāridralata, Pītakāṣṭhā, Kāṣṭhalatā.

Regional names

Kalamba, Calamba (Common); Kalamba, Jharh haldi (Hindi); Manapasupu (Tel.); Mormanjil (Mal.); Marada arshina (Kann.); False Calamba (Eng.), The Turmeric Tree.

Description

A woody climber, young shoots and underside of leaves yellow-tomentose.

Leaves broadly ovate or cordate, in young plants, peltate; blade 4-8. Petiole 8-4 in.

Flowers dioecious, in dense, globose heads; sepals 6; petals 8; stamens 6, the 3 inner Cohering half way up.

Drupes 1-8; about 1/2 in. diam. Cotyledons orbicular, thin laciniate.

Flowering and fruiting time

Post-rains and onwards or different seasons.

Distribution

It is found in Peninsular India. Western coasts, Nilgiris, Travancore and also in Sri Lanka.

Kinds and varieties

It became in use as a substitute of *Jateorhiza palmata* (Linn.) Miers. (in Europe) and it is also known 'Nakli Kalamba' (or inferior quality *Columba*.). The drug plant is used as substitute of botanical source of important drug *Dāruharidra* or *Daruhaldi*. (*Berberis* species).

Cemical composition

Stem contains berberine up to 3.5% other alkaloids, if present at all, need to be characterised. Ceryl alcohol, hentriacontane, sitosterol, plamitic and oleic acids, sitosterol glucoside and saponin together with some resinous material reported to be present in the stem.

Pharmacodynamics

Rasa	: Tikta
Guṇa	: Laghu, rūkṣa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣākarma	: Kaphapittaśāmaka

Properties and Action

Karma	: Dīpana-pācana-anulomana Pittasāraka Anulomana Raktavardhaka-Raktaśodhaka
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Roga	Jvaraghna
	Kaṭupouṣṭika
	: Agnimāndya-ajīrṇa-ādhmāna
	Yakṛdvikāra
	Kṛmiroga
	Raktālpatā-raktavikāra
	Jvara-Jīrṇajvara
Dourbalya (Jvara-grahaṇī)	

Therapeutic uses

The drug Kalambaka is stomachic, digestive, carminative, cholagogue and anthelmintic. It is blood purifier, antipyretic and bitter tonic.

The roots are given in fevers specially chronic fever, debility after relieving fever and grahaṇī, Decoction is taken in worms and also in enema. It is used in anaemia, loss of blood, blood diseases, liver disorders, dyspepsia, flatulence and other abdominal complaints.

Parts used : Root

Dose : 1-3 gm.

KATĀHA

Botanical name : *Sterculia villosa* Roxb.

Family : Sterculiaceae

Classical name : Kaṭāha

Sanskrit name : Kaṭaha

Regional names

Gadgudala, Udar (Hindi.); Udal (Trade); Sardal (Mar.), Kummari-poliki (Tel.), Murattham (Tam.), Saraya (Kan.); Vakka (Mal.), Gulkndar (Punj); Ganishera (Bihar), Udal (Assam).

Description

A small or medium-sized tree, upwards of 10 ft. high. moderate-sized deciduous tree. Bark pale-grey or brown. Young portions tawny-tomentose. Branches marked with large scars., branches few, spreading branchlets stout.

Wood very soft and light, about 20 lbs. per C. ft of no use. Timber bark yields a coarse strong fibre (employed for making ropes). White clear gum exudes from cuts made in the bark.

Leaves approximate at the branches, 9-18 in. diam., cordate, nearly glabrous above, tomentose beneath, deeply 5-7-lobed; lobes ovate-oblong, acuminate, entire toothed or cleft; petiole 12-24 in. long, hollow, downy outside; stipules lanceolate, deciduous. Lvs. deeply palmately lobed, Crowded at the ends of branches.

Panicles 6-12 in. long, from the axils of the previous year's leaves, drooping; branches many flowered, tomentose. Bracts linear, caducous.

Flowers yellow, in much-branched rusty-pubescent drooping panicles which are crowded at the ends of leafless branches. Male flowers the most numerous; bracts linear, caducous. Calyx campanulate, pinkish within, downy outside. Anthers inserted on a membranous ring which is adnate to the short gynophore. Ovary globose. Staminal column bearing 10 nearly sessile anthers. Calyx stellately hairy outside, glabrous inside.

Fruit follicular, follicles 1.5-2.5 in. long, oblong, spreading, coriaceous, rusty-villous, red within; seeds black. Follicles 2-7, sessile, spreading upto 3 in. (about 1 in.) long, tapering at both ends, bright red when ripe, coriaceous, rough with stellate pubescence outside, smooth and shining inside. Seeds oval, smooth.

Flowering and fruiting time

Plant becomes leafless during the period from January to May. It flowers in March-April and fruiting in June-July.

Distribution

It occurs in outer Himalayas from Kumaon westward to the Indus, up to 3,500 ft. elevation. Salt range (Punjab), Bengal, western and southern India, and in the Andaman Islands. Plant fairly common in Siwalik and foot hills forests (Uttar Pradesh), generally on sandy or gravelly soil.

Kinds and varieties

The gum is exuded from the bark of trees *Sterculia villosa* Roxb. which is medicinally useful and sold in market under the name of Katira. This gum is similar to that of gum katira obtained from trees of *Sterculia urens* Roxb. which is actual and major source of gum or Gond Katira also known as Kullugm, Karai, Karaya, Kuli, Ber). The gum of *Sterculia villosa* Roxb. is considered to be substitute or adulterant to gum of *Sterculia urens* Roxb. Another species *Sterculia pallens* Will. has also economic uses similar those of *S. villosa* Roxb.

Chemical composition

The pericarp (What burnt) yields a dye. Whitish gum, somewhat resembles with gum of *Sterculia urens* Roxb.-Gum Karaya). Seeds are also containing proteins etc. like *Sterculia urens* seeds which are also edible.

Pharmacodynamics

Rasa	: Tikta. Kaṣāya
Guṇa	: Laghu
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Vātakaphahara

Therapeutic uses

The gum exuded from the bark of Kaṭāha vṛkṣa (*Sterculia villosa* Roxb.) is medicinally useful. This gum is almost similar to gum of *Sterculia urens* Roxb. which is commonly known as Gond Katira or Kullu gum.

The seeds are eaten, cooked or roasted. The pericarp, when burnt yields a dye. The exudes a whitish gum, somewhat resembling that of *Sterculia urens* Roxb., which though not commercially collected, is reported to be used in veterinary practice.

Bark, wood and gum are of economic utility.

Parts used : Gum (exudate)

Dose : 1-3 gm.

KATĀHA (कटाह)

‘कटाहः ।’

KATAKA

Botanical name : *Strychnos potatorum* Linn.

Family : Loganiaceae

Classical name : Kataka

Sanskrit names

Kataka, Payahprasādi, Cakṣuṣya, Ambuprasāda, Guḍaphala, Chedanīya, Marīca, Katephala.

Regional names

Nirmali (Hindi); Nirmali (Beng., Punj.); Tetan-Kottai (Tam.); Chirallachettu (Telugu); Clearing nut (Eng.).

Description

A moderate-sized glabrous tree attaining 13 meters height. Stem fluted, lenticillate branches, swollen nodes. Bark black, trunk often irregularly dotted; wood yellowish grey.

Leaves elliptic, 5-12 cm. long, 2.5-5 cm. breadth, acute, nearly sessile, glabrous and shining, 3 or 5 nerved; petiole short.

Flowers rather large to the genus, nearly sessile cymes. Calyx 2 mm. long; 5-segments ovate, acute; corolla .4-6 mm. long; 5-lobed oblong acute; stamen carpel 1 or 2. Flower 0.8 cm. long, white, hairy within.

Fruit berry black when ripe 1.7 cm. diam.; seeds 1 or 2 circular 8 mm. diam., bluntly lenticular, yellowish, round, compressed, 1.3 cm. across in white pulp.

Flowering and fruiting time

Plant is flowering in February-April and fruiting in November-March.

Distribution

It is found in deciduous forests of West Bengal, Central and Southern India up to 12,00 meters. It also occurs in Burma. It occurs in Konkan, Karnataka to Travancore, Central India and Bengal.

Chemical composition

Seeds do not contain strychnine, but is has brucine in little quantity. Seeds contain brucine.

Pharmacodynamics

Rasa	: Madhura, Kaṣāya, tikta
Guṇa	: Laghu, Viśada
Vīrya	: Śīta
Vipāka	: Madhura
Doṣakarma	: Vātakaphaśāmaka

Properties and Action

Karma	: Cakṣuṣya Jalaśodhka (Vāriprasādana) Vraṇaśothapācana Dīpana-rucivardhaka-stambhana- chedana-vāmaka Mūtrājanana-aśmarībhedana Kuṣṭhaghna.
Roga	: Netravikāra-Jirṇābhiṣyanda-śukra Agnimāndya-aruci-atīsāra-gulma Mūtrakṛchra-puyameha-aśmarī- śarkarā Kuṣṭha sarvakuṣṭha Trṣṣā Viṣa Kāmalā Pratiśyāya Prameha.

Therapeutic uses

The drug Kataka is astringent, diuretic and emetic. It is used in anasarca, burning sensation in the body, eye diseases, gastro-intestinal disorders, jaundice, genito-urinary diseases, piles, rhinitis and skin diseases.

In traditional practices of health and medicine in rural areas, the seeds are used extensively to purify the water and they are used in eye complaints.

Parts used : Seeds

Dose : 1-3 gms., 6 gm. (emetic).

KATAKA (कतक)

क. पयःप्रसादी कतकः कतकं च तत् ।

- ख. कतकस्य फलं मेध्यं जलनिर्मलकारकम् ॥
 वातश्लेष्महरं शीतं मधुरं तुवरं गुरु ॥
Bhāvaprakāśa Nighaṇṭu, Āmrāphalādi Varga, 108.
- अ. कतकोऽम्बुप्रसादश्च कतस्तिक्तफलस्तथा ।
 रुच्यन्तु छेदनीयश्च ज्ञेयो गुडफलः स्मृतः ॥
 प्रोक्तः कतफलस्तिक्तः मरीचश्च नवाह्वयः ॥
- ब. कतकः कटुतिक्तोष्णश्चक्षुष्यः कृमिदोषनुत् ।
 रुचिकृच्छूलदोषघ्नी बीजमम्बुप्रसादनम् ॥
Rāja Nighaṇṭu, Āmrādiphala Varga, 196-197.

नेत्रामयानां प्रयोगार्थं सुखावती वर्त्तिः

कतकस्य फलं शङ्खुः सैन्धवं त्र्यूषणं सिता ।
 फेनो रसाञ्जनं क्षौद्रं विडङ्गानि मनःशिला ॥
 कुक्कुटाण्डकपालानि वर्तिरेषा व्यपोहति ।
 तिमिरं पटलं काचं मलं चाशु सुखावती ॥

Caraka Saṁhitā, Cikitsā. 26-252/253.

स्नेहनरसक्रियां कतकफलम्

कतकस्य फलं पिष्ट्वा घृष्ट्वा मधुना नेत्रमञ्जयेत् ।
 ईषत्कपूरसहितं ततस्यान्नेत्रप्रसादनम् ॥

Bhāvaprakāśa, Netrarogādihikāra, 63-206.
Śārṅgadhara Saṁhitā, 3-13-103.

अश्मर्याम्

घृतं श्वदंष्ट्रास्वरसेन सिद्धं क्षीरेण चैवाष्ट गुणेन पेयम् ।
 स्थिरादिकानां कतकादिकानामैकैकशो वा विधिनैव तेन ॥

Caraka Saṁhitā, Cikitsā. 26-74.

नेत्ररोगे-अर्जुने

सैन्धवक्षौद्रकतकाः सक्षौद्रं वा रसाञ्जनम् ।
 कासीसं मधुना वापि योज्यमत्राञ्जने सदा ॥

Suśruta Saṁhitā, Uttara. 12-23 Cakradatta, 59-206.

प्रमेहे

कर्षप्रमाणं कतकस्य बीजं तत्रेण पिष्ट्वा सह माक्षिकेण ।
 प्रमेहजालं विनिहन्ति सद्यो रामो यथा रावणमाहवेषु ॥

Yoga Ratnākara, p. 287.

KATPHALA

Botanical name : *Myrica esculenta* Buch-Ham.

Family : Myricaceae

Classical name : Katphala

Sanskrit names

Kataphala, Katphala, Mahāvalkala.

Regional names

Kayaphal (Hind., Mar., Guj.); Kaychal, Katphal (Beng.); Marudam (Tam.); Kaidaryumu (Tel.); Kirishivani (Kann.); Marut (Mal.); Ajuri, Udulvark, Kandul (Arb.); Darshish an (Pers.); Box myrtle (Eng.).

Description

A small or moderate-sized evergreen tree up to 5 feet girth and 40 feet high. Bark dark brown or blackish, rather rough exfoliating in irregular small woody scales. Wood pale-brown, heavy, compact and hard. Blaze .5-1 inch., soft not fibrous, deep reddish-brown, often with paler streaks, juice turning dark purple on the blade of a knife.

Young shoots, petioles and inflorescence brown-tomentose. Leaves 4-8 by 1.2-2 inches, oblanceolate or oblanceolate-oblong, acute, entire, undulate, base gradually narrowed, coriaceous glabrous or nearly so when mature, dark green above, rather glossy on both sides (surfaces), dotted beneath with minute risen dots, lateral nerves 10-16 pairs with small ones between. Petiole 2-3 inches long.

Male spikes .3-.5 inch long, arranged racemosely on a common axillary stalk 1.5-4 inches long, bracts orbicular, stamens 3-6. Female spikes axillary erect.5-1 inch long.

Drupe .4 inch long sessile, ellipsoid, ovoid, stone red, wrinkled, scaly, succulent, flesh red when ripe and pitted stones.

Flowering and fruiting time

Plant generally flowers in October to December (autumn and pre-winters) and its fruits ripen during summer season.

Distribution

It is occurring throughout the Himalayan zone generally in the regions falling between 1,000 to 2,300 meters (approximately) altitudes.

Chemical composition

Bark contains a yellow colouring matter and it is rich in tannin which are useful for dyeing and tanning purposes. The yellow colouring matter, myricetin (hexahydroxy flavone) occurs in the bark in the form of glycoside myricitrin. A second glycoside, the aglycone of which is possibly quercetrin is present in traces. Bark has moisture 10.5%, tainnins 32.1% and other contents.

Pharmacodynamics

Rasa	: Kaṣāya, tikta, kaṭu
Guṇa	: Laghu, tikṣṇa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphavātaśāmaka

Properties and Action

Karma	: Śukraśodhana Tivra śirovirecana Kaṇḍūghna-śothahara- Kothapraśamana- Garbhāśayasankocaka Vedanāsthāpana-nāḍibalya Dīpana-grāhī-sūlapraśamana Sandhānīya-śothahara Kaphaniḥsāraka-śvāsahara Mūtrasaṅgrahaṇīya Śukraśodhana Tvag doṣahara. Sandhānīya-Hṛdya
Roga	: Śīroroga-Nāsāroga-kaphaja śīroroga Kāsa-śvāsa-pratiśyāya Aruci-agnimāndya-udaraśūla Jvara Galagaṇḍa Atisāra

Netraroga-pittābhiṣyanda
 Mūrchā
 Śukradoṣa-klībatā
 Prameha
 Vedanāsthāpana-nāḍibalya
 Ardita-pakṣāghāta-vātaroga
 Arśa
 Hṛdayaśaithilya-raktaṣṭhivana
 Mukharoga-mukhapāka-dantaśūla
 Śothahara-kothapraśamana
 Dehāvasāda
 Vraṇa śodhana-ropaṇa
 Kṛmighna
 Carma roga
 Garbhaśaya-yonivikāra.

Therapeutic uses

The drug Kaṭphala is astringent, antiseptic, antipyretic, carminative and rubefacient. It is used as snuff in fainting, nasal congestion, headache and rhinitis. Drug is useful in anorexia, fever, piles and others.

The fine powder of the bark of drug Kaṭphala (tvak sūkṣma cūrṇa) is effective as mūrccahara (removing fainting) and mūrdha virecana or śirovirecana (head-evacuation). It is applied as snuff (nasya).

The powder of drug kaṭphala is used as snuff (nasya-kavala) and it is specially recommended in head-disease caused by kapha (kaphaja śīroroga). Kaṭphala is employed in the formulation (consisting puṣkaramula, karkaṭaśṛṅgī and pippalī with honey: Vṛndamādava, 1-112) prescribed in fever caused by kapha or kaphaja jvara and this leha preparation (Kaṭphalādi leha) is taken to alleviate kapha and its associated symptoms-dyspnoea, cough and fever. The drug Kaṭphala powder mixed with honey is prescribed in abdominal disorders i.e. diarrhoea (Caraka, Saṁhitā, Cikitsā. 19-112). The aqueous solution of Kaṭphala (ambu) is prescribed in conjunctivitis caused by pitta or paittika nertābhiṣyanda (Suśruta Saṁhitā, Uttara. (10-12). In goitre (galagaṇḍa), the powder of Kaṭphala is suggested to

be rubbed (Kaṭphala cūrṇa gharṣaṇam) as per medical texts.

In condition of fainting (mūrchhā) caused by different reasons or ailing stages (āghata or trauma, apasmāra or epilepsy, pakṣāghāta or paralysis etc.), the Kaṭphala cūrṇa (bark fine powder or dust) is given to patient for inhaling into nose-nostrils (nasya or pradhamaṇa). This kind of use (mode of administration) as Kaṭphala Nasya is an important medicinal utility of the drug prescribed in texts as well as therapeutics. It is also used in traditional folk practices in rural regions particularly in the hilly areas (where Kaṭphala trees grow abundantly in nature). The ripe or matured fruits are eaten and relished there.

Parts used : Bark, flowers.

Dose : Powder 3-5 gms.

Formulations

Kaṭphalādi Kvātha, Kaṭphala nasya, Kaṭphalādi cūrṇa.

Gaṇa

Śukraśodhana, Sandhāniya, Vedanāsthāpana (Caraka Saṁhitā), Lodhrādi, Surasādi (Suśruta Saṁhitā).

KATAPHALA (कट्फल)

कट्फलं कटुकं तिक्तं कषायं कफवानुत् ।

निहन्ति मेदगुल्मार्शश्वासकासारुचिज्वरान् ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 11/38-39

कट्फलस्तुवरस्तिक्तः कटुर्वात कफज्वरान् ।

हन्ति श्वासप्रमेहार्शःकासकण्ठामयारुचीः ॥

Bhāvaprakāśa Nighaṇṭu, Haritakyādi Varga 181.

कट्फलः कटुरुष्णश्च कफश्वासज्वरापहः ।

प्रतिश्यायहरो वृष्यो मुखरोगशमप्रदः ॥

Rāja Nighaṇṭu,

कट्फलचूर्णान्तर्गलघर्षो गलगण्डमपहरति ।

Cakradatta, 41-9.

‘कट्फलं मधुयुक्तं वा मुच्यते जठरामयात् ।’

Caraka Saṃhitā, Cikitsā. 10.

श्लेष्मिकज्वरे

कट्फलं पौष्करं शृङ्गी कृष्णा च मधुना सह ।

श्वासकासज्वरहरः श्रेष्ठो लेहः कफान्तकृत् ॥

Vṛndamādhava, 1-112.

रक्तपित्ते

प्रियङ्गुकाकट्फलशङ्खगैरिकाः पृथक्-पृथक् चन्दनतुल्यभागिकाः ।

सशर्करास्तण्डुलधावनाप्लुताः रक्तं सपित्तं शमयन्ति योगाः ॥

Caraka Saṃhitā, Cikitsā, 4.

पित्ताभिष्यन्दे

‘तद्वच्चाहुः कट्फलञ्चाम्बुनैव ।’

Suśruta Saṃhitā, Uttara, 10-12.

अतिसारे

कपित्थमध्यं लीढ्वा तु सव्योषक्षौद्रशर्करम् ।

कट्फलं मधुयुक्तं वा मुच्यते जठरामयात् ॥

Caraka Saṃhitā, Cikitsā, 19-112.

कफजे शिरोरोगे

‘घ्रेयं कट्फलचूर्णं वा कवलाश्च कफापहाः ।’

Suśruta Saṃhitā, Uttara. 26-21.

कासे कट्फलादिक्वाथः

Cakradatta, Kāsa Cikitsā, 11/23-24.

गलगण्डे कट्फलचूर्णघर्षणम्

‘कट्फलचूर्णान्तर्गलिघर्षो गलगण्डमपहरति ।’

*Cakradatta, Galagaṇḍa-gaṇḍamāla-Apacī-
granthiyārbuda-cikitsā, 41-9 (1)*

KATUKĀ

Botanical name : Picrorhiza kurroa Royle ex Benth.

Family : Scrophulariaceae

Classical name : Kaṭukā

Sanskrit names

Kaṭuka, Kaṭukī, Tikta, Kaṭurohiṇī, Kṛṣṇabhedā, Matsyaśakalā, Patrāṅgī, Kāṇḍaruhā, Cakrāṅgī.

Regional names

Kutaki, Katuki, Katki (Hindi); Katki (Beng.); Kourh (Punj.); Kali Katuki, Balkadu (Mar.); Kadu (Guj.); Kadugurohini (Tel., Mal. & Tamil); Kharbake Hindi (Arab., Pers.); Picrorhiza (Eng.).

Description

A ground clasping hairy herb with perennial root stock, as thick as the little finger, 15-25 cm. long clothed with withered leaf bases.

Leaves 5-20 cm. rather coriaceous, tip rounded, base narrowed into a winged sheathing petiole; flowering stems or scapes ascending stout longer than the leaves, naked or with a few bracts below the inflorescence.

Spikes 5-10 cm. long, subcylindric, obtuse, many flowered, sub-hirsute; bracts oblong or lanceolate as long as the calyx; sepals 0.6 cm. long, ciliate; corolla of short stamens from 0.60-0.80 cm. long with longer filaments 0.8 cm. long of the longer stamens from 0.6 cm. with filament 1.75 long. Capsule 1.25 cm. long

Rhizome Drug morphology :

The drug Kaṭukā consists of dried rhizome which are greyish brown in colour, cylindrical and surrounded by a tufted crown of withered leaf bases. The drugs are longitudinal pieces of the rhizome measuring 4.0-8.0 cm. in diameter. The surface of the rhizome has longitudinal wrinkles, transverse cracks, dotted scars with annulations of bud scales and stem remnants. The rhizome breaks with short fracture exhibiting black lacunar surface with whitish xylem ring on transverse plane of broken ends. The odour is pleasant and taste is later.

Flowering and fruiting time**Distribution**

Alpine Himalayas from Kashmir to Sikkim; north-west Himalaya to eastern (Sikkim) Himalayas. Plant grows

wild in Uttar Pradesh, Himachal Pradesh and Kashmir at 2,627 -5,569 meters (9,000-15,000 ft.) altitudes.

Chemical composition

Rhizome contains picrorhizin 26.6 %, a bitter, crystalline glycoside which is medicinally potential and active chief substance. It is soluble in aqua, alcohol (90%), acetone, ethylacetate and other solvents. It also contains cathartic acid. Kutkin was found to be a potent choleric agent.

Pharmacodynamics

Rasa	:	Tikta
Guṇa	:	Laghu, rūkṣa
Vīrya	:	Śīta
Vipāka	:	Kaṭu
Doṣakarma	:	Kaphapittahara.

Properties and Action

Karma	:	Pittasāraka-Yakṛduttejaka Rocana-dīpana-recana Kṛmighna Raktaśodhaka-śothahara Kaphniḥśaraka-Kaphaghna Pramehaghna Stanyaśodhana Kuṣṭhaghna Dāhapraśamana Jvaraghna-viṣamajvara- pratibandhaka Kaṭupouṣṭhika-lekhana
Roga	:	Yakṛdvikāra Kāmala-pittavikāra Aruci-agnimāndya Vibandha-ānāha-Udararoga Hṛdroga-raktavikāra-śotharoga Kāsa-śvāsa Prameha Stanyavikṛti Carmaroga-Kuṣṭha Dāha-Jvaradāha

Jvara-*viṣmajvara*
Dourbalya
Medoroga

Therapeutic uses

The rhizome-drug *Kaṭuka* is described as bitter, anthelmintic, antiperiodic, aperient, appetizer, blood-purifier, cardiac, cathartic, cholagogue, expectorant, febrifuge, stomachic and tonic. It is useful in asthma, cold and cough, bile trouble, constipation, gastric trouble, fever, heart trouble, jaundice, leprosy and worms. It chiefly improves appetite and stimulates gastric secretion.

The drug *Kaṭuka* is a reputed and prominent herbal drug of Indian medicine as classical text of Ayurveda appreciate its medicinal potentiality and importance in therapeutics. *Kaṭuka* is incorporated as an ingredient in a number of classical formulation (*śāstriya yoga*) such as *Jīrakādi modaka*, *Trāyantyādi Kvātha (Cūrṇa)*, *Poṭolādi Kvātha (cūrṇa)*, *Punarnavādi Kvātha (cūrṇa)*, *Bṛhanmañjiṣṭhādi cūrṇa*, *Vāsāguḍūcyādi Kvātha (cūrṇa)*, *Bṛhanmañjīṣṭhādi cūrṇa*, *Vāsāguḍūcyādi Kvātha (cūrṇa)*, *Mahāyogarāja guggulu*, *Jātyādi ghṛta*, *Tiktaka ghṛta*, *Triphalā ghṛta*, *Pañcatikta guggulu*, *Pañcatikta ghṛta*, *Nimbādi cūrṇa*, *Grahaṇīmīnīra taila*, *Karcūrādi cūrṇa lepa*, *Ārogyavardhinī guṭikā*, *Sarvajvara louha* and also some other formulations. Besides the classical formulation of Ayurveda, the drug *Kaṭukā* or *Kaṭuki (Kaṭakī)* in the crude form of rhizome of *Picrorhiza kurroa* Royle ex Benth. is employed in various other pharmaceutical preparations (patent medicines) among a good number herbal products in drug market.

The drug *Kaṭukā* is considered to have similar medicinal properties as *Gentian* which is known as *Trāyamāṇa*, particularly Indian *Gentian* botanically identified as *Gentiana kurroa* Royle. The drug is used either as an adulterant or substitute for Indian *Gentian (Gentiana kurroa* Royle.) and true *Gentian (Gentiana lutea* Linn.). *Trāyamāṇa* drug is mentioned and prescribed in Ayurveda independantly.

The drug is mainly obtained from natural resources

as the source plant thrives well at higher altitudes in the Himalayas between 9,000 and (to) 15,000 ft.. Small scale cultivation of drug plant is also reported on experimental basis by propogating rhizome and seeds, different localities in hill regions, but the plant is extensively collected from rhizoms of the Himalayas during winter season and raw drug supplies are made for meeting the good requirement of this effective plant drug.

The drug Kaṭuka is recommended in fever, leprosy. liver complaints, splenic disorders, loss of appetite, respiratory ailments and urogenital diseases. Antispasmodic action has been recorded in alcohol extract. Regression of transaminase and serum alkaline phosphatase values in experimentally induced abnormalities of liver have also been shown during investigations on Kaṭuki.

Parts used : Root (rhizome)

Dose

Powder 1-3 gms., Powder .5- 1 gm. (bitter tonic) and 3-6 gms. (purgative).

Formulations

Ārogavardhinī vaṭī, Kaṭukādyā louha, Tiktādi Kvātha ghr̥ta.

Gaṇa

Bhedanīya, Lekhanīya, Stanyaśodhana, Tiktaskandha (Caraka Samhitā), Paṭolādi, Mustādi, Pippalyādi (Suśruta Samhitā).

KATUKA (कटुका)

कटुका शीतला तिक्ता कटुपाकरसा लघुः ॥
भेदिनी दीपनी रूक्षा कफपित्त ज्वरापहा ।
प्रमेहश्वासकासार्षः दाहकुष्ठकृमीन् जयेत् ।

Kaiyadeva Nighantu, Ośadhi Varga, 1123-1124.

कटुवी तु कटुका पाके तिक्ता रूक्षा हिमा लघुः ।
भेदिनी दीपनी हृद्या कफपित्तज्वरापहा ।

प्रमेहश्वासकासास्रदाहकुष्ठ क्रिमिप्रणुत् ॥

Bhāvaprakāśa Nighaṅṭu, Harīṭakyādi Varga, 152.

कटुकाऽतिकटुस्तक्तः शीतपित्तास्रदोषजित् ।

बलासामारोचकश्वास ज्वरहृद्रेचनी च सा ॥

Rāja Nighaṅṭu, Pippalyādi Varga, 132.

‘मम द्वयं विस्मयमातनोति तिक्ताकषायो मुस्ततिक्ताध्नः ।’

Vaidya Jīvanam.

कटुका पित्तजित्तिक्ता कटुः शीतास्रदाहजित् ।

बलासारोचकान् हन्ति विषमज्वरनाशिनी ॥

Dhanvantari Nighaṅṭu.

कण्ठरोगे कटुकादि क्वाथम्

कटुकातिविषापाठादावीं मुस्तकलिङ्गकाः ।

गोमूत्रकथिताः पेयाः कण्ठरोग विनाशनाः ॥

Caraka Saṁhitā, Cikitsā. 26-201.

पाण्डुरोगे कण्डुकाद्य घृतम्

Caraka Saṁhitā, Cikitsā. 16/47-49.

पित्तकफज्वरे कटुकी कल्कम्

शर्करामक्षमात्राञ्च कटुकीं चोष्ण वारिणा ।

पीत्वां ज्वरं जयेज्जन्तुः पित्तश्लेष्मसमुद्भवम् ॥

अत्र वासारसोऽर्द्धपलपरिमितो देयः ।

मधुसितयोः प्रत्येकं टङ्क प्रक्षेप्यः ॥

Bhāvaprakāśa, Madhyakhaṇḍa, Jvarādhikār 1-435/436.

बालानां हिक्कावमिघ्नं कटुरोहिण्यावलेहम्

कटुरोहिण्या मधुना सह योजयेत् ।

हिक्कां प्रशमयेत्क्षिप्रं छर्दि चापि चिरोत्थिताम् ॥

Bhāvaprakāśa Bālarogādhikāra, 164.

व्रण चिकित्सायां तिक्तकाद्यं घृतम् ।

Cakradatta, Vraṇaśoṭha Cikitsā, 44-85.

पित्तज्वरे

‘पित्तज्वरघ्नी कटुका श्लेष्ण पिष्टाशर्करा ।’

Aṣṭāṅga Saṅgraha, Cikitsā. 1-76.

पाचयेत् कटुकां पिष्ट्वा कर्परेऽभिनवे शुचौ ।

निष्पीडितो घृतयुतस्तद्रसो ज्वरदाहजित् ॥

Aṣṭāṅga Hṛdaya, Cikitsā. 1-5.

चूर्णेकटुरोहिण्याः पत्रैर्वा छिन्नरोहजैः ।

स्वरसैः सहदेव्या वा सिद्धं तैलं ज्वरं जयेत् ।

Vaidya Manoramā, 1-22.

पाण्डुरोगे

सितया कटुकीकर्षो द्रोणपुष्पी रसाञ्जनम् ।

देवदालीरजोनस्यं पाण्डुरोगं व्यपोहति ॥

Siddha Bhaiṣajya Maṇimāla, 4-282.

कुष्ठे

‘सातिविषा च ससेव्या सचन्दना रोहिणी कटुका ।’

Caraka Saṁhitā, Cikitsā. 7-132

हृद्रोगे

‘कट्वीमधुककल्कञ्च पिबेत् स सितम्भसा ।’

Aṣṭāṅga Hṛdaya, Cikitsā. 6-44.

स्तन्यशुद्धये

‘पाययेताथवा स्तन्यशुद्धये रोहिणीबृतम् ।’

Caraka Saṁhitā, Cikitsā. 30-261/262.

हिक्कायां कटुरोहिणी प्रयोगः

Susruta Saṁhitā, Uttara. .50-27/28.

अम्लपित्ते

कटुकासिताऽवलेह्या पटोलविश्वं च क्षौद्रसंयुक्तम् ।

रक्तस्तुतौ च युक्त्या खण्डं कूष्माण्डकं श्रेष्ठम् ।

Vṛnda Mādhava, 53-14.

KATUNĀHĪ

Botanical name

Enicostema hyssopifolium (Willd.) I.C. Verdoorn.

Syn. *Enicostema littorale* Blume., *Exacum*

hyssopifolium willd.

Family : Gentianaceae

Classical name : Katunāhī-māmajjaka

Sanskrit names

Kaṭunāhī, Nāhī, Māmajjaka, Nāgajihvā,
Tikaṣṇapatrā, Vitikṣīṇikā.

Regional names:

Karhvinai (Mar.); Manejava- (Guj.); Vallari (Tam.,
Mal.)

Description

Erect or procumbent, glabrous herbs, up to 20 cm.
tall. Leaves decussate, ovate-lanceolate to linear.

Flowers white. Bracts narrowed at base. Calyx lobes
fleshy, ovate-lanceolate, acute to gradually acuminate; mar-
gins narrowly hyaline, nor overlapping. Corolla lobes \pm 3-
angular, acute. Apex of connective acute to apiculate, not
filiform. Stigma large 2-lobed.

Capsule sub-globose. Seeds minute, brown,
foveolate.

Flowering and fruiting time

July to October, Plant flowers in rains and fruits af-
terward during autumn season.

Distribution

Plant occurs in Africa, Malesia, West Indies, India
and ceylon. It is found occasionally along moist banks of
ravinous nallahs in gardens and on ridges in different re-
gions in India, ascending to 1500 feet elevation and spe-
cially plant is growing in coastal regions of country.

Chemical composition

Plant contains ophaleic acid, a bitter glycoside and
another substance swertiamarine.

Pharmacodynamics

Rasa	: Tikta
Guṇa	: Laghu, Rūkṣa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphapittanāsana

Properties and action

Karma	: Viṣamajvaraghna Dipana-āmapācana-sāraka Yokṛduttejaka
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	Kṛmighna
	Raktaśodhaka
	Śothahara
	Kuṣṭhaghna
	Pramehaghna
	Lekhana
	Viśaghna
Roga	: Visamajvara
	Prameha-madhumeha
	Carmaroga
	Medoroga
	Viṣa.

Therapeutic uses

The drug Kaṭunāhi (nāhī) is a specifically effective antidiabetic phytoagent which is also good antimalarial remedy. It is considered a substitute of Kirātatikta or Bhunimba (Swertia chirayita (Roxb. ex. Flom) Karst.

Whole plant (Pancānga) of drug-plant is used for medicinal purposes. It is used in constipation, liver disorders, worms and āmadoṣa. Drug is suggested to be useful in blood impurities, oedema, skin affections, obesity and dermatosis.

The drug is frequently recommended in diabetes mellitus in powder, decoction or anyother form of ricipe or compound (generally pill or tablet) as the plant drug is quite bitter and also after preparing solid extract (ghana).

The drug is emaciating and useful in medoroga (obesity) and it allays vāta and pitla doṣa.

Parts used : Whole plant

Dose : 1-3 gm. powder, 50-100 ml. Decoction.

Yoga : Māmajjaka ghana Vaṭi.

KATUNAHİ कटुनाही

नारी तु कथिता तिक्ता लघ्वी पित्तकफापहा ।

मधुमेहे तथा कुष्ठे शस्यते विषमज्वरे ॥

नाहौ च नागजिह्वाख्या तीक्ष्णपत्रा वितीक्ष्णका ।

कृमिहत् क्षारकर्मा च तथा मामज्जकः स्मृतः ॥

Śoḍhala Nighaṇṭu

KATVAṄGA-ARALU

Botanical name : *Ailanthus excelsa* Roxb

Family : Simaroubaceae

Classical name : Aralu-Kaṭvaṅga

Sanskrit name :

Aralu, Mahāvṛkṣa, Pūtiṛkṣa, Aśvanimba, Dirghhevṛṇta, Aśvakaraṅja, Kaṭvaṅga.

Regional names :

Arhu, Ghorhanim, Ghodakaraṅj, Arua (Hindi); Maharuk (Mar.); Aradusi (Guj.); Perimaram (Tam.); Paddemanu (Tal.); Dodḍamar (Kann.); Matti pongilyam (Mal.).

Description

A tree, 60-80 ft. high. Wood commercial useful (for light articles, such as drums, sword-sheaths and flots for fishing nets).

Leaves 1 root or more, glandular hairy; leaflets very many, on long stalks, ovate or falcate-lanceolate, unequal at the base, coarsely toothed, often lobed.

Flowers yellowish, in large lax often much-branched panicles; filaments half the length of the anthers.

Samaras 2 in. long, tapering to each end, twisted at the base, copper-red.

Flowering and fruiting time

Plant flowers in April and May, and fruiting stage afterwards.

Distribution

It occurs in west Bengal, central and Southern India, wild or cultivated. It is planted in Uttar Pradesh and

Delhi states, and also other areas, sometimes wild in northern and central India.

Kind and Varieties

Kaṭvaṅga-Aralu is identified as *Ailanthus excelsa* Roxb. and its another species *Ailanthus malabarica* Dc. which occurs in western ghats.

Generally the drug Aralu has been considered rather mistaken as synonymous to Śyonāka. There are two distinct drugs Aralu and Śyonāka in classical texts of Ayurveda. For the instance, Caraka, in a context, mentions Aralu and Śyonāka clearly as two distinct drugs (Caraka Saṁhitā, cikitsā. 15-134). Initially Kaṭvaṅga, Dīrghavṛnta and Mahānimba are some of the classical (Sanskrit) synonymous terms of Aralu. Later Aralu and Śyonaka terms have been cognated and they become gradually synonymous. Rājanighaṅṭu describes 'Śynāka yugala' (two kinds of Śyonāka) which probably indicated Aralu and Śyonāka both and with independent status of these two drugs. Hence, presently Aralu and Śynāka are botanically identified as *Ailanthus excelsa* Roxb. and *Oroxylum indicum* Vent. respectively, and they are also recommended accordingly in current practice.

Pharmacodynamics

Rasa	: Tikta, Kaṣāya
Guṇa	: Rūkṣa
Vīrya	: Śīta
Vipāka	: Kaṭu
Doṣakarma	: Kaphapittasāmaka

Properties and action

Karma	: Āmahara (upaśoṣaṇa) Dīpana-pācana-grāhī- Jīvānuniśūdana (atisāra-pravāhikā) Raktaśodhaka-raktastambhana Raktabhārahāsaka Kāsahara Sandhānīya Mūtrālpavakara Yonidoṣahara
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	Tvagdoṣahara
	Jvaranāśaka-
	viṣamajvaraprativandhaka
	Vraṇasodhana
	Lekhana-mādhuryanāśana
	Viṣaghna
	Mānasadoṣahara
Roga	: Atisāra-pravāhikā-grahaṇī
	Jivāṇujanya pravāhika-atisāra
	Arśa-bhagandara
	Kṛmi
	Raktavikāra-Raktapitta-raktavāta
	Jirṇakāsa-uraḥkṣata-kṣaya-sarakta
	kāsa
	Prameha-kṣoudrameha
	Yonivyāpada
	Carmavikāra
	Medoroga-madhumeha
	Viṣa.

Therapeutic uses

The drug Aralu-Kaṭvaṅga is specific āmadoṣa pācana-upaśoṣaṇa herbal agent (pacifying or digesting āma) which is considered one of the efficacious medicines in the group. It is stomachic, digestive, astringent, anthelmintic and antihaemorrhoidal drug which is recommended in treatment of diarrhoea (atisāra), grahaṇī, piles-haemorrhoids (arśa), fistula-in-ano (bhagandara); and worms (kṛmi); and specially it checks blood and mucous in stool in diarrhoeal and dystenteric conditions. Drug is very potent for amaebic (amebic dysentery and giardiasis. For therapeutic administration of Aralu in these diseases, the juice of bark (obtained through puṭāpāka vidhi) as well as a solid extract or ghanasatva (through rasakriyāvidhi) are useful.

The drug is useful as blood purifier, wound-cleansing and healing, antidermatosis antipyretic (antimalarial, emaciating and union-promoting (sandhāniya). It allays yonidoṣa (vaginal ailments) mānasadoṣa (mental disorders), skin diseases (tvagdoṣa), cough (Kāsa), prameha-

madhumeha (diabetes), medoroga (obesity), raktapitta, rakatavikāra (blood impurity), pthisis, epilepsy, bālaroga (children diseases) including bālagraha and earache (karnaśūla).

Parts used : Bark

Dose

Juice 10-20 ml., Extract 1 gm., Powder 1-3 gm., Decoction 50-100 ml.

Yoga : Aralu putapāka.

KATVAṄG-ARALU (कट्वङ्ग-अरलु)

दीर्घवृन्तो महानिम्बो कट्वंगोऽरलुतिककः ।

Aṣṭāṅga Nighaṅṭu. 18-44.

निम्बाकारदलो विष्वक् भल्लूकः पंक्तिपत्रकः ।

प्रसिद्धो भङ्गुरोऽसारत्वङ्सो देशभाक्या ॥

कट्वंग सांग्राहिक पाचनीयदीपनीयानाम् ।

Caraka Saṁhitā, Sūtra. 25.

बालरोगे

कपोतवंकाऽरलुको वरुणः पारिभद्रकः ।

आस्फोता चैव योज्याः स्युः बालानां परिषेचने ॥

Suśruta Saṁhitā Uttara. 32-3.

अतिसारे

कट्वंगत्वग्धृतयुता स्वेदिता सलिलोष्मणा ।

सक्षौद्रा हन्त्यतीसारं बलवन्तमपि द्रुतम् ॥

Aṣṭāṅga Hydaaya, Cikitsā, 9-80.

दीर्घवृन्तत्वचं पिष्ट्वा महौषधसमन्वितम् ।

पीतं तण्डुलतोयेन पक्वातीसारनाशनम् ॥

Bāṅgasena, Atisāra, 89.

दीर्घवृन्त पुटपाकः

त्वक्पिण्डं दीर्घवृन्तस्य.....पाययेतोद्ग्रामये ।

Suśruta Saṁhitā, Uttara, 40-81.

Vṛnda Mādhava, 3,45-51.

अरलुत्वक् कृतश्चैव पुटपाकोऽग्निदीपनः ।
मधुमोच रसाभ्याञ्च पुनः सर्वातिसारनुत् ॥

Śāraṅgadhara Sāṁhita, 2-1-29.

विषे

क्षारागदे दुन्दुभिस्वनीये

Suśuta Saṁhitā, Kalpa. 6-3.

कर्णशूले

रसैः कवोष्णैस्तद्वच्च मूलकस्यारलोरपि ।

Aṣṭāṅga Hṛdaya, Uttara. 18-3.

KATUVĪRĀ-LĀNKĀ

Botanical name

Capsicum annum Linn.

Capsicum annum Linn. var. *acuminatum* Fingh.

Family : Solanaceae

Classical name : Kaṭuvīrā-Laṅkā

Sanskrit names

Laṅkā, Kaṭuvīrā, Raktamarica, Pittakāriṇī, Ujvalā.

Regional names

Lalmirchi, lalmiracha (Hindi); Lalmirchi (Mar.); Marachi (Guj.); Lankamarich Gachh marich (Beng.); Silonge (Tam.); Micha Kaya (Tal.); Menasinakai (Kann.); Muluk (Mar.); Fichile ahmar (Arali); Filile surkh (Pers.); Red chillies Red pepper (Eng.).

Description

A shrubby, annual-herb 2-3 feet high. Peduncles solitary. Leaves long, linear lanceolate. Flowers white, in leaf axil, solitary drooping. Berries 5-10 cm. long, much longer than broad, reflexed, red or yellow, mildly pungent, ft. green in unripen stage and fruits become red, yellow and other colours or shades; sizes alsō variable. Seeds many, minute, flat, size and shap similar to vrntāka bija (seeds of (*Solanum melongena* Linn.)). Fruits (berry) very pungent with variation in taste, intensity and shape, size

depending upon the varieties, cultivars, kinds and ecological (agro-producing) zones etc.

Distribution

Plant is cultivated throughout India. Some provinces are specially chillies producing regions. Farming on commercial scale for produce as a most common spice of wide utility.

Chemical composition

Berry contains a crystalline bitter active principle capsaicin which is responsible of pungency, bitterness and intensity (extent of taste making quality). The percentage of main active constituent is 0.1 normally in fruit. Green (unripe) fruit contains moisture 82.6, protein 2.9, fat 0.6, carbohydrate 6.1, fibres 6.8, minerals, calcium 0.03, phosphorous 0.08, iron 0.0012, vitamin c. 111mg., carotene 454 i.u. per 100 gm. The contents in dried fruits differ and also vitamin E 2.4 mg/100 gm. Chillies also contain aluminium, barium, copper, lithium, silicon, manganese, titanium in minor quantity. Dry chillies yield a red coloured fixed oil 9-31% and also a volatile oil (0.16-0.39 percent).

Flowering and fruiting time

June-October. Farming season. seedlings in September and fruits ripen for harvesting during January-February.

Kinds and Varieties

There are several varieties of Chillies are produced in country some cultivars grown are Colossal, Spanish Giant, Golden Queen, Ruby King, Bull Rose, Sunny Brook and Pimento.

Distribution

Cultivated during the rainy season for its fruits in the urban areas. Large scale cultivation for vegetable and specially spice purpose for trade, in various regions of country. There are chillies producing and marketing regions and localities in particular in different states.

Pharmacodynamics

Rasa : Kaṭu

Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Guṇa	: Tikṣṇa, laghu, rūksa
Doṣakarma	: Kaphavātaśāmaka, aPitta janana

Properties and action

Karma	: Lālāprasekajanana-vidāhī Dīpana-pācana-anulomana Hṛdayottejaka Mūtrala Vājikaraṇa Jvaraghna Dhātunāśaka Lehana-raktokleśaka Vātahara-nidrājanana
Roga	: Śiraḥsūla (Kaphaja) Āmavāta-kaṭisūla-pārśvasūla- gr̥dhrasī Galaroiṇī-kaṇṭhaśālūka Alarkaviṣa-kukkuradaṁśa-vraṇa (kṣata) Carmaroga Aruci-agnimāndya-ānāha-visūcikā Hṛddourbalya-avasāda Mutrāghāta Kāmāvasāda Santatajvara-viṣamajvara- Sannipātata jvara Medoroga.

Therapeutic uses

The drug Kaṭuvirā (Lankā) produces salivary secretion and it is an active salivatory agent (lālāprasekajanana). It is stomachic, digestive, carminative, diuretic, aphrodisiac, antiperiodic (febrifuge), emaciating, blood aggravating and causing burning sensation (vidāhakara) and destroying dhātus (dhātunāśana). It is contra-indicated to pitta ailments.

Dry chilli (Kaṭuvirā śuṣka) is extensively used as a spice in India. Curry powder is made by grinding roasted dry chilli with other condiments such as coriander, cumin

and turmeric. Chilli is utilised as household vegetable, spice, pickles and various dietary items.

The capsicum preparations are used as counterirritants in lumbago, neuralgia and rheumatic disorders. Internally it is effecting as tonic and carminative and is specially usefull in atonic dyspepsia. It is, however, contra-indicated in gastric catarrh. In case of taking inordinately it may cause gastro-enteritis. It is sometimes added to tannin or rose gargles for pharyngitis and to relaxe sore throat.

It is administared in the form of powder, tincture, liniment, plaster, ointement, medicated wool etc. In some of these preparations, oleoresina Capsici (B.P.C.) syn. Capsicin, the alcohol soluble fraction of the ether extract of caapsicum, is the active ingredient (B.P.C.). Pharmacopoeial requirements are chiefly met by the highly pungent varieties of capsicum (*Capsicum frutescens* Linn. syn. *Capsicum minimum* Roxb.)

Indian capsicum known in trade as Bombay capsicum is used as substitute (or Bird chilly, botanically identified as *Capsicum frutescens* Linn. syn. *C. minimum* Roxb.)

Parts used : Fruits.

Dose : Powder 30-60 mg.

Formulations

Viṣamajvaraghñī Vaṭī, Lankāsūrā (Tincture capsicum).

KATUVĪRĀ-LĀNKĀ (कटुवीरा-लंङ्का)

कटुवीरोज्ज्वला तीक्ष्णा तीव्रशकृत्यजडेतथा ।
 कटुवीराग्निजननी बलासघ्नी च दाहिनी ॥
 हन्त्यजीर्णं विसूचीं च व्रणं क्लिन्नं सुदारुणम् ।
 तन्द्रां मोहं प्रलापं च स्वरभेदमरोचकम् ॥
 नरं लुप्तधरं क्षीणं सन्निपात निपीडितम् ।
 नष्टेन्द्रियगणं तीक्ष्णं मृत्योराकृष्य जीवयेत् ।

Ātreya Saṁhitā. (Ay. Vi.)

लंका तीक्ष्णा कटूष्णाऽति लालास्रावकरी मता ।

विदाहजननी पित्तकारिणी कफवातहरा ।

Dravyagūṇa Vigyān, Vol. II, p. 316.

अरोचरेतः कफवातहारिणी विपाचिनी शोणित पित्तकारिणी ।

मेदोऽक्षिनिद्रानलमान्द्याकारिणी विसूचिकां कृत्तति पित्तकारिणी ॥

Siddhabhaiṣajya Maṇimālā.

KEMUKA-KEB (V) UKA

Botanical name : *Costus speciosus* (Koen.) Sm.

Family : Zingiberaceae (Scitaminaceae)

Classical name : Kevuka-Kemuka

Sanskrit names

Kevuka, Kemuka, Kebuka, Kembuka, Pecula, Pelu-Peluni, Dalaśālīnī.

Regional names

Kebu, Penu (Hindi); Chengalva-Koshtu (Tel., Kaun.); Pushkarmula (Mar.).

Description

A common weed in Sal forests in Siwaliks (Uttar Pradesh) characterised by large white flowers in dense terminal ovoid or oblong spikes, pink bracts and bright-red capsules.

Herbaceous plant, 4-6 ft. high. Stem somewhat woody at the base. Leaves sessile, arranged spirally, 6-12 in. long, oblong or oblanceolate, acute or acuminate, often cuspidate, glabrous above, silky pubescent beneath base rounded; sheaths coriaceous; ligule none.

Flowers many, in dense terminal spikes 2-5 in. long; bracts bright red, 3/4 - 1-1/4 in. ovate, acuminate or pungently mucronate; bracteole solitary 5/8 in. long. calyx 1-3 in. long, deltoid-ovate, cuspidate. Corolla-tube as long as calyx; lobes ovate oblong; apiculate, lateral lobes about 1-3/8 in. long, dorsal one rather shorter; lip suborbicular, white with a yellow centre, 2 in. or more in diam; concave, plicate, crisped; disk pubescent and with a tuft of hairs at the base. Stamens atleast one and half in. long, with a tuft

of hairs at the base of the filament; connective petaloid, half in. long; stigma with a semilunar ciliate mouth.

Capsule 3/4 in. in diam., globosely trigonous, red. Seeds black, with a white aril.

Flowering and fruiting time

Plant flowers during the rainy season and fruiting stage afterwards, autumn and onwards (or cold season).

Distribution

Plant occurs in outer ranges of Himalaya, up to 4,000 ft., and more or less throughout India; also in Ceylon, Malay Peninsula and Islands and in China. It is found in siwalik range and terai area. Common in Sal forests (Uttar Pradesh), and eastwards along the Sub-Himalayan tracts of Rohilkhand and North Oudh, usually in moist shady places, and various areas in northern India. It is also cultivated as an ornamental.

Chemical Composition

Rhizomes contain rich quantity of starch (1/3 of dry wt.) but compared to other tuberous foods, the fibre contents are high. Rhizome contains several alkaloids, steroids and saponins.

Pharmacodynamics

Rasa	: Tikta, Kaṣāya
Guṇa	: Laghu, rūkṣa
Vīrya	: Śīta
Vipāka	: Kaṭṭu
Doṣakarma	: Kaphapittaśāmaka, Vātavardhaka

Properties and action

Karma	: Garbhāśaya sankocaka (tīvra) Dipana-pācana-grāhī-kṛmighna Hṛdya-raktaśodhaka-śothahara Kāsahara-śvāsahare Pramehaghna Kuṣṭhaghna Jvaraghna Medohara
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Roga	: Kaṣṭhaprasava Kṛmi Ślīpada Prameha Kāsa-śvāsa Kuṣṭha-jvara Hṛdvikāra-raktavikāra Sthoulya-santarpaṇajanya vikāra Kaphapittajanya vikāra.
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Therapeutic uses

The drug *Kemuka* has action on uterus as garbhāśaya saṅkocaka (uterine constrictive or ecbolic activity of hastening labour by toning up uterine muscles) and it is orally given in difficult (or abnormal) labor during parturition.

The drug is stomachic, digestive, astringent, anthelmintic, cardiac, blood purifier anti-inflammatory, febrifuge and antidermatosis. The rhizomes are used in obesity, anorexia, worms, heart complaints, blood impurities, filariasis, cough, asthma, prameha, kuṣṭha and metabolic disorders. It allays ailments caused by provocation of pittakapha doṣa; it increases vāta doṣa.

It is suggested by *Suśruta* that the juice of *Kebuka* may be taken keeping on pungent diet in worms affections (*Suśruta Saṁhitā*, Uttara. 54-25). The juice of *Kebuka* rhizome mixed with *biḍa* salt and juice of *Putrañjiva* is recommended in filaria or ślīpada (*Ibid*, cikitsā. 19-62).

The rhizome is edible and is used after cooking. It is mucilaginous, feebly astringent and has no aroma. It is cooked in syrup and made into a preserve.

A name 'costus roots' given to *Saussurea lappa* C.B. Clarke., *Kuṣṭha* drug of Indian medicine, is sometimes to *Costus speciosus* (Koenig) Sm., *Kebuka* drug of present context, when in fact, both plant sources as well as drugs (*auṣaḍha*) are quite distinct.

Parts used : Rhizome

Dose : Juice 10-20 ml., Powder 3-6 gms.

KEMUKA-KEB(V)UKA (केमुक केबु(वु)क)

केमुकं कटुकं पाके पित्तलं ग्राहि हिमं लघु।
दीपनं पाचनं हृद्यं कफपित्तज्वरापहम्।
कुष्ठकासप्रमेहास्त्रनाशनं वातलं कटु ॥

Bhāvaprakāśa Nighaṇṭu, Śāka Varga, 110-111.

- क. केमुकं पेचुला पेलुः पेलुनी दलशालिनी।
ख. केमुकं कटुकं पाके तिक्तं हिमं लघु।
दीपनं रोचनं हृद्यं कफपित्तज्वरापहम् ॥
कुष्ठकासप्रमेहासृक् हरते कुरुतेऽनिलम्।
कटु स्वादु रसं वृष्यं हितं पित्तभ्रमे सदा ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 1607-1609.

श्लीपदे

केवुकाकन्द निर्यासं लवणं त्वथ पाकिमम्।
रसं दत्त्वाथ पूर्वोक्तं पेय मेतद् भिषग्जितम् ॥

Suśruta Saṁhitā, cikitsā. 19-62

क्रिमिरोगे

‘केवुकस्वरसं वापि पूर्ववत्तीक्ष्णभोजनः ।’

Suśruta Saṁhitā, Uttara. 54-25.

KETAKĪ

Botanical name

Pandanus fascicularis Lamk.

Syn. *Pandanus odoratissimus* Linn. f., *Pandanus tectorius* Soland ex Parkinson.

Family : Pandanaceae

Classical name : Katakī

Sanskrit names

Ketaka, Sūcīpuṣpa, Krakacchada, Tṛṇaśūnya, Kañcukī, Halimaka, Karatṛṇa, Sugandha, Kakacatvaca, Jambuka.

Regional names

Kevrha, Kebarha (Hindi); Kiya (Beng.); Kevarha (Mar.); Kevarhi (Guj.), Javanan chedi (Tam.) Mogali chettu (Tel.); Kaji (Arb.); Kadi (Pers.); Screw Pine, Umbrella tree (Eng.).

Description

Gregarious, much branched, stem bent, sometimes up to 25 ft. high, but more often shrubby, resting on strong aerial roots. Shrubby up to 6 meters high, rarely erect, often bushy shrub, stem supported by aerial roots.

Leaves glaucous-green, 8-6 ft. long, caudate-acuminate, usually with strong spines on edges and midrib.

Flowers spathes white, fragrant. Male flower-spadix with numerous sessile, cylindric spikes, enclosed in long white fragrant, caudate-acuminate spathes, staminal column 6-13 mm.; anthers longer than slender filaments, cuspidate. Female flower-spadix solitary, 5 cm. diam., carpels confluent in obpyramidal groups, stigmas short, reniform, yellow. Female flowers highly fragrant. Spadix with numerous sessile cylindric spikes 2-3 in. long, enclosed by long white fragrant spathes; staminal column 1/4 - 1/2 in. long; anthers inserted along the whole length of the upper portion.

Syncarpium solitary, drooping, scarlet; drupes numerous (50-60), each consisting of 5-12 carpels, the apex of each carpel distinct more or less convex with a small variously-lobulate stigma.

Flowering and fruiting time

Fruiting in autumn.

Distribution

Plant is cultivated in gardens for fragrant flowers. It often runs wild in vacant and waste places; Southern India and coastal regions. Malaya Peninsula, Andmans, Seacoast of Peninsula on both sides. Burma and Sri Lanka, Sundargans in India. It is often planted in gardens almost throughout India.

Chemical Composition

Flowers contain aromatic volatile oil.

Pharmacodynamics

Rasa	: Tikta, madhura, kaṭu
Guṇa	: Laghu, snigdha
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphapittaśāmaka tridoṣahara.

Properties and action

Karma	: Varṇya Vedanāsthāpana- soumanasyajanana Ākṣepahara Dourgonadhyahara Keśya Vraṇaropaṇa Medhya-mastiṣka indriya balya Vṛṣya Raktaprasādana Mūtrasaṅgrahaṇīya Stambhana Prajāsthāpana-Vājīkaraṇa Svedajanana Kuṣthaghna-Kaṇḍūghna Kaṭupouṣṭika Dīpana-Pācana-anulomana
Roga	: Varṇavikāra (tvacāgata) Kuṣṭha Jvara-Visphoṭayukta Jvara Masūrikā Vandhyatva-garbhasrāpata- garbhasrāva Prameha Agnimāndya-ajirṇa-vibandha Mastiṣkadourbalya (Janita Vikāra) Raktavikāra Hṛtspandanādhikya Kaṭiśūla-ālavāta-śiraḥśūla Apsmāra Karṇaśūla Vraṇa

Keśaroga
Śrama-Klama
Dourbalya.

Therapeutic uses

The drug Ketakī is antiseptic, aromatic, cooling, bitter, pungent and stimulant. It is used in burning sensation, eye diseases, headache, rheumatism, small pox, eruptions, scabies and all other skin diseases, syphilis and vitiligo. The decoction of roots is given in jaundice and 'Sherbat Keorha' is taken to reduce heat in body. 'Ark Keorha' (aromatic aqua) and 'Itra Keorha' (scent) are also products of ketaki which are used in various purposes.

Drug plant is useful as diaphoretic, febrifuge, brain tonic, cardiogenic, refrigerant, anti-convulsent and aromatic agent. It is useful as herbal drug promoting to conception (foetus stabilising) or prajāsthāpana and pleasing to mind (soumanasyajanana).

Parts used : Flowers, roots, fruit.

Dose

Aqua (Ketakārka) 40-60 ml., Syrup (Ketaka pānaka) 20-40 ml., Infusion 20-50 ml., Paste 2.5-5 gm.

KETAKĪ (केतकी)

- क. केतकः सूचिकापुष्पो जम्बुकः क्रकच्छदः ।
सुवर्णकेतकी त्वन्या लघुपुष्पा सुगन्धिनी ॥
- ख. केतकः कटुकः स्वादुर्लघुस्तिक्तः ।
उष्णा तिक्तरसा ज्ञेया चक्षुष्या हेमकेतकी ॥

Bhāvaprakāśa Nighaṅṭu, Puṣpa Varga, 42-43.

केतकी

केतकी कंचुकी ज्ञेय सूचीपुष्पोः हलीमकः ।
तृणशून्यं करतृणं सुगन्धः ककचत्वचः ॥

सुवर्णकेतकी

'सुवर्णकेतकी त्वन्या लघुपुष्पा सुगन्धिनी' ।
केतकी मधुरा तिक्ता कफघ्नी कटुका लघुः ॥

पुष्पफलञ्च

तत्फलं कटुकं तिक्तं लघूष्णं कफवातजित् ।
पुष्पाणां प्रवरं हेमकेतकी पुष्पमुच्यते ॥
ईषदुष्णं सुगन्धं च सतिक्तं दृष्टिदायकम् ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 1483-1485.

श्वेत केतकी

केतकी तीक्ष्णपुष्पा च विफला धूलिपुष्पिका ।
मेध्या कण्टदला चैव शिवद्विष्टा नृपप्रिया ॥
क्रकचा दीर्घपत्रा च स्थिरगन्धा तु पांशुला ।
गन्ध पुष्पेन्दुकलिका दलपुष्पा त्रिपञ्चधा ॥

स्वर्ण केतकी

स्वर्णादि केतकी त्वन्या ज्ञेया सा हेमकेतकी ।
कनकप्रसवा पुष्पो है मो छिन्नरुहा तथा ।
विष्टरुहा स्वर्णपुष्पी कामखङ्गदला च सा ॥

Rāja Nighaṇṭu, Karavīrādi Varga, 67-69.

केतकी गुणाः

केतकी कुसुमं वर्ण्यं केशदौर्गन्ध्यनाशनम् ।
हेमाभं मदनोन्मादं वर्द्धनं सौख्यकारि च ॥
तस्याः स्तनोऽतिशिशिरः कटुः पित्तकफापहा ।
रसायनकरोबल्यो देवदादर्पकरः परः ॥

Rāja Nighaṇṭu Karavīrādi Varga, 70-71.

अस्थिगत वाते केतक्याद्य तैलम्

केतकिनागबलाऽतिबलानां यद्बहुलेन रसेन विपक्वम् ।
तैलमनल्पतुषोदक सिद्धं मारुतमस्थिगतं विनिहन्ति ॥
अनल्पवचनात् तत्र तुल्ये क्वाथतुषोदके ।
अकल्कोऽपि भवेत् स्नेहो यः साध्यः केवले द्रवे ॥

*Vṛndanādhava, 22-150. Cakradatta,
Vātavyadhi Cikitsā, 22/150-151.*

गुल्मचिकित्सायां केतकीक्षारः

सर्जिकाकुष्ठसहितः क्षारः केतकिजोऽपि वा ।
तैलेन पीतःशमयेद् गुल्मं पवनसम्भवम् ॥

Cakradatta, Gulma Cikitā, 30-12.

अपस्मारे

केतकस्य फलार्कस्य नस्यात् कर्णप्रपूर्णात् ।
पानादञ्जनो हन्यादपस्मारं न संशयः ॥

Arka Prakāśa, 5-71.

असृग्दरे

जलेन केतकीमूलं संघृष्य सितया सहा ।
कारितं कविनां नार्याः रक्तस्त्रावं निवर्तते ॥

Vaidya Manoramā, 2-33.

KHADIRA

Botanical name

Acacia catechu Willd.

syn. *Mimosa catechu* L.f.

Family : Mimosideae (Leguminosae)

Classical name : *Khadira*

Sanskrit names

Khadira, Gāyatrī, Raktasāra, Kaṅṭakī, Bālapatra, Yajñiya, Dantadhāvana.

Regional names

Khair (Hind. Mar.); Sondra (Tel.); Karanagalli (Tam.); Kaggali (Kann.); Cutch Tree (Eng.).

Description

Medium-sized trees, with thorny and hairy branches; bark rough, dark brown. Stipular spines flat, hooked and pointed, less than 1 cm. long. Rachis pilose, with a large gland near base and frequently several smaller ones in between pinnae; pinnae 10-30 pairs; leaflets minute linear, oblique based and obscurely nerved, 16-50 pairs per pinna. Calyx pubescent outside, teeth deltoid. Pod strap-shaped, broken, narrowed below into a short stalk, 3-10-seeded.

Flowering and fruiting time

Plant flowers in August-September and fruits in October-December.

Distribution

Plant is common in the forests of country in plains, dry and warm regions and it occurs in the hills up to 5,000 ft. elevation.

Catechu Catechin or Cutch

Khadirasāra or Katha : Sapwood comparatively large yellowish-white, not durable. Heartwood dark-red, very durable, seasons well and takes fine polish; weight varies between wide limits (average about 60 lbs. per c. ft.).

The pores in heartwood are distinct, being usually filled with a white substance which is in fact the katha or catechin. This substance as well as the cutch-products of great commercial value are obtained by boiling chips of heartwood (in earthen pots as well as suitable vessels e.g. copper, under traditional to developed process in from villages to factories. and finally the substance becomes solid, dry (dried extract) and brown mass (cutch blocks, cubes, and katha picces) in various marketable forms and colours, commonly known as katha or Khadirasāra, which is used in various purposes such as commercial or industrial, pointing, dyeing, medicinal and indispensable ingredient of betel-chewing (Tāmbūla) and other (pān masālā) preparations in prevalence. Katha industry is of economic importance.

Pharmacodynamics

Rasa	: Tikta. kaṣāya
Guṇa	: Laghu, rūkṣa
Vīrya	: Śīta
Vipāka	: Kaṭu
Doṣakarma	: Kaphapittaśāmaka

Chemical Compositions

The chief constituents of the heartwood are catechin and Catechutannic acid; and cotechin content varies from 4 - 7%. The proportion of catechin may be up to 17% in cutch. Normally the kutch (Katha or khadirasāra) has the composition: moisture 12.5-12.0; tannin (high powder method) 57.3 - 59.1; catechin 14.2-17.2; extractive matter

(non-tanning) insoluble matter 3.6-4.2 and ash 1.4 - 1.6 percent.

The catechin of source plant (*Acacia catechu* Willd. or *Khadira* producing kutch or *Khadirasāra*) is also named acacatechin and it is colourless crystalline material insoluble in cold water, but soluble in hot water. It melts at 204-205 percent and has formula $C_{15}H_{14}O_6 \cdot 3H_2O$. Actually it has been observed that acacatechin is not an individual substance but a mixture of flour isomerides. However, the acacatechin is a comparatively unstable substance and is readily oxidised in solution mainly to catechutamic acid and some brown decomposition products.

Catechutannic acid is an amorphous reddish-brown material, readily soluble in water and alcohol, and is insoluble in ether. Purified Kheersal is found to melt at 225-230° and is of the isomeric catechins.

Properties and action

Karma	: Kuṣṭhaghna-kaṇḍūghna Stambhana-raktastambhana- soṇitāsthāpana Kaṇṭhya Kāsaghna Dantya Vraṇaropaṇa Raktavardhak Śothahara Mūtrasaṅgrahaṇīya Śukraśodhana Garbhāśayaśaithilyahara Jvaraghna Dhātuśoṣaṇa-medośoṣaṇa Kṛmighna Rocana
Roga	: Kuṣṭha-śvitra Carmavikāra-Kaṇḍu Raktapitta Raktasrāva Vraṇa-kṣata Dantaroga

Mukharoga
 Kaṅṭharoga-svarabheda
 Kāsa
 Medoroga
 Pradara-yoniśaithilya-kāmātiśaya
 Plihāvṛddhi
 Aruci-Atisāra-Kṛmi
 Prameha.

Therapeutic uses

The durg Khadira is an important medicinal item in indigenous medicine where bark and various parts of plant drug are used in various forms and mainly bark, heartwood and kutch or dried extract are used medicinally in addition to flowers, pods, leaves and gum carrying medicinal properties.

Khadirasāra or Katha (Cutch) is regarded as astringent, cooling and digestive. It is useful in relaxed condition of the throat, mouth and gums, also in cough and diarrhoea. Externally it is employed as an astringent and as a cooling application to ulcers, boils and eruptions on the skin. Katha also enters into a number of compound preparations and some prescriptions.

Parts used

Bark, heart wood, flowers, Extract (Khadira-sāra)

Dose

Powder 3-5 gms. / 1-3 gms., Decoction 50-100 ml.,
 Khadira sāra 1/2-1gm.

Formulations

Khadirāriṣṭa, Khadirāṣṭaka-Khadirādi vaṭi,
 Khaḍirādi Kvātha.

Gaṇa

Kuṣṭhaghna, Kaṣāyas skandha (Caraka Saṁhitā),
 Sālasārādi (Suśruta Saṁhitā).

KHADIRA (खदिर)

खदिरः शीतल स्तिक्त कषायः कफपित्तहा ॥
 दन्त्यो हन्ति कृमिश्वित्रकुष्ठकण्डू ज्वरव्रणान् ।

शोषप्रमेहमेदोऽस्रकासारोचक पाण्डुताः ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 823-824.

श्वेतखदिरः

खदिरः श्वेतसारोऽन्यः कदरः सोमवल्लकलः ।

कदरो विशदो वर्ण्यो मुखरोगकफास्त्रजित् ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 825.

खदिरः

खदिरः शीतलो दन्त्यः कण्डूकासारूचि प्रणुत् ॥

तिक्त कषायो मेदोघ्नः कृमिमेह ज्वर व्रणान् ।

शिवत्रशोथामपित्तास्रपाण्डुकुष्ठकफान् हरेत् ॥

Bhāvaprakāśa Nighaṅṭu, Vaṭādi Varga, 31-32.

श्वेतखदिरः

‘कदरो विशदो वर्ण्यो मुखरोगकफास्त्रजित् ।’

Bhāvaprakāśa Nighaṅṭu, Vaṭādi Varga, 34.

खदिरः

खदिरस्तु रसेतिक्तः शीतपित्तकफापहः ।

पाचनः कुष्ठकासास्रशोषकण्डूव्रणापहः ॥

Rāja Nighaṅṭu, Śālmalyadi Varga, 23.

श्वेतसार (श्वेतखदिर)

श्वेतस्तु खदिरः तिक्तः कषायाः कटु विपाकः ।

कण्डूतिभूतकुष्ठघ्नः कफवातव्रणापहा ॥

Rāja Nighaṅṭu, Śālmalyadi Varga, 25.

रक्तखदिरः

कटूष्णो रक्तखदिरः कषाय गुरुतिक्तकः ।

आमवातास्रवातघ्नी व्रणभूतज्वरापहः ॥

Rāja Nighaṅṭu, Śālmalyadi Varga 27.

विट्खदिरः

विट्खदिरः कटूष्णस्तिक्तो रक्तव्रणोत्वगदोषहरः ।

कण्डूतिविषविसर्प ज्वर कुष्ठोन्मादभूतघ्नः ॥

Rāja Nighaṅṭu. Śālmalyadi Varga 29.

खदिर सारः

कटुकः खदिरः सारः तिक्तोष्णः कफवातहत् ।

व्रणकण्ठामयघ्नश्च रुचिकृत् दीपनः परः ॥

Rāja Nighaṅṭu. Salmalyādi Varga 32.

कुष्ठनाशाय खदिर श्रेष्ठत्वम्

खदिरः कुष्ठाघ्नानां श्रेष्ठम् ।

Caraka Sāṃhitā, Sutra.25

सर्वकुष्ठरोगे महाखदिरकं घृतम्

Cakradatta, Kuṣṭha Cikitsā, 50/111-115

दन्तरोगे

‘खदिरस्य तथा क्वाथो..... ।’

.....दन्तरोग निवारणः ॥

Hārta Sāṃhitā, Cikitsā.

स्थावर विषप्रतिषेधे

खदिरस्य च सुगन्ध तथा निम्बफलानि च ।

उष्णोदकेन पीतानि जयेशुः तत्क्षणाद् विषम् ॥

Hārta Sāṃhitā, Cikitsā. 55.

मसूरिका-रोमान्तिका-विसर्प-कण्डूवादयाः शमनाय खदिराष्टक
क्वाथः

Cakradatta, 54/25-26.

श्लीपदे

खदिरासनशालानां सारकल्कं पिबेन्नरः ।

प्रातर्गवां हि मूत्रेण सक्षौद्रं श्लीपदं जयेत् ॥

Sodhala, Gadanigraha, 4-2-42.

मसूरिका रोगे (अरोचकाघ्न प्रयोगः)

‘पिबेदम्भस्तसशीतं भावितं खदिरासनैः ।’

Cakradatta, 54-34.

कुष्ठे

दिवक्षुरन्तं कुष्ठस्य खदिरं कुष्ठपीडितः ।

सर्वधैव प्रयुञ्जीत स्नानपानाशनादिषु ॥

यथाहन्ति प्रबृद्धत्वात् कुष्ठमातुरभोजसा ।

तथा हन्त्युपयुक्तस्तु खदिरः कुष्ठभोजसा ॥

Suśruta Sāṃhitā, Cikitsā. 9-70/71.

शनैर्मेहे

‘शनैर्मेहिनं खदिर कषायम् ।’

Suśruta Saṁhitā, Cikitsā. 11-9.

क्षौद्रमेहे

‘.....क्षौद्रमेहिनं खदिरक्रमुककषायम् ।’

Suśruta Saṁhitā, Cikitsā. 11-6.

मुखरोगे

‘.....तैलमिदं वारिमेदसा प्रथितम् ।
अनुशीलयन् प्रतिदिनं स्वस्थोऽपि दृढद्विजो भवति ॥’

Aṣṭāṅga Hṛdaya, Uttara, 22-96.

कुष्ठरोगे

‘खदिरः कृमिकुष्ठघ्नः कफरेतोविशोषणः ।’

Dhanvantari Nighaṅṭu.

यथा सर्वाणि कुष्ठानि हतः खदिरबीजकौ ।
तथैवाशांसि सर्वाणि वृक्षकारुष्करौ हतः ॥

Suśruta Saṁhitā, Cikitsā, 6.

खदिर सारंरात्रि प्रयोगे (दुग्धसेवी निषेध)

रात्रौ दुग्धप्राशकानां न हितः तद्विरोधतः ।

कषायस्तुवरश्चास्य स द्वेष्या पायसः स्मृतः ॥

खदिरसाराति योगम्

‘साराधिकये खदिरे शोषदात्री ।’

Rāja Nighaṅṭu.

विषे

खदिरस्य च मूलञ्च तथा निम्बफलानि च ।

उष्णोदकेन तैलानि जयेयुस्तत्क्षणात् विषम् ॥

Śāraṅgadhara Saṁhitā, 3-56-11.

कुष्ठे रसायने च

दह्यामानाच्युते कुम्भे मूलगे खदिराद्रसः ।

साज्यधात्रीरसक्षौद्रो हन्यात्कुष्ठं रसायनम् ॥

Vṛnda mādhava, Kuṣṭhadhikāra 51-59.

सर्वस्त्वग्दोषे खदिर क्वाथः

प्रलेपोद्वर्तनस्नानपानभोजनकर्मणा

।

शीलितं खदिरं वारि सर्वत्वग्दोष नाशनम् ॥

Vṛnda mād̥hava, Kuṣṭhād̥hikāre 51-74. Cakradatta, 50-93.

स्वरभेदे

‘तैलाक्तं स्वरभेदे वा खदिरं धारयेन्मुखे ।’

Cakradatta, Svarabheda cikitsā, 13-7.

विस्फोटे

‘.....खदिरेन्द्रयवाम्बु वा ।’

विस्फोटान्नाशयत्याशु वायुर्जलधरानिव ॥

Cakradatta, 53-28.

‘विस्फोटान्नाशयत्याशु वायुः जलधरान्निवः ।’

Cakradatta, Visarpa Visphoṭa-Cikitsā.

वातज कासे

‘पिबेत्खदिरसारं वा मदिरादधिमस्तुभिः ।’

Caraka Saṁhitā, Cikitsā - 64.

व्रणशोधने

‘त्रिफला खदिरः.....कषाया शोधना मताः ।’

Caraka Saṁhitā, Cikitsā 25-84.

सर्वकुष्ठचिकित्सायां खदिर निर्दाहरसः

Cakradatta, 50-65.

कुष्ठे

पानाहार विधाने प्रसेचने धूपने प्रदेहे च ।

.....विशिष्यते कुष्ठहा खदिरः ॥

Caraka Saṁhitā, Cikitsā. 7-159, 97/99.

रक्तपित्ते

‘खदिरस्य..... ।

पुष्पचूर्णानि मधुना लिह्वान्ना रक्तपित्तिकः ।

Caraka Saṁhitā, Cikitsā. 4-70. Vṛndamād̥hava, 9-20.

कुष्ठे रक्तपित्ते च

खदिरं घृतं निम्बघृतं दावीघृतमुत्तमं पटोलघृतम् ।

कुष्ठेषु रक्तपित्तेषु भिषाग्जित सिद्धम् ॥

Caraka Saṁhitā, Cikitsā 7-135.

कुष्ठे

महाखदिर घृतम्

Caraka Samhitā, Cikitsā. 7-152/156.

खदिरकल्पः

Bhela Samhitā, Cikitsā. 6-52/54.

यथा सर्वाणि कुष्ठानि हतः खदिर बीजकौः ।

तथैवार्षांसि सर्वाणि वृक्षकारुष्करौ हतः ॥

Suśruta Samhitā, Cikitsā. 6-19.

‘पानपरिषेकवगाहादिषु च खदिरकषायम् ।’

Suśruta Samhitā, Cikitsā 9-5.

खदिरविधानम् ॥

Suśruta Samhitā, Cikitsā. 10-13.

‘कुष्ठेषु सेव्यः खदिरस्य सारः ।’

Aṣṭāṅga Hṛdaya, Uttara. 40-50.

श्वित्रे

यच्चान्यत् कुष्ठं श्वित्राणां सर्वमेव तच्छस्तम् ॥

खदिरोदकसंयुक्तं खदिरोदक पानमग्र्यं वा ॥

Caraka Samhitā, Cikitsā. 7-166.

मसूरिकायाम्

पिबेदम्भस्ताशीतं भावितं खदिरासनैः ।

शौचे वारि प्रयुञ्जीत गायत्री बहुवारजम् ॥

Vṛndamādhava, 56-30.

भगन्दरे

खदिरस्य त्रिफलाकाथो महिषीघृतसंप्लुतः ।

विडङ्गचूर्णयुक्तश्च भगन्दरविनाशनः ॥

Śārngadhara Samhitā, 2-2-133.

रक्तपित्ते

गायत्रिजम्ब्वर्जुन कोविदार शिरीषरोध्राशनशाल्मलीनाम् ।

पुष्पाणि शिग्रोश्च विचूर्ण्य लेहो मध्वन्वितः शोणितपित्तं ॥

Suśruta Samhitā, Uttara. 45-34.

मुखरोगे-दन्तरोगे

‘खदिरादि गुटिका, खदिरादि तैलञ्च ।’

Caraka Samhitā, Cikitsā. 26-199/206.

खदिरस्य तथा क्वाथो यवानिक्वाथ एव च ।

क्वाथश्च निम्बमूलस्य दन्तरोग निवारणः ॥

Śārāṅgadhara Samhitā, 3-46-14.

रसायने

खदिरासनयूषभावितायाः त्रिफलायाः घृतमाक्षिकालुतायाः ।

नियमेन नरा निषेवितारो यदि जीवन्त्यरुजः किमत्र चित्रम् ॥

Aṣṭāṅga Hr̥daya, Uttara. 39-153.

छर्द्याम्

‘खर्जूरमांसामान्यश्च नारिकेल द्राक्षामथो वा बदराणि लिह्यात् ।’

Caraka Samhitā, Cikitsā. 20-28.

रक्तपित्ते

‘हितञ्च खर्जूरफलं समाक्षिकम् ।’

Suśruta Samhitā, Uttara. 45-20.

हिक्कायाम्

खर्जूरमध्यं भागध्य..... ।

राजयक्ष्मणि

घृतं खर्जूरमृद्धीकाशर्कराक्षौद्रसंयुतम् ।

सपिप्पलीकं वैस्वर्य कासश्वासज्वरापहम् ॥

Caraka Samhitā, cikitsā. 8-16.

मुखवैरस्ये

.....द्राक्षाखर्जूरयोस्तथा ।

वैरस्यं धारयेत् कल्कं गण्डूषञ्च तथा हितम् ॥

Suśruta Samhitā, Uttara. 39-185.

ग्रहणी

‘तद्वद् द्राक्षेक्षुखर्जूरस्वरसानासुतान् पिबेत् ।’

Caraka Samhitā, Cikitsā. 15-151.

पित्तजकासे

खर्जूरपिप्पली द्राक्षासितालाजाः समांशकाः ।

मधुसर्पियुतं लेहः पित्तकासहरः परः ॥

Vṛndamādhava, 12-7.

शोणितमेहे

.....सक्षौद्रं रक्तमेहजित् ।

क्वाथः खर्जूर काश्मर्य तिन्दुकास्थ्यामृताकृताः ॥

Vṛndamādhava, 35-11.

B. KADARA

Botanical name

Acacia suma Buch-Ham., *A. suma* Buchanan.

Syn. *Acacia catechu* Bedd., *Mimosa suma* Roxb.

Family : Mimoseae (Leguminosae)

Classical name : Kadara

Sanskrit name : Kadara

Regional names

Salkanta (Common, Bengla); Dhaula Khejra (Rajthan)

Description

A large or middle-sized tree. Bark white. Branches stiff, flexuose; branchlets and petioles downy, with soft grey pubescent. Prickles in pairs, infra-stipular; conical, downy white young, brown shining afterwards.

Common petiole 4 - 10 in. long, unarmed, with a large cup-shaped gland above the base. pinnac 10-20 pairs; leaflets 20-50 pair, linear, approximate, imbricate, generally ciliate.

Flowers white or pale yellow; spikes lax. Petals not much longer than calyx.

Pods 3-5 by 1/4 in., pubescent when young. Wood similar to that of *Acacia catechu* Willd. (*Khadira*), used as a tan and cutch.

Flowering and fruiting time

Rains to Autumn and onwards.

Distribution

Western peninsula, both on the West as well as on

the East side, extending north to the southern Rajasthan, lower Bengal and Sunderban.

KADARA (कदर)

मधुमेहे

कदरक्रमुककषायम् ।

Suśruta Saṁhitā, Cikitsā. 11-9

मधुमेहेकदरखदिरपुरकषायम् ।

Aṣṭāṅga Saṅgraha, Cikitsā. 14-8

कदरखदिर पूगकृाथं क्षौद्राह्वये पिबेत् ।

Vṛndamādhava, 35-13.

KHARBŪJAM

Botanical name

Cucumis melo L.

Syn. Cucumis melo var. culta Kurz.

Family : Cucurbitaceae

Classical name : Karbūjam

Sanskrit names

Kharbūjam, Daśāṅgula, Madhuphalā, Vṛttakarkaṭi, Vṛttairvāru, Ṣoḍarekhā.

Regional names:

Kharbuja (Hindi); Kharbuja (Punj., Guj., Mar.); Kharmuj (Beng.); Mulampaz-ham (Tam.); Kharbujadoṣa Putzakova (Tel.); Melon (Eng.) Musk Melon, Sweet Melon (Common.)

Description

Robust prostrate annuals. Leaves 8-15 cm. long, almost equally broad, 5-angular or moderately, 3-7-lobed; lobes obtuse, sub-orbicular; denticulate, base cordate, villose or subhirsute.

Male flowers fasciculate; peduncles slender, 5-30 cm. long; calyx-tube narrow, campanulate, villose 6-8 mm. long; lobes subulate; erect or spreading; corolla ca 2 cm.

the East side, extending north to the southern Rajsthan, lower Bengal and Sunderban.

KADARA (कदर)

मधुमेहे

कदरक्रमुककषायम् ।

Suśruta Saṁhitā, Cikitsā. 11-9

मधुमेहेकदरखदिरपुरकषायम् ।

Aṣṭāṅga Saṅgraha, Cikitsā. 14-8

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long 5 lobes ovate-oblong, acute; staminal filaments very short; anthers 3-4 mm. Female flowers peduncles 1-2 cm. long; Ovary softly hairy, style 1-2 mm. long, stigma connivent, ca 2 mm. long.

Fruits polymorphous; seeds oblong, 10-12 × 5-6 mm., white, obtuse at apex, base subacute.

Flowering and fruiting time

Plant flowers in May-July and it becomes in fruiting in July-October. Seeds are sown usually from January to March and the fruits are ready for harvest within 3-4 months (July).

Distribution

It is commonly cultivated for edible fruits. Plant is extensively cultivated in warmer regions for its deliscious fruits valued as dessert.

Kinds and varieties

Another plant *Cucumis melo* var. *arrestis* Naud. syn. *Cucumis pubescens* Willd. is a variety. Plants are slender wild annuals with smaller leaves and oblong or turbinate fruits which are much smaller as compared to var. *melo* and fruits are inedible.

Numerous varieties, and races are known differing in the size and shape of fruits, types thickness, colour, markings on the rind, taste, flavour and colour of the inner flesh and cultural behaviour.

Pharmacodynamics

Rasa	: Madhura (anurasa: amla, sakṣāra)
Guṇa	: Snigdha, Śīta
Vīrya	: Śīta
Vipāka	: Madhura
Doṣakarma	: Vātapittaśāmaka

Chemical composition

Analysis of the fruit gives following data: protein 0.6, carbohydrates 5.4, fat 0.2, crude fibre 0.5, ash 0.6, calcium 0.16 and phosphorous 0.015%, iron 3.9 mg per Kg.; copper 0.6 mg. per kg.; (pro) vitamin A 2400 IU, vitamin B₁, 57 ug., B₂ 75 ug., and vitamin C 25 mg./ per 100g.

Properties and action

Karma	: Vṛṣya Tarpaṇa-santarpaṇa Puṣṭidā Dāhapraśamana Śramahara Mūtrala-mūtraśuddhikara Raktapittapraśamana Balya
Roga	: Mutrakīchra Unmāda Dāha Śrama Santāpa Raktapitta Śukradourbalya Klaibya Dourbalya.

Therapeutic uses

Kharbūja is a tasty edible fruit. Fruit and seeds have medicinal properties. Seeds are effective diuretic and used in urinary troubles. Kharbūja is used to allay burning sensation, heat effects, biliary affections, debility, seminal complaints and raktapitta. It is a tonic.

The seeds are large in some varieties and seeds of sweet melon (kharbūja) contain a kernel rich in oil. Seeds are edible which are generally eaten after removing seed-coat, and they are used as a substitute of almond and pistachio.

The seeds are diuretic (mūtrala). The pulp of fruit is also diuretic and beneficial in chronic or acute eczema. Melons are eaten raw as dessert. The flesh constituting 45-80% of the fruit, is soft, often mealy in consistency, with musk-like odour and delicious taste. The fruits can be canned or made into syrup or jam.

Parts used : Fruit, seeds.

Dose : 3-6 gm. Fruit-pulp edible, 1-3 gm. Seeds-powder.

KHARBŪJAM (खर्बुजम्)

दशाङ्गुलं तु खर्बूजं कथ्यन्ते तद्गुणा अथ ।
स्निग्धं स्वादुतरं शीतं वृष्यं पित्तानिलापहम् ॥
तेषु यच्चाम्लमधुरं सक्षारञ्च रसाद्भवेत् ।
रक्तपित्तहरं तत्तु मूत्रकृच्छ्रहरं परम् ॥

Bhāvāprakāśa Nighaṇṭu, Āmrādiphala Varga, 44.

खर्बुज (त्रपुसविशेषः)

- क. अथ खर्बुजा मधुफला षड्भेदवा वृत्तकर्कटी तिक्ता ।
तिक्तफला मधुपाका वृत्तैवरिश्च षण्मुखा नवधा ॥
- ख. तिक्तं बाल्ये तदनु मधुरं किञ्चिदम्लं च पाके
निष्पक्वं चेत्तदमृतसमं तर्पणं पुष्टिदायि ।
वृष्यं दाहश्रम विशमनं मूत्रशुद्धिं विधत्ते
पित्तोन्मादापहरकपदं खर्बुजं वीर्यकारि ॥

Rāja Nighaṇṭu, Mūlakādi Varga, 200-201.

KHARJŪRA

Botanical name

Phoenix sylvestre (L.) Roxb. (Type)
syn. Elate sylevestris L. Phoenix dactylifera Linn.

Family : Arecaceae (Palmae)

Classical name : Kharjūra

Sanskrit names

Kharjura, Kharjūrī, Skandaphala, Kākakarkaṭī,
Svādumastakā, Duraroha, Mṛducchadā.

Regional names

Khajura (Hindi); Khejura (Beng.); Khajura (Mar.,
Guj.); Rutab (Arab.); Khurma (Pers.); Date (Eng.)

Description

Robust trees up to 16 meters high (when not cut for tapping); trunk rough owing to persistent leaf bases of fallen leaves.

Leaves 3-5 meters long; leaflets up to 45.0 × 2.5 cm., spinetipped, 7.5 cm. apart.

Male flowers white, in a compact spadix; peduncle short, flattened. Female flowers in spikes fascicled on peduncle, 60 cm. or more long. Sepals united. Petals twice as long as calyx.

Drupe orange-red, about 2.5 cm. long; stone 2 cm. long, grooved on one side.

Flowering and fruiting time

January to April. Winters to summer season.

Distribution

It is found throughout India. Piṇḍakharjura is native of Egypt, Syriya and Arab. It is also cultivated in Sindha and Punjab.

Kinds and varieties

There are two kinds of drug viz. Kharjūra and Piṇḍakharjūra. The fruit of Piṇḍakharjūra is big and fleshy; leaves are sharply pointed. The source plant is botanically named as *Phoenix dactylifera* Linn. Dried fruit of this plant is known as Gostana Kharjūra (Chhuhara). These three kinds of kharjūra are collected put in a group and named as 'Kharjura trikāya'. Bhāvaprakāśa Nighaṇṭu also mentions Sulemānī Kharjūra which is a variety of Piṇḍakharjūra. In Rājanighaṇṭu, the kinds of kharjūra are mentioned as follow : Kharjūra, Kharjūrī, Piṇḍakharjūrī, Rāja Kharjūrī, Madhukharjūrī and Bhūkharjūrī. Bhukharpūrī is botanically identified as *Phoenix acaulis* Roxb or *Phoenix humilis* Royle. Hintāla is botanically known as *Phoenix paludosa* Roxb.

Chemical composition

Fruit contains protein 1.2%, carbohydrate 33.8%, fibres 3.7%. minerals 1.7%, calcium 0.22% and phosphorus 0.38% Nirā contains vitamin B and C. Piṇḍakharjūra contains higher nutritive value. Ripe fruits of Piṇḍakharjūra contains sugar percentage up to 87 percent.

Pharmacodynamics

Rasa : Madhura

Guṇa	: Snigdha, guru
Vīrya	: Śīta
Vīpaka	: Madhura
Doṣakarma	: Vātapittaśāmaka.

Properties and action

Karma	: Dāhaprasādana Hṛdya-Raktapittaśāmaka Kaphaniḥsāraka Vṛṣya Mūtrala Jvaraghna Śramahara-balya-br̥nhana Snehana-anulomana-stambhana Viṣṭambhī Kṛmighna Nāḍībalya-mastiṣkaśāmaka- Vātahara Vedanāsthāpana Madakārī
Roga	: Kāsa-hikkā-śvāsa Chardi Raktapitta Kṣaya-kṣata-uraḥkṣata Granthi Muskhavairasya Hṛdvikāra Balya Jvarātisāra Mada-mūrchā Śukrakṣaya Madyobhūta vikāra dantaśūla Mūtrakṛchra Jvara-dāha Koṣṭhagatavāta Kaṭiśūla-gr̥dhrasi-vātāvikāra

Therapeutic uses

The drug Kharjūra pacifies raktapitta, and it is car-

diotonic and expectorant. It is diuretic, demulcent, nervine tonic, aphrodisiac, general tonic, carminative and anthelmintic.

Fruits and some other parts are useful and there are important products of Kharjūra which have different kinds of uses in medicine as well as food or drinks carrying wide ranging utility. They have commercial value also.

Fruits and other parts or produces have medicinal properties. Fruits are used in various forms and modes in cough, hiccough, asthma, spermatorrhoea, dysuria, fever, burning sensation, thirst, faints, alcoholism, sciatica, back-ache, vomiting and diarrhoea. Root, leaves and other produces are also useful in medicine.

Parts used

Fruit, juice, leaves, Nira (fresh unfermented sap), Guda (palm Jaggery or gur, Vinegar (fermented sap), Toddy.

Dose : 10-20 gm., Depending on requirement.

KHARJŪRA (खर्जूर)

- क. भूमिखर्जूरीका स्याद्वी दुरारोहः मृदुच्छदा ।
तथा स्कन्धफला काककर्कटी स्वादुमस्तकः ॥
- ख. पिण्डखर्जूरीका त्वन्या सा देहे पश्चिमे भवेत् ।
- ग. खर्जूरी गोस्तनाकारा परद्वीपादिहागता ॥
जायते पश्चिमे देशे सा छोहारीति कीर्त्यते ।

Bhāprakāśa Nighaṇṭu, Āmrāphalādi Varga, 115-117

खर्जूरी त्रितयम्

(क्षुद्रखर्जूरी-पिण्डखर्जूरी-छोहारा च) तासां गुणांश्च-

खर्जूरी त्रितयं शीतं मधुरं रसपाकयोः ॥
स्निग्धं रुचिकरं हृद्यं क्षतक्षयहरं गुरु ।
तर्पणं रक्तपित्तहरं पुष्टिं विष्टम्भ शुक्रदम् ॥
कोष्ठमारुतहृद् बल्य वान्ति वातकफापहम् ।
ज्वरातिसार क्षुतृष्णाकासश्वासनिवारकम् ॥

मदमूच्छमिरुचित्पित्तमद्योद्भूतगदान्तकृत् ।
महातीभ्यां गुणैरल्पास्वल्पखर्जूरिका स्मृता ॥

Bhāvaprakāśa Nighaṇṭu, Āmrāphalādi Varga, 117-120.

खर्जूरीतरुतोयम्

खर्जूरीतरुतोयं तु मदपित्तकरं भवेत् ।
वातश्लेष्महरं रुच्यं दीपनं बलशुक्रकृत् ॥

Bhāvaprakāśa Nighaṇṭu, Āmrāphalādi Varga, 121.

पिण्डखर्जूरीभेदः (सुलेमानी खर्जूरी)

सुलेमानी तु मृदुला दलहीनफला च सा ।
सुलेमानी श्रमभ्रान्ति दाहमूच्छऽस्त्रपित्तहत् ॥

Bhāvaprakāśa Nighaṇṭu, Āmrāphalādi Varga, 122.

खर्जूर

- क. सिंही श्रेमी खरस्कंधा निःश्रेणी दृढकण्टका ।
कषाया मधुरा स्वाद्वी दुरारोहा ग्रहापरा ॥
ख. भूमिखर्जूरिका काककर्कटी काकपर्कटी ।
खर्जूरिका स्वादुफला सुफला स्वादुमस्तका ॥

पिण्डखर्जूरिका

- ग. पिण्डखर्जूरिका खर्जुःदुःप्रवर्षा सुकण्टका ।

खर्जूर गुणाः

- घ. खर्जूरं तुवरं शीतं मधुरं रसपाकयोः ॥
स्निग्धं रुचिकरं हृद्यं क्षतक्षयहरं गुरु ।
तर्पणं रक्तपित्तघ्नं तुष्टिपुष्टिद शुक्रलम् ॥
कोष्ठमारुतकृत् वन्यं दाहवातकफापहम् ।
ज्वराभिघातक्षुतृष्णा कासश्वासस्त्रियाच्छति ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 294-298.

खर्जूर मस्तकमज्जा

मज्जा तु मूर्धजः स्वादुर्वृष्यो रक्तकफापहः ।

खर्जूरवृक्षतोयम्

खर्जूरिकातोयं मदपित्तकरं परम् ॥
वातश्लेष्महरं रुच्यं दीपनं बलशुक्रकृत् ।

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 297-298.

क. खर्जूरी

खर्जूरी तु खरस्कन्धा दुष्प्रवर्षा दुरारुहा ।
निःश्रेणी च कषाया च यवनेष्टा हरिप्रिया ॥
खर्जूरी तु कषाया च पक्का गौल्यकषायका ।
पित्तघ्नी कफदा चैव क्रिमिकृद्दृष्यवृंहणी ॥

Rāja Nighaṇṭu, Āmrādi Varga, 55-56.

ख. मधुखर्जूरी

मधुखर्जूरी त्वन्या मधुकर्कटिका च कोलकर्कटिका ।
कण्टकिनी मधुफलिका माध्वी मधुरा च मधूरखर्जूरी ॥
मधुखर्जूरी मधुरा वृष्या सन्तापपित्तशान्तिकरी ।
शिशिरा च जन्तुकरी बहुवीर्यं विवर्द्धनं तनुते ॥

Rāja Nighaṇṭu, Āmrādi Varga, 57-58.

ग. भूखर्जूरी

भूखर्जूरी भुक्ता वसुधाखर्जूरिका च भूमिखर्जूरी ।
भूखर्जूरी मधुरा शिशिरा च विदाह पित्तहरा ॥

Rāja Nithaṇṭu, Āmrādi Varga, 59.

घ. पिण्डखर्जूरी

दीप्या च पिण्डखर्जूरी स्थलपिण्डा मधुस्रवा ।
फलपुष्पा स्वादुपिण्डा हयभक्ष्या स्वराभिधा ॥

Rāja Nighaṇṭu, Āmrādi Varga, 60.

ङ राजखर्जूरी

तथाऽन्या राजखर्जूरी राजपिण्डा नृपप्रिया ।
सुनिखर्जूरिका वन्या राजेष्टा रिपुसन्मिता ॥
पिण्डखर्जूरिका युग्मं गौल्यं स्वादे हिमं गुरु
पित्तदाहार्तिश्वासघ्नं श्रम हृद्दीर्यवृद्धिदम् ॥

Rāja Nighaṇṭu, Āmrādi Varga, 61-62.

KHATMĪ

Botanical name : Althaea officinalis Linn.

Family : Malvaceae

Classical name : Khatmī

Sanskrit names

Khatmī, Picchilamūlā, Khatmī, Supuṣpā.

Regional names

Khatmi Khatami (Hindi); Gulkhairu (flowers); Tukhma Khatmi (fruits), Rasha Khatmi (roots); Khatmi (Pers.); Kasirul munpheat (Arabic); Sajposh (Kash.); Marsh mallow (Eng.).

Description

Althaea officinalis Linn., belonging to a small genus of herbs (comprising about 15 species), distributed in the temperate regions, of which two are native to India.

***Althaea officinalis* Linn.**

It is a perennial herb, with ornamental flowers, occurring in Kashmir as wild plant and in Punjab; and cultivated in various parts of country. *Althaea rosea* Linn. is the common Holly-hock, often planted in Indian gardens as an ornamental plant frequently cultivated for beautiful flowers in kitchen gardens. It is often met with as an escape. Flowers are showy.

***Althaea rosea* Linn.**

Flowers solitary in the axils or upper leaves; white, red, pink, yellow or rosy, 5-12 cm. across; pedicels 0.5-1.5 cm. long; epicalyx bracteoles, 6-8; calyx stellately pubescent; corolla often double. Flowering in March-June.

Pharmacodynamics

Rasa	: Madhura
Guṇa	: Snigdha, picchila, guru
Vīrya	: Śīta
Vipāka	: Madhura
Doṣakarma	: Vātapittaśāmaka Kaphaniḥsāraka

Properties and action

Karma	: Snehana-anulomana Śleṣmahara Mūtrajanana Śothahara-vedanāsthāpana
Roga	: Antraśoṭha-antrāvarodha

Pravāhikā
 Pratiśyāya-Kāsa (Vātapaittika)
 Mūtrakṛcchra-mūtradāha
 Vraṇaśoṭha-stanaśoṭha
 Pārśvaśūla-phuphusaśoṭha
 Kaṇṭhaśoṭha.

Chemical Composition

Roots of *Althaea officinalis* Linn contain mucilage 35%, and starch 37%. The seeds of *Althaea rosea* Cav. (Holly-Hock) contain 11.1% of a drying oil.

Roots (*A. officinalis*) contains mucilage, starch, pectin, sugar, fixed oil and Khatmine or Althein, a crystalline form substance, 1%-2% which is similar to Asparagin (isolated from *Asparagus* spp.) flowers (*Althaea rosea*) yield a red dye (anthocyanins) which may be used as an indicator in acidimetry and alkalimetry.

Therapeutic uses

The roots of plant drug (khatmi) are suitable for uses as medicine. Roots are quite mucilaginous and roots, need to be utilised after peeling off their outer bark (mūlatvak). Root is pleasantly odorous, light and slightly sweet or sweetish in taste. Roots give ash (4.5%) on burning.

The seeds of plant drug (Tukhme Khatmi or Habbul Khatmi), flat and black (seeds actually carpels or fruits of plant) are used medicinally. Seeds and leaves are externally applied to inflammation, localised oedema or swelling, boil, painful organs (lesions) and as emollient medicine.

Decoction or infusion of seeds and flowers is given in cough and respiratory diseases as it effects as demulcent medicine in respiratory tract. Seeds are also mucilaginous and given in diarrhoea (*Pittaja atisāra*), dysentery, urinary burning sensation (mūtradāha) and intestinal inflammation (āntraśoṭha). Roots are mainly antiphlogistic and anti-cough; and in coryza and dry cough the decoction of root, seeds and flowers is given. Topical effect is also analgesic of drug besides other medicinal properties.

It is an emollient and is used in making absorbent pills and pastilles. Leaves are useful in preparation of a soothing ointment.

The roots are available in market as 'Resha Khatmi' and used as drug in medicine, flowers as commonly known 'Gulkheru' and seeds as 'Tukhma Khatmi', besides other parts like stem, leaves, gum (Kāṇḍa, patra, niryāsa) are used for medicinal purposes.

The flowers of *Althaea officinalis* Linn. are useful, in the form of infusion in bronchial catarrh, cough and bronchitis. Flowers are externally applied over burns. Roots, seeds, leaves, stem and gum are medicinally useful besides flowers.

The flowers of *Althaea rosea* Linn. are cooling and diuretic; they are useful in rheumatism, decoction used as demulcent in affections of respiratory organs.

Parts used : Flowers, seeds, roots, leaves, stem, gum.

Dose : 3-6 gm. or 5-7 gm.

KHUBBĪJA - KHUBBAJI

Botanical name : *Malva sylvestris* Linn.

Family : Malvaceae

Common name : Khubbāji

Sanskrit name : Khubbīja

Regional names

Kunjhi, Khubaji, Kunzi (Hi.); Khabaji (Sindh), Nane kulang-Kagarotika (Pers.), Pijak (Pers.); The Common Mallow (Eng.). Papara, Papra, Changer, Chngal (Hindi) plant.

Description

An erect glabrous annual, 8-5 ft. high.

Leaves cordate, rounded, with 5-7 obtuse lobes; petioles as long as the leaves; stipules ovate oval acute. Peduncles several, axillary, much shorter than the petioles.

Flowers 1-1.5 in. diam., pale rose streaked with purple. Petals notched; claw bearded.

Carpels wrinkled on the back, glabrous.

Flowering and fruiting time

Plant flowers in cold season and fruiting stage begins afterwards.

Distribution

Plant occurs in Bengal and Southern India. It also occurs in Punjab and on the western Himalaya, extending westward to Europe and North Africa (also to Siberia). It is found in Uttar Pradesh. Frequently grown in the gardens and used as pot herb.

Chemical composition

The analysis of the leaves gave the following values: moisture 92.0, nitrogen 0.33 and ash 1.7 percent; and calcium 221, phosphorous 36, iron 9.7, carotene 4.8, thiamine 0.10, rivo flavin 0.24 and niacin 0.44 mg / 100 g.

The plant is good source of carotene and calcium, ascorbic acid is present in appreciable amounts. Plant has rich content of mucilage. The colouring matter of the flowers is a diglucoside, malvin.

Pharmacodynamics

Rasa	: Madhura, tikta
Guṇa	: Snigdha, picchila
Vīrya	: Śīta
Vipāka	: Kaṭu
Doṣakarma	: Vātakaphahara-Tridoṣaśāmaka.

Properties and action

Karma	: Chhedana-śleṣmahara Kāsaghna-śvāsahara-Kaṅṭhya-svarya Doṣapācana-doṣavilomakara Snehana-picchila Mūtrajanana Pittapācana
Roga	: Kāsa-śvāsa-svarabhaṅga- kaṅṭhavikāra Mūtrakṛcchra-mūtraghāta Āntravikṛti (āntraroukṣya)

Therapeutic uses

The leaves are eaten as a vegetable. Young carpels

and seeds are also eaten. All parts of plant drug are richly mucilaginous.

The herb possesses demulcent, cooling, antiseptic and emollient properties. It is used in pulmonary and urinary affections and externally also on abscess and inflammations. It is given in cough.

The flowers and immature fruit, are used for whooping cough. Fruits flowers and leaves are official in some pharmacopoeias (French and Swiss). Plant has emollient properties.

An extract of the leaves stimulates the smooth muscles of isolated uterus and intestines. Active principle is present in the leaves to the extent of 0.018 percent. Flowers are used for colouring wine red.

Parts used

Fruit Khubbaji, as known (Bīja) or seeds in practice).

Dose : 5-7 gm.

KĪRĀTATIKA

Botanical name

Swertia chirayita (Roxb. ex Flem.) Kurst. *Swertia chirata* Buch.-Ham.

Family : Gentianaceae

Classical name

Kirātatikta, Anāryatikta, Bhunimba, Kirāta.

Regional names

Chirayatā, Chiraita, Chireta (Hindi); chireta (Beng.); Kirait (Mar.); Kariyatu (Guj.) Nilavembu (Guj.); Nilavebu (Kann.), Nilaveppa (Mal.); Kasabuljarira (Arab.) Nainihabandi (Pers.); Chiretta, Chirayata (Eng.).

Description

An erect herbaceous robust herb; stems 1-1.5 m. branching, terete except near the top; annual plants 60-90 cm. tall (2-3 ft.).

Leaves broadly lanceolate, 10 × 3.75 cm. acute.

Flowers in paniculate or corymbose cymes; calyx and corolla 4-lobed; corolla greenish-yellow tinged with purple, two glands on each lobe; green, fringed with long hairs; ovary 1-celled; style short; stigma 2-lobed.

Capsule sessile, oblong, 5/8 cm. diam; seeds many minute, smooth.

Flowering and fruiting time

Plant is flowering and fruiting in September-November or autumn season.

Distribution

Plant occurs in eastern temperate Himalayas at 1500-3000 meters altitude. It is found in Uttar Pradesh, Himachal Pradesh and Kashmir in the region above 4,000-5,000 ft. Plants grow wild in the Himalayan regions between 1208-3046 meters (4000 - 10,000 ft.) elevations from Kashmir to Bhutan and it is found in nature in Khasi hills at 1204-1525 metres (4,000-5000 ft) in north eastern Himalayan region. Some other species of *Swertia* are found frequently than *Swertia chirata* Buch-Ham.

Kind and varieties

There are some other species of the genus *Swertia* which have occurrence in the same areas (and also in other localities even lower elevations), where *Swertia Chirata* Buch-Ham. grows in nature (only at suitable altitudinal ranges). Certain species resemble in appearance but they quite differ in taste (bitterness even few species are not bitter rather such species have no bitterness in taste). For the instance, *Swertia angustifolia* Buch Ham. is also known as *Mitha Chirayata*. *Swertia alata* Royle is never bitter. Such species are adulterants and substitute plants which do not, actually replace genuine and bitter *Swertia* sp. possessing actual medicinal properties of *Kiratatika*, though some other species are also medicinal.

Chemical composition

Plant contains chiratin and ophelic acid, two bitter principles; and chiratin is chief bitter active constituent which are very bitter and amorphous glucoside. Ophelic

acid is yellowish brown (like syrup) which is soluble in water and alcohol. Another neutral principle, oleic acid, palmitic acid, stearic acid and phytosterol in more or less extents are also isolated from plant.

Pharmacodynamics

Rasa	: Tikta
Guṇa	: Laghu, rūkṣa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Tridoṣaśāmaka Vātapittasāmaka

Properties and action

Karma	: Jvaraghna Kaṭupouṣṭika Dāhapraśamana Raktaśodhaka Kaṇḍūghna-Kuṣṭhaghna Svedajanana Stanyaśodhana Kaphoghna-śvāsahara Hṛdya Śothaha Tṛṣṇānigrahana Dīpana-Pācana-āmapācana Pittasāraka Anulomana Kṛmighna Vraṇaropaṇa-śodhna
Roga	: Jvara-Jīrṇajvara-viṣamajvara Kuṣṭha-kaṇḍū-carmavikāra- raktaduṣṭi Kāmala-yakṛdvikāra-pāṇḍu Agnimāndya-ajīrṇa-vibandha Tṛṣṇā-dāha Kṛmi Kāsa-śvāsa Hṛddourbalya-raktavikāra Vraṇa Atisāra-grahaṇī

Upadaṁśā
Visarpa-visphoṭa
Stanyaduṣṭi.

Therapeutic uses

The drug Kirātatikṭa is bitter, biliary, tonic, blood purifier carminative vermifuge, stomachic, tonic, expectorant, febrifuge and laxative. It is used in anorexia, biliary disorders, cough, constipation, fevers, skin affections, wounds and worms. It is useful in periodic febrile conditions.

The whole plant (pancāṅga) of drug plant is used in the form of powder, decoction and as an ingredient of various formulation; and the drug is chiefly given as potent remedy against malarial fever, periodic fevers, blood impurities, liver and splenic complaints. It is taken in debility after fever, burning sensation, lactation problems, oedema, heart weakness, excess thirst and skin diseases.

Parts used : Whole plant.

Dose

Powder 1-3 gms., Decoction 25-50 ml.

Formulation

Sudarśana cūrṇa, Kirātādi kvātha

Guṇa

Tiktaskandha, Stanyaśodhana, Tṛṣṇānigrahaṇa (Caraka Saṁhitā), Āragvadhādi (Suśruta Saṁhitā).

KIRĀTATIḲTA (किराततिक्त)

भूमिम्बः शीतलो रूक्षो रसे तिक्तो लघुः सरः ॥

शीतलः कफपित्तास्रकुष्ठमेहापहो हरेत् ।

श्वासकासतृषादाहारुचिशोफ ज्वरकृमीन् ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 890-891.

किरातः सारको रूक्षः शीतलस्तिक्तको लघुः ।

सन्निपातज्वर श्वासकफपित्तास्रदाहनुत् ।

कासशोथतृषाकुष्ठज्वरव्रणकृमि प्रणुत् ॥

Bhāvaprakāśa Nighaṇṭu, Haritakyādi Varga, 155

भूनिम्बो वातलुस्तिकः कफ पित्तज्वरापहः ।
व्रणसंरोपणोः पथ्यः कुष्ठकण्डूतिशोफनुत् ॥

Rāja Nighaṅṭu, Prabhadrādi Varga, 16

उपदंश चिकित्सायां भूनिम्बादि क्वाथः

*Bhāvaprakāśa, Madhyakhaṇḍa, 51-39.
Cakradatta, 47-18.*

शोथे भूनिम्बादि क्वाथः

भूनिम्ब विश्वकल्कं जग्ध्वा पेयः पुनर्नवाक्वाथः ।
अपहरति नियतमाशु शोथं सर्वाङ्गनां नृणाम् ॥

Vṛdamādhava, 39-17. Cakradatta, Śoṭha Cikitsā, 39-21.

विस्फोटके विसर्प रोगे भूनिम्बादि कषायः

*Cakradatta, Visarpa-visphoṭa cikitsā, 53-24.
Gadunigraha, 2-40-16.*

छर्द्याम्

पीतो भूनिम्बकल्कश्च शर्करासमभागतः ।
द्विदि हरेच्च हृत्कलेशं मधुना वा समन्वितः ॥

Hārīta Samhitā, 3-51-6.

ज्वरे

ननु रामसेनफाण्टः प्रविरलधान्याकदलधान्यः ।
किं कुरुते वैद्यपते ! ज्वरं झटिति जर्जरीकुरुते ॥

*Siddha Bhaiṣajya Maṇimālā, 4-32.
Caraka Samhitā, Cikitsā. 15-132/133.*

ग्रहणी रोगे

भूनिम्बाद्यं चूर्णम्
किराताद्यं चूर्णम्

Caraka Samhitā Cikitsā. 15-137/140.

रक्तपित्ते

किराततिकं क्रमुकं समुस्तं..... ।

पृथक् पृथक् चन्दनयोजितानि तनैव कल्पेन हितानि तत्र ॥

Caraka Samhitā, Cikitsā. 4-74/76.

स्तन्यशोधने

पाययेताथवा स्तन्यशुद्धये रोहिणी शृतम् ।

अमृतासप्तपर्णं त्वक् क्वाथे चैव सनागरम् ॥
 किराततिक्तकक्वाथं श्लोकपादेरितान् पिबेत् ।
 त्रीनेतान् स्तन्यशुद्धयर्थमिति सामान्यभेषजम् ॥

Caraka Samhītā, Cikitsā. 30-261/262.

शोथे

हन्यात् त्रिदोषंचिरजञ्च शोथं कल्कश्च भूमिम्बमहौषधस्य ।

Caraka Samhītā, Cikitsā. 12-42.

भूमिम्बविश्वकल्कं जगध्वा पेयः पुनर्नवाक्वाथः ।
 अपहरति नियतमाशु श्वयथु सर्वाङ्गं नृणाम् ॥

Vṛndamādhara, 39-17.

KĪTAMĀRĪ

Botanical name : Aristolochia bracteata Retz.

Family : Aristolochiaceae

Classical name : Kītamārī

Sanskrit names : Kītamārī, Dhūmrapatrā

Regional names

Kitamar (Hindi); Patuvang (Beng.); Kidamari (Mar., Guj.); Paniri (U.); Adu-tinn palai (Tam., Mal.); Gadidagalappa (Tel.); Adumuttadgida (Kann.); Bracteated Birthwort (Eng.)

Description

Slender perennial herb. A glabrous, prostrate herb. Leaves 4-6 × 3.5-4.5 cm., glaucous, reniform or broad ovate, deep, cordate; basal lobes rounded. Flowers 50 × 5 mm., dark purple, solitary, tubular, with trumpet-shaped mouth. Capsules oblong ellipsoid, ribbed, 2.5-1.5 cm.

Flowering and fruiting

Greater part of the year.

Kinds and varieties

Aristolochia bracteata Retz. is occurring in wild state, while Aristolochia elegans Mast is a climbing shrub. Plants are cultivated form and they are grown as an orna-

mental climber along the trellises, forming a dense screen with its foliage. Former species is wild and latter ones is planted which is climbing glabrous shrub; flowering during October-December period.

Distribution

It is found in the Upper Gangetic plain, Bengal and the western peninsula, and in the north-west up to Bundelkhand in Uttar Pradesh. Plant grows abundantly on the black and of Deccan and Gujrat. Herb is also found in Delhi but rare occurrence (wild state).

Chemical composition

It contains a volatile oil having unpleasant odour, an alkaloid and salt specially potassium chloride and nitrate. Its bitter component is aristolochic acid.

Pharmacodynamics

Rasa	: Tikta
Guṇa	: Laghu, rūkṣa, tūkṣṇa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphavātaśāmaka.

Properties and action

Karma	: Kṛmighna
	Recana
	Śothahara
	Garbhāśayottejaka
	Svedajanana
	Viṣamajvarapratibandhaka
Roga	: Kṛmiroga
	Vibandha
	Śoṭha
	Rajorodha-Kaṣṭārtava
	Tvagdoṣa-vicarcikā
	Viṣamajvara.

Therapeutic uses

The leaves of plant drug are ground and their paste is applied to skin diseases particularly it is considered good

in cases of eczema. In chronic ulcers, the juice of leaves is applied.

The decoction of roots is orally given in worm affection for expelling the worms; it has purgative action also.

The plant is useful in oedema, malarial fever, skin diseases and menstrual troubles particularly dysmenorrhoea. The plant is exceedingly bitter and is reputed to possess cathartic and anthelmintic properties. Expressed juice of the leaves is said to destroy maggots when applied to foul and neglected ulcers. The bruised leaves mixed with castor oil, are applied externally in obstinate cases of eczema on children's legs, and a decoction of the roots was found to be generally efficacious in expelling round - worms.

It is extremely bitter plant and known as an anthelmintic indigenous drug (Kiramara) among rural and tribal folks.

Parts used : Leaves, roots.

Doṣa

Powder 1-3 gm., Decoction 50-100 ml., Juice 5-10 ml.

A. KĪTAMĀRĪ YAVĀNĪ CHUHĀRA

Botanical name : *Artemisia maritima* Linn.

Family : Asteraceae (Compositae)

Classical name : Kitamāri yavāni-Cauhāra.

Sanskrit names: Kītamāri yavānī, Cauhāra.

Regional names:

Kiramala (Hindi), Kirmani ajwain, Kirmani ajunwua (Mar.); Tarkh (Pashtu): Chhuvaro, Kirmani ajami (Guj.); Karmarhi (ni) ajm, Chhuharo (north-western (U.P.); Dirmana (Pers.) Shih (arbik), worm-seed, Santonica (Eng.)

Description

A shrubby aromatic species, about 3.5 feet or up to 4 feet high (about one meter or more) with a woody root

stock, erect or ascending and much branched from the base. It is an exceedingly variable plant with erect or drooping flowers-heads and leaves are 1.25 - 5 cm. long, mostly whitish, 2-pinnatisect, on liner, branches and stem, upper leaves entire or non-lobed, liner. Flowers of herb are in small heads (1/4 cm. long) from leaves axills or axillary, ovoid and 3-4 fls. in each head.

Flowering and fruiting time

Rainy season to autumn and onwards.

Distribution

Plant occurs in the western Himalayas from Kashmir to Kumaon, at 7,000-9,000 ft. elevation. It is widely distributed all over the northern hemisphere of the world. Plant is commonly growing in various areas of north-western India, such as Kashmir, Kurram, Kagan, Bushaher, Waziristam and other regions. Plants are generally found in the Himilayan region up to elevation of 2,125-3,329 meters (7000-11000 ft.). *Artemisa maritima* Linn. is the only santonin-bearing species occurring in India. This species is common in several areas of north western India, such as Kashmir, Kurram, Kagan, Bushaher, Waziristan etc., but the plants growing only in certain areas of Kashmir and Kurram have been found to contain santonin. In these areas santonin-free plants are also found alongwith santonin source plants species.

Chemical composition

The plant *Artemisa maritima* Linn. is source of santonin. Normally (and for profitable utilisation) the herb should contain not less than 1.2% of santonin, but Indian artemisia is generally poorer in santonin then Russian *Artemisa sina* (from Turkistan) which is reported to contain 2.3-3.6%. The santonin content of artemisia from Kashmir has been reported to vary from 1-2 percent and that of artemisia from the Kurram valley from 1-1.6 percent.

All the varieties of *Artemisa maritima* Linn. contain essential oils which vary both in quantity (2-3%) and in composition. The commerical oil, a by-product of santonin

factories, is a thick yellow oil (sp. gr. 0.915-0.940). The essential oil from Turkestan variety has been found to contain cineole 27.8 and thujone 7-8% as per investigation reports.

Pharmacodynamcs

Rasa	: Tikta, Kaṭu
Guṇa	: Laghu, rūkṣa, tikṣṇa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphavātaśāmaka

Properties and action

Karma	: Kṛmighna Dīpana-vātānulomana-sara Yakṛaduttejaka Śvāsahara-Kaphaniḥsāraka Vedanāsthāpana-śothahara Vraṇaropaṇa-romasanjanana Mūtrala-mūtraranjana Vājīkara-ārtavajanana Śītapraśamana-Jvaraghna Lekhana.
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Roga	: Kṛmiroga Agnimāndya-ādhmāna Udararoga Śvāsa Mūtrakṛchra Kāmaśaitya Rajorodha Śītajvara Medoroga.
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Therapeutic uses

The whole plant specially immatured or undeveloped flower-heads (3-6 gm.) and extract known as santonin (60-100 mg.) are used for medicinal purposes in therapeutics. It is an anthelmintic drug used in worms affections specially intestinal worms (gaṇḍūpada-kṛmi). It is given particularly in ascaris lumbricoides infestation, and also in other worms (sūtrakṛmi).

Parts used : Whole plant, Extract (Santonin).

Dose

Powder (Whole plant) 1-3 gm., Santonin (extract) 60-100 mg., (62.5 mg.- 107.5 mg.).

KĪTAMĀRĪ YAVĀNĪ-CAUHĀRA

(कीटमारी यवानी-चौहार)

यवानिका यवानी स्याच्चौहारो जन्तुनाशनः ।

चौहास्तदगुणः प्रोक्तो, विशेषात् कृमिनाशनः ॥

Rāja Nighaṇṭu.

B. KĪTAMĀRĪ YAVĀNĪ TIKTAPATRĀ-AFASANTIN

Botanical name : *Artemisia absinthium* Linn.

Family : Asteraceae (Compositae)

Classical name : Kitmāri yavāni-Tiktapatrā, Afasantin.

Sanskrit name

Kītamāri yavānī, Tiktapatrā, Karpūragandhā, Kṛmikāṣṭhā.

Regional names

Afasantin (Hindi); Titapati (Kumaon); Titvan, Titvin (Ka.); Afasantin (Arb.); Marwa (Pers.); Worm wood (Eng.), Vilayati Afsantin (Decc. Hind.); Dioman (s.) Mastiyara, (Punj.); March, Shumbakusha (Pers.); Absinthium (Yunan); Mgu-wort, wormwood, The absintha (Eng.).

Description

An aromatic and bitter herb; very odorous (intense unpleasantly aromatic), whole plant very bitter, perennial herbaceous. Stem 30 cm.-90 cm. high (1-3 feet tall), angular and ribbed, much branching.

Leaves 2.5 - 5 cm. (1-2 inches) long, 2-3-pinnatifidly

cut, segments linear, spreading. Whole plant silky, white, minutely hairy.

Flowers small (minute), yellowish or pale-white, in spikes on branch ends.

Receptacles with long and straight hairs, with small fruits; seeds minute, many.

Flowering and fruiting time

Rainy season to autumn season, and onwards.

Distribution

Plant is found in Kashmir at 5,000-7000 ft. elevation. It is distributed over northern Asia, Afghanistan, and extends westward to the Atlantic. It is naturalised in eastern Canada and the plant is cultivated in the United States. Plant occurs in Kashmir region at 5,000-7000 ft. altitude in India in wild state.

Chemical composition

The essential oil of *Artemisia absinthum* Linn. (about 0.3%) used to be a constituent of 'absinthe,' but its addition is now prohibited. The commercial oil (sp. gr./25⁰; 0.917-0.942) is produced in America and its chief constituents are thujone and thujyl alcohol. Plant contains a bitter glucoside, absinthin, a crystalline compound (m.p. 165⁰).

Pharmacodynamics

Rasa	: Tikta
Guṇa	: Laghu, rūkṣa, tikṣṇa
Virya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphavātaśāmaka.

Properties and action

Karma	: Kṛmighna Dīpana-yakṛaduttejaka Hṛdayottejyaka Mūtrala Ārtavajanana Jvaraghna
Roga	: Kṛmiroga-gaṇḍūpāda-tantukrimi Agnimāndya-Udararoga

Yakṛdvikāra
 Hṛddourbalya
 Mūtrakṛcchra
 Kaṣṭārtava-rajoradha
 Jīrṇajvara-niyatakālika Jvara
 Sandhiśoṭha
 Yakṛtplihaśoṭha
 Karṇaśūla
 Śoṭhavedana Vikāra
 Vātaroga.

Therapeutic uses

The drug is bitter (in taste) and hot (in potency). It is irritant or sharp (tūkṣṇa guṇa), light (laghu) and rough or dry (rūkṣa) in properties (guṇa). Drug allays kapha and vāta doṣa.

It is stomachic, febrifuge, anthelmintic, cardiac stimulant, diuretic, anti-inflammatory, analgesic, liver stimulant, emmanagogue and brain tonic. The drug is used in liver and splenic enlargement and other disorders, ascites and chronic fever. It is given to counter periodic febrile conditions. In loss of appetite (for increasing digestive fire in case of mandāgni) and infestation of round worms, the drug is orally taken. The drug is internally recommended in treatment of vātā roga, śīraśūla, epilepsy, paralytic conditions, (paralysis, periplegia, hemiplegia), brain abnormalities, nervous disorders and amenorrhoea.

The volatile oil obtained from plant drug, known as Absinthe or wormseed oil causes the sings and symptoms of a violent narcotic poison if it is orally given in excess. It is a pharmacopoeial drug (I.P.). Afsantine (mug-wort) is important drug used in Unāni medicine where some formulations are in vogue such as Ark afsantin, Sherbat afsantin, Hubb ābsantin etc.

The dried leaves and the flowering tops of the plant are used medicinally. The tincture (B.P.C.) is used in medicinal purposes and specifically it is given as a tonic and digestive medicine.

Parts used

Leaves, flowers, whole plant, tender floral branches.

Fresh (green) and dried whole plant (esp. leaves and floral branches).

Dose : Powder 1-3 gm., 2-4 gm.

KOKILĀKṢA

Botanical name

Hygrophila auriculata (Schum.) Reine.

Syn. *Astercantha longifolia* Nees.,

Hygrophila spinosa T. Anders.

Family : Acanthaceae

Classical name : Kokilākṣa-Ikṣuraka

Sanskrit names

Kokilākṣa, Ikṣuraka-Ikṣura, Kākekṣu, Kṣura-Kṣuraka, Bhikṣu, Kaṇḍekṣu, Ikṣugandha, Ikṣubālikā, Tilakaṇṭaka, Śṛagāli-Śṛngala, Vijrakaṇṭaka, Śṛngalghaṇṭā.

Regional names

Gokhula, Jal makhana, Tal makhana (Hindi); Kulimakharha, Kaṇṭakaliya (Beng.); Talimakhana (Mar.); Ekhro (Guj.); Nirmulli (Tam.); Nirugubbi (Tel.).

Description

A small spiny herb, 3-4 feet high, stem simple or branched, up to 1.5 meters high, hairy on younger parts, more or less hispid with long hairs especially at each node base.

Leaves in spuriou whorls of 6 each, lanceolate, hairy, up to 15 cm. long, subessile, sparsely hispid on both sides with long white hairs, each of the six leaves with a long sharp nearly straight yellow spine in the axil.

Flowers whorls often subtended by sharp stout, yellow thorns bracts involucrate sub-2-seriate, hispidly hairy, up to 4 cm. long. Posterior calyx segment longer. Corolla up to 3 cm. long, purple-blue, widely widely 2-lipped, tube abruptly swollen at the top; lower lip with 2 entire crest like longitudinal folds on the palate.

Capsule oblong, glabrous, liner-oblong, pointed. Seeds 4-8 compressed, hygroscopic hairy; seeds brownish,

somewhat to sesame seeds (but smaller) with tasteless and mucilaginous nature.

Flowering and fruiting time

October to May.

Distribution

Plant occurs throughout India and Ceylon. It is commonly found in marshes, moist ridges, drying ponds or ditches, paddy fields, swamps, and other similar localities. It is also found in Sri Lanka, Singapore and extending to South and tropical Africa.

Chemical Composition

Seeds contain 23 percent of a yellow semidrying oil (sap. val. 196, iod. val. 126), linoleic acid 71 percent. They also contain distase, lipase and protease. Seeds develop a large amount of tenacious mucilage. The ash of the seeds is 6.4 percent.

Pharmacodynamics

Rasa	: Madhura
Guṇa	: Guru, snigdha, picchila
Vīrya	: Śīta
Vipāka	: Madhura
Doṣakarma	: Vātapittaśāmaka

Properties and action

Karma	: Śukrajanana Vṛṣya Mūtrala Balya Bṛmhāṇa Nāḍībalya Śōthahara Yakṛaduttejaka Anulomana
Roga	: Śukradourbalya Klaibya Śōtha Pittāśmari Kāmala-yakṛadālyudara

Ānāha
 Nāḍīdourbalya
 Vātarakta
 Vātavyādhi
 Mūṭrakṛchra
 Aśmari
 Bastiśoṭha
 Dourbalya Nidrānāśa.

Therapeutic uses

The drug Kokilākṣa or Iṅṣuraka is regarded as useful drug mainly a diuretic and tonic medicine. Seeds of the source plant (*Hygrophila spinosa* T. Anders) are frequently used in medicine and they are commonly known as 'Tālmakhānā' in drug market. Among other parts used in medicine, the whole plant, root and alkalies (Kṣāra) are obtained and employed in medicinal preparations prescribed in various ailments mainly urinary diseases, sexual debility, general weakness, nervous complaints (debility) and liver disorders. The drug is used in dropsy, rheumatism, anasarca and diseases of the urino-genital tract. The chemical composition of the seeds, particularly large amount of mucilage and potassium salts content in seeds, is attributed for diuretic properties. Seeds are almost tasteless or slight sweet-bitter and quite macilaginous. Whole plant (pañcāṅga) has its organic waste material maximum of 2 percent; the whole plant is burnt to ash for preparing its alkalies preparation known as Iṅṣuraka Kṣāra or Kokilākṣa kṣāra ('Kokilākṣa bhasma' also mentioned in classical texts).

It is used in treatment of certain diseases. Kokilākṣa bhasma (ash) with cow-urine or water and prescribed for oral use in oedema (śoṭha). The ash and alkalies (bhasma and Kṣāra) of drug plant are considered useful in some other ailing conditions.

Parts used

Roots, seeds, whole plant, alkali (Kṣāra).

Dose

Decoction 50-100 ml., Seeds powder 3-6 gm., Alkali (Kṣāra) 1-3 gm.

Formulation : Pouṣṭika cūrna, Kokilākṣa Kṣāra.

KOKILĀKṢA (कोकिलाक्ष)

कोकिलाक्षस्तु काकेक्षुरिक्षुरः क्षुरकः क्षुरः ।

भिक्षु काण्डेक्षुरप्युक्त इक्षुगन्धेक्षु बालिका ॥

Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi Varga, 224.

क्षुरकः शीतलो वृष्यः स्वाद्वम्लः पिच्छिलस्तथा ।

तिक्तो वातामशोथाश्मत्पृष्णादृष्ट्यनिलास्त्रजित् ॥

Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi Varga, 225.

कोकिलाक्ष-इक्षुरकः

क. कोकिलाक्षो भिक्षुरिक्षुबालिका तिलकण्टकः ।

अक्षेक्षुर क्षुरो ध्वांक्षः क्षुरकश्चैक्षुगन्धिका ॥

अन्य जातिः

ख. अन्यः करंबशालिः स्याद् बृहत् केशरश्च खग्गलः ।

गुणाः

ग. कोकिलाक्षो हिमस्तिक्तः स्वाद्वम्लः स्निग्धपिच्छिलः ॥

कोकिलाक्षपत्रम्

बृघ्नो वातामवाताश्मत्पृष्णादृष्टिखुडास्त्रजित् ।

घ. इक्षुरस्य दलं स्वादु तिक्तं शोफ विषापहम् ॥

शूल पाण्डूदरानाहवातमूत्र विबन्धनुत् ।

Kaiyadeva Nighaṇṭu, Oṣḍahi Varga, 1010-1093.

कोकिलाक्षः

कोकिलाक्षः शृगाली च शृङ्खला रकणस्तथा ।

शृङ्खालघण्टौ वज्जास्थि-शृङ्खला वज्रकण्टकः ॥

इक्षुरः क्षुरको वज्जः शृङ्खलिका पिकेक्षणः ।

पिच्छिला चेक्षुगन्धा च ज्ञेया भुवन सन्मिता ॥

कोकिलाक्षः गुणाः

कोकिलाक्षस्तु मधुरः शीतः पित्तातिसारनुत् ।

वृष्यः कफ हरी बल्यो रुच्यः सन्तर्पण परः ॥

Rāja Nighaṇṭu, Śatāhvādi varga, 191-193.

वाजीकरणे

स्वयंगुमेक्षुरकयोः फलचूर्णं सशर्करम् ।
धारोष्णेन नरः पीत्वा पयसा न क्षयं व्रजेत् ॥

Suśruta Saṁhitā, Cikitsā. 26-33.

सुखप्रसवनार्थम्

सितया चर्वणं कृत्वा कोकिलाक्षस्य मूलकम् ।
तत्कर्णं पूरणेनाशु सुखं नारी प्रसूयते ॥

Baṅgasena, Strīroga. 231.

निद्राजनार्थम्

काकजंघा त्वपामार्गः कोकिलाक्षः..... ।
क्वाथो निद्राकरः शीघ्रं..... ॥

Hārīta Saṁhitā, 3-15-6

वातरक्ते

कोकिलाक्षामृताक्वाथे पिबेत् कृष्णां यथाबलम् ।
पथ्यभोजी त्रिसप्ताहान् मुच्यते वातशोणितात् ॥

Vyṅdamādhava. 23-14.

कोकिलाक्षकनिर्यूहः पीतस्तच्छाकभोजिना ।
कृपाभ्यास इव क्रोधं वातरक्तं निगच्छेति ॥

Aṣṭāṅga Hṛdaya, Cikitsā. 22-18.

शोथे

‘शोथनुत् कोकिलाक्षस्य भस्म मूत्रेण वाम्भसा ।’

Cakradatta, 39-23.

KOLAKANDA- VANAPALĀṆḌU

Botanical name : *Urginea indica* Kunth.

Family : Liliaceae

Common name : Kolakanda-Vanapalāṅḍu

Sanskrit names : Vanapalāṅḍu, Kolakanda

Regional names

Jangli pyāj, Jangli Kanda, Kanda, Uskil (Hindi);

Ram Kanda, Kolkanda (Mar.); Jungli Kando, Pankando (Guj.); Nari vangayam (Tam.); Adavitelgada (Tel.); Adadurisulli (Mal.); Unmul (Arabic); Piyaj Sahrai (Pers.), Indian Squill (Eng.).

Description

Herb with tunicate bulbs.

Leaves appearing after the flowers, 6-18 in. long, linear, acute, nearly flat.

Scape erect, 12-18 in. long, brittle.

Flowers distant, drooping or spreading, greenish-white, or dingy-brown; bracts minute, soon falling. Perianth campanulate; segments $\frac{3}{8}$ in. long, oblong-lanceolate, obtuse, with 2 or 3 strong approximate median nerves. stamens $\frac{1}{4}$ in. or longer; filaments flattened. Style obconic.

Capsule ellipsoid, $\frac{1}{2}$ - $\frac{3}{4}$ in long; cells 6-9 seeded. Seeds $\frac{1}{4}$ in. long, flattened, elliptic, black.

Bulbs turnicated, ovoid, or pear-shaped, 5-10 cm. long.

Flowering and fruiting time

Bulbs are gathered in early autumn after the leaves wither after flowering. Rains to Autumn.

Distribution

It occurs in western Himalaya upto 7,000 ft., salt range of Punjab and South to Konkan; also in Burma, and Bihar, Chota Nagpur, extending to tropical Africa. It is found in Siwalik range and also plentiful eastwards in the sub-Himalayan tracts and Terai region upto North Oudh; Uttar Pradesh and northern India, Himachal Pradesh.

Kind and varieties

Scilla indica Baker is resembling with Kolakanda (*Urginea indica* Kunth. Small portion of *Scilla hyacinthiana* is also sometimes admixed. Squill available in the market is generally found adulterated with bulbs of *Scilla* sps. and most probably the bulbs of both plants (*Urginea* and *Scilla*) are replaced or inter mixed in market drug material.

Chemical composition

Bulb contains scillaren A and scillaren B, two glycosides (0.3%). Mucilage matter 51%, sugar; and ash 5% which contain crystals of calcium oxalate and calcium citrate. Bulbs of Indian squill contain a mixture of cardiac glycosides which constitute the active principles of drug.

Pharmacodynamics

Rasa	: Katu, tikta
Guṇa	: Tikṣṇa, laghu
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Vātakaphasāmaka Pittavardhaka.

Properties and action

Karma	: Hṛdya Kṛmighna Raktotkleśaka-Vraṇakāraka Kaphaaniḥsāraka Hṛdya-hṛdayottejaka Mūtrala Ārtavajanana Svedajanana Karkaṭārburda-pratirodhī Viṣaghna Śothahara Kṣobhaka (ābhyantara).
Roga	: Hṛdroga-hṛdrogajanya śoṭha Udararoga-Jalodara Jirṇa pratiśyāya-jirṇakāsa- phuphphusavikāra Śvāsaroga Jirṇavrkkaroga-mūtrāghāta Rajrodha-kaṣṭārtava Cormavikāra-dravayukta śoṭha Kaṇḍū Viṣa.

Therapeutic uses

The drug Kolakanda is powerful expectorant and

(Kaphanihsāraka) drug, and it is cardiotoxic as well as cardiac stimulant (hr̥dya) and diuretic (mūtrajanana). It is emmenagogue and diaphoretic and it has anti-cancer activity. The bulbs are used as deobstruent medicine.

Bulbs are used in cough, asthma, heart troubles, dropsy, rheumatism and skin troubles. Externally they are applied to remove warts and corns. Bulbs are heated, bruised and applied to the feet. It is useful for countering the poison.

Parts used : Bulb.

Dose

Powder 120-200 mg., Syrup 30-60 drops., Tincture 5-30 drops.

KOŚĀMRA

Botanical name

Schleichera oleosa (Lour.) Oken.

Syn. *Pistacia oleosa* Lour., *Schleichera trijuga* Willd.

Family : Sapindaceae

Classical name : Kośāmra

Sanskrit names

Kośāmra, Kṣudrāmra, Lākṣāvṛkṣa, Ghanaskandha, Kṛmivṛkṣa, Sukośaka, Jantupadapa, Raktāmra, Suraktaka, Amlaskandha, Kṣudrāmra, Vanāmra, Kṣudramoukuli.

Regional names

Kusum, Gousam, Kosum, Kusum (Hindi, Bangla); Kosumb (Guj.); Kosib (Mar.) Pumarat (Tam.); Pusam (Mal.); Posuku (Tel.); Jindal, Chakot (Kann.); Kol (Burm.); Sagadi (Kan.) Ceylon oak (Eng.).

Discription

Large shady, underageous, deciduous trees, with thick, smooth grey bark, a short fluted trunk, exfoliating in plates of irregular shape, red inside. Heartwood red or reddish-brown, very heavy, close-grained, hard, tough and strong, marked with white waxy concrete lines (wt. about 70 lbs. per c. ft.).

Leaves paripinnate up to 40 cm. long; leaflets opposite, sessile, elliptic, those of terminal pair more than twice as long as the lowest pair. Youngest shoot silky. Leaflets 2-4 pairs, pink when young.

Flowers yellowish-green, polygamo-dioecious in short racemes; latter arranged in spikes missing from the twigs among the leaves. Stamens 6 to 8. Styles 3 or 4-cleft.

Berry hard-skinned round-elongate with a point at the tip with compressed brown seed. Fruit .6 - .8 in. diam., 1-celled globose. Seeds in a pulpy aril having an acid taste. Testa brown, enclosed.

Flowering and fruiting time

It flowers in February-March and fruits in July- September or October. New leaves appear alongwith flowers about colder months or spring season.

The old leaves are shed in January-February, the young leaves or foliage comes out towards the end of March or early in April, while the other trees of the dry forests are still leafless, the young shoots deep red. Flowers appear with young leaves.

Distribution

It occurs in Indo-Malaysia. It is commonly planted in gardens and along avenues and sometimes in forest formation. Plant is occurring from Kashmir to West Bengal, Chota Nagpur, Central India, Southern India, Orissa, Madhya Pradesh, Mysore, Tamilnadu and other areas, up to 6,000 ft. elevation.

Trees are planted for commercial purpose.

Pharmacodynamics

Rasa	: Amla (phala-fruit), kaṭu, tikta, kaṣāya (taila-oil)
Guṇa	: Guru
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphapittaśāmaka

Chemical composition

Seeds yield a fatty oil.

Properties and action

Karma : Kaṇḍūghna
 Kṛmighna
 Kuṣṭhaghna
 Vraṇaśodhana
 Keśya
 Vedanāsthāpana
 Grāhī
 Dīpana-rucivardhaka
 Virecana
 Raktaśodhaka
 Śothahara
 Raktastambhana
 Viṣaghna
 Kuṣṭhaghna
 Jvaraghna
 Stambhana

Taila - oil : Kaṇḍūghna
 Krimighna
 Vraṇaśodhana
 Keśya
 Vedanāsthāpana

Phala-fruit : Grāhī

Pakvaphala-ripe fruit: Dīpana, Rucivardhana.

Tvak-bark : Kaṣāya-raktastambhana-Jvaraghna-satambhana

Bījataila-Seeds oil : Virecana, Krimighna

Roga : Kaṇḍū-Kuṣṭha-Carmavikāra-
 Kṣudraroga-Sandhivāta-Vātavyādhi-
 Keśavikāra (tail-oil)
 Duṣṭavraṇa-Krividraṇa (bīja cūrṇa-
 Seeds powder)
 Vibandha (Seeds oil-bīja taila)
 Pradara (Tvak-bark)
 Sarpaviṣa (Kṣāra-alkali)
 Viṣamajvara (Bark).

Therapeutic uses

The young fruits are pickled and the acid pulp of the ripe fruit is eaten. The seeds yield a fat oil which is used

for burning. Tree is lopped for fodder as the leaves are good cattle fodder. Fruit or berry with a succulent arillus of pleasantly acid taste and cotyledons are full of oil which is used for burning in rural areas and the oil is medicinally useful. Bark, fruit, seeds and lac (produced on source plant i.e. tree of *Schleichera trijuga* Willd. or *Kośāmra*) are medicinally useful. The succulent arillus of berries is of acid tasty edible which is of medicinal properties. These fruit are pulpy and with subacid aril; it has medicinal properties. A lack of the superior quality is yield by this trees which belongs to fine or best grade lac raw drug material or *Lākṣā* (*Kusum lākh*) produced on *Kośāmra* and certain other specific source or host drug-trees.

Parts used

Bark, seeds, oil, fruits, Lac (*Kośāmra lākṣā*).

Dose : Bark decoction 50-100 ml., Seeds oil 5-10 gm.

KOŚĀMRA (कोशाम्र)

क. कोशाम्र उक्तः क्षुद्राम्रः कृमिवृक्षः सुकोशकः ।

ख. कोशाम्रः कुष्ठशोथाम्र पित्तव्रणकफापहः ॥

ग. तत्फलं ग्राहि वातघ्नमम्लोष्णं गुरु पित्तलम् ।

घ. पक्वन्तु दीपनं रुच्यं लघूष्णं कफवातनुत् ॥

Bhāvaprakāśa Nighaṇṭu, Āmrādi phala Varga, 23-24.

अ. कोशाम्रश्च अम्लस्कन्धो वनाम्रो जन्तुपादपः ।

क्षुद्राम्लश्चेति रक्ताम्रो लाक्षावृक्षः सुरक्तकः ॥

ब. कोशाम्रमस्रमनिलापहरं कफार्ति-

पित्तप्रदं गुरु विदाह विशोफकारि ।

पक्वफलम्

स. पक्वं भवेन्मधुरमीषद् पारमम्लं

पट्वादियुक्तरुचिदीपनं पुष्टिबल्यम् ।

Rāja Nighaṇṭu, Āmrādi Phala Varga, 14-15.

कोशाम्रः

अ. कोशाम्रको जन्तुवृक्षो लाक्षावृक्षः सुकोशकः ।

सरक्तको घनस्कन्धः क्षुद्राम्रः क्षुद्रमौकुलिः ॥

कोशाम्रगुणाः

ब. कोशाम्रस्तुवरो हन्ति रक्तपित्तं कफव्रणान् ।
शोथकुष्ठहरं कोष्ठशोधनं तत्फलं गुरु ॥

कोशाम्रफलम्

अम्लोष्णं ग्राहि वातघ्नं रक्तपित्तबलासकृत् ।

पक्कफलम्

पक्कं तु दीपनं रुच्यं लघूष्णं कफवातजित् ।

कोशाम्र मज्जा

मज्जातु केश्यो वातघ्नं स्वादुः स्निग्धो बलासकृत् ।

Kaiyadeva Nighantu, Oṣadhi Varga, 383-386.

व्रणे

‘कलायविदलीपत्रं कोशाम्रास्थि च पूरणात् ।’

Vṛndamādhava, 44-44.

वातवृद्धौ

कोशाम्र तिल्वकैरण्डफलतैलानि वा नरम् ।

सक्षीरं वा पिबेन् मासं तैलमेरण्ड संभवम् ॥

Suśruta Samhitā, Cākitsā. 19-5/6.

KOŚĀTAKĪ-DHĀMĀRGAVA

Botanical name : *Luffa cylindrica* (Linn.) M. J. Roem.

Family : Cucurbitaceae

Classical name : Kośātakī-Dhāmārgava.

Sanskrit names

Kośātakī, Dhāmārgava, Mahākośātakī, Mahājālinī, Ghosaka, Hostighosā, Hastiparna-Hastiparṇikā, Mahāphalā.

Regional names

Nenua (Hindi); Ghiyatori (Punjabi); Dhundul (Bengla); Ghansale (Marathi); Galakan (Guj.); Mijuku pira Kankai (Tamil); Tuppahirekai (Kann.); Kattupinchal (Mal.); Guttivira (Tel.); Smooth Luffa, Sponge Gourd (Eng.).

Description

Climbers. Leaves up to 20 cm. long, almost equally broad, palmately 5-lobed, tendrils trifid, Probract 3-7 × 2-4 mm. fleshy, ovate with 3-7 glistening glands on the upper surface.

Flowers bright yellow, male and female flowers often in same axils. Male flowers peduncles up to 15 cm. long, 15-20- flowered; pedicels 1-2 cm. long; calyx-tube short, broadly campanulate, lobes oblong-runciform, ca 2 × 1 cm.; stamens 3 or 5, one unilocular, the other two 2-locular, or 5 unilocular; filaments shortly villose at base. Female flowers peduncles up to 10 cm. long; ovary cylindrical, softly hairy.

Fruits fusiform, up to 50cm. long and up to 8 cm. wide, not angular, obtuse, strongly fibrous inside; seeds ovate, ca 12 × 8 mm. smooth, black.

Flowering and fruiting time

June to December. Plant becomes in flowering stage in summers, and afterwards fruiting stage continuing in colds.

Distribution

Plant is commonly cultivated for fruit-vegetable.

Kinds and varieties

Sweet (madhura) and bitter (tikta) which are cultivated and wild respectively. Former is useful as vegetable (Śāka) and latter is for medicine (auśodha).

Chemical composition

Analysis of the edible part of fruit of the tender fruit gave the following values: moisture 93.19, protein 1.21, ether extr. 0.23, carbohydrates 2.93, fibre 1.95; and ash 0.49% and calcium 36 mg., phosphorous 19 mg., and iron 1.1 mg 1100g., carotene (as vitamin A) 200 I.U., thiamine 17.55 ug., reioflavin 63.17 ug., niacin 0.37 mg. / 100g. and ascorbic acid, trace.

Pharmacodynamics

Rasa : Tikta

Guṇa	: Laghu, rūkṣa, tikṣṇa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphapittasamśodhana

Properties and action

Karma	: Ubhayatobhāgahara-vamana- bhedana-anulomana Raktaśodhaka-Śothahara Kaphaniḥsāraka Viśaghna Arśoghna Kāśahara Kṛmighna Jvarahara Hṛdya
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Roga	: Vibandha Udararoga-Gulma Kāsa-śvāsa-svaravikāra Kāsa-svāsa-svaravikāra Viṣa Kaphajavikāra-pittavikṛti Arśa Viṣa-mūṣikaviṣa Pāṇḍu-kāmalā Śoṭha Kuṣṭha-Kaṇḍū Plihavikāra Prameha Jvara Yonikanda Gaṇḍamālā Upadamśa.
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Therapeutic uses

The drug Dhāmārgava is useful as emetic and cathartic both (ubhayatobhāgahara). It is used in abdominal complaints (udararoga, gulma, vibandha), blood affections, cough, asthma, throat affections, poisons. It is useful in the diseases caused by kapha (for proper purification or

clensing by elimination of impurities on account of Kapha samśodhana) in particular.

The fruits, leaves and flowers are used in medicine.

Fruits (cultivated variety) are commonly eaten and used as household vegetable; it is wholesome (pathya) in various diseases.

Parts used : Fruit, flowers, leaves.

Dose : Juice 10-20 ml.

Formulations

Košātaki Kalpa (Caraka Saṁhita, Kalpa.4).

Gana

Vamana, Phalinī (Caraka Saṁhitā),
Ūrdhvabhāghara (Suśruta Saṁhitā).

KOŚĀTAKĪ-KṚTAVEDHANA

Botanical name : *Luffa acutangula* (Linn.) Thumb.

Family : Cucurbitaceae

Classical name : Kṛtavedhana-Košātaki

Sanskrit names

Kṛtavedhana-Košātaki, Mṛdaṅgaphala-mṛdaṅgaphalinī, Jālinī, Rājimatphalā, Pītapuṣpā.

Regional names

Torai, Taroi (Hindi); Jhinga (Beng.); Shirola (Marathi); Pirkankai (Tamil); Birkaya (Telugu); Hirekapi (Tam.); Pichenga (Mal.); Ribbed Luffa, Ribbed Gourd (English).

Description

Climbers, Leaves up to 20 cm. long and almost equally broad, palmately, .5-.7 angled or sublobate tendrils often trifid.

Flowers pale yellow, male and female ones in the same axil. Male flowers peduncles 10-15 cm. long, 17-20 flowered at the apex; pedicels 1-4 cm. long; probract 3-7 × 2-4 mm., fleshy, green, Ovate with 3-10 glistening glands on upper surface; calyx-tube Campanulate, pentagymous; lobes lanceolate, carnate' petals subcordate, or 2 × 2 cm.,

stamens 5, one unicellular; two bilocular, filaments bearded at base. Female flowers peduncles up to 8 cm. long, ovary 10- angular, apex constricted. Fruits clavate-oblong, 15-25 × 6-8 cm. acutely 10-angled; apex obtuse or slightly acute; seeds ovate, ca 11 × 7 mm. compressed black.

Flowering and fruiting time

Plant flowers in June-September and fruits in July-October.

Distribution

Plant is commonly cultivated for fruit-vegetable throughout India (sweet variety or madhura jāti: Miṣṭa Koṣātaki). Plants of wild variety or bitter luffa : Kaṭu Koṣātaki) are found almost throughout country in wild state.

Kinds and Varieties

There are two varieties of Koṣātakī viz. Vanya (wild) and Kṛṣita (cultivated) which are bitter (tikta kaṭu) and sweet (madhura-miṣṭa) considered suitable for medicinal and dietary purposes respectively.

Chemical composition

The seedless dried fruit contains an active principle resembling to coloncynthin present in *Indravāruṇī* (*Citrullus coloncynthis* Schrad) and another constituent luffein. Seeds yield reddish brown or dark brown fixed oil.

Pharmacodynamics

Rasa	: Tikta
Guṇa	: Laghu, rūkṣa, tīkṣṇa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphapitta saṁśodhana.

Properties and action

Karma	: Ubhayatobhāgahara-vāmakā-recaka- Raktaśodhaka-śothahara Kaphaniḥsāraka Kuṣṭhaghna Kaṭupouṣṭika
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Roga	Viṣaghna
	: Udararoga-gulma-Vibandha
	Raktavikāra-śoṭha
	Plihavṛddhi
	Kāsa-śvāsa
	Kuṣṭha
	Pāṇḍu-viṣa

Therapeutic uses

The drug Kṛtavedhana is recommended as emetic as well cathartic (ubhayatobhāgahara) drug possessing properties of purification or cleansing kapha and pitta doṣa (śamśodhana).

It is used in fever, abdominal diseases including gulma, splenic enlargement, oedema, cough, asthma, dermatosis, anaemia, poisons or toxic affects, blood impurities, jaundice and piles. Fruits, leaves and roots are employed in medicine.

Fruits (cultivated variety) are cooked as household vegetable., It is a wholesome (pathya) vegetable (phalaśāka) in various diseases.

Parts used : Fruit, leaves, root.

Dose : Juice 10-20 ml.

Formulations

Kṛtavedhana-kośātaki Kalpa-60 (Caraka Saṁhitā, Kalpa.6).

Gaṇa

Vamana, Phalini (Caraka Saṁhitā),
 Ūrdhvabhāgahara, Ubhayatobhāgahara (Suśruta Saṁhitā).

A. KOŚĀTAKĪ-DHĀMĀRGAVA

(कोशातकी-धामार्गव)

B. KOŚĀTAKĪ-KṚTAVEDHANA

(कोशातकी-कृतवेधन)

महाकोशातकी

क. महाकोशातकी प्रोक्ता हस्तिघोषा महाफला ॥

- ख. धामार्गवो घोषकश्च हस्तिषर्णश्च स स्मृतः ।
महाकोशातकी स्निग्धा रक्तपित्तानिलापहा ॥

Bhāvaprakāśa Nighaṇṭu, Śāka Varga, 65-66.

राजकोशातकी

- क. धामार्गवः पीतपुष्पो जालिनी कृतवेधना ।
राजकोशातकी चेति तथोक्ता राजिमत्फला ॥
ब. राजकोशातकी शीता मधुरा कफवातकृत् ॥
पित्तघ्नी दीपनी श्वासज्वरकासकृमिप्रणुत् ॥

Bhāvaprakāśa Nighaṇṭu, Śāka Varga, 67-68.

कोषातकी

- अ. कोषातकी कृतच्छिद्रा जालिनी कृतवेधना ।
क्ष्वेडा सुतिक्ता घण्टाली मृदङ्गफलिनी तथा ।
ब. कोषातकी तु शिशिरा कटुकाऽल्पकषायका ।
पित्त वात कफघ्नी च मलाध्मान विशोधिनी ॥

Rāja Nighaṇṭu, Guḍūcyādi Varga, 48-49.

कोशातकी

- अ. श्वेतघोषा कृमिच्छिद्रा घण्टाली कृतवेधना ।
मृदङ्गवत्कोशवती मृदङ्गफलिनी तथा ॥
कोशातकी तु कर्कोटी जालिनी कर्कशच्छदा ।
क्ष्वेलः तिक्ता सुघण्टाली ज्योत्सना जाली च घोषकः ॥

सामान्य गुणाः

- ब. कोशातकी कटुस्तीक्ष्णा पक्वामाशय शोधनी ।
लघ्वी रूक्षा कटुःपाके जयेत् कासगरोदरम् ॥
पाण्डुशोफकफप्लीह गुल्मार्शः कुष्ठकामलाः ।

फलम्

- स. फलमस्याः कटुस्निग्धं तिक्तं पाके हिमं लघु ॥
दीपन भेदनं हृद्यं वातलं हन्त्यरोचकम् ।
कासमेह ज्वर श्वासकुष्ठपित्तकफानिलान् ॥

Kaiyadeva Nighaṇṭu, Ośadhi Varga, 568-572.

राजकोशातकी

- अ. राजकोशातकी हस्तिपर्णिका पीतपुष्पिका ।

धामार्गवः कोशफला महाजाली सपीतकः ॥

ब. राजकोशातकी तिक्ता मधुरा कफवातला ।
पित्तघ्नी दीपनी हन्ति श्वासकासज्वरकुमीन् ॥

Kaiyadeva Nighaṅṭu, Oṣddhi Varga, 573-574.

महाकोशातकी

अन्या त्वैभी हस्तिघोषा महत्पुष्पा सपीतिका
महाकोशातकी त्वस्याः कथितं जाङ्गलं फलम् ।
हस्तिघोषा सरा स्निग्धा मधुरा स्लेष्मलागुरु ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 575-576.

उपदंश चिकित्सायां कोशातकी तैलम्

Bhāvaprakāśa, Madhyakhaṇḍa, 51/47-48.

गण्डमाला चिकित्सायां नस्यार्थं कोशातकी फल स्वरसः

कोशातकीनां स्वरसेन नस्यं तुम्ब्यास्तु वा पिप्पली संयुतेन ।
तैलेन वाऽरिष्ट भवेन कुर्याद् वचोपकुल्ये सह माक्षिकेण ॥

*Vṛndāmādhava, 41-25. cakradatta,
Galagaṇḍādi Cikitsā, 41-21.*

रोम्णामपुनर्भवाय

उत्पाट्य गुह्यप्रभवाणि रोमाण्यभ्यञ्जनं तत्र ततो विधेयम् ।
कोशातकीबीज समुद्भवेन तैलेन लोम्नापुनर्भवाय ॥

Rāja Mārtaṇḍa, 31-52.

रेतःस्रवणे (गर्भनिरोधे)

एकं माक्षिक मिश्रं लेपात् कोशातकी भवं चूर्णम् ।
योन्यां वराङ्गपाते कुरुते रेतः स्तुतिस्तस्याः ॥

Baṅgasena, Jaladoṣādi. 11.

कुष्ठे

कोशातकी फले न्यस्तं जलं पर्युषितं निशि ।
कर्षमात्रं तु तत्पीतं सर्वकुष्ठहरं परम् ॥

Gadanigraha, 2-36-49.

मूषिकविषे

छर्दनं जालिनी क्वाथैः शुकार व्याङ्कोटयोरपि ।

Suśruta Saṁhitā Kalpa. 7-34.

.....अखिलाखुविषं निहन्यात् ।
कोशातकी क्थनमापिबतोऽथवाऽपि ॥

Gadanigraha, 7-6-5.

कुष्ठरोगे

सर्षपकरञ्जकोशातीकानां तैलान्यथेङ्गुदीनाञ्च ।
कुष्ठेषु हितान्याहुस्तैलं चच्चापि खदिरसारस्य ॥

Caraka Samhitā, Cikitsā. 7-119.

योनिकन्दे

घोषकस्वरसः पीतो मस्तुना च समन्वितः ।
योनिकन्दं निहन्त्याशु तन्नाडीं चैव धूपतः ॥

Bāngasena, Strīroga. 388.

अर्शःसु

कोशातकी रजोघर्षात्रिपतन्ति गुदीद्भवाः ।
योज्यं रक्तार्शं सैस्तद्वज्ज्योत्सिकामूलं लेपनम् ।

Cakradatta, 5-4-6.

स्विन्नं वार्ताकुफलं घोषायाः क्षारजेन सलिलेन ।
तद्घृतभ्रष्टं युक्तंगुडेन वा तृप्तितो योऽस्ति ॥
पिबति च तक्रं नूनं तस्याश्वेवातिवृद्धगुदजानि ।
यान्ति विनाशं पुंसः सहजान्यपि सप्तरात्रेण ।

Gadanigraha, 462-463.

KR̥ṢṆA VETRA

Botanical name

Tiliacora acuminata (Lim.) Hook. & Thoms.

Syn. *Tiliacora racemosa* Colebr., *Menispermum acuminatum* Lam.

Family : Menispermaceae

Classical name : Kṛṣṇa Vetra

Sanskrit name : Kṛṣṇa Vetra.

Regional names

Bega, Bhaga, Mushada, Karwanth, Rangoi
Ranisarobel (Hindi); Kappatige (Tel.) Mushadiliga
(Telugu); Kurmunta, Runpoe (Oudh); Tilikora (Beng.);

Kadaparaauruvalli (Tam.) Kurivalli (Kan.). Vallikkannizam (Mal.); Kalajatinoi (Oriya).

Description

Large, woody lianas. Leaves subcoriaceous ovate or lenceolate, acuminate; petiole sulcate leaving discoid scars. Young shoots glabrous. Lvs. 4-5 in. ovate or ovate-cordate, acuminate, somewhat 3 veined, undulate, glabrous, dark green; petiole upto 1 in. long, slender. Panicles 6-10 in, hoary at length glabrous. Flowers yellowish in long, axillary, tomentose racemose panicles of 1-few-flowered cymes. Male flowers inner sepals glabrous; petals shorter than sepals; stamens 6, subcylindrical. Female flowers carpels 8-12 glabrous. Occurrence of bisexual flowers in cultivated plants is frequent (in certain areas). Male branches 3-7 flowered. Femalesimple, 1-flowered. Fls. yellow. Ripe carpels 1-10, half inch, smooth red or yellow, endocarp wrinkles. Seeds bent double.

Flowering and fruiting time

February to June. spring to summer season.

Distribution

It occurs in India and Java. Plant is found occasionally upon shrubs or trees or scandent from rock crevices. It is occurring from Bengal to Orissa and Konkan. Plant occurs in Ceylon, Singapore and Java. It is found in Oudh forest in upper gangetic plain area. Commonly climbing on hedges and among bushes and occasionally or sometimes in forests climbing to tree tops.

Chemical composition

Root bark has earlier been reported to contain two alkaloids: tiliacorine and tilliarine. Tiliacorine has been shown by degradative work. Besides tiliacorine, three other alkaloids viz. tiliacorinine (occurring next in abundance to tiliacorine and isomeric with it), and two isomeric N-demethyl derivatives of tiliacorinine and named nortilliacorinine. Root bark (dried) also contains tilliacorine and mosine and seven water soluble bases, of which three have been isolated in crystalline form and named as tilliacine

corine and mohinine. Corine showed a curative type of activity.

The presence of d- quercitol, fumaric fatty oil, glucose and resin has been reported in the bark.

The leaves contain saponin and an alkaloid named tilliacoridine.

Pharmacodynamics

Rasa	: Tikta
Guṇa	: Laghu, rūksa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarman	: Kaphapittaśamaka.

Properties and action

Karma	: Viṣaghna Kuṣṭhaghna Kaṇḍūghna
Roga	: Viṣa Kuṣṭha Tvagvikāra.

Therapeutic uses

The drug is useful in kuṣṭha roga (diseases of skin in general and particularly leprosy). There are three formulations (yoga) viz. Mahasindūryādi taila, Vajraka ghr̥ta and Paṭolādi kvātha (of which are prescribed in treatment of this group of diseases : Cakradatta, 50, 61, 122 & 154).

Decoction or paste of drug mixed with ghee is used to destroy poisoning of śṛṅgī fish as incorporated in texts.

The root bark and leaves are chemically potent and medicinally useful.

Branches and stems are of economic utility. Flowers are fragrant and foliage is ornamental as plant (also cultivated in gardens) has also aesthetic value.

Parts used : Root-bark, leaves.

Dose : 1-3 gm.

Formulations

Mahāsindūryādi taila (Cakradatta, 50-154), Vajraka ghr̥ta (Cakradatta, 50-122), Paṭolāli kvātha (Cakradatta, 50-60).

KṚṢṆA VETRA (कृष्णवेत्र)

विषे

कृष्णवेत्रस्य निःक्राथः कल्को वा घृतमिश्रितः ।
शृङ्गीमत्स्यविषं हन्ति धूमो वा बर्हिपक्षजः ॥

Baṅgasena, Viṣa. 204.

कुष्ठे

पटोलादि क्राथे ।

Cakradatta, 50-61.

वज्रकघृते ।

Cakradatta, 50-122.

महासिन्दूराद्य तैले ।

*Cakradatta, 50-154.***KṚṢṆABĪJA****Botanical name :** *Ipomoea nil* (Linn.) Roth.**Family :** Convolvulaceae**Classical name**Kṛṣṇabīja, Śyāmabīja, Kṛṣṇabīja-Kālāñjana,
Romaśavalli.**Sanskrit names**

Kṛṣṇabīja, Kālāñjana.

Regional namesKaladana, Jharmarich (Hindi); Kaladana (Beng.);
Kaladana (Mar.; Guj.) Kakkatan (Tam.); Kolli (Tel.);
Ganeribīja (Kann.); Khanikhondi (Uriya); Habbunnil
(Arabic); Tukhme nil (Persian); **Pharbitis Seeds (Eng.)**.**Description**

Stem slender, twining, retrorsely greybrown hairy.
Leaves ovate-cordate, acuminate, appressed longhairy.
Cymes 1-5-flowered. Sepals long-lanceolate with linear-lan-
ceolate apices, hairy on lower part. Corolla purple, 5-6 cm.
long, glabrous. Capsule subglobose. Seeds densely pubes-
cent with short trichomes.

Flowering and fruiting time

September to March.

Distribution

Plant grows in tropics. It occurs throughout India and it ascends in the Himalayan region up to elevation of 6,000 ft.

Chemical Composition

Seeds contain a resinous substance 14 - 17% which consists of two chemical components i.e. glycoxydic and aglycoxydic. Cathartic properties are attributed to aglycoxydic substance which causes purgation in dose of 250 mg. This active principle is 2% besides the resinous substance, seeds contain fixed oil 12.4% and some contents of cyonin, mucilage and tannin.

Pharmacodynamics

Rasa	: Kaṭu, madhura
Guṇa	: Laghu, rūkṣa, tīkṣṇa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphapittasamśodhana

Properties and action

Karma	: Sukhavirecana-sāraka-bhedana Kṛmighna Raktaśodhaka Śothahara Jvaraghna Lekhana Kaṇḍūghna
Roga	: Vibandha Udararoga-Udāvarta Kṛmiroga Vātarakta-āmvāta Śoṭha Carmaroga Jvara Śiraḥśūla.

Therapeutic uses

The seeds of plant drug are fried with ghee and

then powdered and mixed with sugar; it is considered a good purgative.

The seeds are used in constipation, flatulence, abdominal disorders, worms, gout, rheumatism, worms affections. In skin complaints, the drug is externally applied.

The seeds are suggested to be used after frying them hot sands (bhṛṣṭīkaraṇa process like gram or caṇaka etc.) and then powdered only mixed with sugar. There are other modes of using the seeds; the decoction of seeds is also prepared for use orally. Seeds are ground for making paste for external application.

Parts used : Seeds.

Dose : Powder 1-3 gm., Decoction 50-100 ml.

Yoga : Kṛṣṇabijādi cūrṇa.

KṚṢṆABĪJA (कृष्णबीज)

‘रेचनं श्यामबीजं त्वाच्छोथोदर विनाशनम् ।
ज्वरे पुरीषसंगे च दारुणे शिरसो गदे ॥
उदावर्ते तथावाहे बुधैरेतत् प्रयुज्यते ।’

Ā.vi.

कालाञ्जनम् - कृष्णबीजम्
उदावर्ते

कालाञ्जनीजनूंषि भृष्टानि मनागू घृतेन बीजानि ।
पिष्ट्वा सितया गिले रे ! सुखेन किल रेचनं भविता ॥

Siddha Bhaisajya Manimālā 4-581.

KUBJAKA

Botanical name

Rosa moschata Mill., Syns. *Rosa brumonii* Lindl.

Family : Rosaceae

Classical name : Kubjaka

Sanskrit name : Kubjaka

Regional names

Kuja, Kanjei, Kui (Hindi); Phulwari (Kashmir);
Kwia, Kwiali, Kuja (U.P. hills).

Description

A large or tall sub-deciduous rambling climber or thorny shrubs with stems up to 5 inches diam. and 50 ft. high. Bark rough, dark reddish-brown, exfoliating in the strips. Blaze 15-20 in. pale, yellowish-brown, sometimes pink, towards the outside, very fibrous. Twigs glabrous. Prickles recurved, brown. Branches armed with a few stout recurved prickles.

Leaflets 3-8 pairs, nearly sessile, ovate-oblong, acuminate, 1-2 in. long. Petiole pubescent, usually prickly. Stipules adnate to the petiole, narrow, glandular, leaflets 5-9, 1-9 in. long, ovate to ovate-lanceolate acute or acuminate, glabrous above, puberulous beneath, serrate.

Flowers white, fragrant, 1-1.5 in. diam. in terminal compound corymbs. peduncles and pedicels grey-pubescent, not prickly or bristly. calyx-lobes lanceolate, caudate-acuminate, entire or pinnatifid, twice the length of ovary, often pinnatifide, styles united in a hairy clusters, clavated above, as long as stamens or longer.

Fruit dark brown, sub-globose or ovoid 1/4 to 1/2 in. long; fruits orange-red or dull-red in colour, globose or ovoid, 3-6 in. long.

Flowering and fruiting time

Summer months and onwards; flowers-blooming to fruits-maturing period ends by winters or pre-spring periods.

Distribution

Plant is distributed throughout north-west Himalayas from Afghanistan to Nepal, ascending to 11,000 ft., commencing at 2,000 ft. in the Punjab, and at 4,000 ft. elevation in western hills in northern India.

Chemical Composition

Flowers yield an essential oil.

Pharmacodynamics

Rasa	: Madhura, Kaṣāya
Guṇa	: Śīta
Vīrya	: Laghu

Vipāka : Kaṭu
Doṣakarma : Vātapittahara - Tridoṣahara.

Properties and action

Karma : Varṇya
Tvacya
Dāhapraśamana
Sāraka
Vṛṣya-vīryavardhana
Hṛdya
Śothahara
Kaṇṭhya
Sangrāhī
Roktaśodhaka-raktadoṣaghna.

Roga : Varṇavikāra
Tvagvikāra-carmoroga
Raktaduṣṭi-raktavikāra
Mukhapāka
Āmāśayavikāra-dourbalya
Yakṛta vikṛti-dourbalya
Mukha vaivarṇya
Kaṇṭhaśūla
Viṣphoṭa-pīḍikā
Vibandha-Koṣṭhabaddhatā

Therapeutic uses

The drug Kubjaka is medicinally useful. Flowers of Kubjaka are medicinal and useful in various ailments. Kubjaka is used in bilious affections, burning of skin and eye diseases. Roots are considered useful in pains. Flowers are scented and essential oil is aromatic. Flowers are of medicinal aromatic and aesthetic values.

Flowers are employed for preparing gulkand (as gulkand prepared with Taruṇī or Gulāb flowers) and medicated syrup. Flowers are used in raktapitta, pigment abnormalities, burning sensation and wounds. Plant has rural economic utility also.

Parts used

Flowers, fruits, young shoots, roots, twigs, stem.

Dose : 3-6 gm. (flowers).

KUBJAKA (कुब्जक)

कुब्जकः सुरभिः शीतो रक्तपित्तकफापहः ।
पुष्पं तु शीतलं वर्ण्यं दाहघ्नं वातपित्तजित् ॥

Rāja Nighaṅṭu, 10-102.

कुब्जकः सुरभिः स्वादु कषायानुरसः सरः ।
त्रिदोषशमनो वृष्य शीतहर्ता च स स्मृतः ॥

Bhāvaprakāśa Nighaṅṭu, 5-38.

KUKUNDARA

Botanical name

Blumea lacera Dc.

Syns. *Conyza lacera* Burm. f., *Blumea subcapitata*

Dc.

Family : Asteraceae (Compositeae)

Classical name : Kukundara

Sanskrit names: Kukundara, Tāmracūḍa, Mṛducchada, Sūkṣmapatra.

Regional names:

Kukronḍha (Hindi); Kuksim Kukurshonga (Bengla); Kukurbanda (Marathi); Kokronḍa (Gujrati); Bhamavarda (Bombay); Katu Mulangi (Tam.); Adavi (Telugu).

Description

A pubescent woolly herb measuring 1.2 m. high, with alternate, petiolate leaves in variable size at young and mature stages, oval and elliptical, woolly, pale green, wavy and serrated; mature leaves lobed, coarse, dark green, with soothing small, measuring 9-30 × 5-18 cm. Stem of herb branched differentiated into nodes and internodes, surface covered with hairs.

Annual or perennial 1.5-2 ft. high, pubescent, glandular and rarely glabrescent herb. Stem sometimes branched and always very leafy. Leaves alternate, lower leaves toothed or serrate, rarely lobulate, upper leaves

toothed. Flowers heads hetergamous, disciform, yellow, pappus numerous, white, receptacle glabrous; calyx-limb bristly; corolla of female florets 3-toothed, filiform connate and hermaphrodite florets 5-toothed connate, slender, tubular, slightly enlarged limb; stamens syngenesious, styles of hermaphrodite florets with almost filiform arms. Fruits achenes glabrate, subtetragonous, fruit one-seeded cypselc ridged and surrounded by pappus. Root hard, woody, long tap with secondary and tertiary branches.

Flowers :

Head stalked, bisexual yellow, surrounded by involucre of bracts 8-12 mm. long, bracts multiseriate, campanulate, green, pubescent, outer smaller, curved outwardly and inner straight, linear, foliaceous, outer pistillate florets sessile consisting of ovary, pappus petals connate forming a yellow corolla tube 3-toothed at the tip, style and stigma filiform, flattened and bifid.

Flowering and fruiting time

February to April; post-winter season.

Distribution

Plant occurs wild throughout India ascending to 2,000 ft. from the Himalayan region to Travancore, in its suitable habitats like wastelands and paddy fields specially in the plains.

The plant is collected from wild sources during its flowering season.

Kinds and varieties

Blumea lacera Dc. may distinguished by *B. lacera* var. *blumea* DC. various species of *Blumea* are found, some of them are : *Blumea laciniata* (R) DC., *B. balsamifera* DC., *B. densiflora* DC. and *B. erientha* Dc. Several *Blumea* species are also medicinally and chemically potent. Essential oils of *Blumea* species are useful. *Blumea malcolmii* (Cl.) Hook f. is also potent.

Pharmacodynamics

Rasa	: Tikta, Kaṣāya
Guṇa	: Laghu, rūkṣa, tikṣṇa
Virya	: Uṣṇa
Vipāka	: Kaṭu

Doṣakarma : Kaphapittaśāmaka.

Chemical Composition

Blumea species contain camphor in good quantity.
Blumea balsamifera Dc. contains a glucoside.

Properties and action

Karma : Raktastambhana-śoṇitasthāpana
Dīpana-anulomana-yakṛduttejaka
Kṛmighna
Vāmaka (higher dose)
Śothahara
Kaphaghna
Jvaraghna
Viṣaghna
Vṛanaropaṇa

Roga : Raktasrāva-raktavikāra
Śoṭha
Udararoga
Kṛmi
Yakṛdvikāra
Arśa
Mukharoga
Netrābhiśyanda
Pratiśyāya-kāsa-śvāsa
Pradara
Jvara
Viṣa-Kukkuraviṣa
Vraṇa-Kṣata

Therapeutic uses

The snuff or inhalation of leaves juice is recommended in headache and coryza. Leaves are warmed up and applied to topical inflammation. Juice of leaves is used as eye drop in conjunctivitis. Leaves juice is locally applied to counter worms as germicidal remedy. Paste of leaves is applied over haemorrhoids. For treatment of piles, leaves are ground with Marica (pepper) and orally given in the form of pills. Roots are also used in haemorrhoids. In vocal affections the root is chewed. In condition of haemorrhage the plant is given as good remedy. It is useful in oedema,

blood diseases and fever. In cases of dog-bite, the roots are ground and orally given (10 gm, dose).

The plant drug is bitter and antipyretic. The juice of fresh leaves is anthelmintic, astringent, febrifuge, stimulant and diuretic. Root is useful in cholera.

The plant drug is chemically potent and pharmacologically active. From the leaves of plant an essential oil 0.5% has been isolated by steam-distillation. It is greenish yellow oil. The oil when distilled at reduced pressure (30 mm.) yielded three fractions : (i) 78-80° c (40 c.c.), (ii) 80-120° C (10 c.c.) and (iii) 120-135°c (6 c.c.) Fraction (i) was strongly odorous identity of this fraction with cineol was finally confirmed. Fraction (ii) was redistilled at 30 mm. pressure when 6 c.c. passed at 91°c and the remaining 4c.c. of the contents distilled within with range of 92-120°c. The identity of citral in fraction (iii) was confirmed by comparing the results of these tests with genuine sample of citral obtained from lemon grass oil. Analysis of all the fractions would indicate the fact that the essential oil of *Blumea lacera* consists of 66% cineol, 10% d-fenchone and about 6% citral.

The chromatographic studies have been conducted. The whole plant (without roots) with light petroleum was extracted and results were analysed. Phytochemical analysis of plant gave various contents including essential oil.

Plant drug contains 0.085% essential oil containing camphor Coniferyl alcohol was isolated from this plant. Carvotanacetone, a ketone, synthetically obtained from thujone is also available from natural sources like oils of *Blumea malcolmii* (Cl.) Hook. f. (about 80% d-carvotanacetone). Carvotanacetone has a spicy odour reminiscent of carvone. Essential oil obtained from the leaves of *Blumea lacera* and *B. laciniata* (Roxb.) Dc. possesses antimicrobial activity. Some plants were tested against the rice weevil (*Sitophilus oryzae* L.), *Blumea lacera* could induce migration (43%) of weevil during the first week but it could not check the build up of population of insect. Insecticidal effect of oil fractions of two species

that *Blumea eriantha* caused mortality of *cellosbruchus chinensis* 65% at 5% Concentration and 40% mortality at 2.5% within 72 hours. Another species *Blumea balsamifera* DC. has also exhibited pronounced insecticidal activity which indicates insecticidal utility of *Blumea* species. *Blumea camphor* is obtained and produced from *Blumea* species.

Some nonprotoplasmic cell contents like alkaloid, tannin, saponin, sugar, fat and oil, protein, mucilage and cutin present in the crude drug react positively with different concentration of acids, alkalies, salts and dyes.

Various parts specially whole plant, leaves and roots are therapeutically useful and they are administered in treatment of different ailments. Leaves juice and fine powder is suggested to be used as a snuff in coryza, headache and similar other ailments of head and nose (*urdhvāṅga*). Leaves are made into paste and warmed up; it is topically applied to inflamed part. Internally the leaves juice is also given in coryza, fever, cough and asthma Plant drug is useful in leucorrhoea.

Plant drug is recommended against haemorrhoids, oedema or inflammation, coryza, fever, cough, asthma, dog-bit, wounds, ulcers, insanity, epilepsy, paralysis, rheumatoid arthritis and neuralgic or nervine disorders, constipation, dyspepsia, flatulence, colic, worms, blood disorders, gonorrhoea, goitre and seminal ailments.

Plant (containing camphoraceous aromatic oil) has aromatic and carminative properties. Volatile oil present in the plant (cell contents) produces a soothing aroma. Plant is useful in abdominal diseases (*udara vikāra*) and liver complaints (*yakṛdvikāra*).

Parts used : Root, leaves, whole plant.

Dose : Juice 10 ml., 3-6 gm.

KUKUNDARA (कुकुन्दर)

क. कुकुन्दरस्ताम्रचूडः सूक्ष्मपत्रो मृदुच्छदः ।

ख. कुकुन्दरः कटुस्तिको ज्वररक्तकफापहा ।

तन्मूलमार्द्रं निक्षिप्तं बदने मुख शोषहत् ॥
Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi varga, 305-306.

KULATTHA

Botanical name

Macrotyloma uniflorum (Lamk.) Verdc.

Syn. *Dolichos biflorus* Linn.

Family : Fabaceae (Papilionaceae)

Classical name : Kulattha

Sanskrit names :

(a) Kulattha, Kulāli, Dṛkprasādā, Locanahitā, Cakṣuṣyā, Kumbhakārikā

(b) Kulatthikā, Araṇyakulatthikā, Kumbhakārī, Dhīrā, Vanakulatthikā, Viṭapāpahā, Tāmraḥija-Sitetara.

Regional names :

Kulathi, Kulthi; Kurathi (Hindi); Gahat, Ghout (U.P. hills); Kulattha (Beng.); Kulith (Mar.) Kalathi (Guj.); Horsegram (Eng.).

Description

Slender climbing pubescent annual herbs. Leaves pinnately 3-foliolate; petioles 1-7 cm. long; leaflets ovate-elliptic to rhomboid, cuneate at base, acute at apex, 2.5 × 1.5-3 cm.

Flowers solitary or in fascicles of 2-3 in the axil of leaves. Corolla 8-18 mm. long, cream or greenish yellow, standard with two appendages at base.

Pods linear, compressed, 3-5 cm. long, 3-8 mm. broad; recurved or falcate, densely hairy.

Flowering and fruiting time

September to November.

Distribution

Plant grows on roadside shrubs. It is cultivated more or less in various regions of country. It occurs throughout India from Himalayan zone to Kanyakumari Islands as-

ending to 3,000 ft. elevation. Farming is undertaken in rural areas for seed-pulse. Cultivation as crop farming in different parts of country.

Chemical composition

Seeds contain protein (22.5%alluminoides), starch 5.2%, oil 2% ash 3.2%, phosphoric acid 1%, fibrous tissue and urease in plenty.

Pharmacodynamics

Rasa	: Kaṣāya madhura
Guṇa	: Laghu, tikṣṇa, Uṣṇa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Vātakaphahara.

Properties and action

Karma	: Mūtrala-aśmarībhedana Kāsaghna-Kaphahara Cakṣuṣya Hikkānigrahaṇa Śūlapraśamana Arśoghna Dāhapraśamana Medohara Sara-anulomana-bhedana Sangrahī Vraṇaropaṇa Vidāhī Śothahara Vātaghna Śukraghna Svedāpanayana Kṛmighna
Roga	: Mūtrakṛcchra-Aśmarī-Mūtravikāra Kāsa-śvāsa- hikkā-pīnasa Dāha Medoroga Jvara Krimi Śukrāśmarī

Śoṭha
 Arśa-gudakīla
 Udararoga-ādhamāna-
 annadravaśūla-gulma
 Netra vikāra
 Viṣa
 Gaṇḍamāla
 Āmavāta
 Śūla-vātaśūla
 Śitapitta.

Therapeutic uses

The drug Kulattha is specifically esteemed for its effect in urinary disorders particularly urinary calculus (aśmari or mūtrāśmari) dysuria (mūtrakṛcchra) and allied urinary disorders (mūtrāmaya). Frequently the seeds are recommended as a medicine as well as wholesome diet (pathya) to patients of such diseases.

The drug Kulattha is of astringent and acidic or sour taste and potency is hot. Drug pacifies provoked kapha and vāta. It purifies blood and bile (rakta pitta śodhaka), Carminative, diuretic, antipyretic and anthelmintic. It is useful in emaciating (reducing fat, body weight or slimming) and in reducing the sweating (or anti-diaphoretic). It causes burning sensation (vidāhi). The drug Kulattha is useful against fever, cough, asthma, hicough, calculus (urinary stone), obesity, worms, oedema, piles, flatulence and rheumatism, colic urticaria, abdominal disorders, goitre, urinary, seminal and other ailments. The drug is also useful in constipation, eye (vision) ailments, chronic coryza and ulcer (vraṇaropaṇa). The seeds are used in medicine and they are consumed as pulse (dal).

The soup of horsegram (Kulattha yūṣa) is recommended wholesome (pathya or hita) in cases of āmavāta. In worms affection, the decoction of Kulattha added with milk is considered wholesome (kṣirapāka-kulattha kvātha). The non-slimy diet with soup of Kulattha is useful in gaṇḍamālā. The diet of barley (yavāna) with the soup of Kulattha and also other pungent drinks are wholesome in

heart disease (hrdroga). The soup of horsegram (Kulattha yūṣa) and other light pulses (mudgādyairlaghubhiryūṣāḥ kulatthāśca jvarāpahā: Aṣṭāṅga Hṛdaya, Cikitsā. 1-74). In excessive perpiration or sweating, the powder of parched kulattha is rubbed on body part for checking this condition (svedāpanoyana). The soup of Kulattha is given for alleviating asthma and cough. Kulattha and some others are considered wholesome (Suśruta Saṁhitā, śārīra. 2.21) in amenorrhoea (rajorodha). In abdominal pain, the soup of kulattha properly soured, processed with the soup of quail and added with rock salt and black pepper is recommended to be used (vātajā śūla). The flour of parched Kulattha mixed with fateless curd in annadravaśūla. The diet of patient should contain soup of dried radish or Kulattha in urticaria (śītapitta). The ghee cooked with decoction of Kulattha and pañcakola is administered in cough caused by Kapha and also in hiccough and asthma (kāsa, śvāsa and hikkā). Kulattha is useful in piles (arśa); in condition of passing loose stools, the patient may be given soup of dried radish of Kulattha and other drugs. The soup of Kulattha is wholesome in gulma and other several diseases. Kulatthādyā ghṛta and Kulattha guḍaḥ are prescribed in calculus (aśmarī), and hiccough as well as asthma (hikkā-śvāsa).

In hilly region (Uttar Pradesh), the horsegram or Kulattha seeds is a favourite and common diet article as pulse being a food item of household importance for particularly using it during winter seson when hills inhabitants much relish Kulattha predominating among other pulses (dal) under hills tradition.

Parts of uses : Seeds

Dose : Decoction 50-100 ml.

Formulations : Kulatthādyā ghṛtam, Kulatthādi pralepa, Kulatthayūṣa.

KULATTHA (कुलत्थ)

क. कुलत्थिका कुलत्थश्च कथ्यन्ते तद्गुणा अथ।

ख. कुलत्थः कटुकः पाके कषायः पित्तरक्तकृत् ।
 लघुविदाही वीर्योष्णः श्वासकास कफानिलान् ॥
 हन्ति हिक्काऽश्मरी शुक्रदाहानाहान् सपीनसान् ।
 स्वेद संग्राहको मेदो ज्वरक्रिमिहरः सरः ॥

Bhāvaprakāśa Nighaṇṭu, Dhānya Varga, 60-62

कुलत्थगुणाः

कुलत्था लघवस्तीक्ष्णा विपाकेऽम्ला विदाहिनः ।
 वीर्योष्णा मधुरा रूक्षा कषाया रक्तपित्तलाः ॥
 भेदना ध्वन्ति शोफार्शो हिध्मानाह कफानिलान् ।
 शुक्रशुक्राश्मरीदृष्टिश्वासकासान् सपीनसान् ।

Kaiyadeva Nighaṇṭu, Dhānya Varga, 76-77.

अरण्य कुलत्थ कुलत्थिका

कुलत्थिका कुम्भकारी चक्षुष्या विट्पापहा ।
 कुलाली लोचनहिता धीरा वनकुलत्थिका ॥
 कुलत्थिका हिमा श्लेष्मविषनेत्रामयापहा ।

कुलत्थिका शाकम्

शाकं वन्यकुलत्थस्य हिक्काभिष्यन्दनाशनम् ॥

Kaiyadeva Nighaṇṭu, Dhānya Varga, 78-79.

कुलत्थि

कुलित्थस्ताम्रबीजश्च श्वेतबीजः सितेतरः ।
 कुलित्थस्तु कषायोष्णो रूक्षो वातकफापहः ॥

Rāja Nighaṇṭu, Śālyādivarga, 103-104.

कुलत्था

कुलत्था दृक्प्रसादा च ज्ञेयाऽरण्य कुलत्थिका ।
 कुलाली लोचनहिता चक्षुष्या कुम्भकारिका ॥
 कुलत्थिका कटुस्तिका स्यादर्शः शूलनाशनी ।
 विबन्धाध्मान शमनी चक्षुष्या व्रणरोपणी ॥

Rāja Nighaṇṭu, Parpatādi Varga, 71-72.

उष्णाः कषायाः पाकेऽम्लाः कफशुक्रानिलापहाः ।
 कुलत्थाः ग्राहिणः कासहिक्काश्वासार्शसां हिताः ॥

Caraka Samhitā.

हिक्काश्वासे कुलत्थ गुडः

Cakradatt, 13/31-34.

ज्वरेकुलत्थ यूषः

मुद्गाद्यैर्लघुभिर्यूषाः कुलत्थाश्च ज्वरापहाः ।

Aṣṭāᅅga Hᅇdaya, cikitsā. 1-74

ज्वरे अतिस्वेदे

‘स्वेदोद्गमे मृष्टकुलत्थ चूर्णनिपातनं शस्तमिति द्रवन्ति ।’

Vᅇdamādhava, 1-186.

उष्णः कुलत्थो रसतः कषायः कटुर्विपाके कफमारुतघ्नः ।

शुक्राश्मरी गुल्मनिषूदनश्च संग्राहकः पीनसकासहारी ॥

आनाहमेदोगुदकील हिक्काश्वासापहः शोणितपित्तकृच्च ।

कफस्य हन्ता नयनामयघ्नः विशेषतो वन्यकुलत्थ उक्तः ॥

Suśruta Saᅁhitā.

कषायस्वादुरूक्षोष्णाः कुलत्थाः रक्तपित्तलाः ।

पीनस श्वासकासार्षो हिध्माऽऽनाह कफानिलान् ॥

घ्नन्ति शुक्राश्मरीं शुक्रं दृष्टिं शोफं तथोदरम् ।

ग्राहिणो लघवस्तीक्ष्णा विपाकेऽम्ला विदाहिनः ॥

Vᅇddha Vāgᅇhaᅇa.

अश्मरी रोगे कुलत्थाद्य घृतम्

Cakradatta, 34/38-39. Bhāvaᅇprakāśa, Cikitsā. 37-80/81.

शीतपित्ते

‘कौलत्थेन रसेन वा ।

भोजनं सदा पथ्यम् ॥’

Cakradatta, Śītapitta Cikitsā

स्वेदागमरोधनार्थम्

‘स्वेदोद्गमे ज्वरे देयं चूर्णं भृष्ट कुलत्थजम् ।’

Cakradatta, Jvara Cikitsā

कफजगुल्मे

‘कुलत्थान्..... ।’

कफगुल्मे प्रयोजयेत् ॥

Baᅅgasena.

गण्डमालायाम्

‘भोजनश्चावभिष्यन्दि यूषा कौलत्थ इप्यते ।’

Baṅgasena.

आमवाते

‘हितं च यूषं कौलत्थम् ।’

Baṅgasena, Āmevāta cikitsā.

अन्नद्रवाख्येशूलम्

‘कुलत्थशक्तूनथवा दध्नाऽद्याद्वित्तरेण तु ।’

Baṅgasena, Annadrava, 98.

अर्शःसु

‘यूषं कौलत्थमेव वा ।’

Caraka Saṁhitā, Cikitsā. 14-93/94.

कृमिषु

‘कुलत्थक्काथ संसृष्टं क्षीरपानञ्च पूजितम् ।’

वातशूले

‘कुलत्थयूषो युक्ताम्लो लावकीयूष संस्कृतः ।

ससैन्धवः समरिचो वातशूल विनाशनः ॥’

Suśruta Saṁhitā, Uttara. 42-93.

नेत्रकोपे

‘आरण्याश्छगणरसे पटावबद्धाः सुस्विन्ना नखवितुषीकृताः कुलत्थाः ।

तच्चूर्णं सकृदयवचूर्णनातिशोथे नेत्राणां,

विधमतिसद्य एव कोपम् ॥’

Aṣṭāṅga Hṛdaya, Uttara. 16.

अश्मयादि मूत्ररोगाणां चिकित्साऽर्थे

कुलत्थसिन्धूत्थ विडङ्गसारं सशर्करं शीतलियावशूकम् ।

बीजानि कूष्माण्डकगोक्षुरानां घृतं पचेत्तद्गुरुणस्य तोये ॥

Bhāvaprakāśa, Aśmarirogadhikāra, 37-81.

दुःसाध्यसर्वाश्मरिमूत्रकृच्छ्रं मूत्राभिघातञ्च समूत्रबन्धम् ।

आमूलमेतानि निहन्ति शीघ्रं प्ररूढवृक्षानिव वज्रपात ॥

KUMĀRĪ

Botanical name : Aloe vera Tourn. ex Linn.

Syn. *Aloe barbadensis* Mill.

Family : Liliaceae

Classical name : Kumārī

Sanskrit names

Kumari, Ghṛtakumārī-ghṛtakumārikā, Gṛhakanyā, Viśālā, Vīrāsrāva, Sahāsāra-Kumārīsambhava, Picchasambhṛtā, Panktikandadalā, Balā, Dhvajāmadhyadaṇḍā Aruṇarājīyutā.

Regional names

Ghikuwar, Ghaikuwar, Gvarapatha, Dekvara (Hindi); Patkvar (U.P. hills); Kuvargondal (Marathi); Ghritkumari (Bengla); Kourphad (Marathi); Kunwarpath (Guj); Chiruli (Tam.); Chimakat banda (Telugu), Lolisar (Kann.) Kumari (Mal.); Sabbarat (Arabic); Darakhte sibra (Persian); Indian Aloe, Curacao Aloe, Barbados Aloe, Jaffarabad Aloe (Eng.).

Description

A coarse-looking plant is with a short stem, 1-2 feet high. The fleshy leaves (about 15 inches long, 4 inches broad and 3/4 inch thick) are densely crowded. Large fleshy green leaves with sharp spines and white specks at the bases of the leaves.

Perennial herb of about 30 cm. to 60 cm. high. Dwarf succulent plants upto 30-60 cm. in height. Leaves thick, glaucous, aregated, ensiform, 30-61 × 5-10 cm. with horny pickles perpendicular or margin; Fls. on the scape 61-91.5 cm., perianth reddish yellow and green, cylindrical, 1.9-2.5 cm. fruit a loculicidal capsule.

Leaf drug :

Leaf epidermis full of stomata on both the surfaces (as transverse section). Parenchyma rich in chlorophyll cells show starch and bundles of needles of calcium oxalate. Central portion consists of mucilage containing parenchyma. A double row of vascular bundles located at the junction of the two preceding areas and with well marked pericycle and endodermis.

Dried juice (leaves) :

It varies in colour from yellow brown to chocolate

brown. It breaks with a waxy fracture giving a sour odour. Taste is bitter. Drug shows (examined in lactophenol microscopically) crystals of aloin embedded in masses of resin. Purity of drug is tested chemically (schontetus reaction etc. and other methods).

Flowering and fruiting time

Plant in flowering stage during winter-spring seasons.

Distribution

Plant grows widely throughout India ascending to 1500 meters elevation in Himalayan region. It is found in Africa, Arab, India, and China. plant occurs in a semi-wild state in all parts from the dry westward valleys of the Himalayas up to Cape Comorin. Plants are generally propagated by suckers. Many of the forms of this species are naturalised.

Chemical composition

Aloes (Musabbar) contains chief active principle which is mixture of glucosides and collectively called 'aloin' regarded main active constituent of the drug Aloes. Proportion of aloin varies (in different samples of crude drug belonging to various areas from 10% to 30%). Aloin contains barbaloin, Isobarbaloin, aloe emodin etc.

Pharmacodynamics

Rasa	: Kaṭu
Guṇa	: Guru, snigdha, picchila
Vīrya	: Śīta
Vipāka	: Tikta
Doṣakarma	: Kaphapittahara.

Properties and action

Karma	: Pittavirecana Dipana-pācana-bhedan- yakṛduttejaka (lower dose) Virecana-kṛmighna (higher dose) Raktaśodhaka-śothahara Mūtrāla Vṛṣya
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Garbhāśayottejaka-Ārtavajanana-
garbhāsrāvakara
Tvagdoṣahara
Jvaraghna
Balya-brñhaṇa
Viṣaghna
Medhya
Rasāyana
Vraṇaropaṇa
Keśya
Kṛmighna
Kaṇḍūghna-kuṣṭhaghna
Cakṣuṣya
Vātaghna
Varṇya.

Roga

: Yakṛtpliḥāvikāra-vṛddhi
Pāṇḍu-kāmalā
Carma-varṇavikāra
Śothavedanāyukta vikāra
Udararoga-gulma-agnimāndya-
udarśūla-vibandha
Raktavikāra-śoṭha
Mūtrakṛchhra
Śukradourbalya
Rajorodha-ārtavavikāra
Stanvyatha
Carmaroga
Jirṇajvara
Dourbalya
Kṛmiroga-tantukṛmi
Netraaroga-netrābhiṣyanda
Śiroroga
Vraṇa-visphoṭa
Agnidagdha
Apasmāra
Līṅgārśa
Śītapitta.

Therapeutic uses

The drug Kumāri or Ghṛtakumārī is bitter, cathar-

tic, anathelminthic, aphrodisiac, cooling, emmenagogue, hepatic stimulant, purgative and vermifuge. It is used in indigenous medicine in haemophilic, skin and uterine disorders. Locally it is applied on burns. It is also used in cosmetics for applying over face and skin. Drug is topically applied to ulcers, wounds eruptions or eruptive boils. It is used in anaemia, jaundice, liver and splenic disorders, menstrual troubles, worms, chronic fever, dysuria, oedema, abdominal disorders, inflammatory and painful complaints (organs), colic, poisons and general debility. It is blood purifier, tonic and wholesome to eyes. Drug is restorative (rasāyana); and it is useful in urticaria, headache, loss of appetite, leucorrhoea, constipation and it allays vāta and kapha besides its cholagogue action. Drug is frequently recommended in gynaecological complaints. It is used as single drug, recipes and compound formulations. Besides as an ingredient of several pharmaceutical preparations (compounds), the plant drug is employed in some processes of pharmacy (rasaśāstra and bhaisajya kalpanā) in Indian medicine. It is utilised in śodhana and māraṇa methods (process) of certain processes and preparations. In addition to pharmaceutical formulations of classical group (śāstriya) as well as new herbomineral products indicated in treatment of various diseases.

The plant drug Kumārī is major ingredient of Kumaryāsava, Rajaḥpravartanī vaṭī, Kumārikā vaṭī, Kumārī taila, Kumārīpāka etc. incorporated in Indian medicine. Some other drug preparations are made in Unāni medicine. Kanyāsāra or Aloes (extract) or Musabbar is used in medicine for treating different ailments and it is also an ingredient of medicinal preparations used in externally and internally in therapeutics.

Kumārī has been important and potent drug in ancient medicine and therapeutics finding its uses in several diseases as mentioned in different classical texts dealing with clinical management.

The juice of Kumārī leaves (pulp) is taken as snuff which is useful to relieve from jaundice or Kāmalā. Kumārī nasya is referred by Bhāvamiśra (Bhāvaprakāśa, cikitsā. 8-

44). Kumārī is used in jaundice and anaemia (Kāmalā and Pāṇḍu) in other forms also since its pharmacological action on liver and spleen function. Kumārī leaves are used in enlargements and other disorders of liver and spleen in body. Kumārī is potent cholagogue drug (pittanirharaṇa-pittarechana). The juice of Kumārī mixed with Haridrā (turmeric) powder is given in spleen enlargement or plihavṛddhi (Śāraṅgadhara Saṁhitā, 2-1-15).

In therapeutic management of amenorrhoea (rajorodha), the extract of Kumārī leaves juice or Kanyāsāra (aloe) is chief ingredient of two compounds viz. Kumārikāvaṭī and Rajaḥpravartanī vaṭī which are frequently prescribed in menstrual problems as emmenagogue drugs (Bhaiṣajya Ratnāvali, p-1182-1183). Kumāryāsava is another prominent classical formulation which is generally recommended in female diseases and also other ailments.

Kumārī is mixed with tila and sour gruel or alone applied to ripens the abscess. Kumārī leaves or juice is recommended to apply over abscess and wounds in āma and pacyamāna stages for attaining pakva condition of vidradhi and vraṇa (Vaidya Manoramā, 16-101-102). Leaves pulp of Kumārī are prescribed to externally apply over or by covering up with the steamed leaves devoid of pulp, in all stages of abscess as indicated in medical texts (Vidradhi cikitsā contexts). Kumaārī is recommended in other several diseases in texts and medical practice.

Parts used : Leaves, root, Extract (powder) Kanyāsāraa.

Dose : Juice 10-20 ml., Powder (extract) 0.1-0.3 gm.

Formulation

Kumāryāsava, Kumārikāvaṭī, Kumārīpāka,
Rajaḥpravartanivaṭī.

KUMĀRĪ (कुमारी)

कुमारी शीतला तिक्ता मधुरा भेदनी जयेत् ।
गुल्मप्लीह यकृद्वृद्धि कफज्वरहरी हरेत् ।
ग्रन्थ्याग्निदग्ध त्रिस्फोट पित्तरक्तत्वगामयान् ॥

चक्षुष्या विषवातघ्नी बल्या वृष्या रसायनी ।

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 1638-40.

कुमारी पुष्पम्

वातपित्तकृमिहरं कुमारी कुसुमं गुरु ।

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 1640.

कुमारी भेदिनी शीता तिक्ता मेध्या रसायनी ॥

मधुरा बृंहणीबल्या वृष्यावात विषप्रणुत् ।

गुल्मप्लीहयकृद्वृद्धिकफज्वरहरी हरेत् ॥

ग्रन्थग्रिदग्ध विस्फोट पित्तरक्तत्वगामयान् ॥

Bhāvaṣṭrakāśa Nighaṇṭu, Guḍucyādi Varga 221-230.

गृहकन्या हिमा तिक्ता मद्गन्धिः कफापहा ।

पित्तकासविषश्वासकुष्ठघ्नी च रसायनी ॥

Rāja Nighaṇṭu.

वीरास्त्रावः सहासारः कुमारी सम्भवः ।

सहासारोऽग्रिजननः पित्तनिर्हरणोमतः ॥

बलकृद्रेचनः पुष्पजननो गर्भपातनः ।

विट्सङ्गे कृमिरोगे च संन्यासेऽपस्मृतौ तथा ।

लुप्ते रजसि नारीणां शीतपित्ते शिरोरुजि ।

ज्वरे श्लेष्मोद्भवे प्लीहि मन्देऽग्रौ च प्रयुज्यते ॥

अर्शसस्तं न सेवेत नान्तर्वल्नी न पुष्पिणी ।

न चासृदरिणी नापि यकृद्वृक्कादिरोगवान् ॥

Ā. Vi.

कामलारोगे घृतकुमारी नस्यम्

‘अपहरति, कामलाऽऽर्त्ति नस्येन कुमारिकाजलं सद्यः ।’

Bhāvaṣṭrakāśa, Pāṇḍukāmlāhalīmakādhikāra, 32-44.

गुल्मे कुमारिका मांसम् (पत्रमज्जा)

गुल्मी कुमारिकामांसं कर्षार्द्धं गोघृतान्वितम् ।

गिलेद्वयोषाभवासिन्धु सूक्ष्मचूर्णवधूलितम् ॥

Bhāvaṣṭrakāśa, Gulmādhikāra, 32-44.

लिङ्गाशोघृतकुमारी लेपम्

हरति घृतकुमारी पत्रमावेष्टनेन ग्रथन विधि विशेषांश्चर्मकीला स्तृतीये ।

अहनि गुरुतरानप्यद्वब्धप्रतिष्ठान् विधिरिव विपरीतः पौरुषस्य प्रकारान् ॥

*Bhāvaprakāśa, Madhyakhaṇḍa, 52-5.
Rājamāstaṇḍa, 24-1.*

शिरोरोगादयः चिकित्सायाम्

कुमारी तैलम्

Bhāva Bhāvaprakāśa, Śīrorogādhikāra, 62-42/48.

रजोरोधे

कुमारिकावटी

रजःप्रवर्तिनीवटी

Bhāisajya Ratnāvālī, p. 1182-1183.

मूत्रकृच्छ्रे

ज्वरेषु मूत्रकृच्छ्रं चेत् कुमारी स्वरसं पिबेत् ।

कनीयः पञ्चमूलं वा गुह्यमेतच्चिकित्सितम् ॥

Vaidya Manoramā, 7-10.

स्तनव्यथायाम्

अपत्यनाशप्रभवांनिहन्ति स्तनव्यथामाशुकृते प्रलेपे ।

स्त्रीणां हरिद्रासहितं कुमारीमूलं विशालाप्रभवं कदाचित् ॥

Gadanigraha, 6-8-23.

प्लीहवृद्धौ

‘निशाचूर्णयुतः कन्यारसः प्लीहापचीहरः ।’

Śāraṅgadhara Saṁhitā,

अपस्मारे

मधुकक्काथसहिते कुमारी स्वरसे शृतम् ।

घृतं स्मृतमपस्मारे हृदुत्फाले सशर्करम् ॥

Siddha Bhāisajya Maṇimāla, 4-453.

व्रणे

कुमारीसंपिष्टं जीरकं लेपयेद् भिषक् ।

तेन दाहश्च पाकश्च शमामाप्नोति निश्चितम् ।

Rasa Ratna Samuccaya, 25-18.

तिलारनालकृथितां कुमारी पाचयेद् व्रणान् ।

केवलाऽथ कुमारी वा पक्कापक्क विशंकितान् ॥

आमे वा पच्यमाने वा पक्के वा कन्यकां व्रणे ।

स्विन्नां विनिर्गन्त्रां च निक्षिपेत् संप्रशाम्यति ।

Vaidya Manoramā, 16-101-102.

KUMBHĪKA

Botanical name : *Careya arborea* Roxb.

Family : Lecythidaceae

Classical name : Kumbhīka

Sanskrit name : Kumbhīka

Regional names

Description

Deciduous trees, up to 20 m. tall. Leaves usually sessile, broadly ovate, 15-30 × 5-15 cm., tapering to base, obtuse or rounded at apex, denticulate or crenate, thick, smooth and shining on both sides, pale green.

Flowers swollen terminal spikes, each with a central oval bract and two lateral linear ones. Calyx tube about campanulate, 2-3 cm; glabrous, segments rounded, stiff, erect. Petals ovate, 5-7 cm. long, obtuse or acute, margins often revolute. Filaments about as long as petals, spreading. Fruits globular, ca 8 cm., green, crowned with persistent calyx segments and style, solid with many seeds embedded in fleshy pulp.

Flowering and fruiting time

March to July. Spring to rainy season.

Distribution

It is found growing on hill slopes and along the sides of streams. It occurs in Central India, Madhya Pradesh and other regions in country.

Kind and varieties

The plant drug Kumbhīka (*Suśruta Saṁhitā*, sūtra, 38-45) is also referred as Kumbhī (*Caraka Saṁhitā*, *Vimāna*. 8-144), Kumbhīkā (*Suśruta Saṁhitā*, *Uttara*. 3-10) and some other similar terms in classical texts. 'Kumbhīkā-dvayam' has two kinds of different plant drugs viz. *Sthalakumbhīkā* (*Dalhaṇa Suśruta Saṁhitā*, *Cikitsā*. 17-27)

which is Kumbhika, identified as *Careya arborea* Roxb.; and Jalakumbhī (Bhāvaprakāśa, Cikitsā. 45-35) which is identified as *Pistia stratiotes* Linn. Among these two plants, former is terrestrial tree and latter is aquatic herb from eco-taxonomical point of view.

Another kind of Kumbhī or Kumbhika is Kumbhātoḥ (Paryāya Ratnamālā, 75-4), known as Kumbhāduḥ and also Āvaṭilatā, is botanically identified as *Careya herbacea* Roxb. (Myrtaceae).

Careya herbacea Roxb.

A small perennial under-shrub having woody root-stock, throwing up annually herbaceous leafy flowering shoots about 1 ft. high. Leaves 6-8 by 2-3 in., obovate, oblanceolate or spatulate, Cuneate-oblong or obovate, obtuse or emarginate, serrulate, glabrous or obscurely puberulous; petioles up to half inch long; tube campanulate, terete. Flowers stalked, 1-2 on each shoot, terminal, jointed within the bracts, bracts 2, linear at the base of calyx. Calyx 3/4 in. long, tube campanulate, terete; lobes ovate, obtuse. Petals about 1.5-2 in. long, greenish-purple. Fruit 1.5 in. diam., globose, crowned by the persistent calyx and style. Fls. March.

It occurs on grassy slopes of Siwaliks, U.P., Central India, Bengal and, other regions.

Chemical composition

Leaves contain 10% tannin.

Pharmacodynamics

Rasa	: Kaṣāya, tikta.
Guṇa	: Laghu, snigdha
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Vātapittahara-Tridoṣaśāma.

Properties and action

Karma	: Vraṇa ropaṇa Śoṭhana Dipana-pācana Kāsaḡhna
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	Snehan
	Mārdavakara
	Jvarghna
Roga	: Vraṇa
	Vidradhi
	Kāsa
	Jvara
	Udararoga.

Therapeutic uses

The oil prepared with bark of plant is useful for treating ulcer, wound and sinus. Kumbhikādi taila contains this drug as a major ingredient (Suśruta Saṁhitā, Nāḍivraṇa. 18-19).

The bark is used as demulcent in coughs and colds, in the preparation of an emollient embrocation, and as antipyretic and antipruritic, in eruptive fevers, particularly smallpox.

The calyces of the flowers contain mucilage and are used as demulcent.

The fruits are edible and aromatic. They contain an astringent gum. A decoction of the fruits is given to promote digestion. Leaves are used for ulcers.

The seeds are reported to be poisonous. Plant is a fish poison (matsyaniṣūdana-matsyaviṣakārī). Its inner bark is rubbed on shoes for keeping off leeches in moist, humid and dense forests particularly where leeches (jaloukā) are often found and they need to be counter checked.

Parts used : Bark

Dose : Decoction 50-100 ml.

Formulation

Kumbhikādi taila (Suśruta Saṁhitā, Nāḍivraṇa. 18-19).

KUMBHĪKA (कुम्भीक)

नाडीव्रणे

कुम्भीकादि तैलम्

Baṅgasena Nāḍivraṇa. 98-99.

कुम्भी

Caraka Samhita, Vimāna. 8-144.

कुम्भिका

कुम्भी (अत्र) पानीय कुम्भिका (डल्हण)

Dalhana, Suśruta Samhitā, Uttara. 40-155.

कुन्तिका द्वयम्

'स्थलकुम्भिका जलकुम्भिका च ।'

कुम्भीकः

क. 'श्लक्ष्णत्वक्को रोमशः कुम्भीनामावृक्षः' (डल्हणः)

ख. (पा.) 'कुम्भाडुलता, तद्बीजमपि दाडिमफलबीजाकारम् ।'

(म० को०, 59-77)

Suśruta Samhitā, Sūtra 38-45.

कुम्भीका

(क) 'दाडिमकारफला स्थलकुम्भी' (डल्हणः)

(ख) कच्छदेशोद्भवा दाडिमफलाकारफलालता ।

(म० को०, 59-77)

'कुम्भाडुलता दाडिमसमानफला ।' (शिवदत्त)

(ग) जलकुम्भी । (अ० प्र०, 9-9)

Arkaprakāśa, 9-9.

KUMUDA

Botanical name

Nymphaea nouchali Burm. f. (*Utpala*) *Nymphaea stellata* Willd. (*Nilotpala*)

Family : *Nymphaeaceae*

Classical name : *Kumuda*

Sanskrit names : *Kumuda, Utpala.*

Regional names

Kui, koi, Bhent (Hindi); Kumud (Beng.); Kamod (Marathi); Poyanu (Gujarati); Alli-tamarai (Tam.); Alli-tamar, (Telugu); Nipadale hudu (Kann.); Periyamval (Mal.; Indian-Red water Lily (Eng.).

Description**A. *Nymphaea nouchali* Burm. f.**

Syns. *Nymphaea stellata* Willd.

Perennial aquatic herbs with small corns. Leaves rotundate, ca 10 cm. across, entire or sinuate margined, glabrous beneath. Flowers ca 5 cm. across, blue, sometimes purple, stamens appendaged.

Flowering and fruiting time

May to October (flowers) and October to November (fruits)

B. *Nymphaea pubescens* Willd.

Syns. *Nymphaea nouchali* auct pl. (non Burm.f.); *Nymphaea lotus* (auct non L.) sensu Hook f. & Thoms.

Perennial aquatic rhizomatous herbs. Leaves oblong or rotundate, hastate, entire or sinuate-margined, villous beneath; petioles and peduncles smooth, purplish. Flowers white or purple; petals ca 5 cm. long; stamens and stigmas pale yellow.

Flowering and fruiting time

May to October (flowers) and October to December (fruits).

C. *Nymphaea rubra* Roxb. ex Andrews

Syns. *Nymphaea lotus* auct. (non L.) Hook. f. & Thoms.

Perennial aquatic rhizomatous herbs; petioles and peduncles smooth. Leaves rotundate, denticulate, ca 20 cm. across, purplish, villous beneath. Flowers carmine red; petals linear-oblong, 5-7 cm. long; anthers purplish black.

Flowering and fruiting time

July to October (flowers) and October to December (fruits).

Distribution

It occurs in tanks and ponds of hotter regions of country.

Chemical Composition

The aerial stem of plant contains moisture 53.95%,

protein 5.87%, fat 1.06%, starch 27.37%, fibrous substance 1.55%, other carbohydrates 9.07% and ash 1.13%, Seeds contain 7.05%, fat 0.94% and carbohydrate 77.86%.

Kinds and varieties

There are several kinds of plants referred to Kumuda. *Nymphaea nouchali* Burm. F., *Nymphaea pubescens* Willd. and *Nymphaea rubra* Roxb. are commonly known as Neelkamal, Kanwal or Koka and Lal matala etc. respectively. *Nymphaea nouchali* Burm. f. syn. *N. stellata* Willd. is popularly known as Nilophar (Nīlotpala) since the flowers of this kind is generally of blue colour (Sometimes white or pink also). Flowers of *Nymphaea alba* Linn. is pure white which is found in Kashmir Himalaya. Plant of *Nymphaea tetragona* Georgi is quite small herb which occurs in the Himalayan region (4,000-6,000ft altitude). Some of these kinds of plant flower during night while many of them bloom at morning. Species of *Nymphaea* occur throughout India, both in the plains as well as in hills.

Pharmacodynamics

Rasa	: Kaṣāya, madhura, tikta
Guṇa	: Laghu, snigdha, picchila
Vīrya	: Śīta
Vipāka	: Madhura
Doṣakarma	: Kaphapittaśāmaka

Properties and action

Karma	: Dāhapraśamana Varṇya-tvagdoṣahara Medhya-śāmaka Chardinigrahaṇa Tṛṣṇānigrahaṇa Stambhana Prajāsthāpana Mūtravirecanīya-mūtravirajaniya Jvaraghna Balya-viṣaghna Raktastambhana Viṣaghna Keśya
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Roga	: Dāha Varṇavikāra Tvagvikāra Mastiskadourbalya-mūrcchā- mānasadvega-anidrā- Vamaṇa-tṛṣṇā-atisāra-pravāhikā Hṛdroga Raktavikāra-visarpa Raktavikāra-raktārśa-raktapitta- raktasrāva Garbhasrāva-yonidāha-somaroga Prameha-paittika prameha- mūtrakṛcchra Tivrajvara-dāha Viṣa Dourbalya-Bālaśoṣa-kṣaya Pāliya.
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Therapeutic uses

The drug Kumuda is astringent, cooling, antipoisonous, brain tonic and refrigerant. It is used in burning sensation, in the body, cardiac diseases, fever and hemophilic conditions. the drug is useful to check abortive tendency, habitual abortion and to promote intellect (to increase mental faculties).

Parts used

Whole plant, specially flowers, seeds and root.

Dose

Seeds powder 3-6 gm., Root juice 10-20 ml.

Formulations

Aravindāsava, Nilotpalādi hima, Śarbat Nilophar.

Gaṇa

Mātravirajanīya (Caraka Samhita), Utpalādi (Suśruta Samhitā).

KUMUDA (कुमुद)

कुमुदं पिच्छिलं स्निग्धं मधुरं ह्लादि शीतलम् ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 1453.

कुमुदबीजम्

कुमुदस्य च बीजं तु कुरुते मनसोमुदम् ।
वातलं रक्तपित्तघ्नमतीसार विनाशनम् ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 1454.

कुमुदिनी

कुमुद्वती कैरविका तथा कुमुदिनीति च ।
सा तु मूलादि सर्वादिरक्ता समुदिता बुधैः ।
पद्ममिन्या ये गुणाः प्रोक्ताः कुमुदिन्याश्चते स्मृताः ॥

Bhāvaprakaśa Nighaṅṭu, Puṣpa Varga, 16-17.

योनिदाहे कमलिनी मूलम्

‘सूर्यकान्ता भवं मूलं पिबेद्वा तण्डुलाम्बुना ।’

Bhāvaprakaśa, Yonirogadhikara, 70-41.

सोमरोगे

उत्पलपत्र स्वरसः किञ्चित्तेलेन सह पीतः ।
अस्थिस्रावं स्त्रीणां नाशयति नरस्यसोमरोगं च ॥

Vaidya Manoramā, 2-11.

पालित्ये

उत्पलं पयसा सार्धं मासं भूमौ निधापयेत् ।
केशानां कृष्णीकरणं स्नेहनञ्च विधीयते ॥

Vṛanda Mādhava, 57-90.

दन्तभग्रे

.....उत्पल्स्य च नालेन क्षीरपानं विधीयते ।’

Suśruta Saṁhitā; Cikitsā. 3-42.

रक्तपित्ते

पद्मोत्पलानां किञ्जल्कः पृश्निपर्णी प्रियङ्गुकाः ।
जले साध्या स तस्मिन् पया स्यात् रक्तपित्तिनाम् ॥

Caraka Saṁhitā, Cikitsā. 4-44, 67, 63/75,

80, 86, 93, 99, 102.

मेघ्य रसायने चतुःकुवलय घृतम्

यन्नालकन्ददलकेश रबद्विपक्वं नीलोत्पलस्य-
तदपि प्रथितं द्वितीयम् ।

संपिश्चतुः कुवलयं सहिरण्य पत्रं मेघ्यं गवामपि भवेत् किमु
मानुषाणाम् ॥

Aṣṭānaga Hṛdaya, Uttara. 39-49.

KUNKUMA

Botanical name : *Crocus sativus* Linn.

Family : Iridaceae

Classical name : *Kunkumā*

Sanskrit names

Kuṅkuma, Ghuṣṛṇa, Rakta-Śoṇita, Kāśmīra, Bālhika, Śatha, Piśuna, Varam, Sankoca, Angiśikha, Śaka, Pīnasa,.

Regional names

Kesar (Hindi); Kesar (Mar., Guj.); Jafran Kumkum (Beng.); Kunkumappu (Tam.) Kunkum-pubba (Tel.), Jaffran (Arabic); Karakimas (Persian); Saffron (Eng.)

Description

A herbaceous plant, perennial, with height 6" to 10".

Leaves radical, linear, tunnel shaped, margin curled, wings of flowers covered with leaves. Scape covered with spathe.

Flowers violet, autumnal appearing with the leaves. Throat of perianth, bearded. Anthers yellow, Solitary or together with 2 or 3 flowers, having fine essence and brown in colour. Perianth funnel shaped, tubelike and hairs found in throat region. Styles of stigma exterted outside, orange in colour, apex divided into many. Style 1 cm. elongated. Stigmas generally 3 in number, thread like, red in colour, stigmas are actually known as saffron (Kuṅkuma or Keśara) which are practically thread like (three in number) and visible in a flower.

Root corm, devoid of stem; sheaths of corm closely reticulate, basal spathe embracing the scape-2-valved.

Fruit rectangular in shape; ovary, trilocular, three

chambered in which round shape seeds found, fruit a capsule.

Flowering and fruiting time

Post-rains and flowering during autumn and pre-cold season.

Distribution

It is native of South Europe. It is cultivated in Iran Spain, France, Italy, Greece, China and Turkey. In India, it is mainly and largely cultivated in Kashmir (Pampore and Kishtwar) in Jammu and Kashmir state.

Chemical composition

It contains a colouring glycoside crocin and another colourless picrocrocine. It yields volatile oil 1% and fixed oil 8-13%. Crocin is red coloured anorphous powder which is soluble in water and alcohol. It becomes blue when mixed in concentrated sulphuric acid, turns violet after time and finally it is red colour. It gives green colour in nitric acid solution.

Pharmacodynamics

Rasa	: Kaṭu, tikta
Guṇa	: Snigdha
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Tridoṣahara

Properties and action

Karma	: Vrjya
	Śothahara
	Jantughna
	Kothapraśamana
	Cakṣuṣya
	Uttejaka (nāḍisansthāna)
	Mādaka (higher dose)
	Mastiṣka balya
	Vedanāsthāpana
	Dīpana-pācana-rocana-grāhī
	Yakṛduttejaka
	Chardinigrahaṇa

	Hṛdya-raktaprasādana
	Vājīkaraṇa-garbhāśaya saṅkocaka
	Mūtraprasādana
	Śītapraśamana
	Svedajanana-varṇya-
	dourgandhyahara
	Kaṭupouṣṭika
	Mūtrajanana
	Rasāyana
Roga	: Varṇavikṛti-kṣudravikāra-Vyaṅga-
	nyaccha-nīlikā-pīḍikā
	Śiraḥśūla-vraṇa
	Dṛṣṭidourbalya
	Mastiṣkadourbalya janita vikāra
	Siraḥśūla-asdhāvabhedaka
	Vātavyādhi-Āmavāta-nāḍīśūla
	Agnimāndya-Ajirṇa-aruci-atisāra-
	vamana
	Yakṛdvikāra
	Hṛddourbalya-raktavikāra
	Mūtrakṛchra-mūtraghāta
	Dhavjabhaṅga-napuṅsakatā-
	kāmaśaitya
	Garbhāśayavikāra-prasavottarvikāra
	(Viśodhana)
	Rajaḥvikāra-rajorodha-kṣṭārtava
	Carmavikāra-varṇavikāra-
	masūrikā
	Jvara
	Dourbalya.

Therapeutic uses

Prior to therapeutic use of drug Kuṅkuma or saffron, the crude plant drug Kuṅkuma needs to be observed for its quality, grade and genuineness before using it therapeutically and allowing the raw material for pharmaceutical process or any medicinal recipe since the costlier valubility of drug is liable for admixture as well as substandard crude drug carrying possibility of any kind of malpractice against the standard pharmacopoeial specification

which may conform to specified characteristics of purity and authenticity.

The stigmas of flower of the plant (*Crocus sativus* Linn.), dried and thread-like stigmas, form the drug *Kuñkuma* or *Keśara*. The raw material of drug is tested for ascertaining the purity and quality. Stigmas are put into sulphuric acid and they immediately turn blue, afterward they change to purple and finally the stigmas become violet-red. The colour intensity of genuine saffron is specifically tested. Material of crude drug (saffron) 0.2 gm. (3/10 gr.) is mixed in 100 ml. (c.c.) water and its solution becomes water solution of potassium dichromate (0.1 percent) of yellow colour. Some other tests in chemical screening are also suggested to confirm salient characteristics of genuine drug material of saffron.

The colour intensity of saffron crude drug is important in test process to verify nature of colour. In case the sample of artificial (pseudo-coloured) or impure crude drug 0.1 gm. is well-mixed with water and slowly shaken for about 15 minutes. Mixture (solution) is filtered and than discolouring charcol 1 gm. is added (well-mixed) and shaken. After ten minutes, it is filtered. Thus, the filtrate is found colourless substance. Another technique for testing unauthentic colour may be followed. Sample of saffron 10 mg. is mixed well in alcohol (95%) or methyl alcohol. This solution becomes greenish yellow in colour. Sample of genuine or pure saffron 10 mg. is mixed with ether or chloroform and the solution is observed almost colourless. Similarly the saffron crude sample becomes almost colourless when it is mixed in xylene, benzene or carbon tetrachloride solvent. Two filter paper pieces are treated (dipped in) with fixed oil and glycerine and the saffron sample is kept between filter papers (pieces) and pressed. It will give translucent spots in case of impure saffron, and there will be no such spot if saffron is pure and genuine (not artificially coloured).

The saffron as raw drug is very prone to adulteration (admixture of substandard material, admixture of non-official parts and artificial crude material. etc.) of various

kinds and nature on account of costlier drug and valuable herbal material produced in specific (restricted) zone of conventional farming for indigenous source of supply (and also from import drug resources) of this precious drug item carrying possibilities of admixture and availability of spurious quality of market drug saffron under trading of precious drugs commodities.

During collection of saffron at initial stage of procurement of its crude material, sometimes undesirable parts of the flowers such as styles, stamens, strips of corolla of the flower of source plant (*Crocus sativus* Linn.: *Kuñkuma*) saffron are admixed other than official part i.e. dried stigmas in accordance to pharmacopoeial specification. The substandard material, exhausted and old part of crude drug are admixed as faulty procurement and supply of low or inferior quality of saffron which does not conform to an official drug standards. There is practice to make adulteration of certain plant material resembling to saffron. Among the plants and their particular flower or other part (s), *Kusumbha* (*Carthamus tinctorius* Linn: Asteraceae) or *Barren, Jaregul* (*Calandula officinalis* Linn: Asteraceae) and some other similar plants material are adulterated in natural form or artificially coloured state. Sometimes faulty attempts are made to increase the weight of crude drug by adding or treating saffron material with certain other liquids powder solids etc. For the instance, fixed oil, glycerine, suchrose, glucose and other organic matters; and potassium or ammonium nitrate and other inorganic salts solution. In addition, some other unauthentic plant material as well as faulty processes may be adopted as part of malpractices for adulteration in saffron.

The drug saffron or *Kuñkuma* is highly medicinal, reputed flavouring and rich colouring agent among precious drugs, obtained from medicinal and aromatic plants of indigenous systems of medicine.

Kuñkum or *Keśara* has therapeutic application in several diseases, and it enters in various medicinal recipes. It is employed as an ingredient of some formulations. Saffron is extensively used in perfumery and allied purposes

including flavouring item for dietetic preparations (dishes).

As an effective drug, it is recommended in treatment of fever, melancholia, impotency, catarrhal affections (especially children), lumbar, neuralgic and rheumatic pains, asthma, dysmenorrhoea, leucorrhoea, piles, sexual weakness, depression and other ailments. It is a good stimulant, aphrodisiac and mervine tonic. The drug has actions of aphrodisiac, diuretic, antiphlogistic, germicide, anodyne, stomachic and aromatic. It is useful to check vomiting, headache, dermatosis and other skin affections. Saffron is quite useful in diseases of skin and especially cutaneous ailments caused by abnormal pigmentation or discolouration since it is effectively promotor of lusture and complexion of body and skin. Saffron is hence, esteemed for cosmetic purposes. In larger dose, it is hot, stimulant, aphrodisiac and narcotic. Its smell is intense odorous which may affect adversely if inhaled in excess. The use of saffron within limited doses, is generally of therapeutic utility.

The addition of safron with other drugs in any formulation activates its action on heart and brain or making it more effective in regard to therapeutic potentialities including action of saffron on different systems, organs and functions of body.

Parts used : Stigma (flower-part): Kuṣibhāga-Keśara.

Dosa : 0.5-1 gm., 62.5 mg.-250 mg. (62.5 mg.-2 gm.).

Formulations

Kuṅkumādi ghṛta, Kunkumādyā taila, Keśarādi vaṭi

Gaṇa

Soṇitāsthāpana (Caraka Saṁhitā), Elādi (Suśruta Saṁhitā).

KUṆKUMA (कुङ्कुम)

कुङ्कुमं कटुकं स्निग्धं शिरोरुग्ब्रणजन्तुजित् ।

तिक्तं वमिहरं वर्ण्यं व्यङ्गदोषत्रयापहम् ॥

Bhāvraprakāśa Nighaṇṭu, Karpūrādi Varga 78.

कुङ्कुमम्

कुङ्कुमं पीनसं रक्तं काश्मीरं पिशुनं वरम् ।
संकोचं चास बाह्लीकं वर्ण्यमग्निशिखं शकम् ॥

कुङ्कुमगुणाः

कुङ्कुमं कटुकं तिक्तं वर्ण्यं व्रणविशोधनम् ।
हन्ति दोषत्रयं हिक्काशिरोरोगवमिकृमीन् ॥

देशभेदेन कुङ्कुमस्य लक्षणति

- क. कौङ्कुम पुष्पमारक्तं गन्धवत्सूक्ष्मकेशरम् ।
कश्मीरेषु च सजातं पद्मगन्धि तदुत्तमम् ॥
ख. अतिस्थूलं लतारूपं मध्यमं कथयन्ति हि ।
अपाण्डुरं खरं चैव स्थूलकेशरमेव च ॥
ग. मधुगन्धि च विज्ञेयं पारसीकं तु कुङ्कुमम् ।
वाह्लीक देशसंजातं कुङ्कुमं पाण्डुवर्णकम् ॥
घ. केतकी गंध संयुक्तं सूक्ष्मकेशर शोभितम् ।

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 1301-1305

कुङ्कुमम्

ज्ञेयं कुङ्कुममग्निशेखरमसृक्काश्मीरजं पीतकं
काश्मीरं रुधिरं वरञ्च पिशुनं रक्तं शठं शोणितम् ।
वाह्लीकं घुसृणं वरेण्यमरुणं कालेयकं जागुडं
कान्तं वह्निशिखञ्च केसरवरं गौरं कराचीरितम् ॥

कुङ्कुम गुणाः

कुङ्कुमं सुरभि तिक्तकटूष्णं कासवातकफकण्ठरुजाघ्नम् ।
मूर्धशूलविषदोषनाशवं रोचनञ्च तनुकान्ति कारकम् ॥

Rāja Nighaṇṭu, Āmrādi Varga, 40-41.

तृणकुङ्कुमम्

तृणकुङ्कुमं तृणास्त्रं गन्धितृणं शोणितञ्च तृणपुष्पम् ।
गन्धादिकं तृणोत्थं तृणगौरं लोहितं च नव संज्ञम् ॥

गुणाः

तृणकुङ्कुमं कटूष्णं कफमारुत शोफनुत् ।
कण्डूतिपामाकुष्ठाम दोषघ्नं भास्करं परम् ॥

Rāja Nighaṇṭu, Āmrādi Varga, 42-43.

मूत्राघाते

‘जले कुङ्कुमकल्कं वा सक्षौद्रमुषितं निशि।’

Bhāvaprakāśa, Mūtraghātādhikāra, 36-36.

Cakradatta, 33-5.

व्यङ्गादयाः

(क्षुद्रविकारशमनाय) कुङ्कुमाद्यतैलम्

Bhāvaprakāśa, Kṣudraroga, 61/46-51.

नीलिकापिडिका व्यङ्गादयः चिकित्सायां (अभ्यङ्गार्थं

मुखाकन्तिदायक) कुङ्कुमयोगाः

प्रथम कुङ्कुमाद्य तैलम्

द्वितीय कुङ्कुमाद्य तैलम्

तृतीय कुङ्कुमाद्य तैलम्

Cakradatta, Kṣudraroga. Cikitsā, 55-63-76.

शिरोरोगाणां प्रतिकारार्थं कुङ्कुमलेपः

सशर्करं कुङ्कुममाज्यभृष्टं नस्यं विधेयं पवनासृगुत्थे।

भ्रूशङ्खकर्णाक्षिशिरोऽर्द्धशूले दिनाभिवृद्धिप्रभवे च रोगे ॥

Cakradatta, Śīroroga Cikitsā, 60-40.

Sāraṅgadhara Saṁhitā 3-8-32.

‘शर्कराकुङ्कुमशृतं घृतं पित्तसुगन्धये।’

Aṣṭāṅga Hṛdaya, Uttara. 24-7.

शीतप्रशमने

कुङ्कुमागुरुकस्तूरीनिरवैलासुरदारुभिः ।

शैलेय चण्डात्वङ्मुस्तरास्नाकपिवचामयैः ॥

पृथक् प्रदेहाः सर्वे वां शीतघ्नाः दृढकल्किता ॥

Aṣṭāṅga Saṅgraha, Cikitsā. 2-87.

वातव्याधौ

कंकुमागुरुपत्राणि कुष्ठैला तगरापि च।.....

समासेनैवमादीनि योज्यानिलरोगेषु ॥

Suśruta Saṁhitā Cikitsā. 4-24/26.

मूत्ररोधजेउदावर्त्तं

दुःस्पर्शास्वरसं वापि कषायं कुङ्कुमस्य च।

एर्वारुबीजं तोयेन पिबेद् वाऽलवणीकृतम् ॥

Suśruta Saṁhitā, Cikitsā. 55-25

मूत्राघाते

पिबेत् कुङ्कुमकर्षं वा मधूदकं समायुतम् ।

रात्रिपर्युषितं प्रातस्तथा सुखमवाप्नुयात् ॥

Suśruta Saṁhitā, Uttara. 58-31

Vṛndamādhava, 33-4.

KUPĪLU

Botanical name : *Strychnos nuxvomica* Linn.

Family : Loganiaceae

Classical name : Kupilu-ṣaṁmuṣṭi

Sanskrit names

Kupilu, Ṣaṁmuṣṭi, Ṣaṭinduka, Kākatinduka, Kākapīluka, Kāraskara.

Regional names

Kuchla Kajra (Hindi); Kuchila (Bengla); Kajarakar (Mar.); Kachila (Orissa); Jherakochala (Gujarati); Nanjina, Kasa Kana (Kan.); Kaboung (Burm.); Yettikottai (Tamil); Musthtivittulu (Telugu); Kajjola (Mal.); Ajaraki, Habbul gurachu, Habbul gurav (Arabic); Kucula, Phulusemahi (Pers.); *Nuxvomica* (Eng.).

Description

Small to medium sized trees up to 18 meters high often a large tree; branches spreading, often with axillary thorns. Bark smooth, whitish.

Leaves shining, opposite, broadly ovate to elliptic, rounded or slightly cordate and 5-nerved at base, up to .15 cm. long, petiole up to 1.5 cm. long. Tree changes leaves during hot season, occasionally leafless for a short time.

Flowers greenish-white, in terminal, pedunculate, compound cymes. Calyx lobes acute, pubescent outside. Corolla hypocrateriform, lobes minutely tomentose on margins. Stamens subsessile, inserted inside the mouth of corolla tube. Style sparsely woolly-hairy.

Berry as large as an orange and of the same colour. Berry on strongly thickened branches, globular, orange-red

on age, up to 7 cm. across. Seeds 4, sariceous, many, flat, nearly circular, grey, shining, clothed on both sides with fine silky hairs radiating from the centre.

Flowering and fruiting time

Plant flowers in May-July and fruits in November-January.

Distribution

It occurs in India, Sri Lanka and Burm. It is found in tropical forests specially in Manbhund, Tamilnadu, Tranvancore-Cochin, Konkan-Malabar, Orissa and other regions in country. It is also occasionally planted in gardens. Plant occurs in warm regions of India upto an altitude of 1204 metros (4000 ft.) in wild state. Frequently growing in Orissa, Madras, Cochin, Bengal and Bihar.

Pharmacodynamics

Rasa	: Tikta, Kaṭu
Guṇa	: Laghu, rūkṣa, tikṣṇa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Vātakaphaśāmaka Vātaprakopaka-ākṣepajanana (Impure state and higher/over dose).

Chemical composition

The pulp from matured and ripe fruit is separated for obtain seeds which are cleaned with water and dried under shade. Seeds are kept in airtight container put in non-humid, cold and dustless shelf or suitable place.

The seeds contain two important alkaloids namely strychnine and brucine. They also contain vamicine, colubrine, logamine glycoside and fatty substance upto 3% alkaloids. Total content of the alkaloids ranges from 2.6% to 5.3% of which approximately half proportion is of strychnine, but bark yields only brucine.

Since the availability from wild population of trees of source plant (*Strychnos nuxvomica* Linn.) is plenty in the regions of occurrence, the need and chance are remote for adulteration and substitution. However, the seeds

of other two species of Strychnos are main adulterants, but they do not yield strychnine.

Properties and action

Karma : Ākṣepajanama (higher/overdose)
 Vātaśāmaka-vedanāsthāpana-
 uttejaka-nāḍibalya
 Dipana-Pācana-grāhī
 Śūlapraśamana
 Hṛdayottejaka-raktabhāravardhaka
 Śothahara
 Kaphaghna-Kāśahara
 Uttejaka-bastiśaithilya
 Vājikaraṇa
 Kaṭupouṣṭhika-balya
 Kuṣṭhaghna-kaṇḍūghna-
 svedāpanayana
 Jvaraghna
 Arśoghna

Roga : Vātavyādhi
 Angimāndya-āmāśayasotha-
 āmadoṣa-grahaṇī-udaraśūla
 Viṣūcikā
 Vātarakta
 Nāḍiśūla-ardita-pakṣāghāta-kampa
 -anidrā-sandhivāta-āmavāta-
 vātavikāra
 Arśa
 Krimiroga
 Dhvaja bhaṅga
 Dourbalya janita vikāra
 Vārdhakya janita vikṛti
 Jvara-viṣamajvara
 Hṛdayaśaithilya-hṛdayakapāṭavikṛti-
 hṛdayodāra
 Bāla śaiyāmūtra
 Sandhivāta-vraṇa-kṣata
 Kāsa-Phuṣphuśaśoṭha
 Kuṣṭha-kaṇḍū-atisveda

Therapeutic uses

The seeds are extremely bitter and poisonous since they contain strychnine which is a highly bitter and most poisonous. Almost every part of this tree is more or less poisonous, but especially the seeds, which yield the alkaloid known as strychnine and brucine. The pulp of the fruit although containing strychnine, is largely eaten by certain birds as well as by monkeys and other animals. The wood is extremely bitter and is sometimes used in other purposes besides medicinal. The fruits (berry), becoming orange-red in ripen state, are non-edible by human but generally edible by other animals.

The seeds of two other species of Strychnine e.g. *Strychnos potatorum* Linn. (Nirmali or kataka) and *Strychnos blonda* Hill. are named among main adulterants and substitute plant drugs, but *Strychnos potatorum* Linn. does not contain strychnine. but it yields only brucine. The seeds of kupīlu (*Strychnos nuxvomica* Linn.) is used therapeutically indigenous medicine only after proper purification (śodhana) as per method given in classical texts. The bark of the plant drug is also useful medicinally.

The drug Kupīlu or Viṣamuṣṭi in purified state with equal quantity of marica cūrṇa (powder of *Piper nigrum* Linn. or black papper) is rubbed with decoction of Indrayava (fruits or seeds of *Holarrhena antidysenterica* (L.) Wall.-Kuṭaja) and made into pills. It is orally given for removing constipation and fever caused by vāta (vātajvara and vibandha). Kupīlu, Hiṅgu and Navasādara (*Nuxvomica*, *asafoetida* and *Ammonium chloride*) are rubbed with sour (lemon juice) and made pills of the size of bengal gram (harimantha or caṇaka). It is given internally for alleviating loss of digestive power and other disorders caused by the indigestion and low or abnormal digestive power (agnimāndya). In the condition of visūcikā, the pills of a recipe is orally given: Kupīlu, hiṅgu and navasādara (each) are fried on fire (bharjita) and all mixed with water and made into pills.

The drug Kupīlu or Kāraskara is stomachic, digestive, nervine tonic, anti-rhematic, aphrodisiac, analgesic,

anticolic, antipyretic, astringent, stimulant, antidermatosis and anthelmintic. It is recommended in vātavyādhi, rheumatic and mervine disorders, cough, loss of appetite or digestive power, visucikā, agnimāndya, piles or haemorrhoids, worms affection, general debility, jvara, viṣamajvara (fever and malarial fever), paralytic disorders, abdominal colic, gout, ulcer, insomnia, cramp, skin diseases and senile disorders. In higher or overdoses and excess or prolonged use, it is convulscent. It is useful in ailments caused by kapha and pittadoṣa.

The drug kupīlu is employed as an important ingredient of various classical formulations viz. Agnituṅḍī vāṭī, Viṣatinduka vaṭī, Viṣamuṣṭi yoga, Kupiluhīṅvādi yoga, Navajivana rasa, Lakṣmivilāsa rasa, Krimimudgara rasa and other compounds which are clinically used in several diseases. Thus, a number of medicinal preparations containing Kupīlu (nuxvomica) are recommended in treatment of different diseases.

As a single drug medication, purified nuxvomica (śuddha Kupīlu) powder is frequently prescribed in different diseases with good results.

Precaution

Drug (seeds) is used only after purification and within limitation of doses for avoiding complications and toxic effects. Prolonged use of drug also needs due care. The proper care for using purified seeds or Kupīlu bīja needs to be followed in oral uses of the drug.

Parts used : Seed-Kernel (purified), Bark.

Dose : 60-250 mg. (seed-kernel).

Formulations

Agnituṅḍī vāṭī, Viṣatinduka vaṭī, Viṣamuṣṭi vaṭī-yoga, Navajivana rasa, Lakṣmivilāsa rasa, Krimudgara rasa, Kupiluhīṅvādi.

KUPĪLU-VIṢAMUṢṬI

(कुपीलु-विषमुष्टि)

विषमुष्टिः कटुस्तिक्तः कषाय कफपित्तजित् ।

हन्ति मेदःकृमिश्वासगुल्मार्शो मूषिका विषम् ॥
 विष्टाम्भि रोचनं चोष्णं सुमुष्टिकफलमग्निकृत् ।
 कफहत् पित्तकृद् ग्राहि जन्तु कुष्ठ प्रमेहजित् ।

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 601-602.

कुपीलुः शीतलं तिक्तं वातलं मदकुल्लघु ।
 परं व्याहरं ग्राहि कफपित्तास्रनाशनम् ॥

Bhavaprakāśa Nighaṅṭu, Āmrādiphala Varga, 68.

विषमुष्टिः

विषमुष्टिः कटुस्तिको दीपनः कफवातहत् ।
 कण्ठामयहरो रुच्यो रक्तपित्तार्तिदाहहत् ॥

Rāja Nighaṅṭu, Śatāhvādi varga, 183.

कारस्करः

कारस्करः कटूष्णश्च तिक्तः कुष्ठविनाशनः ।
 वातामयास्रकण्डूति-कफामार्शोव्रणापहः ॥

Rāja Nighaṅṭu, Prabhadrādi Varga, 143.

वातरक्ते

कारस्करघृतम् ।

Vaidya Manoraṃā 12-27.

अग्निमांद्ये

विषमुष्टिकनवासापर बाह्वीकेरम्लभावितैर्बहुशः ।
 मन्दाग्निमूलविकृतीर्हरन्तिहरिमन्थमेदुरावटिकाः ॥

Siddha Bhaiṣajya Maṇimāla, 4-256.

ज्वरे

संशोधितानां विषमुष्टिकानां तुल्यांशमारीच जीयुतानाम् ।
 वट्यो विशालाफल वारिबद्धा विबन्धवातज्वरमुद्धरन्ति ॥

Siddha Bhaiṣajya Maṇimāla, 4-101.

विसूचिकायाम्

प्रत्येकं भर्जयित्वाऽम्रौ कुचेला हिंगुसादरम् ।
 विमर्द्याद्भिः कृता वट्यो विसूची विलयाः स्मृताः ॥

Siddha Bhaiṣajya Maṇimāla, 4-277.

KUŚA

Botanical name

Desmostachya bipinnata Stapf
Syn. *Briza bipinnata* L, *Eragrostis bipinnata* L.

Family : Poaceae (Gramineae)

Classical name : Kuśa

Sanskrit names

Kuśa, Sūcyagra, Yajñabhūṣaṇa, Muniśastra.

Regional names

Kusha, Kusa (Hindi).

Description

Erect, strong grass up to 90 cm. tall, with rough root-stock and thick-creeping rhizomes.

Leaves 40.0 × 0.8 cm., linear-convolute, narrowed into a filiform tip; ligule a ring of hairs; sheath glabrous but hairy on throat.

Inflorescence a cylindrical up to 45 cm. long; spikes crowded up to 2 cm. long. Spikelets purple-brown, 2-seriate, 1-nerved; upper glume 1 mm. long obtuse; lemma up to 1.7 mm. long, subacute scabrid on keel, 3-nerved palea 1.3 mm. long; grain up to 0.6 mm. long, obliquely ovoid compressed.

Flowering and fruiting time

September-March.

Distribution

It occurs in India, Arabia, North Africa to Tropical Africa. It is growing wild in plains land, and common on field bunds in ravines and open country, along river beds and in sandy soils throughout various regions in country.

Kinds and Varieties

Kuśa and Darbha are actually two distinct plants. In classical texts, however, they are sometimes synonymous in certain contexts. Sitadarbha and Haridarbha are also mentioned in texts as specific varieties of Kuśa. Presently, the source plants of Kuśa and Darbha are botanically

identified as *Desmostachya bipinnata* Stapf. and *Imperata cylindrica* Beauv. (both taxa belong to family Poaceae or Graminae) respectively.

The Kusa has religious significance with socio-cultural background and ceremonial utility in Indian traditions as a sacred plant.

Pharmacodynamics

Rasa	: Madhura, Kaṣāya
Guṇa	: Laghu, snigdha
Vīrya	: Śīta
Vipāka	: Madhura
Doṣakarma	: Kaphapittaśāmaka (Tridoṣaghna)

Properties and action

Karma	: Mūtravirecanīya-aśmarīnāśana Stanyajanana Tṛṣṇānigrahaṇa Raktapittaśāmaka Stambhana Kuṣṭhaghna Dāhpraśamana
Roga	: Mūtrakṛchra-aśmari-bastīśūla Prameha-mūtravikāra Raktātīsāra-pravāhikā-tṛṣṇā Rakatapitta Raktapradara-stanyakṣaya Carmaroga Dāha Vraṇā.

Therapeutic uses

The drug kuśa is efficacious diuretic and potent medicine for urinary disorders such as dysuria, calculus and allied ailing conditions. As a single drug as well as an ingredient of Tṛṇapañcamūla and some other preparātions, the drug Kusa is used in the diseases of urinary systems. Tṛṇapañcamūla decoction is given in dysuria caused by pitta humor (pittajanya mūtrakṛcchra). In calculus (aśmari), Kuśāḍya ghṛtam and Kuśāvaleha are pre-

scribed. The roots of source plant (*Desmostachya bipinnata* Stapf.) are medicinally used in various diseases and employed in different pharmaceutical formulations.

In treatment of piles, Kuṣa root mixed with Balā root (*Sida cordifolia* Linn.) is given with rice water (taṇḍulodaka) and this recipes is considered useful to check bleeding from piles or haemorrhoids and menometrorrhagia etc. In pradara roga, the root of Kuṣa pounded with rice water is taken with the same for three days for checking the bleeding. The kṣīrasādhita tṛṇapañcamūla (milk boiled with tṛṇapañcamūla for preparing Kṣīrapāka) is recommended in bleeding from urinary tract (mūtramārge rakta pravṛtti). Kuṣa and some other drugs suitably selected are made a decoction which is externally applied to cleans wounds (Vraṇasādhana yoga, Caraka Saṁhitā, Cikitsā. 25-54). For treatment of prameha, Kuśāvaleha is prescribed.

Parts used : Root.

Dose : Decoction 50-100 ml.

Formulation : Tṛṇapañcamūla Kvātha, Kuśādyaghṛta, Kuśāvaleha, Kuśādyaghṛta.

Gaṇa

Mūtravirecanīya, Stanyajanana, Madhuraskandha (Caraka Saṁhitā), Tṛṇapañcamūla (Suśruta Saṁhitā).

KUŚĀ (कुश)

- क. कुशोदर्भस्तथा बर्हिः सूच्यगो यज्ञभूषणः ।
ततोऽन्यो दीर्घपत्रः स्यात्क्षुरपत्रस्तथैव च ॥
- ख. दर्भद्वयं त्रिदोषघ्नं मधुरं तुवरं हिमम् ।
मूत्रकृच्छ्राश्मरीतृष्णा बस्तिरुकृप्रदरास्त्रजित् ॥

Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi Varga, 165-166.

अ. दर्भः

- कुशो दर्भो ह्रस्वदर्भो याज्ञेयो यज्ञभूषणः ।
श्वेतदर्भः पूतिदर्भो मृदुदर्भो लवःकुशः ॥
बर्हिः पवित्रको यज्ञसंवत्सरः कुतषोऽपरः ।

ब. कुशः

सूच्यग्रः खर दर्भश्च मुनिशस्त्रं क्षुरच्छदः ॥

गुणाः

दर्भः स्निग्धो हिमः स्वादुः कषायः कफपित्तहा ।

विसर्पदाहकृच्छ्राश्मतृष्णावस्ति विकारनुत् ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 1239-1241.

सितदर्भ-कुशभेदः

अ. सितदर्भो ह्रस्वकुम्भो पूतो यज्ञियपत्रकः ।

वज्जो ब्रह्मपवित्रश्च तीक्ष्णो यज्ञस्य भूषणः ।

सूचीमुखः पुण्यतृणो वह्निः पूत तृणो द्विष्ट ॥

ब. दर्भमूलं हिमं रुच्यं मधुरं पित्तनाशनम् ।

रक्तज्वरतृषाश्वास-कामला दोष शोषकृत् ॥

Rāja Nighaṅṭu, Śālmalyādi Varga, 91-92.

हरिदर्भः कुशभेदः

कुशोऽन्यः शरपत्रश्च हरिदर्भः पृथुच्छदः ।

शारी च रूक्षदर्भश्च दीर्घपत्रः पवित्रकः ॥

दर्भद्वय गुणाः

दर्भौ द्वौ च गुणे तुल्यौ तथाऽऽपि च सितोऽधिका ।

यदि श्वेतकुशाभावस्त्वपरं योजयेत् भिषक् ॥

Rāja Nighaṅṭu. Śālmalyādi Varga, 93-94.

A. KUŚA (कुश)

अश्मर्यादि मूत्ररोगे कुशाद्य तैलम्

Bhāvaprakāśa, Aśmarirogādihikāra, 37-59-62.

अश्मर्यादिरोगे तृणपञ्चमूलाद्य घृतम्

Bhāvaprakāśa, Aśmarirogādihikāra, 37/35-57.

प्रदरे कुशामूलम्

कुशमूलं समुद्धृत्य पेषयेत्तण्डुलाम्बुना ।

एतत्पीत्वा त्र्यहं नारी प्रदरात्परिमुच्यते ॥

Vṛndamādhava, 63-8.

Bhāvaprakāśa, Strīrogādihikāra, 68-15.

पित्तजन्य मूत्रकृच्छ्रे तृणपञ्चमूलम्

कुशः काशः शरो दर्भ इक्षुश्चेति तृणोद्भवम् ।

पित्तकृच्छ्रहरं पञ्चमूलं बस्ति शोधनम् ॥

Cakradatta 32-4.

मूत्रमार्गेरक्तप्रवृत्तिरोधनार्थं तृणपञ्चमूल साधितं क्षीरम्

‘एतत्सिद्धं पयः पीतं मेद्व्रगं हन्ति शोणितम् ।’

Cakradatta, Mutrakṛcchra Cikitsā, 32/45.

अश्मरी चिकित्सायां कुशाद्य घृतम्

Cakradatta, Aśmarī Cikitsā, 34/14-18.

प्रमेहचिकित्सायां कुशावलेहः

Cakradatta, Prameha Cikitsā, 35/1-5.

रक्तप्रदर प्रतिकारार्थं कुशमूल प्रयोगः

कुशामूलं समुदधृत्य पेषयेत्तण्डुलाम्बुना ।

एतत् पीत्वा त्र्यह्नारीं प्रदरान् परिमुच्यते ॥

Cakradatta, Asṛgdara cikitsā, 8.

मूत्रकृच्छ्रे

शतावरीकुशकाश्वदंष्ट्राविदारिशालीक्षुकशेरुकाणाम् ।

क्वाथं सुशीतं मधुशर्कराभ्यां युक्तं पिबेत् पैत्तिक मूत्रकृच्छ्री ॥

Caraka Saṁhitā, cikitsā. 26-50.

व्रणशोधने

त्रिफला खदिरो दावी न्यग्रोधादिर्बला कुशः ।

निम्बकोलकपत्राणि कषायाः शोधना मताः ॥

Caraka Saṁhitā, Cikitsā. 25-84.

अर्शासि

कशमूलं बलायुक्तं पानं तण्डुलधावनम् ।

रुपाद्धि गुदजास्त्रावं प्रदरं वापि सर्वजम् ॥

Baṅgasena, Arśa. 75.

B. DARBHA (दर्भ)

रसायने

ब्राह्म रसायने

Caraka Saṁhitā, Cikitsā. 1/1441-57.

अश्मरी-शर्करासु

Caraka Samhitā, Cikitsa. 26-63.

पतिष्यति गर्भे मूत्रसङ्गे

‘मूत्रसङ्गे दर्भादिसिद्धम्।’

Suśruta Samhitā, Śārura. 10-57.

मूत्रकृच्छ्रे

Suśruta Samhitā, Uttara. 59-24.

नेत्ररोगे

‘पित्ताभिष्यन्दहरे वर्गे।’

Suśruta Samhitā, Uttara. 10-4.

ज्वरे

बलादर्भश्चदंष्ट्राणां कषायं पादशेषितम्।

शर्कराघृतसंयुक्तं पिबेद् वातज्वरापहम्॥

Suśruta Samhitā, Uttara. 39-370.

स्तन्यजननार्थम्

‘वीरणषष्टिकशालीक्षुबालिकादर्भकुशगुन्द्रेत्कटमूल

कषायाणाञ्च पानमिति ॥’

Caraka Samhitā, Śārīra. 8-57.

KUṢṬHA

Botanical name

Saussurea costus (Fale) Lipsch.

Syn. Saussurea lappa C. B. Clarke.

Family : Asteraceae (Compositae)

Classical name : Kuṣṭha

Sanskrit names

Kuṣṭha, Vāpya, Utpala, Kaśmīra.

Regional names

Kuth (Hindi); Kuda (Bengla); Kudu Upaleth (Guj.); (Tam.); Kustham (Telugu); Seyuddi (Mal.); Kosht (Kann.); Kust-istrukh (Persian); Kuste Hindi (Arabic); Costus Kuth (Trade); Costus (Eng.).

Description

Perennial, erect, robust herb, up to 1-2 meters or 2

meters tall. Roots stout thick tuberous with a characteristics penetrating aroma, often up to 60. cm. long and 30 cm. in thickness, greyish to dull brown in colour. Stem stout, fibrous with radical leaves with long lobately winged stalk. Leaves membranous; petiole irregularly winged. Flowers dark blue-purple in stalkless, axillary and terminal heads. Achenes compressed, curved, tip narrowed, one rib on each face, to 3 mm. long; pappus brown, feathery.

Flowering and fruiting time

Normally the period from July to September in flowering and fruiting time.

Distribution

Apparently plant is endemic to Kashmir valley at altitudes of 2, 500 to 3,000 meters in Jammu and Kashmir state. It is majorly cultivated in Kashmir and also in neighbouring Himalayan regions e.g. Himachal Pradesh, for its root in drug trade as kuth root. Plant is also undertaken for small scale cultivation in hilly regions of Uttar Pradesh.

Plant generally grows in open hill slopes of cool and humid climate of sub-alpine Himalayas. It is found and cultivated at altitudes of 2,500 to 3,800 meters in the Himalayan regions. It is also distributed in Pakistan (hilly regions) and China also.

Chemical composition

The Kuth roots contain resinoid 6% essential oil 1.5%, alkaloids 0.05%, inulin 18%, fixed oil and minor constituents like tannins and sugars. Extraction of dried and powdered leaves and stalks with hexane gave a drak green concentrate (3-4%) containing tarasysteril acetate and tarasterol.

Pharmacodynamics

Rasa	: Tikta, kaṭu, madhura
Guṇa	: Laghu, rūkṣa, tikṣṇa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphavātaśāmaka

Properties and action

- Karma** : Śukraśodhana
 Vṛṣya-Garbhaśayottejaka-
 ārtavajanana
 Stanyajanana
 Durgandhanāśana-Jantughna
 Vedanāsthāpana
 Varṇya-kuṣṭhaghna-kaṇḍughna
 Avasādaka-ākṣepaśāmaka-Vātahara
 Dīpana-pācana-anulomana-
 śūlapraśamana
 Raktaśodhaka
 Kaphaghna-Kaphniḥsāraka-
 śvāsahara
 Mūtrala
 Jvaraghna
 Rasāyana
 Viṣaghna
 Rakṣoghna
- Roga** : Śukraśodhana-Klaiyya
 Rajorodha-kaṣṭhārtava-stanyāśuddhi
 (prasavottara)
 Mūtrakṛcchra
 Carmavikāra
 Jvara
 Dourbalya
 Kāsa-pārśvaśūla-kukkurakāsa-hikkā
 śvāsa-tamakaśvāsa
 Vātarakta-āmvāta-raktāvikāra-
 urustambha
 Śiraḥśūla-jirṇavraṇa-dantaśūla
 Sandhiśoṭha-āmvāta
 Carmaroga-aruṣikā
 Varṇavikāra-khālitya
 Vātavyādhi-apasmāra-
 āksepapradhana vikāra-mānasaroga
 Agnimāndhya-ajirṇa-viṣṭambha-
 śūla-kuṣivāta
 Śoṭha

Bhagandara
Khalliśūla
Bālaroga
Rākṣasabhūta vādhā
Arśa.

Therapeutic uses

In mental diseases, old ghee processed with Brahmi juice. (*Bacopa monnieri*), Vicā (*Acorus calmus*) Śāṅkhaṣṭī (*Convolvulus pluricaulis* and Kuṣṭha (*Saussurea lappa*) is used to alleviate insanity, in auspiciousness, epilepsy and sinful conditions. Kuṣṭha mixed with honey is also taken as snuff in condition of snake-poisoning. Tagara (*Valeriana wallichii*) and Kuṣṭha 80 gm. mixed with ghee and honey 160 gm. and its mixture is useful in snake poisoning.

In aruṣikā or head-boils, the roots of Kuṣṭha (*Costus* or Kuth root) are roasted on an earthen pan, powdered and mixed with oil; and its external application is considered useful to destroy itching, discharge, burning sensation and pain.

Parts used : Root.

Dose : 1/4-1 gm.

Formulation

Kuṣṭhādi cūrṇa, Kuṣṭhādi kvātha, Kuṣṭhādi taila, Kuṣṭhādi pralepa.

Gaṇa

Śukraśodhana, Lekhanīya, Āsthāpanopaga (*Caraka Samhitā*), Elādi (*Suśruta Samhitā*).

KUṢṬHA (कुष्ठ)

कुष्ठं तिक्तं कटु स्वादु लघूष्णं शुक्रलं जयेत् ॥

वातास्र विषवीसर्प कुष्ठकासकफानिलान् ।

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 1319-1320.

कुष्ठमुष्णं कटु स्वादु शुक्रलं तिक्तकं लघु ।

हन्ति वातास्रवीसर्प कासकुष्ठमरुत्कफान् ॥

Bhāvaprakāśa Nighaṇṭu, Harītakyaḍi Varga, 103.

‘कुष्ठं वात हरान्व्यङ्गोपयोगिताम्।’

Caraka Samhitā, Sūtra. 25.

‘कुष्ठं वातकफश्वासकासहिक्का ज्वरापहम्।’

Rājavallaabha Nighaṅṭu.

यः कुष्ठचूर्णं रजनीविरामे मध्वाज्यसंमिश्रितानित्यम्।

स मत्तमातङ्गवलः सुगन्धिवंगिमी चिरायुश्च भवेन्मनुष्यः ॥

Rāja Mārtaṇḍa.

कुष्ठरोगे कुष्ठाद्यमुद्वर्तनम्

Cakradatta, Kuṣṭha Cikitsā, 50-15-16.

रसायनार्थम्

यः कुष्ठचूर्णं रजनी विरामे मध्वाज्यसंमिश्रितमत्ति नित्यम्।

स मत्तमा तांगबलः सुगन्धि वाग्मी चिरायुश्च भवेन्मनुष्यः ॥

Rāja Mārtaṇḍa. Aṣṭāṅga Saṅgraha, Uttara 49-218.

त्वच्यमुद्वर्तनम् कुष्ठ रसायनम्

जम्बूदलार्जुननतरप्रसवैः सकुष्ठैः उद्वर्तनं प्रकुरुते प्रतिवासरं यः।

प्रस्वेदविन्दुकणिकानिकरानुषङ्गदुर्गन्धतावपुषि तस्य पदं न धत्ते ॥

Rāja Mārtaṇḍa.

गुल्मे

स्वर्जिकाकुष्ठसहितः क्षारः केतकीजोऽपि वा।

तैलेन शमयेद् पीतो गुल्मं पवन संभवम् ॥

Suśruta Samhitā Uttara. 42-45.

‘पीतं सुखाम्बुना वापि स्वर्जिकाकुष्ठसैन्धवम्।’

Suśruta Samhitā Uttara. 42-46.

Vṛndamādhava, 30-10.

शिरः कण्ड्वादौ

तैलेन मृत्खर्परभृष्टकुष्ठ चूर्णान्वितेन प्रविलिसमर्ध्नः।

कण्डूश्च दाहश्च विनाशनेति शिरोव्रणं शुष्यति दूषिका च ॥

Rāja Mārtaṇḍa.

शोथे

स्नानं मूत्राम्भसी सिद्धे कुष्ठतर्कारिचित्रकैः।

कुलत्थ नागराभ्यां वा चण्डागुरु विलेपने ॥

Aṣṭāṅga Hr̥daya, Cikitsā 17-35.

शोथे

स्नानं मूत्राम्भसी सिद्धे कुष्ठतर्कारिचत्रकैः ।
कुलत्थ नागराभ्यां वा चण्डागुरु विलेपने ॥

Aṣṭāṅga Hrdaya, cikitsā 17-35.

राक्षसादिभयनिवारणार्थम्

उत्पन्नमात्रस्य शिशो वितीर्णं गवाज्यमिश्रं सितकुष्ठचूर्णम् ।
रक्षो विषव्याधिभयापहं स्यात् तथाङ्गलावण्य विधायकं च ॥

Rāja Mārtaṇḍa.

रसायनार्थम्

कुष्ठचूर्णं समध्वाज्यं प्रत्यूषे प्रषिबेन्नरः ।
सुगन्धसुन्दरवधुः सः चिरं जीवेदनामयः ॥

Vaidya Manorāmā.

शिरःपीडायाम्

‘कुष्ठमेरण्डमूलं च लेपात् काञ्जिकपेषितम् ।
शिरोऽर्त्तिं नाशयत्याशुः..... ॥

*Vṛndamādhava Baṅgasena. 62-2.
Sārṅgadhara Saṁhitā, 3-11-62.*

अर्शःसु

‘अभ्यज्य कुष्ठतैलेन स्वेदयेत् ।’

Caraka Saṁhitā, Cikitsā. 9

कुष्ठे

‘लेपो योज्यः कुस्तुम्बुरुणि कुष्ठं च मण्डलनुत् ।’

Caraka Saṁhitā, Cikitsā. 7.

अपस्मारे

‘कुष्ठरसं, वचां वा मधु संयुताम् ।’

Caraka Saṁhitā, Cikitsā, 15.

मुखकान्तिकरत्वे

‘सप्ताहं मातुलुङ्गस्थ कुष्ठं वा मधुनान्वितम्’

Aṣṭāṅga Hrdaya, Uttara. 32.

अरुणिकायाम्

‘कपाल भृष्टं कुष्ठं वा चूर्णितं तैल संयुतम् ।
रुणिकालेपनं कण्डूक्लेदवाहार्त्तिनाशनम् ॥’

Aṣṭāṅga Hrdaya, Uttara. 24-23.

उरुस्तम्भे कुष्ठाद्य तैलम्

Cakradatta, Urustambha Cikitsā, 24-14.

भगन्दर चिकित्सायां कुष्ठादि प्रलेपः

Cakradatta, Bhagandara Cikitsā, 46-7.

खल्लीशूले

कुष्ठसैन्धवयोः कल्कं चुक्रतैलंसमान्विताम् ।

विसूच्यां मर्दनं कोष्णं खल्लीशूलनिवारणम् ॥

Vṛndamādhava, 6-58.

बालोपचरणीये

नाभिञ्च कुष्ठतैलेन सेचयेत् स्नपयेदनु ।

क्षीरिवृक्ष कषायेण सर्वगन्धोदकेन वा ॥

Aṣṭāṅga Hṛdaya, Uttara. 1-6.

कुमारहितार्थम्

कुष्ठवचाऽभयाब्राह्मीकनकंक्षौद्रसर्पिषा ।

वर्णायुष्यकान्तिजननं लेहं बालस्य दापयेत् ॥

Vṛndamādhava 66-1.

सर्पदष्टे

‘द्विपलं नतकुष्ठाभ्यां घृतक्षौद्र चतुष्पलम् ।

अपि तक्षकदृष्टानां पानमेतत् सुखप्रदम् ॥’

‘.....दर्वीकरैर्दष्टे नस्यं समधु पाकलम् ।’

Caraka Samhitā, Cikitsā. 23-194/196.

मानसरोगे

ब्राह्मीरसवचाकुष्ठशंखपुष्पीभिरेव च ।

पुराणं घृतमुन्मादालक्ष्यपस्मार पापनुत् ।

Gadanigraha 10-25.

सौवर्णं सुकृतं चूर्णं कुष्ठं मधु घृतं यथा ।

चत्वारोऽभिहिताः प्राशाः श्लोकार्थेषु चतुर्व्वपि ।

कुमाराणां वपुर्मेधा बलबुद्धि विवर्धनाः ॥

Suśruta Samhitā, Śārīra. 10-68/70.

KŪṢMĀNDA

Botanical name : Benincasa hispida (Thunb.) Cogn.

Family : Cucurbitaceae

Classical name : Kūṣmāṇḍa

Sanskrit names

Kūṣmāṇḍa, Puṣpaphala, Bṛhatphala, Valliphala.

Regional names

Petha, Kumherha, Bhalua (Hindi); Petha (Punj.); Kumarha (Beng.); Kohala (Mar.); Kohala, Kola (Ma.); Bhurum Kohulu (Guj.); Gummadi (Tel.); Kumpalam (Mal.); Pethi sao (Sin.); Vaduv (Pers.); Mahadav (Arabic); White gourd melon (Eng.).

Discription

Annual branched climbers; extensive, trailing or climbing herb. Leaves 10-25 cm. in diam., reniform to rounded, deeply cordate, 5-7-lobed, scabrous above, shortly hispid beneath, margin sinuate, dentate; petioles hirsute; 5-20 cm. long; tendrils slender. Male peduncles 5-15 cm. long; female peduncles 2-4 cm. long. Calyx-tube densely vellose, 12-15 mm. broad; lobes lanceolate, 8-12 × 3-5mm. Petals spreading obtuse, mucronate, 3-5 cm. long. Filaments hispid, 2-3 mm. long; anthers subtrifoliate. Ovary ovoid or cylindric, softly hairy, style 2-3 mm. long.

Fruits fleshy, hairy when young, waxy bloom when mature; Seeds compressed, ovoid, yellowish-white, distinctly marginate, 10-11 × 5-7 mm. Fruits broadly cylindrical or spherical gourd, 1-1.5 ft. long with white flesh, containing numerous, much compressed and marginal seeds.

Flowering and fruiting time

Plant flowers and fruits during June to October.

Distribution

It is commonly cultivated for producing fruits used as vegetable and edible fruits. Plant grows in the plains and hills upto an altitude of 1,204 meters (4,000ft.) as cultivated plant which is under farming in various regions. Occasionally it is found as an escape (wild). It is found in India, Ceylon and Burma.

In the plains the seeds are sown during the month of February-March, and in the months of March to Ma²⁶.

the hills. The vines are trained on to the roofs of huts in villages. The fruits are ready in 3-6 months.

Chemical composition

Fruits contain starch, protein (in little quantity), minerals, an alkaloid (Cucurbitiene), vitamin B₁, sugar and other substances. Seeds yield a fixed oil which possesses anthelmintic properties (seeds anthelmintic); seed oil is pale yellow. Fruit has moisture 96, protein 0.4, fat 0.1 mineral matter 0.3 and vitamin B₁, 21 I. u. 100 mg. carbohydrate 3.2.

Pharmacodynamics

Rasa	: Madhura
Guṇa	: Laghu, snigdha
Vīrya	: Śīta
Vipaka	: Madhura
Doṣakarma	: Vātapittaśāmaka Sarvadoṣahara (pakva-ripe fruit).

Properties and action

Karma	: Medhya-mastiṣkaśāmaka-balya- nidrājanana Santāpahara-dāhapraśamana Anulomana-tṛṣṇānigrahaṇa Kṛmighna-sphītakṛmi Hṛdya-raktapittaśāmaka *Soṇitasthāpana Phupphusa balya-kṣayahara Mūtrajanana Śukravardhaka Sandhānīya Balya-br̥ṇhaṇa-rasāyana
Roga	: Unmāda-apasmāra mastiṣkadourbalya-smṛtihrāsa- mānasaroga Vibandha-udaraśūla Tṛṣṇā-dāha-jvara Dourbalya-kṛṣatā Hṛdvikāra-hṛddourbalya Kṣaya-rājayakṣmā-phuphusavikāra Kāsa-śvāsa

Raktapitta
 Amlapitta-pariṇāmasūla
 Mūtrāghāta-aśmarī-prameha
 Raktapitta-uraḥkṣata
 Jvara-paittikajvara-jirṇajvara
 Agnidagha
 Śirogoga.

Therapeutic uses

The fruits of Kūṣmāṇḍa are used as a vegetable and made into curries, while the ripe fruit is cut into pieces and candied (petha) which is a popular sweet preparation in market. Seeds are fried and eaten. The pulp is fried to prepare 'Halwa' Besides traditional sweet (pethā-peṭhe ki miṭhāi), the ripe fruit pulp is macerated with suitable pulses (dal) and 'Barhis' are prepared as household dietetic item commonly and 'Barhis' are prepared as household dietetic item commonly and in addition to other recipes made with fruit pulp.

The drug Kūṣmāṇḍa is medicinally useful and the fruit (pulp), seeds and seeds oil are used in medicine. The fruit pulp (Kūṣmāṇḍa phala majjā) is employed in several medicinal formulations recommended in various ailments, and the fruit is used in various forms for the treatment of different diseases.

The juice of the fruit-pulp (ripe) is very useful in haemoptysis and other internal discharges, and beneficial in pthisis. The drug is tonic, brain tonic, carminative, diuretic, refrigerant, anthemintic, haemostatic, antipyretic, intellect-promoting, satiating and vitaliser. It is pacifying thirst, burning sensation, brain and rakta-pitta. It is wholesome for heart, body and life-being rasāyana (promotive) and brñhaṇa promoting dhātus or beneficial for body-promoting) and balya (promoting body-strength).

The seeds, specially oil obtained from seeds of drug Kūṣmāṇḍa, are useful in abdominal worms specifically tapeworm. Seeds-kernel is used in different forms for medicinal purpose.

Parts used : Fruit, seeds, seeds-oil.

Dose

Fruit 10-20 gm., Seeds powder 3-6 gm., Seeds oil 5-10 ml.

Formulations

Kūṣmāṇḍakhaṇḍa, Kūṣmāṇḍaghr̥ta, Kūṣmāṇḍa-guḍakalyāṇaka, Vāsākhaṇḍakūṣmāṇḍaka, Kūṣmāṇḍaka ghr̥ta, Vāsākhaṇḍa, Khandāmalakī, Kūṣmāṇḍa rasāyana.

KŪṢMĀṆḌA (कूष्माण्ड)

कूष्माण्डं शीतलं वृष्यं स्वादुपाकरसं गुरु।
हृद्यं रूक्षं रसस्यन्दि श्लेष्मलं वातपित्तजित् ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Garga, 527.

पक्कापक्क फलम्

बालपित्तहरं शीतं मध्यमं तु कफापहम्।
पक्कं तु सर्वदोषघ्नं दीपनं बस्तिशोधनम् ॥
लघूष्णं स्वादु सक्षारं पथ्यं चेतोविकारिणाम्।

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 528-529.

कूष्माण्डभाण्डी

कूष्माणुभाण्डी सक्षारा मधुरा रोचनी गुरुः।
कफवातहरा रूक्षा शर्कराश्मरि भेदिनी ॥

कूष्माण्डभाण्डी मज्जा

‘तन्मज्जा मधुरो वृष्यः पित्तनुत् बस्तिशोधनः।’

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 537.

कूष्माण्डी

कूष्माण्डी तु भृशं लघ्वी कर्काचरपि कीर्त्तिता।
कर्कारुर्ग्राहिणी शीता रक्तपित्तहरा गुरुः।
पक्का तिक्ताऽनिलवमी सक्षारा कफवातनुत् ॥

Bhāvaprakāśa Nighaṇṭu, Śāka Varga 56.

मूत्राघातहरं प्रमेहशमनं कृच्छ्राश्मरीच्छेदनं
विण्मूत्रम्लपनं तृषार्त्तिशमनं जीर्णाङ्गपुष्टि प्रदम्।
वृष्यं स्वादुसारं त्वरोचकहरं बल्यं च पित्तापहं

कुष्माणुं प्रवरं वदन्ति भिषजो वल्ली फलानां पुनः ॥

Rāja Nighaṇṭu, Mūlakādi Varga, 161.

अपस्मारे कूष्माण्डरसम्

कूष्माण्डकफलोत्पेन रसेन परिपेषितम् ।

अपस्मार विनाशाय यष्ट्याहं स पिबेत्त्रसम् ॥

Baṅgasena, Apasmara. 35.

Bhāvaprakāśa, Madhyakhanda, 23-17.

अपस्मारे कूष्माण्डक घृतम्

कूष्माण्डकरसे सर्पिराष्टादश गुणे पचेत् ।

यष्ट्याहकल्कं तत्पानमपस्मार विनाशनम् ॥

Bhāvaprakāśa, Madhya Khaṇḍa, 23-19.

सक्षारं पक्ककूष्माण्डं मधुराम्लं तथा लघु ।

सृष्टमूत्रपुरीषं च सर्वदोष निवर्हणम् ॥

Caraka Samhitā, Sūtra. 27

पित्तघ्नं तेषु कूष्माण्डं बालं, मध्य कफापहम् ।

शुक्लं लघूष्णं सक्षारं दीपनं बस्तिशोधनम् ॥

सर्वदोषहरं हृद्यं पथ्यं चेतोविकारिणाम् ।

Suśruta Samhitā.

.....कूष्माण्डप्रभृतीनां तैलानि मधुराणि, मधुरविपाकानि,
वातपित्तप्रशमनानि, शीतवीर्याणि, अभष्यन्दीनि,
भृष्टमूत्राणि अग्रिसादनानि ।'

Suśruta Samhitā, Sūtra. 45.

उन्मादे

ब्राह्मीकूष्माण्डषड्ग्रन्थाशंखिनी स्वरसाःपृथक् ।

मधुकुष्ठयुताः पीताः सवोन्मादापहारिणः ॥

Śaraṅgadhara Samhitā.

रसायने

कूष्माण्डक रसायनम् ।

Aṣṭāṅga Hṛdaya, Cikitsā. 113-116.

रक्तपित्ते

खण्डकूष्माण्डावलेह

बृहत्कूष्माण्डावलेह

खण्डकूष्माण्डकावलेह

वासाखण्ड

Bhāvaprakāśa, Raktapittādhikāra, 9-50/74. Cakradatta, 9.

अम्लपित्ते खण्डकूष्माण्डकावलेहम्

कूष्माणुकरसो ग्राह्यः पलानां शतमात्रकम् ।
रसतुल्यं गवां क्षीरं धात्रीचूर्णं पलाष्टकम् ॥
धात्री तुल्या सिता योज्या गव्यमाज्यं पलद्वयम् ।
मन्दाग्निना पचेत्सर्वं यावद्भवति पिण्डितम् ॥
पलाद्धं पलमेकं वा प्रत्यहं भक्षयेदिदम् ।
खण्ड कूष्माण्डकं ख्यात मम्ल पित्तापहं परम् ॥

Bhāvaprakāśa, Amlapittādhikāra, 10-20/22.

रक्तपित्ते वासा वासाखण्डकूष्माण्डकः

Cakradatta, Raktapitta Cikitsā 9/76-79.

राजयक्ष्मणि

कूष्माण्डकफलोत्थेन रसेन परिपेषितम् ।
लाक्षाकर्षद्वयं पीत्वा जयेद् रक्तक्षयंनरः ॥

Baṅgasena, Rājayaksmā. 47.

शूलरोगचिकित्सायां कूष्माण्ड क्षारम्

कूष्माण्डं तनु कृत्वा तु क्षिप्त्वा धर्मे विशोषयेत् ।
स्थाल्यां निक्षिप्य तत्सर्वं विधानेन पिधाय च ॥
चुल्ल्यां निवेश्य वह्निञ्च ज्वालयेन्कुशलो जनः ।
यथा तच्च भवेद्भस्म किन्त्वङ्गारो दृढो भवेत् ॥
तदा निर्वापयेच्छीतं सर्वथा चूर्णितन्तु तत् ।
माषद्वयमितं तावच्छुण्ठी चूर्णेन मिश्रितम् ॥
जलेन भक्षयेन्नित्यं महाशीरकुलो नरः ।
असाध्यमपि यच्छूलं तदप्येतेन शाम्यति ॥

Bhāvaprakāśa, Madhyakhaṇḍam,

Dvīṭiyabhāgah, Śūlādhikārah, 30/53-56.

बस्तिशूलादि विकारे कूष्माण्ड योगम्

कूष्माण्ड करसो हिङ्गुयवक्षार समायुतः ॥
बस्तौ मेढ्रे सशूलघ्नो मूत्रकृच्छहरः वरम् ॥

Bhāvaprakāśa, Aśmarirogādhikāra, 37-52.

रक्तपित्त चिकित्सायां कूष्माण्ड रसायने (खण्डकूष्माण्डक) द्रव
मानम्

खण्डामलकमानानुसारात् कूष्माण्डकद्रवात् ।
पात्रं पाकाय दातव्यं यावान् वाऽत्र रसोभवेत् ।
अत्रापि मुद्रया पाको निस्त्वचं निष्कृलीकृतम् ॥

Cakradatta, Raktapitta Cikitsā, 9-74.

अपस्मारे कूष्माण्डक घृतम्

कूष्माण्डकरसे सर्पिष्ठादशगुणे पचेत् ।
यष्ट्याह्वकल्के तसानमपस्मार विनाशनम् ।

Cakradatta, Apasmāra Cikitsā, 20-29.

रसायने

रसायनमिदं खण्डामलकसंज्ञिततम् ॥

Cakradatta, 27/72-77.

परिणामशूले खण्डामलकी

- क. स्वित्रपीडित कूष्माण्डात् तुलाऽर्द्धं भृष्टमाज्यतः ।
प्रस्थादूर्ध्वं खण्डतुल्यस्तु पचेदामलकी रसात् ॥
प्रस्थे सुस्वित्र कूष्माण्ड रसप्रस्थे विद्यदृयन् ।
दर्व्यां पाकं गते तस्मिंश्चूर्णीकृत्य विनिक्षिपेत् ॥
- ख. प्रक्षेप द्रव्याणि (75-76)
- ग. पक्तिशूलं निहन्त्येतद् दोषत्रयभवञ्च यत् ॥
दूर्धम्ल पित्तमूर्च्छाश्च कासश्वासा वरोचकम् ।
हृच्छूलं रक्तपित्तञ्च पृष्ठशूलञ्च नाशयेत् ॥

मदात्यये

पिबेद् रसं पुष्पफलोद्भवं वासितमधूक त्रिसुगन्धियुक्तम् ।
संचूर्ण्य संयोज्य च नागपुष्पैरजाजि कुष्णामरिचैश्च तुल्यैः ॥

Suśruta Samhitā, Uttara. 47-45.

अश्मर्या कूष्माण्डस्वरस प्रयोगः

यवक्षारं गुडोपेतं पिबेत् पुष्पफलोद्भवम् ।
रसं मूत्रविवन्धघ्नं शर्कराऽश्मरिनाशनम् ॥

Cakradatta, Aśmarī Cikitsā, 34-26.

अपस्मार रोगे कूष्माण्ड स्वरस प्रयोगः

कूष्माण्ड स्वरसे संपिष्टादशगुणै शृतम् ।
यष्टी कल्कमपस्मार हरं धी वाक् स्वरप्रदम् ॥

Aṣṭāṅga Hṛdaya, Uttara. 7-28.

Vṛndamādhava, 21-16.

मदात्यये

कूष्माण्डस्य स्वरसो गुडेन सहयोजितः ।
दुष्टकोद्रवसञ्जात मदं पानाद् व्यपोहति ॥

Sārṅgadhara Saṁhitā, 2-1-19.

मूत्राघाते

पुष्पफलस्य स्वरसः सशर्करः प्रातरेव परिपीतः ।
कृच्छ्रं मूत्रस्य जयेत् स्नावणसह्यञ्च सहसैव ॥

Vaidya Manoramā, 7-80.

यवक्षार गुडोन्मिश्रं पिबेत् पुष्पफलोद्भवम् ।
सा मूत्रविबन्धनं शर्कराशमरि नाशनम् ॥

Vṛndamādhava, 34-22.

कूष्माडञ्च समादाय शर्करासहित पिबेत् ।
यो हि त्रिदोषाभिभूत मूत्रकृच्छ्र निवारणः ॥

Hārīta Saṁhitā, 3-29-5.

मूत्राघाते कूष्माण्डयोगः

कूष्माण्डकरसो हिङ्गुयवक्षार रसमायुतः ।
बस्तौ मेद्रे सशूलघ्नो मूत्रकृच्छ्रहरः परम् ॥

Bhāvaprakāśa, Cikitsā. 37-52.

KUSUMBHA

Botanical name : Carthamus tinctorius Linn.

Family : Asteraceae (Compositae)

Classical name : Kusumbha

Sanskrit names

Kusumbha, Vahniśikha, Vastrarañjaka, Varaṭā-
Varattikā, Pāvaka-agni, Laṭvā, Kilaṭā, Padmottara.

Regional names

Kusum, Kusumb, Barre (Hindi); Kasum (Bengla); Kusumbo (Guj.); Kusambe (Kannada); Kusho (Konkani); Chendarkam (Mal.); Golapanachu (Manipuri); Kaday, Kurdi (Mar.);, Kar, Karar, Kasana, Kartam (Punj.); Kusumbha, Sendargam, Chendurukam (Tam.); Karha, Kusum (Urdu).; African saffron, Eng. Bastard saffron, Safflower.

Description

An erect branching herb 0.3 to 0.6 m. high. Leaves broad lanceolate, spinosely serrate, suberect, oblong and sessile. Flower heads large terminal 2.5 to 3.3 cm. long of orange-red flowers. Outer involucral bract large foliaceous ovate-oblong 2.5 - 3.8 cm. long bracts constricted above the base, green, usually spinous, inner bracts ovate-oblong or lanceolate and acute. Fruits achenes glabrous, obovoid, 4-angled or compressed without any pappus. Root hard woody, long tap root with secondary and tertiary branches.

Flower characters :

Morphological characters of the flowers, epidermal cells with characteristic stomata, covering and glandular trichomes, thin, pitted and unpitted walled specialised cells containing yellowish orange colouring matter, characteristic pollen grains, presence of starch grains and crystals.

Flowering and fruiting time

Africa and Mediterranean regions.

Distribution

It is widely distributed in Asia, Africa and Mediterranean regions. Plant is sometimes found in wild state in the drier parts of West Bengal and Bihar. Plant is cultivated in various drier regions in India.

Flowers drug :

Flowers consist of involucral bracts and florets. Involucral bracts in whorls, green, outer bracts ovate, oblong leafy and inner bracts hard, spiny, conical measuring 12-20 × 2-4 mm. Florets bisexual stalked yellowish to orange red, delicate, small measuring 12-32 mm. in length consisting

of a long stalk; corolla androecium and gynoecium. Petals 5, linear, very thin, yellow to orange red, united at the base and free throughout the length, acute apex measuring 6-8 × 0.75-1 mm. Stamens 5 united throughout the length and free at the tip forming a staminal tube, each stamen consisting of a short slender filament and 2 anther lobes with sagitate base and acute apex, yellow, measuring 5-6 × 0.75 mm. Carpel consisting of long, slender style, broad, flattened, hairy, bifid stigma, inferior ovary, yellow, measuring 6-8 × 0.50-0.75 m.

Seed drug :

Seed cypsela glabrous, obovoid, 4-5 angled with basal oblique aerola, flat at the top, without any pappus and measuring 7-9 × 4-5 mm.

Kinds and varieties

Some other species of *Carthamus* viz. *Carthamus lanatus* Linn. (Saffron thistle) and *Carthamus oxycantha* Boeb. (wild Safflower) are considered allied to *C. tinctorius* and these species are found to be used as substitutes or adulterants for Saffron (*Crocus sativus* Linn.). *Carthamus* flowers are major adulterant in the valued drug saffron (Kunkuma or Keśara) particularly raw drug material.

Kusumbha (*Carthamus tinctorius*) is cultivated in almost all the provinces in India and attained considerable importance as an oil seed crop in Maharashtra. Safflower plants are now grown mainly as an oil seed crop. Its importance as a dye crop having declined due to advent of synthetic dye-stuffs. It is cultivated mostly as a rain-fed crop and it is drought-constant and can grow even on poor sandy soils.

Safflower plants are raised from seeds. They are generally sown mixed with wheat, barley, gram or juar, but it is sown pure (umixed) when the crop is required for dye extraction from *Carthamus* flowers (Safflower). Two distinct cultivars are reported to occur, one with spiny leaves and the other with spineless leaves the former is known to

be excellent source of Safflower oil, while the latter is best suited for the extract dye from Safflower.

Chemical composition

Plant contains dye and oil. Dye is known as Safflower dye. Safflower florets contain principally two colouring matters. Carthamin is scarlet red and insoluble in water having acidic properties and safflower yellow is soluble in water. Another compound isocarthamin gradually reverts to carthamin on standing.

Safflower carmin of commerce is extracted from the washed material and precipitated by dilute acids. Safflower carmin is sold as a paste and used for dyeing cotton and silk.

Main component of the flower as observed in phytochemical screening, was a yellow chalcone glycoside agreeing in composition and properties with the yellow form of carthamin and its constitution was determined as 6-glycosidoxy-2:4:4:5-tetrahydroxy chalcone.

Chemical studies find that authentic ivory-white flowers of *Carthamus tinctorius* contain two Kaempferol glycosides. The major component is identified as 3-rhamnoglucoside of Kaempferol by its spectral properties and by complete methylation and hydrolysis. or Kusumbha taila.

Safflower seeds oil, an important industrial product, is extracted either by subjecting the seeds to cold dry pressure in a country oil press or by hot dry distillation. The seeds of oil (Kusumbha taila) content range from 20 to 30 percent and other chemical values are recorded : specific gravity (27°)- 0.9242, saponification value 192.0, iodine value 136.2, acid value 6.3, acetyl value 13.2, hexabromide value 0.3 and unsaponifiable matter 1.3 percent. Fatty acids components and glycerides components of the oil are also estimated. The oils obtained from *Carthamus oxycantha* and *C. tinctorius* are more or less similar in composition except that the major liquid acid component of *C. oxycantha* is oleic acid while that in *C. tinctorius* is linoleic acid.

Pharmacodynamics

Rasa	: Kaṣāya, Madhura
Guṇa	: Rūkṣa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Pittakaphaśāmaka vātala.

Properties and action

Karma	: Raktapittaśāmaka Avrṣyā Mūtrala Aśmarināśana Pramehahara Cakṣuṣya
Roga	: Raktapitta Pittajavikāra Mūtrakṛcchra Prameha Aśmarī Netravikāra.

Therapeutic uses

The flowers of Kusumbha (safflowers) are used as tonic to liver, hypnotic, diuretic and expectorant. Flowers are useful for inflammation, boils, ringworms, scabies, leucoderma, piles and bronchitis. They are used to improve complexion. Flowers possess stimulant, sedative and emmenagogue properties. Flowers are supposed to affect the heart, liver and to prevent the formation of white corpuscles in the blood.

Besides medicinal properties of the flowers are chiefly useful as a dye. They have a bitter, bad taste and bad odour. Safflowers (Kusumbha) in combination with other drugs are suggested to be useful against scorpion-sting as per classical texts of Āyurveda.

The drug is considered to be laxative and diaphoretic in higher dose. It is used as a substitute for saffron, in measles, scarlatina and other exanthematous diseases to promote the eruptions.

The oil of seeds obtained from this plant drug is ef-

ficacious in treatment of prameha (group of anomalies in urine). It is prescribed in ancient medicine as a depilatory agent. Kusumbha taila (seeds oil) is anointed with paste for removing the hairs as the same eradicate hairs. It is typical use of seeds oil as an ancient aid to hair remover (nirlomakaraṇa-romotpātana). The oil from the seeds is sweet, used as tonic, strengthening purgative, carminative, aphrodisiac and the oil is also used to cure liver pain.

The seeds of Kusumbha are medicinal and used in therapeutics. Seeds are bitter, purgative, carminative and aphrodisiac; they are also considered good for old peoples. Seeds are useful in leucoderma, scabies, catarrh, pain in the chest and the throat. They are used to enrich the blood and give lustre to the eyes.

The powered seeds are made into poultice and it is used externally to allay inflammation of the womb after child birth. The Kusumbha tail (carthamus oil) is used as a liniment in rheumatism and also it is used as a dressing for bad ulcers.

The seeds oil is also considered as a mild purgative and cooling medicine. Seeds are also considered a good remedy for itch. Young plant (in green state) is reported to be very efficacious in cold season in order to keep the system warm.

In veterinary medicine, the seeds oil is sometimes used as sore healer in cattlis.

Kusumbha seed (Safflower seed) oil has a higher linoleic acid content than other linseed or soyabean oil. It is most unsaturated of all vegetable oils. Since it has a high degree of poly-unsaturation which seems to cause less cholesterol to accumulate in blood vessels, lessening the chances of arterio-sclerosis, it is of good use.

The anticholesterol activity of Kusumbha oil was observed. Pharmacological compositions of Kusumbha plant extracts (undertaken experimental process) are found to have antiviral and antitumour activities including toxicity studies. Th biological experiments on Kusumbha plant extracts find elevation of lysomal enzymes during endo toxaemia.

Part used : Seeds, oil.

Dose : Powder 1-3 gm., Oil 2.5-5 ml.

KUSUMBHA कुसुम्भ

स्यात्कुसुम्भं वह्निशिखं वस्त्ररञ्जकमित्यपि ।

कुसुम्भं वातलं कृच्छ्ररक्तपित्त कफापहम् ॥

Bhāvaprakāśa Nighaṅṭu, Dhānya Varga, 92.

कुसुम्भबीजम्

कुसुम्भबीजं वरटा सैव प्रोक्ता वरट्टिका ॥

वरटा मधुरा स्निग्धा रक्तपित्तकफापहा ।

कषाया शीतला गुर्वी स्यादवृष्याऽनिलापहा ॥

Bhāvaprakāśa Nighaṅṭu, Dhānya Varga, 83-84.

कुसुम्भं पावकं पित्तमक्तं वस्त्ररञ्जकम् ॥

पद्मोत्तरा तु किलटा लट्वा रक्तं च लोहितम् ।

तद्वत्कुसुम्भः कटुको विदाही कफनाशनः ॥

शाकं गुरूष्णं स्वाद्वम्लं कफघ्नं पित्तलं सरम् ॥

Kaiyadeva Nighaṅṭu, Dhānya Varga, 86-87.

लट्वाकः वन्यकुसुम्भम्

लट्वाकः स्यात् गुग्गुलकः शाकं वन्यकुसुम्भजम् ।

कौसुम्भं पित्तलं स्वादु रूक्षोष्णं श्लेष्महल्लघु ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 639.

कुसुम्भतैलम्

कुसुम्भ तैलं सक्षारं कटुकं रसपाकयोः ।

तीक्ष्णं विदाहि वीर्योष्णं रक्तपित्त बलप्रदम् ॥

पुरु केवलवातघ्नमचक्षुष्यं त्रिदोषनुत् ।

Kaiyadeva Nighaṅṭu, Taila Varga, 321-322.

अरण्यकुसुम्भम्

ज्ञेयोऽरण्यकुसुम्भः स्यात् कौसुम्भाश्चाग्निसम्भवः ।

कौसुम्भः कटुकः पाके श्लेष्महृदीपनश्च सः ॥

Rāja Nighaṅṭu, Śatāhvādi Varga, 166.

कुसुम्भम्

‘कुसुम्भं वातलं रूक्षं रक्तपित्तकफापहम् ।’

Dhanvatari Nighaṅṭu.

कुसुम्भ तैलम्

कुसुम्भतैलं क्रिमिहारि तेजोबलावहं यक्ष्ममलापहं च ।

त्रिदोषकृत्पुष्टिबलक्षयं च करोति कण्डूञ्च करोति दृष्टेः ॥

Rāja Nighaṅṭu, Kṣirādi Varga, 111.

कुसुम्भतैलं गुणाः

कुसुम्भतैलमम्लं स्वादुष्णं गुरु विदाहि च ।

चक्षुष्यामहितं बल्यं रक्तपित्त कफप्रदम् ॥

Bhāvaprakāśa Nighaṅṭu, Taila Varga, 20.

कुसुम्भतैलमुष्णं च विपाके कटकं गुरु ।

विदाहि च विशेषेण तञ्च रोग प्रकोपनम् ॥

Dhanvantari Nighaṅṭu.

कुसुम्भबीजम्

कुसुम्भबीजं मधुरं स्निग्धं शीतं कषायकम् ।

अवृष्यं गुरु च प्रोक्तं कफवातास्रपित्तनुत् ॥

Nighaṅṭu Rotnākara.

कुसुम्भम्

स्निग्धोमा स्वादुतिकोष्णा कफपित्तकारी गुरुः ।

दृक्शुक्रहृत् कटुः पाके तद्वद् बीजं कुसुम्भजम् ॥

Aṣṭāṅga Hr̥daya.

‘रूक्षोष्णमम्लं कौसुम्भं गुरु पित्तकरं सरम् ।’

Caraka Saṁhitā.

निर्लोमकरणार्थम्

‘कुसुम्भतैलाभ्यङ्गो वा रोमामुत्पाटितेऽन्तकृत् ।’

Cakradatta, 62-58. Yonivyapāc Cikitsā, 56.

अशमरी मृत्रकृच्छ्रयो

‘एवारुबीजं त्रपुषात् कुसुम्भात्..... ।

द्राक्षारसेनाशमरी शर्करासु, सर्वेषु कृच्छ्रेषु प्रशस्तः एषः ॥’

Caraka Saṁhitā, Cikitsā.

प्रमेहे

‘कुसुम्भसर्षपातसी....स्नेहाः प्रमेहेषु ।’

Suśruta Saṁhitā, Cikitsā. 31-5.

लिङ्गदृढीकरणार्थं भूमिलतापक्क कुसुम्भ तैलम्

सिद्धं कुसुम्भतैलं भूमिलताचूर्णं मिश्रितं कुरुते ।

चरणाम्बुङ्गेन रतयोजस्तस्माद् दृढं लिङ्गम् ॥

Cakradatta, Vṛṣyādhikāra, 66-55.

अशमर्या मूत्रकृच्छ्रे च

एवार्बुबीजं त्रपुषात् कुसुम्भात् सकुङ्कुमः स्याद् वृषकक्षपेयः ।

द्राक्षारसेनाशमरिशर्करासु सर्वेषु कृच्छ्रेषु प्रशस्तः एषः ॥

Caraka Saṁhitā, Cikitsā 26-52.

KUṬAJA

Botanical name

Holarrhena antidysenterica (Linn.) Wall ex G. Don.

Family : Apocynaceae

Classical name : Kuṭaja

Sanskrit name :

Kuṭaja, Vatsaka, Girimallikā, Śiviphala, Śvetapuṣpa, Dīrghpatraka, Indrayava (bija: seeds of Kuṭaja) Śakrayava.

Description

A small deciduous tree with rough brown bark, exfoliating in irregular flakes. Wood white, soft and even grained, weight about 40 lbs per c. ft.

Leaves opposite, 6-12 by 3-5 in., elliptic-oblong, acute or acuminate, sub coriaceous, glabrous or pubescent; lateral nerves in 10-14 pairs; base obtuse or cuneate; petiole 2 in. or less.

Flowers white or cream-colour, slightly scented, 1-1.5 in. across, puberulous in terminal corymbose cymes which are 3-6 in. diam. Calyx deeply 5-partite; lobes small; lanceolate, acuminate, with glands inside at their base. Corolla tube .3-.5 in. long cylindrical, swollen at the base

round the tube, oblong, spreading, overlapping to the left. Anthers sub-sessile, inserted near the base of the corolla-tube; cells rounded at the base. Carpels 2, distinct; ovules numerous; style short; filiform; stigma oblong.

Fruit of 2 distinct divaricate follicles, 8-16 by 2-4 in., spreading and incurved, smooth, usually with white specks. Seeds numerous, 0.5 in. long, linear; hairs silky, of a brownish-grey colour 1.5 to 2 in. long.

Flowering and fruiting time

New foliage appears on plant in April. It bears flowers in May-June and fruiting stage continues in colder months.

Distribution

It occurs almost throughout India. Plant is very common in the Terai and valleys in Uttar Pradesh hills, ascending up to 4,000 ft. elevation.

Kinds and varieties

The plant source of drug Kuṭaja is commonly identified and known as *Holarrhena antidysenterica* (Linn.) Wall. ex G. Don. Further, there are two kinds of Kuṭaja viz. Sita or Tikta Kuṭaja (white or bitter) which is *Holarrhena antidysenterica* (Linn.) Wall. ex G. Don.; and Asita or Madhura Kuṭaja (black or sweat) which is identified as *Wrightia tinctoria* R.Br. and also *Wrightia tomentosa* Roem. Schult., both belonging to family Apocynaceae. Classically there are other two varieties of Kuṭaja viz. Strīkuṭaja and Puṅkutaja.

A. *Wrightia tinctoria* R. Br.

A small deciduous tree, glabrous or more or less pubescent. Wood white and even-grained.

Leaves 3-5 in. long, elliptic-ovate or lanceolate or obovate-oblong, caudate or acuminate, base rounded or acute; main lateral nerves 6-12 pairs, conspicuous in the mature leaf; petiole very short.

Flowers white, fragrant, arranged in lax terminal dichotomous cymes; branches slender, spreading; bracts minute, ovate. calyx-lobes ovate rounded, margins mem-

branous. Corolla-tube linear, oblong, obtuse; scales linear, scattered. Anthers white, exserted.

Follicles pandulous, 10-20 in. long, slender; cylindrical, glabrous, cohering at their tips only. Seeds linear, glabrous except for the basal coma.

Flowering and fruiting time

Plant flowers in March-May and fruiting in post-autumn or cold season.

Distribution

Plant occurs in northern central, western and southern India. It is found in Uttar Pradesh (Bundelkhand), Raajsthan (Rajputana) in deciduous forest and other regions in northern India. Plant also occurs in Burma and Sri Lanka.

B. *Wrightia tomentosa* Roem & Sch.

A small deciduous tree with grey corky bark; extremities tomentose. Wood yellowish-white, moderately hard, close-grained, easy to work; heartwood not distinct; weight about 40 lbs. per c. ft.

Leaves opposite, distichous, 3-6 by 1.5-3 in., elliptic, caudate-acuminate, rarely obscurely serrulate, rather membranous, velvety-tomentose often on both surfaces, always beneath, marrowed into a petiole 0.2-0.3 in. long; lateral nerves 10-16 pairs.

Flowers 1 in. across, in many-flowered corymbose terminal cymes; bracts deciduous. Calyx short, with 5-10 scales inside at the base; lobes rounded, half length of the corolla-tube. Corolla pale-yellow, with a fleshy orange-coloured corona of scales. lobes oblong, overlapping to the left. Stamens inserted at the top of the corolla-tube; filament short and broad; continued into broad tapering connective; anthers sagitate by the cells being spurred at the base, adherent to the stigma; ovary of 2-connate carpels; style filiform; stigma ovoid.

Fruit of 2 connate follicles 8-12 by 5-7 in., straight, cylindrical, laterally compressed, rough with white specks; follicles, separating before dehiscing. Seeds numerous, 5-7

in., slender, each with a tuft of pure-white silky hairs at the lower end.

Flowering and fruiting time

New leaves appear on plant in April. Flowering in May-June and fruiting in December-January. Stages of flowering and fruiting in plant begins with new foliage during the period from summers to winters.

Distribution

Plant occurs throughout hotter parts of India, in deciduous forests. It is fairly common in Siwaliks and lower valleys and outer Himalayan open valleys upto 4,000 ft. in hilly region of Uttar Pradesh. Plant occurs in various regions in India. and in the Himalaya ascending to 4,000 ft. altitude.

Wrightia species :

Both plant species of Wrightia genus referred and named (used) as Asita or Madhura Kuṭaja (black or sweet kind of Kuṭaja) botanically differ and their differential identification is mainly based on characteristics of the leaves and follicles. Leaves are glabrous or puberulous beneath in Wrightia tinctoria R. Br. when Wrightia tomentosa R. & S. has tomentose leaves on both surfaces. Similarly the follicles are smooth and adhering at the apex only in Wrightia tinctoria R. Br. while the follicles are connate throughout rough with white tubercles in Wrightia tomentosa R. & S. both plants are locally known as Dudhi in northern India, (i.e. Bundelkhand in U.P.) and Wrightia tinctorius R. Br. is specifically also known as Khirni (in Rajasthan), Khirna (in Uttar Pradesh, Mirzapur), Dudhali (Gujarat, Khathiawarh) and Pandharakurha (Maharashtra) and other regional names in country.

Chemical composition

The bark of Kuṭaja (*Holarrhena antidysenterica*) contains conessine, conessemine, iso-conessemine. Kurchine, Kurchicine and other alkaloids and active constituents.

Pharmacodynamics

Rasa : Tikta, kaṣāya

Guṇa	: Rūkṣa
Vīrya	: Śīta
Vipāka	: Kaṭu
Doṣakarma	: Kaphapittaśāmaka Tridoṣaghna (Indrayava-seeds)

Properties and action

Karma	: Āmahara (Upaśoṣaṇa)-Sāngrāhika Dīpana-pācana-stambhana-sūlahara Arśoghna Kṛmighna-jantughna Raktastambhana-raktaśodhaka Vraṇaropaṇa Jvaraghna Dhātuśoṣaṇa Śūlapraśamana Kuṣṭhaghna Chardinigrahaṇa-trṣṇānigrahaṇa Lekhana Jvaraghna
Roga	: Āmadoṣa Atisāra-āmātisāra-pravāhikā- raktātisāra-pittātisāra Aśmari-śarkarā-śukrāśmari Kuṣṭha-carmavikāra Viṣa-māmsagataviṣa Vraṇa-visphoṭaka Arśa-raktārśa Jvara Prameha

Therapeutic uses

The leaves of Asita or Madhura Kuṭaja (*Wrightia tinctoria* R. Br.) yield an Indigo-like dye which is used by the natives of Southern India. Seeds (madhura Indrayava or meethā indrajou) are eaten. The bark of the stem and roots of another species used as Asita or Madhura Kuṭaja *Wrightia tomentosa* Roem. & Sch., known as Dudhi and Indrajou) are regarded as an antidote to snake bite and scorpion-sting. In addition to medicinal utility, the woods of both *Wrightia* species mentioned are of economic use.

The drug Madhura Kuṭaja (*Wrightia tinctoria* R. Br.) is medicinally useful and recommended in certain ailments. It has specific utility in skin diseases. The leaves of *Wrightia tinctoria* R. Br; known as Vetapalai elai in Southern India and Siddha system of medicine, are employed for preparing oil with equal quantity of coconut oil (Nārikela taila). This oil is used in Siddha system of medicine as external application to psoriasis (Kalanjaga padai in siddha system) and the remedy has been proved effective in psoriasis (Kiṭibha Kuṣṭha).

Parts of uses : Seeds, Bark.

Dose

Bark 20-30 gms. (for decoction), Powder 3-6 gms.

Formulations

Kuṭajāriṣṭa, Kutajāvaleha, Kuṭajasurā.

Gaṇa

Arśoghna, Kaṇḍūghna, Stanyaśodhana, Āsthāpanopaga, Vamana (Caraka Saṁhitā), Āragvadhādi, Pippalyādi, Haridrādi, Lākṣādi, Urdhvaabhāghara (Suśruta Saṁhitā).

KUTAJA (कुटज)

कुटजः शीतलो रूक्षः कषायो दीपनः कटुः ॥

कफपित्तास्रतृट्कुष्ठजन्त्वामाशोऽतिसारहा ।

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 894-895.

कुटजपुष्पम्

तत्पुष्पं शीतलं तिक्तं कषायं लघु दीपनम् ॥

वातलं कफपित्तास्रकुष्ठातीसारजन्तुजित् ।

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 895-896.

कुटजफलम्

फलं तिक्तरसं ग्राहि कट्वमुष्णं त्रिदोषनुत् ॥

दीपनं पाचनं कुष्ठज्वर विसर्पं शूलनुत् ।

गुदकीलकवातास्रश्रमलोहितं नाशनम् ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 896-897.

कुटज गुणाः

कुटजः कटुको रूक्षो दीपनस्तुवरो हिमः ।
अर्शोऽतिसारपित्तास्रकफतृष्णाऽऽमकुष्ठनुत् ॥

Bhāvaprakāśa Nighaṇṭu, Guḍūcyadi Varga, 118.

कुटजः कटुतिकोष्णः कषायश्चातिसारजित् ।
तत्राप्सितोऽस्रपित्तघ्नस्त्वग्दोषार्शो निकृन्तनः ॥

Rāja Nighaṇṭu, Prabhadrādi Varga, 54.

इन्द्रयव

इन्द्रयवा कटुस्तिका शीता कफवातरक्तपित्तहरा ।
दाहातिसारशमनो नानाज्वरदोषशूलभूतघ्नी ॥

Rāja Nighaṇṭu, Prabhadrādi Varga, 57.

इन्द्रयवस्त्रिदोषघ्नः संग्राही शीतलः कटुः ।
ज्वरातिसाररक्तार्शः कृमिवीसर्प कुष्ठनुत् ॥

Madanapāla Nighaṇṭu.

सर्वातिसारे कुटज क्वाथः

कुटज त्वक्कृतः क्वाथो घनीभूतः सुशीतलः ।
लेहितोऽतिविषायुक्तः सर्वातीसारनुद्भवेत् ॥
वदन्त्यत्राष्टमांशेन क्वाथादति विषारजः ।
प्रक्षेप्यत्वात् पादिकन्द लेहादिति च नो मतिः ॥

Cakradatt, 3/54/55.

शक्राह्वाः कटुतिकोष्णास्त्रिदोषघ्नाश्चदीपनाः ।
रक्तार्शस्यतिसारं च घ्नन्ति शूलवमी तथा ॥

Dhamvantari Nighaṇṭu.

स्त्रीपुंकुटजञ्ज

बृहत्फलः स्वेतपुष्पः स्निग्धपत्रः पुमान् भवेत् ।
श्यामा चारुण पुष्पी स्त्री फल युगस्तैस्तथाणुभिः ॥

Caraka Saṁhitā, Kalpa. 5.

कुटज त्वग्गुणाः

‘कुटजत्वक् श्लेष्मपित्तरक्तसंग्राहिको पशोषणानाम् ।’

Caraka Saṁhitā, Sūtra. 25-63.

कुटजपुष्प गुणाः

‘कफपित्तहरं पुष्पं कुष्ठञ्च कुटजस्य च ।’

Suśruta Saṁhitā, Sūtra. 46-284.

तत्पुष्पं शीतलं तिक्तं कषायं लघु दीपनम् ।
वातलं कफपित्तास्रकुष्ठातीसार जन्तुजित् ।

Madanapāla Nighaṇṭu.

कुटजः

कुटजः कटुकः तिक्तः कषायोरूक्षशीतलः ।
कुष्ठातीसार पित्तास्रगुदजानि विनाशयेत् ॥

Dhanvantari Nighaṇṭu.

कुटजः कटुको रूक्षो दोषनस्तुवरो लघुः ।
अर्शोऽतिसारपित्तास्रकफतृष्णामपित्तनुत् ॥

Madanapāla Nighaṇṭu.

कुटज शिम्बीशाकम्

तस्य शिम्बीभवं शाकं व्यञ्जनं चामवातजित् ।
रुच्यं कफघ्नं रक्तातिसार कुष्ठकृमीन् जयेत् ॥

Madanapāla Nighaṇṭu.

ज्वरे

कथितं तण्डुलपयसा शक्राहं कटुकरोहिणीस हितम् ।
क्वाथं यष्टीमधुनां विनाशनं पित्तज्वराणानु ॥

Śāraṅgadharma Saṁhitā, 3-2-66.

विस्फोटके

विस्फोट व्याधिनाशाय तण्डुलाम्बुप्रपेषितैः ।
बीजैः कुटजवृक्षस्य लेपः कार्यो विजानता ॥

Gada Nigraha.

शुक्राश्मर्याम्

पिबतः कुटजं दध्ना पथ्यमन्नं च खादतः ।
निपतन्त्यचिरात्तस्य नियतं मेढ्रशर्करा ॥

Bhāvaprakāśa.

सर्वध्वर्शःसु

‘कुटजवन्दाकीमूलंकल्कं वा तत्रेण भक्षयेत् ।’

Suśruta Saṁhitā, Cikitsā 6-13.

अम्लपित्तानुबन्धारक्तजेषु अर्शःसु

‘कुटज मूलत्वक् फाणितं वा.....भक्षयेत् ।’

Suśruta Saṁhitā, Cikitsā. 6-13.

प्रमेहे

‘कुटजः.....पुष्पकल्कं वा ।’

Suśruta Samhitā, Cikitsā. 11-8.

बहुश्लेष्मणि सरक्तेऽतिसारे

बहुश्लेष्मसरक्तञ्च मंदवातं चिरोत्थितम् ।

कौटजं फाणितं वापि हन्त्यतीसार मोजसा ॥

Suśruta Samhitā, Cikitsā, 40-90

आद्रषु अर्शःशु

‘भैषज्यमाद्रेषु तु वत्सक त्वक् ।’

Aṣṭāṅga Hr̥daya, Cikitsā., 8-162.

अतिसारे कुटज क्षीरम्

निक्क्राथ्य मूलकमलं गिरिमल्लिकायाः सम्यक् पलद्वितयमम्बुचतुः शरावे ।

तत्क्षदशेषसलिलं खलु शोषणीयं क्षीरे पलद्वयमिते कुशलैर जायाः ॥

प्रक्षिप्य माषकानष्टौ मधुनस्तत्र शीतले रक्तातीसारीतत्पीत्वा नेरुज्यं क्षिप्रमाप्नुयात् ॥

Bhāvaprakāśa, Atisārādhikāra, 2-59/60.

रक्तातिसारे कुटजदाडिमक्क्राथम्

वत्सत्वदाडिमतरु-शलाटुफलसम्भवा त्वक् च ।

त्वग्गुगलं पलमानं विपचेदष्टांशसंमिते तोये ॥

अष्टमभागं शेषं क्क्राथं मधुना पिबेत्पुरुषः ।

रक्तातिसारमुल्वण-मतिशयितं नाशयेन्नियतम् ॥

Bhāvaprakāśa, Atisārādhikāra, 2-50-51.

सन्निपातातिसारे कुटजावलेहम्

कुटजत्वकृतः क्क्राथो वस्त्रपूतो हिमीकृतः ।

स लीढोऽतिविषायुकः स्यात् त्रिदोषातिसारनुत् ॥

इच्छन्त्यत्राष्ट मांशेन क्क्राथादतिविषारजः ।

प्रक्षेपच्चतुर्थोऽशमिति के चिद्ददन्ति हि ॥

Bhāvaprakāśa, Atisārādhikāra, 2-94/95.

अतिसारे वत्सकादिक्क्राथम्

सवत्सकः सातिविषः सबिल्वः सोदीच्यमुस्तश्च कृतः कषायः ।

साम सशूले सहशोणिते च चिरप्रवृत्तेऽपि हितोऽतिसारे ॥

Bhāvaprakāśa, Atisārādhikāra, 2-55.

विस्फोटके इन्द्रयवः

विस्फोट व्याधिनाशाय तण्डुलाम्बुप्रपेषितैः ।
बीजैः कुटजवृक्षस्य लेपः कार्यो विजानतः ॥

Bhāvaprakāśa, Viṣphoṭādhikāra, 58-23.

अतिसारे कुटजपुटपाकम्

तत्कालाकृष्टकुटज त्वचं तण्डुलवारिणा ।
पिष्ट्वा चतुष्पलमितां जम्बूपल्लव वेष्टिताम् ॥
सूत्रेण बद्ध्वा गोधूमपिष्टेन परिवेष्टिताम् ।
लिप्तां च धनपङ्केन गोमयैः वह्निना दहेत् ।
अङ्गार वर्णं च मृदं दृष्ट्वा वह्ने समुद्धरेत् ।
ततोरसं गृहीत्वा च शीतं क्षौद्रयुतं पिबेत् ॥
जयेत्सर्वानतीसारान् दुस्तरान् सुचिरोत्थितान् ।

Śāraṅgadhara Saṁhitā, Khaṇḍa 2, 24-28.

रक्तातिसारे

‘कुटजस्य फलानि च ।’
एतैः घृत सिद्धं जयेच्छीघ्रमतिसारम् ।’

Caraka Saṁhitā, Cikitsā. 10-86.

कुष्ठे

‘वत्सकबीजस्य.....कल्कं.....कुष्ठेषूद्धर्तनालेपः ।’

Caraka Saṁhitā, Cikitsā, 7.

रक्तस्रुतौ अर्शःसि

‘कुटजत्वङ्निर्यूदहः सनागरः स्निग्धरक्तसंग्रहणः ।’

Caraka Saṁhitā, Cikitsā. 14-185.

पित्तातिसरि

पलं वत्सकबीजस्य श्रपयित्वा रसं पिबेत् ।
यो रसाशी जयेच्छीघ्रं स पीतं जाठरामयम् ॥

Caraka Saṁhitā, Cikitsā 10-91 Cakradatta, 3-39.

यक्ष्मिणः अतिसारे

‘सनागर निन्द्रयवान् पिबेद्वा तण्डुलाम्बुना ।’

Caraka Saṁhitā, Cikitsā. 8-122.

व्रणरोपणे

‘करवीरार्ककुटजाः कषायाः रोपणाः मता ।’

Caraka Saṁhitā, Cikitsā. 13-85/88.

रक्तातिसारे कुटजफलपेया

घृतं यवागूमण्डेन कुटजस्य फलैः शृतम् ।
पेयं तस्याम्बु पातव्या पेया रक्तोपशान्तये ॥

Caraka Samhitā, Cikitsā. 19-79.

अर्शःसुशूले कुटजाफलादिघृतम्

कुटजफलवल्ककेशरनीलोत्पल लोघ्रधातकी कल्कैः ।
सिद्धं घृतं विधेयं शूले रक्तार्शसां भिषज ॥

Caraka Samhitā Cikitsā. 14-197.

मांसगतविषे

..... मांसगते पिबेत् ।

सक्षौद्रं खदिरारिष्टं कौटजं मूलम्भसा ।

Caraka Samhitā, Cikitsā. 23-187/188.

शर्करा (अश्मरी) विकारे

पिबतः कुटजं दध्ना पथ्यमन्नञ्च खादतः ।
निपतन्यचिरात्तस्य नियतं मेढ्रशर्करा ॥

Bhāvaprakāśa, 37-49.

कुष्ठे त्वग्विकारे

लोध्रस्य धातकीनां वत्सकबीजस्य नक्तमालस्य ।
कल्कश्च मालतीनां कुष्ठेषून्मर्दनालेपौ ।

Caraka Samhitā, Cikitsā. 7-95, 97/99.

‘हन्ति वृक्षकनिर्मूहः पानात् सर्वास्त्वगामयान् ।’

Aṣṭāṅga Hṛdaya, Cikitsā. 19-36.

कासे

इन्द्रयवपल्लवयुतं मरिचं खादेद्दिनत्रयम् ।
कासान् जयति समूलान् नाकुल्याः पादवल्लमिताः ॥

Vaidya Manoramā, 3-1.

कुक्षिवाते

पिबेत् कुष्ठबीजानां चूर्णं प्रातः सुखाम्बुना ।
शुण्ठीचित्रकयुक्तानां कुक्षिवात निवारणम् ॥

Baṅgasena, Vātvayādhi. 55.

रक्तार्शसि

कुटजादि रस क्रिया ।

Caraka Samhitā, Cikitsā. 14-188/192.

शुष्कार्शेषु-शुष्कार्शेषु

‘शुष्केषु भल्लातक मग्रयमुक्तं भैषज्यमाद्रेषु तु वत्सकत्वक् ।’

Aṣṭāṅga Hṛdaya, Cikitsā. 8-162.

Vṛndamādhava, 5-99.

रक्तार्शिसि

कुटजत्वक्पलं ताक्ष्यं माक्षिकं घुणवल्लभाम् ।

पिबेत्तण्डुलतोयेन कल्कितं वा मयूरकम् ॥

Aṣṭāṅga Hṛdaya, Cikitsā. 8-103.

‘कुटजोऽतिसारे ।’

Aṣṭāṅga Hṛdaya, Uttara. 40-49.

अतिसारे

सक्षौद्रातिविषं पिष्ट्वा वत्सकस्य फल त्वचम् ।

पिबेत् पित्तातिसारघ्नं तण्डुलोदकं संयुतम् ॥

Caraka Saṁhitā, Cikitsā. 19-51.

KUTIKTĀ-KUNAYANA

Botanical name : Cinchona officinalis Linn.

Family : Rubiaceae

Classical name : Kutiktā, Kunayana.

Common Name : Kunain-quinine.

Sanskrit names

Kunayana, Kutiktā, Jvarahantri,

Regional names

Kunain, Cinchona, (Hindi); Cinchona (Eng.);

Tree. Quinine (Eng.) Drug (constituent).

Description

It is a slender tree, 20-30 ft. high, with small, smooth, ovate-lanceolate shining leaves and reddish patioles. Flowers rosy. Capsules ovoid-oblong, 17-20 mm. long.

Bark is rough, brown, yellow within, with black and whitish markings.

Distribution

Plant flourishes at an elevation on 6,000-8,000 ft. It

is found growing in Ootacamund in Southern India and West Bengal (Darjeeling), Sikkim (Mungpoo) in eastern Himalaya and other areas. Cinchona trees plantations in India and also in Sri Lanka, Burma, Java and other countries. Native of 'South America.' It is also cultivated in Nilgiris in India.

Chemical composition

Bark contains chiefly an alkaloid widely known as quinine. Besides quinine, 20 others or more alkaloids are isolated which mainly include quinidine, cinchonidine and cinchonine.

Quinic acid, cinchofulvic acid and cinchotannic acid, a glucoside a-quinovin, red colouring matter and volatile oil (in minor quantity). Seeds yield fixed oil (13.3%). Activity of bark depends on presence of alkaloids. Red cinchona is potent.

Pharmacodynamics

Rasa	: Tikta
Guṇa	: Laghu, rūkṣa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphapittaśāmaka

Properties and action

Karma	: Jvaraghna-viṣamajvaraghna Śītāpraśamana Viṣamajvaraprativandhaka (jivāṇuniśūdana) Plihasaṅkocaka Jantughna-vedanāsthāpana Dīpana-āmapācana Stambhana Kṛmighna-jantughna Hṛdayottejaka-Raktaśodhaka Plihasaṅkocaka Kaṭupouṣṭika Kaphaghna Garbhāśayottejaka
Roga	: Viṣamajvara

Yakṛtphihavṛddhi
 Agnimāndya-āmadoṣa
 Yakṛdvikāra
 Pravāhikā
 Hrḍdourbalya-raktavikāra
 Pratiśyāya-kāsa
 Rajorodha-garbhāśayaśodhana
 Dourbalya
 Karṇasrāva
 Mukhapāka-galaśoṭha
 Kṛmi-bāhya kṛmi

Therapeutic uses

The drug Kutiktā or Kunayana is a specific, prominent and potent anti-malarial drug. Excess and constant use of drug causes side effect and complication. Quinine is extract form. Decoction of bark (Cinchona) is also febrifuge.

The drug is extremely bitter in taste. Quinine and other derivatives are used in medicine.

It is useful in some other ailments also. Bark is externally applied to germs and painful organs and also in otorrhoea. In stomatitis and throat swelling it is used for gargle.

Parts used : Bark, Extract (quinine).

Dose : Bark powder 1-2 gm.

KUTIKTĀ-KUNAYANA (कुत्तिका-कुनयन)

लघुरूक्षोष्णः सपादि कफपित्तप्रशामनः,
 ज्वरोच्छाय तिक्तो हरित विषमाख्यं कुनयनः ।
 परं मात्राधिक्याज्जनयति बहुपद्रवभरम्,
 भ्रमं मूर्च्छामान्ध्यं श्रुतिवधिरतांकर्णविरुतम् ॥

Dravyaguṇa Vigyāna, Part II, p. 713.

LAJJĀLU

Botanical name : *Mimosa pudica* Linn.

Family : Mimosae

Classical name : Lajjālu

Sanskrit names

Lajjālu, Samaṅga, Lajjālu (Samaṅgā), Śamīpatrā, Namaskārī, Khadirakā-Khadirī, Raktapādī, Anjalikārikā, Gaṇḍamālikā, Lajja-Lajjikā, Sporśalajjā, Asrarodhinī, Raktamūlā-Tāmramūlā.

Regional names

Lajjalu, lajalu, lajkan, Chuimui, Lajvanti (Hindi); Lajaka, Lajjavati (Bengla); Lajalu, Lajari (Marathi); Risamani (Gujarati); Tottalvadi (Tam.), Attapatti (Telugu); Lajja (Kann.); Tintarmani (Mal.); Sensitiva Plant (Eng.).

Description

Stems prickly, glandular, hairy, a widely spreading diffuse under shrub. Pinnae 1.5-2 in long. Leaves seismcnastic. Rachis 1-1.5 in. long, beset with ascending bristles; leaflets .2-.3 in long., 12-20 pairs, linear-oblong, acute, oblique-based, appressed hairy beneath. Heads long peduncled usually paired. Stamens 4. Pod flat, membranous, 3-5- jointed, margins distinctly bristly; 5-8 in. long with densely prickly sutures.

Flowering and fruiting time

Plant flowers in February-July or rainy season, and fruits in September or December or Winters.

Distribution

It occurs throughout neotropical regions. It is found in warm regions in India. It is also occasionally planted in pots, flower beds and found self-grown or in wild state. Throughout the hotter parts of India, and cosmopolitan in the tropics; sub-Himalayan tracts eastwards, naturalised as a weed in waste lands.

Kinds and varieties

Another plant *Biophytum sensitivum* De., belonging to family Geraniaceae, is also referred as substitute **Biophytum sensitivum** Dc. or adulterant of Lajjālu or (Lājvanti) and as Samangā :

Stems hispidly pubescent. Leaves 1.5-.5 in.; leaflets

6-15 pairs, variable in size. Peduncles very variable, 1/2-.5 in., hispid, sometimes, swollen at the tip; bracts rigid, setaceous. Flowers shortly pedicelled, yellow. Sepals subulate, rigid, glandular and hispid, usually much exceeding the capsule. Petals about twice as long as the sepals. Capsule elliptic, shining. Seeds minute, with obliquely transverse tubercled ridges.

Plant occurs throughout the hotter parts of India and Sri Lanka ascending to 6,000 ft. on the Himalayas.

Pharmacodynamics

Rasa	: Kaṣāya, tikta
Guṇa	: Laghu, rūkṣa
Vīrya	: Śīta
Vipāka	: Kaṭu
Doṣakarma	: Kaphapittaśāmaka

Properties and action

Karma	: Sandhāniya Raktastambhana (raktarodhaka) Vraṇaropaṇa-kṣataropaṇa Stambhana Vṛsya-śukrajanana Pramehaghna Viṣaghna Śramaghna Dāhapraśamana Kṛmighna Kuṣṭhaghna Arśoghna
Roga	: Bhagna Kṣata-śāstraja kṣata Vraṇa Dhātukṣaya Bhagandara Pradara Sukra kṣaya-vikāra-klaivya Prameha-siktāmeha Uraḥkṣata-raktapitta Atisāra-raktātisāra-pravāhikā

Raktārśa
 Viṣa-sarpaviṣa-maṇḍalasarpa viṣa
 Raktasrāva
 Āntravṛddhi
 Urustambha.

Therapeutic uses

As an antidote of snake-poison, the drug Lajjālu is indicated to be given orally to victim person specially in case of bite and poison of maṇḍalīsarpa (viṣa) which is mentioned in Rājamārtaṇḍa.

Lajjālu (samaṅgā) is mixed with flowers of Madhuka and externally applied on haemorrhoids for treatment of piles and specially checking burning sensation, moistening, rectal prolapse and other symptoms as prescribed in Caraka. Saṁhitā. The drug Lajjālu (samaṅgā) has good haemostatic and blood coagulant properties (raktastambhana-raktarodhana) which are useful in cases of haemorrhage (raktasrāva). For the instance, the root of Lajjālu mixed with honey is recommended to be orally taken in raktasrāva or haemorrhage (Suśruta Saṁhitā, Śārīra. 10-57) which is part of other drugs (Dhātakī flowers, navamālikā, red ocher, sarjarasa, rasāñjana) incorporated for checking haemorrhage).

The drug Lajjālu (samaṅgā) is a wound-healing (vraṇaropaṇa) agent as it belongs to wound-healing group (Suśruta Saṁhitā, Sūtra. 37-24) possessing efficient healing activity in wounds. In accidental wounds (śastrakṣata, the oil cooked with fresh root of Lajjālu plant is applied hot on wound which is fastly healed up after pasting of the drug. Similarly the paste of Lajjālu root pounded with water is applied over accidental wound (Rajmārtaṇḍa, 25-4, 26-4).

In scrotal enlargement (āntravṛddhi), the paste of Lajjālu (Mimosa pudica Linn.) mixed with excrete of vulture (gṛdhra viṭ) is prescribed to be applied externally. It is also used as an external application to disorders of female genital tract (Baṅgasen, āntravṛddhi, 46). Similarly another recipe of Lajjālu for external application (lajjālu lepaṁ) is suggested (Cakradatta, 40-21) in treatment of

vṛddhi roga. In urustambha, samaṅgā, śālmali and bilva are mixed with honey and taken internally (Caraka Saṁhitā, cikitsā. 27-29) for alleviating the ailment.

Parts used : Root, whole plant, seeds.

Dose : Juice 10-20 ml., Decoction 50-100 ml.

Gaṇa

Sandhāniya, Puriṣasangrahaṇiya (Caraka Saṁhitā), Ambaṣṭhādi (Suśruta Saṁhitā).

LAJJĀLU (लज्जालु)

- क. लज्जालुः स्याच्छमपित्रा समङ्गा जलकारिका ।
रक्तपादी नमस्करी नाम्ना खदिरकेत्यपि ॥
- ख. लज्जालुः शीतला तिक्ता कषाया कफपित्तजित् ।
रक्तपित्तमतीसारं योनिरोगान् विनाशयेत् ॥

Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi Varga, 272-273.

अलम्बुषा-लज्जालु भेदः

अलम्बुषा खरस्त्वक् च तथा मेदोगला स्मृता ।

अलम्बुषा लघुः स्वादुः क्रिमिपित्तकफापहा ॥

Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi Varga, 274.

लज्जालुः

नमस्करी रक्तपादां समङ्गाऽञ्जलिकारिका ।

शमीपत्रा रक्तमूला रुहा खदिर कारुणा ॥

लज्जालुः स्यात् स्पृहा स्पृक्का गन्धकारी प्ररोचनी ।

लज्जालु गुणाः

नमस्करी हिमा तिक्ता कषाया कफपित्तहा ।

योनिरोगमतीसारं रक्तपित्तं च नाशयेद् ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 1081-1083.

लज्जा ह्वी-लज्जालुः

रक्तपादी शमीपत्रा स्पृक्काखदिरपत्रिका ।

सङ्कोचनी समङ्गा च नमस्करी प्रसारिणी ॥

लज्जालुः सप्तपर्णी स्यात् खदिरि गण्डमालिका ।

लज्जा च लज्जिका चैव स्पर्श लज्जाऽस्त्रोधनी ।
रक्तमूला ताम्रमूला स्वगुप्ताऽञ्जलिकारिका ।
नाम्नां विंशतिरित्युक्ता लज्जायास्तु भिषग्वरैः ॥

लज्जालु गुणाः

- क. रक्तपादी कटुः शीता पित्तातीसार नाशनी ।
शोफ दाहश्रमश्वास व्रणकुष्ठक फास्रनुत् ॥
ख. लज्जालुर्वैपरीत्यान्या अल्पक्षुपवृहद्दला ।
वैपरीत्या तु लज्जालुहर्यमिधाने प्रयोजयेत् ॥
ग. लज्जालुर्वैपरीत्याह्वा कटुरूष्णा कफामनुत् ।
रसो नियामकोऽत्यम्ल नानाविज्ञानकारकः ॥

Rāja Nighaṅṭu, Parpatādi Varga, 103-108.

रक्तपादी शमीपत्रा स्पृक्का - खदिरपत्रिका ।
स्पर्शात्संकोचतां याति पुनश्च प्रसृता भवेत् ॥

Sivadatta, Kaiyadeva.

मण्डलसर्पविषे

‘तण्डुलजलेन पिष्टं.....नाशयन्ति ।
पानेन मण्डलिविषं यदि वा लज्जावतीमूलम् ॥’

Śoḍhala.

शस्त्रक्षते

आद्रेण लज्जालुकिनीभवेन मूलेन तैलं पारिपाचितं यत् ।
तत्स्वेदितं पाकविवर्जितो द्राक् संरोहमागच्छति शस्त्रघातः ॥

Rāja Mārtaṇḍa, 25-4.

विषोपशमनार्थम्

लज्जावतीमूल विलिप्तपाणिः बद्ध्वाऽथवा तत्रतदीयमूलम् ।
गृह्णाति सर्पान् भ्रमतोऽतिघोरान् पुमान् सुपर्णप्रतिमप्रभावः ॥

Rāja Martāṇḍa.

वृद्धिहरं लज्जालु लेपम्

‘लज्जामृद्भ्रमलाभ्याञ्च लेपो वृद्धिहरः परः ।’

Cakradatta, Vṛddhibraghna Cikitsā, 40-21.

उरुस्तम्भे

‘समङ्गा शाल्मली बिल्वं मधुना सह ना पिबेत् ।’

Caraka Samhitā, Cikitsā. 27-29.

अर्शासि

‘समङ्गामधुकाभ्यां.....वा।’

Caraka Samhitā, Cikitsā. 24-220.

व्रणरोपणे

समङ्गा सोमसरला सोमवल्कः सचन्दनः।

काकोल्यादिश्चकल्कः स्यात् प्रशस्तं व्रणरोपणे ॥

Suśruta Samhitā, Sūtra. 37-24.

शस्त्रक्षतोपचारार्थम्

लज्जालुकेषु पुंखाभाङ्गीणां मध्यतः प्रलेपेन्।

एकस्यां जलपिष्टं मूलं शस्त्रक्षतेषु हितम् ॥

Rāja Mārtaṇḍa, 26-4.

सर्पविषे

‘पानेन मण्डलिविषं यदि वा लज्जावतीमूलम्।’

Rāja Mārtaṇḍa, 29-8.

आन्त्रवृद्धौ

लज्जालुमूलं गृध्रस्य विट् प्रलेपः प्रयोजितः।

कुरण्डं योनिरोगञ्च नाशयेद् विकल्पतः ॥

Bāṅgasena, Āntravṛddhi. 46.

रक्तस्रावे

‘अत्यर्थं स्रवति रक्ते.....समङ्गा.....

मधुनाऽवलिह्यात।’

Suśruta Samhitā Śārīra. 10-57.

LĀKṢĀ

Botanical name/Zoological name

Laccifer (tuchardia) lacca Kerr. (Lac producing insect).

Chief source (host) plants

Schleichera oleosa (Lour.) Okera.

Butea monosperma (Linn.) Kuntze.

Zizyphus jujuba Lam.,

Ficus religiosa Linn.,

Ficus bengalensis Linn.

Family : Coccideae

Classical name : Lākṣā

Sanskrit names

Lākṣā, Jantukṣataharī, Gavayikā, Palankaṣā, Drumavyādhi, Kārpaṭa, Jantumātā, Jatu, Raktā, Raksā, Kṛmijā, Aloktaka, Kṛmidravya, Jatuka, Lohitā, Vṛkṣāmaya

Regional names : Lākh (Hindi).

Discription

Lac is the resinous protective secretion of the tiny lac insect (*Laccifer* spp. belonging to family *Lacciferidae* in order *Hemiptera*) which is a pest on a number of plants, both wild and cultivated. The minute red coloured larvae of the insect settle on young succulent shoots of the host plants in myriads, drive their long proboscis into the bark and draw their nutriment from the sap. They secrete a thick resinous fluid which envelopes their bodies; and the secretions from individual insects coalesce and form a hard continuous encrustation over the twigs. After completion of the life cycle, and just about the time of larvae of next generation begin to emerge, the twigs are harvested and the encrustations scrapped off, dried and processed to yield the lac of commerce for utility in various purposes including medicine and cosmetics.

Among some source plants of hosts species out of a number of such plants producing lac, there is an important Lākṣā vṛkṣa, which is botanical known as *Schleichera oleosa* (Lour) Oken, is incorporated and used as *Koṣāmrā* in Indian medicine.

Kinds and Varieties

Though there are various species of insects and many host plants, but from point of view of large scale production, quality and procurement source of lac raw material, the several kinds of lac may be grouped in two major categories viz. Rangeeni strain and Kusum strain.

Firstly the crude material of lac is collected from twigs or stick lac and out of which seed lac is separated. This material is coloured for preparing commercially useful shellac (also for sealing wax). In pharmaceutical process, it

is used for enteric coating for pills and tablets. For medicinal use in indigenous medicine, the seed lac is used for preparing recipes and as an ingredient in formulations. The crude material of lac or Lākṣā is purified as per process of purification (śodhana) for eliminating undesirable portion or substances and finally purified lac or śuddha (śodhita) lākṣā is recommended for medicinal uses particularly for internal purposes in medicine.

Chemical Composition

Lac chiefly consists of resin or resinous matter; and it also contains wax and colouring matter pigmentlaccin and other substances.

Lac resin is composed of intersters of hydroxy fatty acid derivatives. Aleuritic acid is the major constituent.

Pharmacodynamics

Rasa	: Tikta, Kaṣāya
Guṇa	: Laghu, snigdha
Vīrya	: Uṣṇa-anuṣṇa
Vīpaṅka	: Kaṭu
Doṣakarma	: Śleṣmapittanāśaka.

Properties and action

Karma	: Sandhāniya
	Stambhana
	Varṇya
	Balya
	Kuṣṭhaghna
	Raktadoṣahara
	Pittapraśamana
	Viṣamajvaraghna-jvaraghna
	Vraṇaropaṇa
	Kāsaghna
Rucya kaṇṭhya	
Roga	: Asthibhagna
	Varṇavikāra-vyaṅga
	Carmaroga-visarpa
	Kuṣṭha
	Kāsa-śvāsa-hikkā-urahkṣata
	Raktātisāra
Raktasrāva	

Pradara
 Bhagna
 Kaṅṭharoga
 Kṛmiroga
 Viṣa.

Therapeutic uses

The drug Lākṣā is powdered and mixed with honey alongwith milk. It is given orally to patients of chest-wouldnd (uraḥkṣata) and diet with milk and sugar is allowed after medicine is digested (Caraka Saṁhitā, Cikitsā. 8-15). In case of fracture (bhagna), the cow's milk cooked with sweet drugs and added with ghee and lākṣā (lac) is given in the morning (Suśruta Saṁhitā, cikitsā. 3-11). Lākṣā (lac) and rasānjana (semi-solid extract of Dāruharidrā) are mixed and given to woman with goats milk (Caraka Saṁhitā, Cikitsā. 30-97) in pradara (leucorrhoea) or asṛgdara (raktapradara)

In paediatrics (bāla roga) management, Lakṣādi tailam is used for external application (massage or abhyaṅga) in specific disorders of children like bālaśoṣa (marasmus), phakka roga (rickets) and other similar ailments.

In condition of dantaśarkarā (during śastra cikitsā), the powder of lac (lākṣā) mixed with honey is suggested to be applied externally (pratisāraṇa) on tartar affected teeth parts (Bhāvaprakāśa; Cakradatta 56-260). Another prominent formulation Lākṣāguggulu is prescribed. In management of bhagna (fracture) for oral use.

The drug Lākṣā is an important lusture or complexion promoting agent (Varṇya) and it is applied on skin (desired part of body); in suitable form used in health and disease and hence it is of cosmetic use. Alaktaka is traditional colouring item of women and it is varṇya and also medicinally useful.

Part used : Lac (Lac resin) : Lākṣā.

Dose : 2.5-5 gm., 0.5 gm.-1.5 gm.

Formulations : Lākṣāditailla, Lākṣāguggulu

LĀKSĀ (लाक्षा)

लाक्षा खदिरका रक्तां रङ्गमाता पलङ्कषा ।
 जंतु च क्रिमिजा चैव द्रुमव्याधिरलक्तकः ॥
 पलाशी मुद्रणी दीर्घतर्जन्तुजा गन्धमादनी ।
 नीला द्रवरसा चैव पित्तारिर्मुनिमूह्या ॥

लाक्षागुणाः

लाक्षा तिक्तकषाया स्यात् श्लेष्मपित्तार्ति दोषनुत् ।
 विषरक्त प्रशमनी विषमज्वर नाशनी ॥

Rāja Nighaṅṭu, Pippalyādi Varga, 203-205.

अलक्तकः

अलक्तको जन्तुरसो रागो निर्भर्व्सनस्तथा ।
 जननीं जन्तुकारी च सन्धर्षा चक्रमर्दिनी ॥

अलक्तकगुणाः

अलक्तकः सुतिकोष्णः कफवातामयापहः ।
 कण्ठरुकृशमनोरुच्यो व्रणदोषार्ति नाशनः ॥

Rāja Nighaṅṭu, Pippalyādi varga, 206-207.

(लोध्रस्य नामः) लाक्षा प्रसादनः

‘लाक्षां प्रसादयति इति लाक्षा प्रसादनः ।’

Bhāvaprakāśa Nighaṅṭu, 1-215 (Lodhra)

‘अस्मिन् प्रक्षिप्ते लाक्षा प्रसन्ना भवति इति लाक्षा प्रसादनः ।’

Bhānuji Dikṣhit.

लाक्षा

लाक्षापलङ्कषालक्तो यावो वृक्षामयो जतुः ।
 (ब्राह्मण्यङ्गारवल्ली च खरशाखा च हञ्जिका)

लाक्षा गुणाः

लाक्षा वर्ण्या हिमा बल्या स्निग्धा च तुवरा लघुः ।
 अनुष्णा कफपित्तास्र हिक्काकास ज्वर प्रणुत् ।
 व्रणोउरःक्षतकसर्पकृमिकुष्ठगदापहा ।
 अलक्तको गुणैस्तद्विशेषाद्वधङ्गनाशनः ॥

Bhāvaprakāśa Nighaṅṭu, Haritakyādi varga, 193-195.

लाक्षा

- क. लाक्षा जंतु क्षतहरी द्रुमव्याधिश्च कार्पटः ।
निर्मत्सरा रङ्गमाता जन्तुमाता गवायिका ॥
रक्ता तु रक्षः कृमिजा कृमिद्रव्यं पलङ्कषा ।
जतुका लोहिता दीप्तिर्यावकोऽलक्तको मतः ॥

लाक्षागुणाः

- ख. लाक्षा स्निग्धा लघुस्तिका कषाया बलवर्णदा ।
अनुष्णा हन्ति पित्तास्रकफकुष्ठ ज्वर व्रणान् ॥
उरःक्षतपरीसर्पभग्रकास विषकृमीन् ।
ग. अलक्तको गुणैस्तद्वाद्द्विशेषाद् व्यङ्गनाशनः ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 1432-1435.

प्रदर रोगे

- ग. 'रसाञ्जनं च लाक्षां च छागेन पयसा पिबेत् ।'

Caraka Saṁhitā, Cikitsā. 30-97.

Suśruta Saṁhitā, Cikitsā. 3-11.

बालरोगे लाक्षाऽऽदितैलम्

Bhāvaprakāśa, Bālarogādihikāra, 71/88-189.

अस्थिभग्न चिकित्सायां लाक्षा गुग्गुलुः

लाक्षाऽस्थिसंहत्ककुभाश्वगन्धाश्चूर्णीकृता नागबला पुरश्च ।
समभग्न युक्तास्थिरुजे निहन्यादङ्गानि कुर्यात् कुलिशोपमानि ॥
तत्रान्यतोऽपि दृष्टत्वात् तुल्यश्चूर्णेन गुग्गुलुः ॥

Cakradatta, Bhagna Cikitsā, 49-14.

दन्तशर्करा (शस्त्र) चिकित्सायां लाक्षा प्रयोगः

'लाक्षाचूर्णैर्मधुयुतैस्ततस्तां प्रतिसारयेत् ।'

Cakradatta, Mukharoga Cikitsā (Dantaroga), 56-26.

उरःक्षते

उरोगत्वा क्षतं लाक्षां पयसा मधुसंयुताम् ।

सद्य एव पिबेज्जीर्णं पयसाऽद्यात् सशर्करम् ॥

Caraka Saṁhitā, Cikitsā. 8-15.

भग्रे

गृष्टिक्षीरं ससर्पिष्कं मधुरौषधसाधितम् ।

शीतलं लाक्षया युक्तं प्रातर्भृगः पिबेन्नरः ॥

Suśruta Samhitā, Cikitsā. 3-11.

LAKUCA

Botanical name : *Artocarpus lakoocha* Roxb.

Family : Moraceae

Classical name : Lakuca

Sanskrit names

Lakuca, Likuca, Kṣudra panasa, Duḍura-ḍahu-duhu, Granthimatphala, Sthūlaskandha, Dṛḍhavalkala, Śūra, Pittanāśa.

Regional names

Barhahar (Hindi); Dephal madar (Ben.); Botombar (Mar.); Kammaregu (Tel.) Vethuli (Kann.); Monkey Jacq. (Eng.)

Description

Large, erect or bent trees, up to 20 meters high; crown spreading bark fissured, dull black. Leaves large subcoriaceous, elliptic, obvate or oblong, entire, grey-pubescent beneath; stipule lanceolate, caducous, Male receptacle orange yellow, ovoid, spongy, rugose, up to 2.5 cm. long; flowers monandrous, tepals 2-3. Female receptacle lobulate, irregularly subglobose in outline, up to 12 cm. across, yellow when ripe. Achenes embedded in fleshy; edible receptacle.

Flowering and fruiting time

March to May.

Distribution

It occurs in India and Ceylon. Plant is occasionally planted in gardens and house premises. It is found in the lower Himalayan region or Terai up to 4,000 ft., from Kumaon to Assam, Bihar, Orissa, Madhya Pradesh, Central and southern India.

Pharmacodynamics

Rasa : Madhura, amla, Kaṣāya
Guṇa : Guru, rūkṣa

Vīrya	: Uṣṇa
Vipāka	: Amla
Doṣakarma	: Tridoṣakopana-vātakaphahara.

Properties and action

Karma	: Viṣṭambī Agnināśana (adīpana) Ācakṣuṣya Raktadūṣaka Raktapittakāraka Āvr̥ṣya Śoṭha praśamana Kuṣṭhaghna Vraṇaropaṇa Mālasangrāhī
Roga	: Pravāhikā Kuṣṭha Netraroga-pilla Karṇaroga Vraṇa-duṣṭavraṇa Avabāhuka.

Therapeutic uses

Difference of properties in āma (raw or unripe) and pakva (ripe) fruits (phala) of Lakuca has been observed.

There is difference in medicinal properties of Lakuca fruit in regard to its stages viz. āma (unripe) and pakva (ripe) phala (fruits) which have been considered and indicated in texts of materia medica (nighaṇṭu) and the fruits are used therapeutically. Accordingly, for the instance, unripe fruit is hot, heavy and flatulent. Sweet and acidic and it allays tridoṣa, and it is unwholesome for digestive fire, semen and eyes. Ripe fruits are sweet, sour, aphrodisiac, stomachic and flatulent; and they allay pitta and vāta, and increase kapha.

The juice of Lakuca fruit is mixed with goat-milk in equal quantity which is taken by patient suffering from dysentery (pravāhikā) with blood, mucous and tenesmus (śaraktasleṣmam pravāhaṇam gudeṣu jātam : Vaidya Monoramā, 6-11). Juice of Bāṇa (leaves) and Lakuca

(fruits) are mixed together with oil. This paste is indicated as an external application for alleviating Kuṣṭha (also in duṣṭa Kuṣṭha or complicated stage) as prescribed in therapeutic texts. Further, for vṛṇaśodhana and vṛṇaropaṇa in treating wounds (Vṛṇa), the oil cooked with Lakuca fruit juice, Haridrā (turmeric), sulphur (gandhaka) and Punnāga in urine, added with little lavaṇa (salt) has been suggested as external application on vṛṇa or ulcer in order to cleanse and heal the wound.

The drug Lakuca is useful in some urdhvajtrugata rogas. The Juice of Lakuca mixed with pure salt honey and in a bronze vessel and it is applied as collyrium specially in pillā roga under eye diseases. A little salt is kept within the fruit of Lakuca which is then rubbed and the juice extracted. This juice is put in the year for three days which removes pus and alleviates pus in Karṇaroga. For treatment of ear diseases, the recipe is mentioned in Vaidya Manoramā (16-64) and also other therapeutic uses of Lakuca.

The oil cooked with Lakuca juice, snuhī latex (snuhī kṣira) and earth worm (bhūnāga) in milk which is externally applied in condition of avabāhuka (characterized by pain in arms by aggravation of vāta in shoulder joint) belonging to Vātavyādhi group of diseases. Lakuca is, further, indicated for treating arthritic swelling in knee joint (Janupradeśegata śophādi). The oil is cooked with Haridrā, Devadāru, Sarja-rasa in juice of Lakuca fruit. It is applied externally on affected body part with arthritic disorder (with inflammation severe pain, and others signs) caused by provocation of vāta doṣa.

Lakuca, in general, is astringent, sweet and sour. It is hot, heavy, rough (in properties) and it is wind-forming or flatulent (viṣṭambhi).

Parts used : Fruit.

Dose : 5-10 ml.

LAKUCA (लकुच)

क. लकुचः क्षुद्रपनसो लिकुचो डडुरित्यपि ।

आमफलम्

- ख. आम्रं लकुचमुष्णञ्च गुरु विष्टम्भकृतथा ।
मधुरञ्च तथाऽम्लञ्च दोषत्रितयरक्तकृत् ॥
शुक्राग्निनाशनं वाऽपि नेत्रयोरहितं स्मृतम् ।

पक्कफलम्

- ग. सुपक्कं तत्तु मधुरमम्लं चानिलपित्तहत् ।
कफवह्निकरं रुच्यं वृष्यं विष्टम्भकञ्च तत् ॥
Bhāvaṣṭrakāśa Nighaṇṭu, Āmrādiphala Varga, 30-32.

लकुचः

लकुचः क्षुद्रपनसो विज्ञेयो ग्रन्थिमतफलः ॥
पित्तनाशो ग्रन्थिफलो लकुचो लिकुचो डहुः ।
पनीसः शक्ती साक्षः पनसः क्षुद्रसारितः ॥

लकुचगुणाः (आमफलम्)

लकुचं तुवरं चोष्णं पलेष्वप्यवरं गुरु ।
रक्तपित्तं बव्यसं च कुरुते हरतेऽनिलम् ॥

लकुच पक्कफलम्

पक्कं तु स्वादु विष्टम्भि वृष्यं दोषाग्निवर्धनम्
Kaiyadeva Nighaṇṭu, Ośadhi Varga, 468-471.

लकुचः

लकुचो लिकुचः शालः कषायी दृढवल्कलः ।
डहुः काश्यश्च शूरश्च स्थूलस्कन्धो नवाह्वयः ॥

लकुचगुणाः

लकुचः स्वरसे तित्तः कषायोष्णो लघुस्तथा ।
कफदोषहरो दाहो मलसंग्रहदायकः ॥

Rāja Nighaṇṭu, Prabhadradi Varga, 151-152.

प्रवाहिकायाम्

लकुचफलस्वरसपाकं छागं पयः पलमपि प्रगे पीत्वा ।
जयति सरक्तश्लेष्मं प्रवाहणं गुदेषु जातं च ॥

Vaidya Manoramā, 6-11.

दुष्ट-कुष्ठरोगे

बाणदलस्य स्वरसं लिकुचस्वरसं च तैलं च ।

संमिश्रितं प्रलेपाद्धन्यात् कुष्ठानि दुष्टानि ।

Vaidya Manoramā, 11-38.

कर्णरोगे

लिकुच फलेऽल्पं लवणं निक्षिप्य विधृष्य तत्सवरसम् ।
त्रिदिनं श्रवसि विदध्याच्छूलं पूयं च नाशयति ॥

Vaidya Manoramā, 16-64.

व्रणे

स्वरसे मूत्रे च शृतं लिकुचनिशाभ्यां च सुरभिपुरुषाभ्याम् ।
तैलं लवणांशयुत् व्रणशुद्धिं रोपणं च तत्कुरुते ॥

Vaidya Manoramā, 16-106

अवबाहुके वातजशोथे च

‘लिकुचरसस्तुक्क्षीरे तैलं समेतभूनागम् ।’
सिद्धं हिनस्ति लेपाद् दुस्तरमवबाहुकं क्षणतः ॥

Vaidya Mārtaṇḍa, 12-16.

जानुप्रदेशजनितानिलनाशनाय तैलं निशामिशिसुरद्रुमदेवधूपैः ।
सिद्धं जले लिकुचजन्मनि शस्तमेच्छोफोग्रतोदसहिते रुधिरस्तुतौ च ॥

Vaidya Mārtaṇḍa, 12-25.

नेत्ररोगे

धर्माध्वगतसुजातं लवणं संगृह्य पाणिनाकेन ।
लिकुच रसक्षौद्राभ्यां कंसे संघृष्य योजयेत् पिल्लै ॥

Vaidya Manorama, 16-41.

LĀNGALĪ

Botanical name : *Gloriosa superba* Linn.

Family : Liliaceae

Classical name : Lāṅgalī

Sanskrit names

Laṅgalī, Kalihārī, Agniśikhā, Garbhanut, Śakrapuṣpa, Viśalyā, V(B)ahnivaktrā, Halinī, Sirī, Pradiptāgni, Śikhā, Prabhāta, Puṣpasikarā, Indrapuṣpī.

Regional names

Kalihārī, Kaliyārī (Hindi); Ullatakhandal, Vilanguli

(Beng.); Kalalavi, Khadyānāg (Mar.); Dudhiyā vacchanāga (Guj.); Vlai-paiki-Jangu (Tam.); Aḍavinābhi (Tel.); Agniśikhā (Kann.) Medoni (Mal.); Malabar Glory Lily (Eng.)

Description

Stem glabrous, sub succulent. Leaves sessile, alternate, opposite or verticillate, ovate-lanceolate, cordate at base up to 15 cm. long pedicel 10-15 cm. long deflexed at trip. Tepals 10-15 cm. long lanceolate, acuminate; crispy-undulate on marging. Filaments golden-yellow, up to 4.5 cm. long, spreadings anthers 10-1.5 cm. long. style 3 fid, 4 cm. long. capsule linear oblong up to 4.5 cm. long, locculicidal. Seeds few, subglobose testa spongy, wing like.

Flowering and fruiting time

July to Ocotber. Plant flowers and fruits during rainy season and afterwards in colder months, herb dries up.

Distribution

Plant occurs in paleotropics. It is found almost throughout India up to 6,000 ft.

Chemical Composition

Aerial stem contains colchicine alkaloid 0.2-0.3 percent which causes toxic activity. Another identical alkaloid gloriosine is found in plant. Besides these active principles an aromatic oil, benzoic acid, salicylic acid, colin, sugar, fatty acid and some resinous substances.

The tuber of *Gloriosa superba* Linn. (Lāṅgali) contains two resins, a tannin and bitter principle known as superbine. Superbine is highly toxic substance. Kaliharene or Gloriorina, an alkaloid and starch.

Pharmacodynamics

Rasa	: Kaṭu, tikta
Guṇa	: Kaṭu, tīkṣṇa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphvātaśāmaka

Properties and action

Karma	: Garbhapātana- garbhāśayasankocaka- sukhaprasavakāri Roktotkleśaka-kṣobhaka- krimighna-(Jantughna) Dipana-pittasāraka (lowerdose) Vāmaka-recaka (higher dose) Āmāśayagata tīvra dāha-kṣobha kara (higher dose) Viśakta-upaviṣa Raktaśodhaka Viṣamajvaraghna Balya-rasāyana Śalyāpakarṣaṇa (śalyāpanayanam) Arśoghna
Roga	: Śoṭha-vraṇa-gaṇḍamālā- carmaroga-jaṅgamviṣa (damśa) Dehāṅgagataśalya Mūdhagarbha-kaṣṭhāprasava Yūkā-likṣā-krimi-jantu Agnimādyā-pittavikāra-kṛmiroga Kuṣṭha roga Viṣamajvara Dourbalya Arśa Vātarakta Kṛmikarṇa Indralupta Vraṇa-apacī-pitikā.

Therapeutic uses

The drug Lāṅgali or Kalihārī (*Gloriosa superba* Linn.) is pungent and bitter (in taste) and hot (in potency); it allays provoked vātakapha doṣa. The drug is ecbolic or abortifacient and it induces parturition (prasavakāri). It helps extraction of foreign body (śalyāpakarṣaṇa or śalyāpanayana). Drug is blood irritant, germicide, stomachic, cholagogue, blood purifier, anti-malarial,

tonic, restorative, emetic, purgative and anti-inflammatory and anti-colic.

Langalī belongs to group of upaviṣa (subsidiary poisons) of audbhida mūla (vegetable origin); it is included in both such groups i.e. upaviṣa gaṇa (Dhanvantari nighaṇṭu, 7/113-114) and upaviṣa varga (Rasendra cūṇamaṇi, 9-13). Lāṅgalī is advised for oral use after proper purification (śodhana) as well as within posological limit. Its use in pregnant female patients are normally to be avoided.

The tubers or tuberous roots of source plant (*Gloriosa superba* Linn.) are medicinally useful part which is collected when the climbing plant dries up in winter season. Tubers in well-matured and well-developed stage are obtained from 2-3 years old plant. Tuber of Lāṅgalī is cylindrical flattened and long upto 7-8 in. and 1/2 in. diam thick. Two portion of tuber joint like plough (hala) with circular scar on upper surface of joint where stem remains intact and fibrous roots arise for scar on lower surface of the joint. Both ends of ash-while colour and remaining part light reddish shade brown colour and inner matter white and juicy.

The drug Langalī is useful in loss of appetite, bilary affections, worms, malarial fever, debility, haemorrhoids-piles, gout, ear diseases, hair ailments, skin affections, inflammation, ulcer, wound, poisonus bite-sting, cutaneous affections, difficult labour or abnormal delivery, germs affections and some other ailing conditions including insertion of foreign body (śalya-kaṇṭaka etc.). Tubers are used both internally and externally.

The drug Lāṅgalī is used in treatment of various diseases and ailing conditions. Some contexts of clinical management of different ailments as incorporated in medical texts find application of tubers of this plant-drug in various modes and it is used as single drug as well as compound formulation or recipes. For the instance, Kāsisādi taila Lāṅgalyādi vaṭikā and Lāṅgalī rasāyana are three classical formulations which employ Lāṅgalī as a major ingredient. Lāṅgalī is recommended in various diseases mentioned in textual sources.

The root or seeds of Lāṅgalī are pounded with sour gruel and the paste is applied locally for treating the boils (piṭakā) caused by poisonous or harmful insects ('duṣṭakīṭasamparkajātāḥ piṭakāḥ': Gadani-graha, 2-1-121). The oil cooked with one-fourth paste of Lāṅgalī tuber and four times juice of Nirguṇḍī (Vitex negundo Linn.) is used as snuff (nasya) and other purposes (including external application) in treating scrofula (apacī) which is referred by Vāgbhata (Aṣṭāṅga Hṛdaya, Uttara. 30-21). The paste of lāṅgalī is mixed with seeds of Śirīṣa (Albizia lebeck Benth) and the same is applied on haemorrhoids properly for eradicating piles (Gadani-graha, 2-4-119) The oil is cooked with Tulasī (Ocimum sanctum Linn.) and Lāṅgalī (Gloriosa superba Linn.) and it is suggested to be used as snuff (tīkṣṇa nāvana) in unmantha, an ear ailment or Karṇaroga (Aṣṭāṅga Hṛdaya, Uttara. 18-46). Another recipe of Lāṅgalī prescribed in ear diseases employs the juice of Lāṅgalī root which is mixed with fine powder of trikaṭu (group of three drugs: Zingiber officinale Rosc., Piper longum Linn. and Piper nigrum Linn. plant sources of Śuṅṭhi, Pippalī and Marica respectivaly. This recipe is applied for filling in the ear (Karṇapūraṇa), particularly in Krimikarṇa, or organism in cavity (Gadani-graha, 3-2-64).

In Vātarakta, Lāṅgalī is main drug-ingredient in a classical formulatin known as Lāṅgalyādi vaṭikā (Gadani-graha, 2-20 / 26-38; Vṛndamādhava, 23/20-22 and Bhāvaprakāśa, madhya. 83-85). This compound formulation consists of Lāṅgalī, Amṛtā (Tinospora cordifolia Miers), Triphalā (Haritaki, Āmalakī and Bibhītaka) fruits obtained from Terminalia chebula Retz., Emblica officinalis Gaertn. and Terminalia bellirica Roxb. respectively) and Drākṣā (Vitis vinifera Linn.) which are processed (as per method given in texts) for preparing pills. It is recommended in management of vātarakta with honey in specific severe condition of disease.

Lāṅgalī has specific role as abortifacient drug which is also esteemed and recommend in medical texts for its applications in difficult labour, abnormal posture of foetus, placental expulsion and some other problematic

conditions of obstetric emergencies relating delivery of child during ante-natal stage. The application of the roots of *Lāṅgalī*, *Pāṭhā* (*Cissampelos pareira* Linn.) etc. is prescribed to be made on navel, pelvis and vulva, in order to deliver easily (*sukhaprasūti*) as incorporated by *Cakrapāṇī* and others (*Cakradatta*, *striroga*. 63-2; *Gadanigraha*, 6-4-23; *Baṅgasena*, *striroga* 230). Another reference (*Cakradatta*, *striroga*. 63-15) suggests to prepare paste of *Lāṅgalī* root pounded with *tuṣāmbu* on sole (feet) of women for enabling prompt delivery. Similarly, *Lāṅgalī* has classically been recommended for its effective use for helping expelling placenta (*aparāpātana*) in case of delivery (*prasava*). The paste of roots of *Lāṅgalī* is suggested to be applied on palm and sole ('*pāṇipade ca*') of woman in puerperal stage (*Suśruta*. *sā*.10; *cakradatta*, *stri*. 63-28).

The drug *Lāṅgalī* is classically named as '*Viśalyā*' and its medicinal effect in extracting foreign body (*śalyāpanyan* or *śalyāpakarṣaṇa*) is an important utility since *Lāṅgalī* is known for extracting out *śalya* (*viśalyā*) e.g. thorn, nail or any other similar harmful foreign body penetrated in body part. The paste of *Lāṅgalī* root is applied for extracting out foreign body (*Rāja Mārtaṇḍa*, 26-11) Root is pasted on wounds opening and it is mentioned in texts referred that the foreign body in question comes out immediately even if the same is hidden since long (*Ibid*, 26-11). In traditional practice of medicinal uses in tribal and rural regions in country, the roots of *Lāṅgalī* are used as medicine and other peculiar purposes. Root paste is applied frequently for extracting out foreign body. Root is used for helping easy delivery and placental expulsion. There are some other medicinal uses made in different regions. An extra-ordinary belief (superstition or tantric *prabhāva*) is prevalent among rural folks in certain areas of country (especially tribal belts). Root of *Lāṅgalī* if kept in house of someone house may cause dispute and (or) disturbance of relations between two neighbours; it can create difference or cause psychological bad affects. *Kalihāri* is popular name of plant drug also indicates that plant is

cause of quarrel or contention (Kalah-Kalaha Kāriṇī) as per nomenclature itself.

The plant also carries ornamental value for its showy and beautiful flowers which resemble with flame (Agniśikhā, a Sanskrit name of Lāngalī). Plant has also been mentioned in various contexts of Sanskrit literature.

Parts used : Tuberous root.

Dose

Bitter tonic 250-500 mg., Abortifacient dose, 375-750 mg.

Gana : Upaviṣa.

Formulations : Kāsīsāditaīla, Lāngalī rasāyana.

LĀNGALĪ लाङ्गली

- क. कलिहारी तु हलिनी लाङ्गली शक्रपुष्प्यपि ।
विशल्याऽग्निशिखाऽनन्ता बहिवक्त्रा च गर्भनुत् ॥
- ख. कलिहारी सरा कुष्ठ शोफार्शोव्रणशूलजित् ॥
सक्षारा श्लेष्मजित्त्का कटुका तुवराऽपि च ।
तीक्ष्णोष्णा कृमिहल्लघ्वीं पित्तला गर्भपातिनी ॥

Bhāvaprakāśa Nighaṇṭu, Gudūcyādi Varga, 80-81.

लाङ्गली

लाङ्गली हलिनी सीरी विशल्या गर्भपातनी ।
इन्द्रपुष्पी बह्निजिह्वा प्रदीप्ताग्नि शिखा शिखा ।
कलिहारी बह्निमुखी प्रभाता पुष्पसीकरा ।

लाङ्गली गुणाः

लाङ्गली कटुका तिक्ता सक्षारा पित्तला सरा ॥
तीक्ष्णोष्णा गर्भहा लघ्वी बस्तिशूल निबर्हणी ।
बलासकुष्ठशोफार्शोव्रणजन्तु विनाशिनी ॥

Kaiyadeva Nighaṇṭu, Ośadhi Varga, 1075-1077.

लाङ्गली

लांगली कटुरुष्णा च कफवात विनाशिनी ।
तिक्तासरा च श्वयथुगर्भशल्यव्रणापहा ॥

Dhanvantari Nighaṇṭu.

वातरक्ते लाङ्गली गुटिका

- क. लाङ्गल्यास्त्वमृतातुल्यं कन्दमुद्धृत्य यत्नतः ।
योजयेत्त्रिफला लौहरजस्त्रिकटुकैः समैः ॥
- ख. गुग्गुल्वमृत बल्लीभिर्द्राक्षालुङ्गरसेन वा ।
त्रिफलाया रसैर्युक्ता गुटिकाः कोलसम्मिताः ॥
भक्षयेन्मधुनाऽऽलोढ्य शृणु कुर्वन्ति यत्फलम् ।
पादस्फुटितं दुर्भग्रं जानुप्राप्तं च यद्भवेत् ॥

Bhāvaprakāśa, Madhyakhaṇḍe, 83-85

मूढगर्भेशीघ्रप्रसवार्थम्

‘तन्तुना लाङ्गलीमूलं बध्नीयाद्भस्त पादयोः ।’

Bhāvaprakāśa, Yonirogādhikāram 70-106.

‘लाङ्गलीमूलकल्केन पाणिपादतलानि हि ।’

Bhāvaprakāśa, Yonirogādhikāra, 70-133.

कृमिकर्णे हलिमूलादि स्वरस पूरणम्

हलिसूर्यावर्तव्योष स्वरसेनातिपूरिते ।
कर्णं पतन्ति सहसा सर्वास्तु क्रिमिजातयः ॥

Cakradatta, Karṇaroga cikitsā, 57-48.

क्रिमिकर्णोपचारार्थं लाङ्गलीमूलस्वरसं पूरणम्

लाङ्गली मूलजरसं त्र्यूषणेनावचूर्णितम् ।
पूरयेत् क्रिमिकर्णन्तु जन्तुनां नाशनं परम् ॥

*Cakradatta, Karṇaroga Cikitsa 57-46,
Gadanigraha 3-2-64.*

सुखप्रसूत्यर्थं लाङ्गली मूल लेपः (नाभि-बस्ति-भग)

.....लाङ्गली.....पृथक् ।
नाभिबस्तिभगालेपात् सुखं नारी प्रसूयते ।’

Cakradatta, Strīroga Cikitsā, 63-12.

शीघ्रप्रसवार्थं लाङ्गली मूल प्रलेपः (पादतल)

तुषाम्बु परिपिष्टेन मूलेन परिलेपयेत् ।
लाङ्गल्याश्चरणौ सूते क्षिप्रमेतेन गर्भिणी ॥

Cakradatta, Strīroga Cikitsā, 63-15.

अपरापातन प्रयोगः

मूलेन लाङ्गलिक्याः संलिप्ते पाणिपादे च ।

अपरापातनं मद्यैः पिप्पल्यादिरजः पिबेत् ॥

Cakradatta, Strīroga Cikitsā 63-28.

अपरापातने

‘लाङ्गली मूल कल्केन वाऽस्याः पाणिपादतलमालिम्पेत् ।’

Suśruta Saṁhitā Śārira. 10-21.

वातरक्ते लाङ्गली योगः

लाङ्गल्यादि वटिका

Gadanigraha, 2-20-36/38.

शल्यापनयने

पिष्टेन लाङ्गलक्याः कन्देन विलेपिते व्रणस्य मुखे ।

सद्यो निर्यति क्षताच्छल्यं चिरकालनष्टमपि ॥

Rāja Mārtaṇḍa, 26-11.

पिटकायाम्

मूलानि बीजान्यथवा प्रपिष्टान्यथारनालेन समंहलिन्याः ।

हरन्ति लेपेन तु दुष्टकीटसंपर्कजाताः पिटकाःक्षणेन ॥

Gadanigraha, 2-1-121.

इन्द्रलुप्ते

इन्द्रलुप्ते यथासन्नं सिरां विद्ध्वा प्रलेपयेत् ।

प्रच्छाय गाढं..... ।

तथा लाङ्गलिकामूलैः करवीर रसेन वा ॥

Aṣṭāṅga Hṛdaya, Uttara. 24-28/29.

अर्शासि

शिरीष बीजसम्मिश्रं लाङ्गली परिपेषिताम् ।

सम्यागालेपने दद्यादर्शं सामुपधातिनीम् ॥

Gadanigraha, 2-4-119.

कर्णरोगे

‘(उन्मन्थे) सुरसालाङ्गलीभ्याञ्च सिद्धं तीक्ष्णाञ्च नावनम् ।’

Aṣṭāṅga Hṛdaya, Uttara. 18-46.

अपच्याम्

तैलं लाङ्गलिकाकन्दकल्कपादे चतुर्गुणे ।

निर्गुण्डी स्वरसे पक्वं नस्याद्यैरपचीप्रणुत् ॥

Aṣṭāṅga Hṛdaya, Uttara. 30-21.

सुखप्रसवे

पाठालाङ्गलिसिंहास्यमयूरक जटाः पृथक् ।
नाभिबस्तिभगालपात् सुखंनारी प्रसूयते ॥

Gadahigraha, 6-4-23.

तुषाम्बु परिपिष्टेन कन्देन परिलेपयेत् ।
लांगल्याश्चरणौ सूते क्षिप्रमापन्न गर्भिणी ॥

Bhaṅgasena, Strīroga. 230.

LATĀKASTŪRIKĀ

Botanical name

Ablemoschus moschatus Medic.,
Syn. *Hibiscus ablemoschus*, Linn.

Family : Malvaceae**Classical name** : Latākastūrikā**Sanskrit names** : Latākastūrī, Latākastūrikā**Regional names**

Latākasturi (Hindi) Kasturi Bhiṇḍi, Mushk dana;
Kalkasturi (Bengla); Kasturbhed (Marathi); Vettilai-
kkasturi (Tam.); Kasturi-vendavittulu (Tel.); Habbul-
mushk (Arabic); Mushkdana (Pers.); Musk mallow (Ara-
bic); Musk seeds or Ambrette (Eng.).

Description

Erect hispid herbs or undershrubs, 0.5-2.5 meters high, with a long slender tap root.

Leaves extremely variable, lower-suborbicular in outline, cordate, angular or palmately 3-7 lobed, upper narrower, hastate or sagitate at the base with linear-oblong or triangular lobes.

Flowers solitary, axillary. Epicalyx lobes 6-10, linear-lanceolate, usually appressed to the capsule, 10-15 mm. long. calyx 2-3 cm. long, tomentose. Corolla yellow with a dark purple centre; petals obovate, 4-7 cm. long. Staminal column ca 2 cm. long. Capsules narrowly oblong, beaked, 5-8 cm. long, deciduously hairy, on thickened pedicels; seeds subglobose-reniform, ca 3 mm. long, mostly glabrous.

Flowering and fruting time

August to November. Rainy season to autumn and onwards.

Distribution

Plant occurs in warmer regions of India specially in West Bengal and Tamilnadu. It is also found in northern Nepal. Plant is also cultivated.

Chemical composition

Seeds contain moisture 11.4, protein 2.3, starch 13.35, fibres 31.46, fixed oil 14.5, volatile oil 0.2-0.6, a resin and a bitter substance. A ketone Ambrettolide is considered responsible for musklike odour. Its fixed oil is greenish yellow in colour and it coagulates in open air.

Pharmacodynamics

Rasa	: Tikta, madhura, kaṭu
Guṇa	: Laghu, rūkṣa, tikṣṇa
Vīrya	: Śīta
Vipāka	: Kaṭu
Doṣakarṃa	: Kaphapittaśāmaka

Properties and action

Karma	: Mukhvaiśadyakara- mukhdourgandhyonāśana Rocana-dīpana-grāhī Hṛdayottejaka Kaphaghna Vṛṣya Mūtrala Cakṣuṣya Bastiviśodhanī.
Roga	: Mukhadourgandhya-āsyavikāra Aruci-agnimāndya-atisāra Hṛddourbalya Kāsa-śvāsa Mūtrakṛcchra-puyameha Śukradourbalya-dhvajabhaṅga Netraroga.

Therapeutic uses

The drug Latākastūrikā or Latākastūri is mukhvaiśadyakara agent causing non-sliminess in mouth

and removing foul smell of vocal cavity or mouth (mukhadourgandhyahara).

The seeds (smelling like musk) are chiefly used in medicine. Drug is useful in loss of appetite, heart weakness, dysuria, gonorrhoea, cough, asthma, impotency and diarrhoea.

The seeds powder is externally applied in eye diseases. The juice of roots and leaves is also used in urinary complaints. Fruits are consumed after cooking as vegetable (śāka).

The drug allays ailments caused by provocation of kapha and pitta doṣa. Fruits are useful as bastiśodhana dravya. It is stimulant to heart and genital organ (male). The drug is also anti-convulscent. In general, it belongs to group of odorous drugs possessing non-volatile odorous matter.

Parts used : Seeds, Roots, fruits and leaves.

Dose : Powder 1-3 gm.

LATAKASTŪRIKĀ (लताकस्तूरिका)

लताकस्तूरिका तिक्ता स्वाद्वी वृष्या हिमा लघुः ।

चक्षुष्या छेदिनी श्लेष्मतृष्णावस्त्यास्य रोगहृत् ।

Bhāvaprakāśa Nighaṅṭu, Karpūradi Varga, 9.

‘जातीकटुकयोः फलम् ।.....तिक्तं कटु कफापहम् ।

लघु तृष्णापहं वक्त्र क्लेद दौर्गन्ध्य नाशनम् ।

लताकस्तूरिका तद्वच्छीता वस्ति विशोधिनी ॥’

Suśruta Saṁhitā, Sūtra. 46.

LAVAṄGA

Botanical name

Syzygium aromaticum (Linn.) Merrill & Perry

Syns. *Eugenia caryophyllus* (Spr.) Bull & Harr.,

E. aromaticus (L.) Baile.

Family : Myrtaceae

Classical name : Lavaṅga

Sanskrit names

Lavaṅga, Devakusuma-devapuṣpa, Śriprasūna, Candanapuṣpaka, Vārija.

Regional names

Lavaṅ, lauṅ (Hindi); Lavaṅ (Mar., Guj.); Lavaṅ (Beng.), Kirambu (Tam.); Karavallu (Tal.); Clove (Eng.), Clove tree (Eng.), Caryophyllus (Latin).

Description

Pyramidal or conical evergreen tree a large shrub or small tree, beautiful, 9-12 meters high or taller, with smooth grey bark and gland-dotted.

Fragrant and lanceolate leaves in pairs. Leaves obovate or elliptic, 2-4 in narrowed into a short petiole, secondary nerves numerous, joined reticulate veins.

Flower-buds borne in small clusters at the ends of branches, greenish, turning pink at the time of maturity, aromatic, buds lastly crimson.

Flowers sessile, in terminal compound, trichotomous cymes, calyx-tube broadly turbinate 1/8 in. long, limb nearly truncate; petals calypirate, Fls. in corymbose panicles.

Drupe (mother-of-clove) fleshy, dark, pink, 2.5 cm. long and 1.5 cm thick. Fruits depressed, globose, black, shining.

Flowering and fruiting time

Plant flowers and fruits during January-February or different months in the year (depending upon the cropping, harvesting and picking seasons).

Drug Clove :

Dried floral buds constitute a major spice of commerce, highly potent drug and strong aromatic herbal item making clove a highly valuable drug as well as spice. Floral buds in dried state or clove in nail-like spice, reddish brown in colour, 12-19 mm. long, somewhat rough to touch but not wrinkled or shrivelled, with cylindrical base

crowned with plum, ball-like and unopened corolla, surmounted by the four-toothed calyx; aromatic odour, a hot and purgent and aromatic taste. yields, quality and grades depend on the various factors relating plant propagation, harvest, picking, drying, storage and other conditions from cropping to marketing. Clove-stalks are also collected separately and traded.

Distribution

Plant is cultivated in southern India, Zangibar and Peruba (Pemba) and Kerala, Tamilnadu, Sri Lanka, Mauritius, South-east Asian countries (particularly Java, Sumatra, Borneo, Indonesia). Native of Malay Archipelago (Moluccas) as spice-crop. growing Molucca group of Islands. Plants are cultivated in India as a valuable aromatic spice on large scale.

Chemical composition

The cloves yield a volatile oil from 15% to 20% which is known as clove oil (loung kā tel or Lavaṅga taila). Clove oil contains eugenol 85-92%. Cloves also contain tannic 13%, some quantity of fixed oil and resin. Cloves contain caryophyllin, a phytosterol, and they also consist crude fibre 10 percent.

Pharmacodynamics

Rasa	: Tikta, kaṭu
Guṇa	: Laghu, tīkṣṇa, snigdha
Vīrya	: Śīta
Vipāka	: Kaṭu
Doṣakarma	: Kaphapittaśāmaka

Properties and action

Karma	: Chedana (śleṣmahara) Śleṣmapūtihara-śvāsasahara- kṣayahara Kāsaghna-hikkānigrahaṇa Tṛṣṇāpraśamana- Dīpana-pācana-rucivardhana- vātānulomana-śūlapraśamana Vājikaṛaṇa Stanyaśodhaka-stanyajanana
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	Mūtrajanana-vṛkkottejaka
	Tvacya
	Āmapācana-Jvaraghna
	Kaṭupouṣṭika
	Hṛdāyottejaka-raktabhāravardhoka
	Lālāsṛāvajanana-āsyavairasya
	durgandha nāśana
	(mukhavaiśadhyakara)
	Viṣaghna
	Uttejaka-raktotkleśaka-kṛmihara
	Chadinigrahaṇa
	Maṅgalya
	Cakṣuṣya
Roga	: Kāsa-śvāsa-hikkā
	Kṣaya-uraḥvikāra
	Hṛddourbalya-raktavikāra
	Phiraṅga-upadaṁśa
	Mūtrakṛcchra
	Carmavikāra
	Jvara
	Āmadoṣa-trṣṇā-chardi
	Dourbalya-kṣaya
	Aruci-agnimāndya-arocaka ajirṇa-
	ādhmāna-udaraśūla udarvikāra
	Grahaṇī
	Amlapitta
	Dontaśūla-dantakṛmi-dontaveṣṭa
	Mukharoga-kaṅṭharoga-
	mukhavaisasya-dourgandhya
	Āmavāta-kaṭiśūla-gṛdhrasī
	Dhvajabhaṅga-klaivya
	Śiraḥśūla-pratiśyāya-pīnasa
	Garbhiṇi vamaṇa
	Viṣa.

Therapeutic uses

The plant drug Lavaṅga (cloves) is highly potent and reputed drug which is widely used as medicine, and also it is well known aromatic herbal material and common spice.

It is aromatic, stimulant, carminative, stomachic, aromatic, expectorant, aphrodisiac, cardiogenic, antispasmodic and antipyretic properties. Drug is externally and internally administered in different forms of powder, infusion, oil and others. It is widely employed as an ingredient of a large number of medicinal preparations — single and compound formulations — classically prescribed in indigenous systems of medicine as official drugs and the drug is similarly used in several other drug recipes and patent formulations prevalent in medicine and allied areas.

Parts used : Flowering bud.

Dose

Powder 1-3 gm., Oil 1-3 minim (drops).

Formulations

Lavaṅgādi cūrṇa, Lavaṅgacatuḥsama, Devekusumādi tailam, Lavaṅgādi vaṭi, Avipattikara cūrṇa, Devakusumārka, Lavaṅgodaka.

LAVAṄGA (लवङ्ग)

लवङ्गं कुसुमं हृद्यं शीतलं पित्तनाशनम् ।
चक्षुष्यं विषहद् वृष्यं माङ्गल्यं मूर्द्धरोगहत् ॥

Dhanvantari Nighaṅtu.

‘आध्मानानाहशूलघ्नं लवंगं पाचनं लघु ।’

Rājavallabha Nighaṅtu.

देवेकुसुमोद्भवं तैलमग्निकृद्वातनाशनम् ।
दन्तवेष्टकफार्तिघ्नं गर्भिण्याः वमनापहम् ॥

Ātreya Samhitā.

लवङ्गं शीतलं तिक्तं चक्षुष्यं भक्त रोचनम् ।
वातपित्तकफघ्नञ्च तीक्ष्णं मूर्द्धरुजापहम् ॥

Rāja Nighaṅtu, Candanādi Varga, 83.

लवङ्गं सोष्णकं तीक्ष्णं विपाके मधुरं हिमम् ।
वातपित्तकफामघ्नं क्षयकासास्रदोषनुत् ॥

Rāja Nighaṅtu, Candanādi Varga, 84.

लवङ्गं कटुकं तिक्तं रूक्षं हृद्यं हिमं लघु ।
चक्षुष्यं पाचनं हन्ति शूलानाह क्षतक्षयाम् ॥
कफपित्तास्रतृट्कासश्वासाध्मानविषपीनसान् ।

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 1334-1335.

लवङ्गं कटुकं तिक्तं लघु नेत्रहितं हिमम् ।
दीपनं पाचनं रुच्यं कफपित्तास्रनाशकृत् ॥
तृष्णा हृदि तथाऽऽध्मानं शूलमाशु विनाशयेत् ।
कासं श्वासञ्च हिक्काञ्च क्षयं क्षपयाति ध्रुवम् ॥

Bhāvaprakāśa Nighaṇṭu, Karpurādi Varga, 59.

मुखरोगे

खदिरादि गुटिकायाम्

Caraka Saṁhitā, cikitsā. 26-210.

मुखवैशद्याय

कक्कोल फलं पत्रं ताम्बूलस्य शुभं तथा ।
तथा कर्पूर निर्यासः सूक्ष्ममैलायाः फलानि च ॥

Caraka Saṁhitā, Sūtra. 5-77.

वातार्तिशमनाय

‘लेपः कोष्णजले पिष्ट्वा स्याल्लवंग त्वचा तथा ।’

Vaidya Manoramā, 12-6.

विसूच्यां पिपासाप्रतिकारार्थम्

‘पिपासायामनुत्क्लेशे लवङ्गस्याम्बु शस्यते ।’

Śodhala.

लवङ्गतैलम्

देवपुष्पोद्भवं तैलमग्नि कृद्वातनाशनम् ।
दन्तवेष्टकफार्तिघ्नं गर्भिण्या वमनापहम् ॥

Aa. Śa.

‘.....लवङ्गं च तिक्तं कटु कफापहम् ।
लघु तृष्णापहं वक्त्र क्लेददौर्गन्ध्यनाशनम् ॥’

Suśruta Saṁhitā, Sūtra. 46.

मुखवैशद्यार्थम्

‘धार्याण्यास्थेन वैशद्यरुचिसौगन्ध्यमिच्छुता ।

.....लवङ्गस्यं फलानि च ॥'

Caraka Samhitā, Sūtra. 5-76.

अरोचके लवङ्गादिचूर्णम्

Bhāvaprakāśa, Madhyakhaṇḍe, 16-18/20.

पिपासायां लवङ्ग प्रयोगः

पिपासायामनूतूत्व्लेशो लवङ्गस्यान्तु शस्यते ।

जातीफलस्य वा शीतं शृते भद्रघन स्य वा ॥

Cakradatta, Agnimāndya cikitsā, 6-12.

अजीर्णेशूले च देवकुसुमार्कः

छिक्किका रसमग्नानां च्युतं पातालयन्त्रतः ।

सत्त्वं हन्ति लवङ्गानामजीर्णं सशिवायुधम् ॥

Siddha Bhaiṣajya Maṇimāla 4-266.

कासे कण्ठरोगे च

लवङ्गादि वटी

LODHRA

Botanical name : *Symplocos racemosa* Roxb.

Family : Symplocaceae

Classical name : Lodhra

Sanskrit names : Lodhra, Sthūlavalkala

Regional names

Lodha, bodhra (Hindi); Lodhra (Beng.) Lodhra (Mar.); Lodhar (Guj.); Vellilethi (Tam.); Lodhug (Tel.); Pachetadu (Kann.); Pachouti (Mal.)

Discription

***Symplocos racemosa* Roxb.**

A small evergreen tree; bark thick, spongy. Leaves glabrous, coriaceous, elliptic-lanceolate, obscurely crenate, blade 4-6; petiole 1/2-2/3 in. Flowers yellow, fragrant in simple hairy axillary more or less lax racemes, pedicels as long as calyx tube, stamens about 100. Fruits cylindrical, nearly 1/2 in. long.

Flowering and fruiting time

Plant flowers in November-February.

Distribution

Plant occurs in sub-Himalayan tract, outer valleys and in Himalayan regions ascending 3,000 ft. and higher elevation.

***Symplocos crataegoides* Ham.**

A large shrub or small tree; bark light-grey, corky, with long vertical furrows. Wood white, hard and close-grained, but warps and splits in seasoning; weight 45-54 lbs. per c. ft.

Leaves 2-4 by 1-1.5 in., broad-elliptic or ovate, acuminate, sharply glandular-serrulate towards the apex, membranous, pilose beneath or glabrescent.

Flower white; 25 in. diam., fragrant in cymose corymbs, forming dense terminal or axillary panicles; bracts caducous. Calyx turbinate, lobes, ciliate. Corolla 5-cleft nearly to the base. Stamens indefinite, connate in 5 bundles. Ovary inferior 2-celled.

Fruit .12-3 in. long, obliquely ovoid or obovoid, crowned with the remains of the calyx-limb, usually 1-seeded. Embryo curved, axile.

Flowering and fruiting time

Plant bears new leaves and flowers in May-June and fruiting in July-october. Fls. appear like hawthorn.

Distribution

Plant occurs in the Himalaya at 3,000 to 9,000 ft. altitude; Outer Himalayan region and Uttar Pradesh hilly region (Kumaon and Garhwal zones). It is abundant on the Himalaya up to 9,000 ft. elevation, from the Indus to Assam and on the Khasia hills, and also Upper and Lower Burma.

Kinds and varieties

There are mainly two plant sources growing in the Himalayan regions which are referred as substitutes or adulterants of the drug Lodhra e.g. *Symplocos crataegoides* Ham. and *S. spicata* Roxb. which is also known as Lodha (Hindi) and Dhaka (Marathi).

Symplocos spicata Roxb. A middle-sized tree. Leaves coriaceous glabrous, acuminate, serrulate, blade 1-7; petiole 1/3-1/2 in. Flowers cream-coloured, sessile in paniculate axillary pubescent or glabrous spikes, each fl. supported by 3 ovate bracts, ovary 3-celled, glabrous, as well as calyx-segments. Drupes sessile, nearly globose ribbed, 1/3 in. diam.

Flowering and fruiting in September-December.

***Symplocos racemosa* Roxb.**

A small tree or often only a shrub. Branchlets glabrous or sparingly pilose. Bark and leaves of dyeing utility.

Leaves 3-7 in. long, elliptic-oblong or oblong-lanceolate, rounded or obtuse by acuminate at the apex, rounded or cuneate at the base, serrulate or obscurely crenate, coriaceous, glabrous above, sparsely pilose on the midrib beneath, nerves indistinct, petiole 1/4-1/3 in. long.

Flowers sessile or nearly so, yellow, fragrant, on short axillary compound spikes; bracts unequal ovate, hairy, deciduous. calyx-tube glabrous; lobes rounded, equalling the tube slightly pubescent and with ciliate edges. Corolla 3 times longer than calyx. Stamens often exceeding one hundred. Ovary 3-celled, hairy.

Fruit oblong or cylindric, 1-3-celled.

Flowering and fruiting time

Summers to autumn season.

Distribution

It occurs in the Himalayan regions. In north-east India, Kumaon region east wards to Assam and Chota Nagpur; also in Upper Burma, the Andaman Islands and in China. It is found in southern India (Malabar forests); plant grows wild upto 761.5 meters or 2, 500 ft. generally plant is found in the Himalayan region ascending to about 9,000 ft. altitude.

Symplocos racemosa Roxb. is chief source plant for Lodhra and other two plants namely *Symplocos crataegoides* Ham. and *Symplocos spicata* Roxb. are considered substitutes or adulterants in market drug material.

Besides *Symplocos crataegoides* Buch-Ham. Syn.

Symplocos paniculata known as Ludh, lodha, Lojh (in Hindi) commonly Marang Ludma (Kola) and also Daukyat and lojh (Upper Burma and Bushahar in Himachal Pradesh respectively), the bark of *Symplocos spicata* Roxb. which is a medium-sized or large shrub. It occurs generally in the Himalayan regions (from Kumaon to Bhutan and upto Assam, East Bengal and other regions and Khasi hills, Cachar Chitagong hill tracts, Tenasserim, western ghats, Nilgiris, Shevarey hills. China, Japan and Malay Peninsula. Travancore Cochin (plains), Simhabhumi.

In some regions, trees of *Symplocos spicata* Roxb. may sometimes attain (abnormal) height upto 18.6 meters or 60 ft. particularly where they get favourable ecological conditions (for thriving and developing well) resulting into trunk of 1.8 meters or 6 ft. diam. Such trees provide good thick bark and normally thin branches give bark 2.5 mm. or 1/10 in in thickness as well as trunk bark (and also of thick branches) 1.25 cm. or 1/2 in. in thickness, and of ash or brownish colour. Trees of *Symplocos spicata* Roxb. flower during the period from December to May and fruiting stage is between April to June. Sometimes trees flower twice in a year rarely.

Chemical composition

Bark contains alkaloids up to 0.32 percent which mainly consist of three alkaloids namely loturine 0.24%, loturidine 0.06% and collutrine 0.02% Among them, first and third constituents are of crystalline form, and remaining second principle is non-crystalline form or amorphous. Dilute acid solution of these alkaloids are with dark violet-blue colour fluorescence. In addition, the bark contains ample quantity colouring matter and tannin.

Pharmacodynamics

Rasa	: Kaṣāya
Guṇa	: Laghu, rūkṣa
Vīrya	: Kaṭu
Vipāka	: Śīta
Doṣakarma	: Kaphapittaśāmaka.

Properties and action

Karma	: Ārtavaśaṅgrahaṇīya-
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garbhāśayaśoṭha
 srāvahara
 Stambhana-saṅgrāhi
 Raktastambhana-raktaśodhaka-
 śoṭhahara
 Kuṣṭhaghna-vraṇaropaṇa-
 saṅkocaka
 Kaphaghna
 Cakṣuṣya
 Viṣaghna
 Kaṇḍūghna

Roga : Garbhāśayaśoṭha-garbhāśayasrāva-
 pradara
 Yoniroga-yonikṣata-prasūtikavikāra
 Raktavikāra-raktapitta-śoṭha
 Kāsa
 Atisāra-raktātisāra-pravāhikā
 Kuṣṭha-kaṇḍū-carmavikāra
 Vraṇa-kṣata
 Netrābhiṣyanda-netravikāra
 Karṇasrāva
 Dantavikāra
 Garbhasrāva-pāta-calitagarbha

Therapeutic uses

The drug Lodhra is astringent, carminative and uterine tonic. Bark is used in dysentery, haemorrhage and uterine disorders. It is reputed medicine for almost all diseases wherein uterus is affected or involved. Mouth-wash is recommended for strengthening the gum and to check bleeding from gum. Plaster of bark is used for softening the boils and abscesses. Medicinal properties of flowers (Lodhra puṣpa) are also specified in texts of materia medica (nighaṇṭu), though the bark is mostly used in medicine and pharmaceuticals as potent part (tvak) as drug which is administered both externally as well as internally in ancient medicine.

In leucorrhoea (śveta pradara), the paste of Lodhra with decoction of Nyagrodh bark (vaṭa) is recommended (Caraka Saṁhita, cikitsā. 25/67-68). Lodhra is also advised

to be taken in various recipes and forms in treatment of leucorrhoea. Lodhrāsava is a popular formulation prescribed in women's diseases (Aṣṭāṅga Hṛdaya, cikitsā. 12/24-28), and other recipes containing Lodhra are also recommended for this group of female ailments. Lodhra is given for checking intrinsic haemorrhage as an efficacious drug.

Lodhra is incorporated in various recipes and indications for eye diseases (netraroga). It is used in treatment of Kuṣṭha, dysentery, wound and skin diseases.

Flowers and leaves of Lodhra (*Symplocos crataegoides* Ham.) are much used in native dyeing. Leaves afford fodder for sheep and goats.

Parts used : Bark.

Dose : Powder 1-3 gm., 3-5 gms., Decoction 50-100 ml.

Formulations : Lodhrāsava, Lodhrādi Kvātha.

Gūṇa

Purīṣasaṅgrahaṇīya, Śoṇitāsthāpana Kaṣāya-skandha, Sandhānīya (Caraka Samhitā), Lodhrādi Nyagrodhādi (Suśruta Samhitā).

LODHRA (लोध्र)

लो (रो) ध्रः

रोध्रः कषायश्चक्षुष्यः कफपित्तहरः सरः ॥

हिमः शोषातिसारासृग्गुदरास्त्ररुचितृड् विषम् ।

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 1126-1127.

लोध्रपुष्पम्

निहन्त्यात्तस्य कुसुमं तुवरं मधुरं हिमम् ॥

सत्तिकं कटुकं पाके संग्राहि कफपित्तनुत् ।

Kaiyadeva Nighaṇṭu, Varga, 1127-1128.

लोध्रद्वय गुणाः (लोध्र पट्टिकालोध्रञ्च)

लोध्रो ग्राही लघुः शीतश्चक्षुष्यः कफपित्तनुत् ।

कषायो रक्तपित्तासृग्ज्वरातीसार शोथहत् ॥

Bhāvaprakāsa Nighaṇṭu, Harītakyaḍi varga, 216.

लोध्रद्वय गुणाः (लोध्रक्रमुकञ्च)

लोध्रद्वयं कषायं स्यात् शीतं वातकफास्त्रनुत् ।
चक्षुष्यं विषहत्त्र विशिष्टो वल्करोध्रकः ॥

Rāja Nighaṇṭu, Pippalyādi Varga, 212.

प्रसूतायाः योनि क्षते

तुम्बीपत्र तथा लोध्रं समभागं सुपेषयेत् ।
तेन लेपो भगे कार्यः शीघ्रं स्याद् योनिरक्षता ॥

Bhāvaprakāśa. Cikitsā. 70-12.

प्रवाहिकायाम्

‘सेलोध्रमे एकतो दध्नां पिबेत्प्रवाहिकार्दितः ।’

Bhāvaprakāśa. Cikitsā. 2-120.

अक्षिरोगे

‘तथा शाबरकं लोध्रं घृतभृष्टं विडालकः ।’

Cakradatta, Netraroga Cikitsā, 59-10.

चलितगर्भे

अष्टमे मासि लोध्रं मधुभागधिकाक्ष सहदुग्धेन ।
पीतवतीनां चलिते गर्भे स्त्रीणां सुखं संपद्यते ॥

Hārīta Saṁhita, 3-50-5.

व्रणे

‘.....लोध्रजाम्बकट्फलैः ।
त्वच माश्वेव गृह्णन्ति त्वक्चूर्णेश्चूर्णिताः व्रणाः ।’

Caraka Saṁhita, Cikitsa. 13-111.

नेत्र विकारे लोध्र रसयोगः

ससैन्धवं लोध्रमथाज्यभृष्टं सौवीरपिष्टं सितवस्त्रबद्धम् ।
आश्च्योतनं तन्नयनस्य कुर्यात् कण्डूञ्च दाहञ्च रुजञ्च हन्यात् ॥

Cakradatta, Netraroga Cikitsa., 59-27.

कुष्ठे

‘लोध्रस्य च कल्कः.....कुष्ठेषूद्वर्तनालेपः ।’

Caraka Saṁhitā, cikitsā. 7-128.

रक्तपित्ते

उशीरकालीयकरोध्रपद्मक....

।

पृथक् पृथक् चन्दनतुल्याभागिकाः ॥

Caraka Saṁhitā, Cikitsā., 4.

श्वेतप्रदरे

‘न्यग्रोधात्वक्कषायेण लोध्रकल्कं तथा पिबेत् ।’

Caraka Saṁhitā, Cikitsā., 30-115.

कासामातिसारयोः

पत्रकल्कं घृतैर्भृष्टः तिल्वकस्य सशर्करम् ।

पेया चोत्कारिकाच्छर्दिं तृट्कासामातिसारनुत् ॥

Caraka Saṁhitā, Cikitsā., 22-180.

अनागतबाधाप्रतिषेधनीये

भिन्नयुदक्कषायेण तथैवामलकस्य वा ।

प्रक्षालयेन्मुखं नेत्रे स्वस्थः शीतोदकेन वा ॥

नीलिकां मुखशोषं च पिडकां व्यङ्गमेव च ।

रक्तपित्त कृतान् रोगान् सद्य एवं विनाशयेत् ॥

Suśruta Saṁhitā.

शुद्धशुक्ररोगे

‘सेचनं रोध्र पोट्टल्यां कोष्णाम्योमग्रऽथवा ।’

Aṣṭāṅga Hṛdaya, cikitsā. 16-66.

लोध्रद्वयम्

लोध्रयुग्मं कषायं तु शीतं वातकफास्रजित् ।

चक्षुष्यं विषहत् तत्र विशिष्टो वल्करोध्रकः ॥

Dhanvantari Nighaṅṭu,

लोध्रोऽसृक्कफपित्तघ्नः चक्षुष्यः शोथजित् सरः

तद्वच्छावरकलोध्रोऽपि चक्षुष्यो मृदुरेचनः ।

Rājavallabha Nighaṅṭu.

तारुण्यपिडकाहरो लोधादि लेपः

Cakradatta, Kṣudraroga cikitsā, 55-42.

दन्तनाडी रोगे जात्यादि तैलम्

Cakradatta, Mukharoga cikitsā, 56-23.

नेत्रामये लोध्र (सनिम्बं) प्रयोगः

निम्बस्यपत्रैः परिलिप्य लोध्रं स्वेद्याग्निना चूर्णमथापि-कल्कम् ।

आश्वयोतनं मानुषदुग्धमिश्रं पित्तास्र वातापहमग्रथयुक्तम् ॥

Cakaradatta, Nāsāroga Cikitsā, 59-22.

स्त्रीरोगे

लोधासवः

Aṣṭāṅga Hṛdoya, Cikitsā. 12-24/28.

रक्तस्त्रावे

‘अथातिप्रवृत्ते रोध्रमधुक.....अवपीडयेत् ।’

Suśruta Saṁhitā, Sūtra. 14-36.

मूखदूषिकायाम् (तारुण्यपिटकायाम्)

‘मूखदूषिकां तु लोध्रतुवरिकास्यां वा प्रदिह्यात् ।’

Aṣṭāṅga Saṅgraha, Uttara. 37-5.

लोध्रधान्य वचालेपस्तारुण्य पिटकापहः ।

तद्वद् गोरोचनायुक्तं मरिचं मुखलेपनात् ॥

Vṛndamādhava, 57-34.

नेत्ररोगे वर्त्मरोगे

अभ्यज्य नवनीतेन श्वेतरोध्रं प्रलेपयेत् ।

एरण्डमूलकल्केन पुटपाके पचेत्ततः ॥

Aṣṭāṅga Hṛdaya, Uttara. 9-11.

शुद्धशुके

‘रोचनं रोध्रपोट्टल्या कोष्णाम्भोग्रयाऽथवा ।’

Aṣṭāṅga Hṛdaya, Uttara. 11-39.

पित्तरक्ताभिष्यन्दे

श्वेतरोध्रं समधुकं घृतभ्रष्टं सूचूर्णितम् ।

वस्त्रस्थं स्तन्यमुदितं पित्तरक्ताभिघातजित् ॥

Aṣṭāṅga Hṛdaya, Uttara. 16-16.

शुष्काक्षिपाके

श्वेतरोध्रं घृतभ्रष्टं चूर्णितं तान्तवस्थितम् ।

उष्णाम्बुना विमृदितं सेकः शूलहरः परम् ॥

Aṣṭāṅga Hṛdaya, Uttara. 16-62.

सर्वाक्षिरोगे

‘तद्वत् शावरकं लोध्रं घृतभ्रष्टं बिडालकः ।’

Caraka Saṁhitā, Cikitsā. 26-233.

दाहकण्डूशूलेषु

ससैन्धवं लोध्रमथाज्यभृष्टं सौवीर पिष्टं सितवस्त्रबद्धम् ।

अश्च्योतनं तन्नयनस्य कुर्याद् दाहं च कण्डूं च रुजं च हन्यात् ॥
Vṛndamādhava, 61-26.

पितास्रवाते

निम्बस्थपत्रै परिलिप्य लोध्रं स्वेदाग्निना चूर्णामथापि कल्कम् ।
 आश्च्योतनं मनुषदुग्धयुक्तं पित्तास्र वातापहमग्रयमुक्तम् ॥
Vṛndamādhava, 61-29.

व्रणे

‘धातकी लोध्रचूर्णेर्वा तथा रोहन्ति ते व्रणाः ।’
Caraka Samhitā, cikitsā. 25-67/68.

LONIKĀ

Botanical name

Portulaca oleracea Linn.

Portulaca quadrifida Linn.

Family : Portulacaceae

Classical name : Loṇikā

Sanskrit names

Loṇikā, Loṇī, Bṛhallonikā, Ghoṭikā.

Regional names

Loṇi, Loṇiya, Kulfa Chounlayi, Baraloṇiya (Hindi);
 Bara loniya (Beng.); Bhuigholi, Kurfah (Mar.); Moti loni,
 Goli (Guj.); Peddapayllikuru (Tal.); Karikeerai (Tam.);
 Purumsug (Oriya); Common Purslane (Eng.)

Description

***Portulaca quadrifida* Linn.**

Prostrate-creeping herbs up to 15 cm. long, rooting
 sub-succulent herbs with numerous ascending branches,
 internodes short terete, glabrous, mostly tinged with red.

Leaves under 1 cm. long, stipular hairs white up to
 3.5 mm. long, opposite, narrowly elliptic or ovate or ovate-
 lanceolate; petioles very short, stipules bristly.

Flowers solitary, terminal, yellow. Sepals hyaline,
 united at base. Petals 4, oblong, united below. Stamens 8-
 12, filaments hairy at base style long, 3-4 cleft.

Capsules ovoid or conical; seeds blackish-brown, minutely tubercled, concentrically and horizontally ribbed.

Flowering and fruiting time

July to October.

Distribution

It is tropical herb. Plant is found commonly in garden, near walls, on ridges and in waste places. It is also a pot herb (kitchen Garden Purslane). which is a cultivated variety.

Portulaca oleracea Linn.

Polymorphic herbs, erect or prostrate, subsucculent annual herbs, up to 20 cm. long variable in colour.

Leaves cuneate-oblong or cuneate-obovate; usually truncate, whorled above; stipular hairs, scarious, minute, or absent. Capituli 2-3-flowered, subtended by 2-8 wide spreading involuclral bracts.

Flowers yellow, sessile, solitary or in clusters or cymes, supported by a whorl of leaves. Petals oblong-obovate, notched. Sepals prominently carinate. Stamens 7-10 (sometimes upto 15), involuclral bracts. Style 5-6 fid or with 4-5 arms operculum shining as high as fruit. Seeds dark brown. Capsules dehiscent, above the base; seeds reniform, black, granulate, seeds colour dark brown or black, beaked at hilum.

Flowering and fruiting time

Greater part of the year.

Distribution

It is cosmopolitan herb. Plant is common in gardens near walls, on ridges (preferring moist-wet places).

Kinds and Varieties

There are two kinds of Loṇi viz. Kṣudra loṇi and Bṛhat loṇi which are botanically identified as *Portulaca oleracea* Linn. and *P. quadrifida* Linn. respectively.

Pharmacodynamics

Rasa : Kaṣāya, kaṭu, amla
Guṇa : Guru, rūkṣa

Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Vāta kapha śāmaka

Properties and action

Karma	: Dīpana	
	Rocana	
	Sāraka	
	Viṣaghna	
	Dāhapraśamana	
	Viṣṭambhi	
	Roga	: Agnimāndya
		Arśa vibandha
		Sotha pravāhikā
		Raktapitta
Dāha		
Mūtrakṛchra		
Dṛṣṭivikāra		
Śiraḥśūla		

Therapeutic uses

The drug Loṇikā is useful in piles, diarrhoea, dysentery, loss of appetite, oedema, raktapitta, poisons (viṣa), constipation, dysuria, burning sensation, cough, asthma and eye affections. Seeds are useful in dysentery and diarrhoea. In general the whole plant, specially leaves are used in medicine and seeds are medicinally potent.

Loṇikā is household leafy (with tender stems) vegetable (patraśaka) with slightly acidic taste, which is comonly used among other household vegetables. Loṇikā sāka is wholesome (pathya) in various ailing conditions, and also unwholesome (apathya) in certain diseases particularly only use in excess (pittajanana in case of sour leaves and herb of Loṇika). Loṇikā is very wholesome to patients of piles (arśa) or haemorrhoids and some other ailments.

In indigenous medicine, Caraka mentions that Lonikā is one of wholesome vegetables in piles. They should be fried in ghee and oil mixed cooked with curd and pomegranate and added with spicy drugs dhānyaka and śuṅṭhi, and thus Loṇikā sāka is to be consumed

(Caraka saṁhitā, cikitsā, 14/123-125) Further Vāgbhaṭa follows Caraka advising Loṇikā in diarrhoea-dysentery (Caraka Saṁhitā, cikitsā. 19-33 and Aṣṭāṅga Hṛdaya, cikitsā. 9-22). Accordingly Loṇika should be cooked with curd and pomegranate and added with profuse ghee and it may be taken as vegetable (śāka) by patients.

Loṇikā is common purslane which has an acid taste and it is also consumed as salād, vegetable and employed in soups. Fleshy stems are pickled. They are also dried and preserved for use. Herb is toxic fodder to cattles in case of heavy ingestion.

Parts used : Whole plant, seeds, leaves.

Dose : Paste 10-20 gm.

LONIKĀ (लोणिका)

लोणीबृहल्लोणी च

- क. लोणालोणी च कथिता बृहल्लोणी तु घोटिका ।
 ख. लोणी रूक्षा स्मृता गुर्वी वातश्लेष्महरी पटुः ।
 अर्शोग्नी दीपनीचाम्ला मन्दाग्नि विषनाशिनी ॥
 ग. घोटिकाऽम्ला सराचोष्णा वातकृत्कफपित्तहृत् ॥
 वाग्दोषव्रण गुल्मघ्नी स्वासकास प्रमेहेनुत् ॥
 शोथे लोचन रोगे च हिता तज्जैरुदाहता ॥

Bhāvaprakāśa Nighaṇṭu, Śāka Varga, 21-22.

लोणी

लोणिका कटुका रूक्षा वातश्लेष्महरा गुरुः ।
 अर्शोग्नी दीपनी चुक्रा मन्दाग्नि विषनाशिनी ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 649.

बृहल्लोणिका

अम्ला सरोष्णा विनिहन्ति वातं पित्तं बलासं च करोति घोली ।
 त्वग्दोषगुल्मव्रण शोफकासस्वासप्रमेहाक्षिगदेषु पथ्या ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 648.

अतिसारे सप्रवाहिके

लोणिकायाः सपाठायाः सुष्कशार्करः वा पुनः ।

दधिदाडिम सिद्धेन बहुस्त्रेहेन भोजयेत् ॥

Caraka Samhitā, Cikitsā. 19-33.

Aṣṭāṅga Hydaya, Cikitsā. 9-22.

अर्शासि

उपोदिका तण्डुलीयं वीरां वास्तुक पल्लवान्।

सुवर्चलां सलोणीकां यवशाकमवल्लुजम् ॥.....

दधिदाडिम सिद्धानियमके भर्जितानि च।

धान्यनागरयुक्तानि शाकान्येतानि दापयेत् ॥

Caraka Samhitā, Cikitsā. 14-133/135.

LOHAVĀṆA (LOBAN)

Botanical name : *Styrax benzoin* Dryand.

Family : Styraceae

Classical name : Lohabāṇa-Lohavāṇa

Sanskrit names

Loban (Hindi); Uda (Ma.) Luban, Loban (Hindi, Beng., Mar., Guj.); Shambirani (Tam.); Javi (Arab.); Hasn lud (Pers.); Benzoin (Eng.). Benzoin tree (Eng.).

Description

A shrub or small tree, upto 12 meters in height, Leaves ovate-oblong to ovate lanceolate, back hairy. Flowers axillary hairy, in racemes or solitary, peduncle dense whitish hairy Fruits 1/3 inch in diam., 2-seeded; capsule ovoid or roundish, covered with dense whitish hairy.

The benzoin is resin which possesses a pleasant balsamic colour. It is obtained by making incision in the stems of 6-7-year old wild or cultivated trees. A single tree yields c. 10 kg. of resin per year and completely exhausted by ninth year of its life. The resin is a pathological product which develops after incising the bark. Tree contains no secretory cells nor does it contain the constituents of the resin until it is incised. The bark of a tree is rich in tannin, and resinotannols in benzoin are probably produced from the tannin.

Distribution

It is native of South-east Asia and East India. It is found in Thailand, Sumatra and Java.

Kinds and Varieties

There two main kinds of Benzoin resin known in commerce as Sumatra Benzoin and Siam Benzoin which are obtained from the trees of *Styrax benzoin* Dryand or *Styrax paralleloneurum* Perk and *Styrax tonkinensis* Craib ex Hartwich. respectively.

Chemical composition

It contains three resins (benzoic acid 10-20%, cinamic acid and vanillin) and a volatile oil.

Pharmacodynamics

Rasa	: Madhura, tikta
Guṇa	: Rūkṣa, laghu, tīkṣṇa
Vīrya	: Uṣṇa
Vipāka	: Madhura
Doṣakarma	: Kaphavātaśāmaka Pittavardhaka.

Properties and action

Karma	: Chhedana (śleṣmahara)- kaphaniḥsāraka- kaphadurgandhanasaka Mūtrajanana-mūtrāmlatva janaka Pūtiḥara-jantughna- dourgandhyohara Vedanāhara-vātaśāmaka Vraṇa śodhana-ropaṇa Vājikaraṇa- Garbhāśayaśothahara Svedajanana Jvaraghna Kāsa-hikkā.
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Roga	: Jirṇa kāsa-śvāsa-kṣaya-pratiśyāya Mūtrakṛcchra-pūyameha-bastiśoṭha Kāmaśaitya Pakṣāghāta-ardita-vātavikāra Vraṇa
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Tvagdoṣa
Karnaśūla
Jvara
Śiraḥśūla.

Therapeutic uses

The resin of benzoin is the drug Lohavāna. The extract of bark and root of source tree of Lohavāṇa (Loban) are said to possess insecticidal properties. Siam benzoin is the finest quality of resin benzoin, having an agreeable balsamic, vanilla-like colour.

The drug Lohavāṇa or benzoin is irritating expectorant, carminative and diuretics, and it forms an ingredient of inhalations in the treatment of catarrh of upper respiratory tract.

It is used in paralysis, vātavikara, neuralgic and nervine disorders, respiratory diseases, urinary disorders, sexual frigidity, skin diseases, fever and painful conditions.

The Indian pharmacopoeia prescribes the standards for quality benzoin and uses.

It is usually employed in the form of compound Benzoin Tincture. Benzoin is used as an external anti-septic and protective, and is one of the main ingredients of Friars Balsam.

Lohavāṇa (benzoin or Loban) is also used to fix the odour of incenses, skin soaps, perfumes and other cosmetics and for fixing the certain pharmaceutical preparations.

In veterinary medicine, it is applied to indolent sores and foul ulcer.

Benzoin has some other kinds of economic utility and commercial importance other than medicine cosmetics and perfumery.

Parts used : Exudate (Resin).

Dose : Resin 500 mg.- 1 gm., Extract 120 mg.

LOHABĀNA-LOHAVĀNA-LOBĀN

लोहबाण-लोहवाण (लोबान)

बलास वातग्रवान्तिहिक्का शिरोऽर्त्ति शैथिल्यमयं निमित्तम् ।

भेत्तुं क्षमः स्निग्धवलक्षतीक्ष्णो मया प्रयुक्तः खलु लोहबाण ॥

Siddha Bhaisajya Manimālā.

MADANAPHALA

Botanical name

Catunaregan spinosa (Thunb) Trivengadam
Xeromphis spinosa (Thunb.) Kesv
syn. Randia dumetorum (Retz.) Poir, Randia
spinosa Poir.

Family : Rubiaceae

Classical name : Madana-Madanaphala

Sanskrit names

Madana-Madanaphala, Kaṅṭakī, Chardana,
Rāṭhaka, Piṇḍī, Viṣapūspaka.

Regional names

Mainphal (Hindi); Mindhal (Guj.); Marubakalam
(Tam.), Madakrui (Kann.); Maianphal (Beng.); Ganga,
Mayari (Tel.); Kar (Mal.); Loto (Santhal); Mohan,
Ghotvaphala (Utt.); Jijul Kai (Arabic); Emetic Nut (Eng.)

Description

Armed shrub for small trees, large deciduous shrub
or small tree with grey bark; spines axillary, often long and
stout. Leaves mostly fascicled on branchlets, obovate or
oblanceolate, subcoriaceous, glabrescent or pubescent,
stipules ovate; lvs. 1-2 in. long.

Flowers solitary or 2-3 fascicled creamy white fra-
grant. Calyx campanulate. Corolla covered with adpressed
silky hairs. Fls. at the ends of short lateral branchlets,
shortly pedunculate.

Calyx strigose; tube 0.2-0.3 in. long; lobes ovate, fo-
liaceous, as long as the tube. Corolla-lobes spreading, oval
or oblong, .5-.75 in; covered with adpressed white hairs,
tube upto the tips of the calyx-lobes.

Fruit a soft fleshy berry, 1-1.5 in. long, globose or
ovoid, yellow, glabrous or pubescent; pericarp thick, leath-
ery; seeds compressed, imbedded in a gelatinous pulp.

Wood light brown or white, compact, hard; weight 55-60 lbs. per c. ft.

Flowering and fruiting time

Plant flowers during summers or May-June and it bears fruiting during the period of autumn to winters or October to January.

Distribution

It occurs almost throughout India up to 4,000 ft. altitude. Extremely common in valleys and lower areas in Uttar Pradesh hilly region, terai. It is found in warm regions in country, Central India, Madhya Pradesh and other provinces.

Chemical Composition

It contains saponin, valeric acid, resin, wax and some colouring matters. Besides saponin the fruit contains a new triterpene and acid resin. and trace of pale essential oil.

The presence of pectin, mucilage and tartaric acid is reported.

Pharmacodynamics

Rasa	: Kaṣāya, madhura, tikta, kaṭu
Guṇa	: Laghu, rūkṣa
Virya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarṇa	: Kaphvātahara Kaphapittahara (samśodhaka)

Properties and action

Karma	: Vāmaka (śreṣṭha vamankārī) Vātānulomana-kṛmighna-grāhī Raktaśodhaka-śothahara Kaphaniḥsāraka Lekhana-medohara Vraṇaropaṇa (śodhaka) Ārtavajanana Svedajanana-kuṣṭhaghna Viṣaghna Nāḍīśāmaka
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Raga	<p>Vedanāsthāpana. : Kaphapradhāna vikāra (vamanārtha)-jvara Gulma Pratiśyāya Vibandha-kṛmi Raktavikāra-śoṭha Kaṣṭārtava-kaṣṭaprasava Kuṣṭha Jvara Medoroga Viṣa Vātavyādhi Pravāhikā Āmavāta-śodhavedanāyukta vikāra Vidradhi-vraṇa Udararoga-anāha-gulma-śūla- udāvartta Garbhasaṅga Apsmāra Pratiśyāya-kāsa-śvāsa-pārśvaśūla Pariṇāmaśūla.</p>
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Therapeutic uses

The extracts exhibit insecticidal and insect repellent properties. They could possibly be used as synergists in insecticidal preparations. The fruit are used as colour intensifier (in calicoprinting) and they are said to produce a yellow pulp. The ethanolic extract of the pulp showed a stimulant activity on isolated guinea-pig uterus. The fruits are eaten after roasting or cooking.

The fruits are reported to be mixed with stored grain to preserve it from attack of insects and in this way, its insecticidal effect is also utilised. The unripe fruits are also used as soap in various areas.

The activity of the drug is attributed to the presence of saponins, which occur to the extent of 2-3 percent in fresh fruits (C. 10% in dried whole fruit). The saponins are concentrated mostly in the pulp. A mixture of two saponins viz. randia or neutral saponin and randia acid or

acid saponin has been isolated from the pulp; the two saponins occur in the fruits at all stages of ripening.

The drug Madanaphala is chiefly an emetic agent. The fruit (madanaphala) is credited with a number of medicinal properties. The pulp of the fruit and dried powdered pulp are valuable emetic and also used as substitute for the ipecacuanha. In smaller dose, it is nauseant, expectorant and diaphoretic. It is considered to have anthelmintic and abortifacient properties. Fruit are useful as nervine calmative and antispasmodic. The drug (madanaphala) is useful in various diseases.

It is esteemed is a domestic remedy for ailments to which children are subject at teething. The unripe pounded fruit as well as the root are used as a fish-poison. The poisonous properties are said to decrease or disappear as the fruits ripen.

Parts used : Fruit.

Dose

Powder 3-6 gm. (emesis), Powder 1-2 gm. (therapeusis).

Formulations

Madana Kāḷpa - 133 (Caraka Samhitā, Kāḷpa. 1).

Gaṇa

Vamana, Phalinī (Caraka Samhitā), Urdhvabhāgahara, Āragvadhādi, Muṣkakādi (Suśruta Samhitā).

MADANAPHALA (मदनफल)

मदनो मधुरस्तिको वीर्योष्णो लेखनो लघुः ॥

रूक्षो लघुः प्रतिश्याय ज्वरविद्रधिकुष्ठहा ।

गुल्मशोषकफानाहव्रणहृद् वमनाग्रणी ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 601-602.

मदनं मधुरस्तिको वीर्योष्णो लेखनो लघुः ।

वान्तिकृद्विद्रधिहरः प्रतिश्यायव्रणान्तकः ॥

रूक्षः कुष्ठकफानाह शोथगुल्मव्रणापहः ॥

Bhāvaprakāśa Nighaṇṭu, Harītakyaḍi Varga, 161.

मदनः कटुतिकोष्णः कफवातव्रणापहः
शोफदोषापहश्चैव वमने च प्रशस्यते ॥

Rāja Nighaṅṭu, Śālmalyādi Varga, 68.

मदनप्रशंसा

‘मदनसर्वगदाविरोधितु ।’

‘कफपित्तहृदाशुकारि चाप्यनपायं पवनानुलोमि च ।
फलनामविशेषतस्त्वातो लभतेऽन्येषु फलेषु सत्स्वपि ॥’

Caraka Saṁhitā, Siddhi, 11.

वमने

‘मदनफलं वमनास्थापनानुवासनोपयोगिनाम् ।’

Caraka Saṁhitā, Sutra, 25.

अधोभागे रक्तपित्ते

‘फलपिप्पलीक्षीरं तेन वा क्षीरयवागूमधोभागे रक्तपित्ते ।’

Caraka Saṁhitā, Kalpa, 1.

वमनेप्रयोगविधि

‘वमनद्रव्याणां मदनफलानि श्रेष्ठानि आचक्षतेऽनपायित्वात् ।
तानि वसन्तग्रीष्मयोः अन्तरे पुष्पाश्चयुगभ्यां मृगशिरसा
वागृह्णीयात्त्यत्रे मुहूर्त् ।’

‘यानिपक्वानि प्रहरितानि पाण्डूनि अकृमीनि अकृशानिअह्रस्वानि
अजग्धानि तानि प्रगृह्य कुशपुटे बद्धागोमयेनालिप्य
यवतुषमाषशालिकुलत्थमुद्गपर्णीनामन्यतमे निदध्यात् अष्टरात्रम् ।’

‘अतः उर्ध्वं मृदुभूतानि तानि मध्विष्टगन्धानि उद्धृत्यशोषयेत् ।
सुशुष्कानां फलानां पिप्पलीरुद्धरेत् ।’

‘तासां घृतदधिमधुपललविमृदितानां पुनः शुक्राणां तासां नवकलशं
सुप्रभृष्टं वालुकम् वचस्कम् आकण्ठं पूरयित्वा स्वेवच्छन्नं
स्वनुगुप्तं शिक्येऽवसज्य स्थापयेत् ॥’

Caraka Saṁhitā, Kalpa, 1-1, 14.

शूले नाभौ मदन लेपः

‘नाभौलेपाज्जयेच्छूलं मदनः काञ्जिकान्वितः ।’

Cakradatta, 26-22.

‘नाभिलेपाज्जयेच्छूलं मदनं काञ्जिकान्वितम् ।’

Bhāvaprakāśa, Śūlādhikāra, 30-35.

परिणामशूले चिकित्सा सूत्रान्तर्गत वमन विधिः

पीत्वा तु क्षीरमाकण्ठं मदन क्वाथसंयुतम् ।
कान्तारकस्य पौण्ड्रस्य कोशकारस्य वा रसम् ॥

Bhāvaprakāśa, Śūlādhikāra, 30-58.

उदावर्ते फलवर्ति (गुदगतप्रयोगार्थम्)

Cakradatta, Udāvarta Cikitsā, 28-13.

निरूहे मदन योगः

लवणं कार्षिकं दद्यात् फलमेकन्तु मादनम् ।
वाते गुडः सिता पित्ते कफे सिद्धार्थ कादयः ॥

Cakradatta, Nirūhādhikāra, 72-28.

पार्श्वशूले

‘नाभिलेपाज्जयेच्छूलं मदनः काञ्चिकान्वितः ।’

Baṅgasena Śūla, 11.

गर्भसङ्गे

‘गर्भसङ्गे तु योनि धूपयेत् कृष्णसर्पनिर्मोकेण पिण्डीतकेन वा ।’

Suśruta Saṁhitā, Śāvira, 10-11.

ज्वरे

मदनं पिप्पलीभिर्वा कलिङ्गेर्मधुकेन वा ।
युक्तमुष्णाम्बुना पेयं वमनं ज्वरशान्तये ॥

Caraka Saṁhitā, Cikitsā, 3-228.

अपस्मारे

मदनस्य च बीजानि चूर्णयित्वा तथैव च ।
पिण्डीतकस्य चाल्पस्य कर्षिकं पेषयेज्जले ॥
ततोऽस्य पानमात्रेण नश्यतेऽपस्मृतिर्गदः ॥

Baṅgasena, Apasmāra. 39.

MADAYANTIKĀ

Botanical name : Lawsonia inermis Linn.

Family : Lythraceae

Classical name : Madayantikā

Sanskrit names

Madayantikā, Raktaraṅgā, Dāhahantri.

Regional names

Mehandi (Hindi); Mendi (Mar., Guj.); Mehndi (Mal.); Manj, Monja (Kann.); Mehandi (Beng.); Evanam (Tam.); Krommi (Tel.); Mailanchi (Mal.); Hirena (Arab.); Hina (Pers.); Henna (Eng.).

Description

Shrubs, up to Ca 3 meters tall, with some branchlets spinous at tip. Leaves opposite, lanceolate or oblanceolate, 2-3 cm. long, apex, acute, subsessile; petioles short. Bark greyish-brown colour.

Flowers Ca 5 mm. across, cream-coloured, fragrant, in terminal paniced cymes. Sepals persistent. Petals 4, yellowish, orbicular or obovate, Ca 4 mm., crumpled. Stamens 8, inserted in pairs on the rim of calyx tube; anthers oblong Ca 1 mm. long. Ovary 4-celled. Style Ca 5 mm. long erect. Fls. numerous, white or rose-coloured.

Fruits depressed globose, Ca 5 mm. across, red, tipped with persistent style. Fruits capsule, about a size of a pea with pyramidal smooth seeds.

Flowering and fruiting time

Plant in flowering and fruiting stages during April to August.

Distribution

It is found almost throughout India and usually planted as hedge plant. In various regions e.g. Punjab, Gujarat, some parts of Madhya Pradesh and Rajsthan, plant is under commercial forming. Madayantika is Henna plant which is cultivated in many tropical and warm temperate regions as a hedge plant. It is under agro-practice of dye crop, for meeting the henna leaves requirement.

Chemical Composition

Leaves contain a colouring matter 12%-15%, tannic acid viz. Hennotannic acid, and other of olive green colour and resin soluble in resin.

Flowers yield an aromatic oil known as scent Henna (rogam or iitra). Seeds also yield a kind of oil.

Pharmacodynamics

Rasa	: Tikta, kaṣāya
Guṇa	: Laghu, rūkṣa
Vīrya	: Śīta
Vipaka	: Kaṭu
Doṣakarma	: Kaphapittaśāmaka

Properties and action

Karma	: Kuṣṭhaghna Varṇya-varṇasañjanana Saundaryī karaṇa-angarāga Kāṇḍūghna Dāhapraśamana Stambhana Pittpraśamana Jvaraghna Mūtrala Vraṇaropaṇa-vraṇaśodhana Bhūtaghna-bhūtagrahavādhāhara Keśya-keśarañjana Śothahara-vedanāsthāpana Yakṛduttejaka Medhyā-nidrājanana Raktaprasādana-raktastambhana.
Roga	: Kuṣṭha-kaṇḍu-tvagvikāra Mukha-kaṇṭha roga Keśaroga-pālitya Vraṇa-kṣata-vaivarṇya Śoṭha-raktasrāva Śiraḥśūla Sandhiśoṭha Dāha-hastapādatāla dāha Mastiṣka dourbalya-anidrā Pravāhikā-raktātisāra Hṛdroga Raktavikāra Raktapitta Mūtrakṛcchra-pūyameha- mūtradāha

Prameha
Upadamśa
Jvara
Śoṣa.

Therapeutic uses

The henna or madayantikā has long been used in India, since ancient times, for colouring palms of hands, soles of feet and finger nails, being a potential and popular rañjana dravya or dyeing plant source. It is also used for dyeing hair, beard and eye brows, for personal adornment. Tails, manes and hairs of horses and some other animals are sometimes dyed with henna (besides colouring leathers and skins). The colouring properties of plant Madayantikā are further useful in medicine and cosmetic including hair and skin health care, alongwith medicinal potentiality of plant drug and its external and internal application in various diseases in view of chemical constituents in different parts other than leaves (which are chiefly used as henna), and their medicinal efficacy which is therapeutically applied in as drug in specialised area of herbal medicine.

The leaves of henna plant (Madayantikā patra) are used as a prophylactic against skin diseases. They have astringent properties. They are used externally in the form of a paste or decoction against boils, burn bruises and skin inflammation. A decoction is used as gargle for relaxed sore throats. Paste is often applied on sole and palms alongwith fingers for preventing and eradicating itching, discolouring and other skin affections. Alcoholic extracts of henna leaves show mild antibacterial activity against *Micrococcus pyogenes* var. *aureus* and *Escherichia coli*.

The air-dried leaves powder contains normally moisture 8.97 ash 14.85 and tannin 10.21 percent. The tannin content is variable.

Part used : Leaves, flowers, seeds.

Dose : Juice 5-10 ml., Seeds powder 1-3 gm.

Formulation : Madayantyādi cūrṇa.

MADAYANTIKĀ (मदयन्तिका)

मदयन्ती लघू रूक्षा कषाया तिक्तशीतला ।
 कफपित्तप्रशमनी कुष्ठघ्नी सा प्रकीर्तिता ॥
 निहन्ति ज्वरकण्डूतिदाहासृक्पित्तकामला ।
 रक्तातीसारहृद्रोगमूत्रकृच्छ्रभ्रम व्रणान् ॥

Dravyaguna Vijñāna, 149.

हरीतकी चूर्णमरिष्टपत्रं चूतत्वचं दाडिम् पुष्पवृन्तम् ।
 पत्रं च दद्यान्मदयन्तिकाया लेपोऽङ्गरागोनरदेवयोग्यः ॥

Suśruta Saṁhitā, Cikitsā, 25.

मदयन्तिका

रक्तरंगा दाहहन्त्री वान्तिकृत् श्लेष्मकुष्ठहा ।
 बीजमस्याः ग्राहकन्तु शोषकं च प्रकीर्तितम् ॥
 भूतग्रहाणां दोषं तु ज्वरं चैव विनाशयेत् ॥

Nighaṅtu Ratnākara.

‘नखादि रागजननी ‘महेन्दी’ इति प्रसिद्धाः’

Suśruta Saṁhitā, Cikitsā, 9.

प्रमेहे

‘शोणितमेहे मदयन्ती पत्रकल्कञ्च सक्षौद्र शीताम्बुना ।’

Aṣṭāṅga Saṅgraha, Cikitsā, 14-7.

रक्तपित्ते

मदयन्तिकमूलस्य कषायः पूतशीतलः ।
 शर्करामधुसंयुक्तो रक्तपित्तप्रणाशनः ॥

Gadanigraha, 2-8-64.

शोषे

समूलपुष्पच्छदपल्लवायाः साः प्रयोज्यो मदयन्तिकाया ।
 मासो प्रयोगेन समस्तलिङ्ग यक्ष्माणुग्रं हरति प्रसह्या ॥

Bangasena, Rājayakṣmā, 45.

MADHŪKA

Botanical name

Madhuka longifolia ssp. *latifolia* (Roxb.) chev.

syn. *Madhuka indika* J.F. Gmelin., *Bassia latifolia*

Roxb.

Family : Sapotaceae

Classical name : Madhuka

Sanskrit Names

Madhūka, Guḍapuṣpa, Madhukapuṣpa, Madhusrava, Vānaprastha, Maḍuṣṭhīla, Jalaja, Madhūlaka, Ḍolaphala, Tīkṣṇasāra, Madhura, Madhukoṣṭha, Rodhravṛkṣa, Vanavāsī, Mahādruma.

Regional names

Mahua (Hindi); Mahua, Maul (Beng.); Moharha (Mar.); Mahudo (Guj.); Illuppi (Tam.); Ippachittu (Tel.); Hippe (Kann.); Iluda (Mal.); Mahua (Santh.); Butter tree (Eng.).

Description

Large desiduous trees up to 20 meters high, young parts pubescent, with short, stout, trunk and dense spreading crown. Bark grey or blackish, with shallow wrinkles and vertical cracks.

Leaves clustered near branch ends, up to 22 x 11 cm., short petioled stipulate; Lvs. elliptic or oblong elliptic, short acuminate or obtuse; coriaceous, densely woolly beneath when young, glabrescent afterwards; main lateral nerves 10-12 pairs; base cuneate; petiole 1-1.5 in., stipules drooping.

Flowers in dense fascicles near the ends of branches; pedicels slender drooping and pubescent. Calyx rusty-tomentose divided nearly to the base segments ovate; subacute; outer 2 enclosing the inner 2, corolla cream-coloured campanulate, with broad tube; lobes mostly 8-9 (or 7-14), erect; stamens generally 24-26; anthers hairy at the back, sub-sessile inserted in 3 series inside the corolla tube.

Beery up to the 5 cm. long, ovoid, fleshy. Seeds 1-4, crustaceous, shining. Berry fleshy-green.

Flowering and fruiting time

Plant flower in March-April and fruits in May-August. Plant leafless in February-April. Generally flowering and fruiting period March to November.

Distribution

It occurs throughout India up to 4000 feet altitude.

Kinds and varieties

Another variety of drug Jalamadhūka which is found in outhern india.

Madhuka longifolia ssp. longifolia van Royen Biume. Syn. Madhuka longifolia(Koenig) Macbride, Bassia latifolia Koenig. Leaves up to 10 x 4 cm. calyx segments ovate-oblong, acuminate Berry oblong, 1-2 seeded.

Madhuca longifolia (Koenig) Macbride

A large tree, young shoots silky elliptic-lanceolate, glabrous when full grown, blade 4-0, petiole slender, 1-1.5 in. long. Bark yellowish-grey. Flowers pale-yellow and fleshy, almost similar to M. latifolia, pedicels slender 2-2.5 in., outer calyx-segments nearly glabrous, inner finely tomentose, adhers apiculate, 3-toothed at apex. Fruits velvety when young obliquely ovoid 2, seed 1.5 in. long.

It is indigenous to South India. Commonly cultivated in the Peninsula, an excellent avenue tree. Indigenous chiefly in the moist forests on the West side from the Konkon Southwards; also in Ceylon and Upper Burma.

Chemical Composition

Seeds contain semisolid fixed oil 50-55 percent which yield Oleic acid 40%, palmitic acid 26.5%, linoleic acid 13.5% and myristic acid 16%. Cake contains mourin which is glycocidal saponin and with toxic effects.

Air dried flowers contain invert sugar 52.6%, can sugar 2.2%, albuminoids 2.2%, cellulose 2.4%, ash 4.8% and aqueous content 15%.

Ash contains salicylic acid, phosphoric acid, calcium, iron, potash and soda (in traces) and other substances.

In addition, the flowers contain enzymes and yeast with high quantity. Fruits contain sacchrose 4.6-16.2% maltose 2.4% tannin; enzymes and other substances.

Pharmacodynamics

Rasa : Madhura, kaṣāya

Guṇa	: Guru, snigdha
Virya	: Śīta
Vipaka	: Madhura
Doṣakarma	: Vātapittaśāmaka

Properties and action

Karma	: Dāhapraśamana Santarpaṇa Vṛṣya Balya-Bṛñhaṇa Snehana Mūtrala Kaphaniḥsāraka Stanyajanana Ārtavajanana Nāḍībalya Vātaśāmaka Vedanāsthāpana Kuṣṭhaghna Raktapittaśāmaka Ahṛdya (phala-fruit) Tṛṣṇānigrahaṇa Anulomana Stambhana
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Roga	: Raktapitta Tṛṣṇā-dāha-bhrama Vātavyādhi Śīroroga (paittika) Nāḍīdourbalya Carmavikāra Atisāra-grahaṇī-koṣṭhagata vāta Kāsa-śvāsa-hikkā śukradourbalya Stanyakṣaya Rajorodha Mūtrakṛcchra Jvara-dāha Dourbalya-kṣaya-śoṣa.
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Therapeutic uses

The leaves of Madhūka are astringent and they are

used in embrocations. Leaves are cattle fodder and green manure. Fruit's yellow volatile oil (0.03% yield) with a spicy odour is also useful. A milky latex exudes from bark (from incision and cracks there) and later it becomes coagulum is useful. Bark (containing tannin 17% and employed in dyeing and tanning) is used for rheumatism, ulcers and diabetes mellitus. In veterinary medicine, it is given to horses for stomach-ache. The roots are applied to ulcers. Flowers are employed for fermentation.

The fruits (madhūka phala) and seeds are medicinally useful alongwith seeds oil. Flowers (madhūka puṣpa) are largely used in preparation of distilled liquors. They are regarded as cooling, tonic and demulcent. Flowers are used in cough, cold and bronchitis. They are anti-bacterial.

The drug Madhuka is astringent, laxative, tonic, aphrodisiac and stimulant. It is useful in burning sensation in the body, debility, emaciation; respiratory diseases, rheumatism and thirst. It is also useful considered useful in snake-bite and fish poison. Liquor brewed from the flowers which is extensively used in rural and tribal areas. Madhuka phala (mahua berries) are eaten raw or cooked. They are of medicinal utility. Berries are eaten by cattles, animals and birds-(leaves also eaten by animals esp. cattles). Fruits are collected near the ripening stage.

Part used : Flowers, seeds, oil.

Dose

Flowers juice 10-20 ml., Bark decoction 50-100 ml.

Formulation : Madhūkasava.

MADHUKA (मधूक)

- क. मधूको गुडपुष्पः स्यान्मधुकपुष्पो मधुस्रवः ।
वानप्रस्थो मधुष्ठीलो जलजेऽत्र मधूलकः ॥
- ख. मधूकपुष्पं मधुरं शीतलं गुरु बृंहणम् ।
बलशुक्रकरं प्रोक्तं वातपित्तादिनाशनम् ॥
- ग. फलं शीतं गुरु स्वादु वातपित्तनुत् ।

अहृद्यं हन्ति तृष्णाऽस्रदाहश्वासक्षतक्षयान् ॥
Bhāvaprakāśa Nighaṅṭu, Āmrāphalādi Varga, 95-97.

मधूकः

डोलाफलस्तीक्ष्णसारो मधुको गुडपुष्पकः ।
 एलाफलो मधुष्ठीलो मधुको मधुरो मतः ॥
 मधुकोष्ठो रोध्रवृक्षो वनवासो महाद्रुमः ।
 मधूकोऽन्यो मधूलः स्याज्जलजो दीर्घपत्रकः ॥
 गौरशाखी नीरवृक्षो मधुवृक्षो मधुस्रवः ।
 वानप्रस्थो मधुष्ठीलो ह्रस्वपुष्पफलः स्मृतः ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 455-457.

मधूकं गुणाः

मधूकस्तुवरस्तिको व्रणानिलकफापहा ।

मधूक पुष्पम्

तत्पुष्पं मधुरं शीतमहृद्यं बृंहणं गुरु ॥
 (बलशुक्रकरं प्रोक्तं वातपित्तविनाशनम् ।)

मधूकफलम्

स्निग्धं विकसि तीक्ष्णोष्णं तत्फलं गुरु शीतलम् ।
 अहृद्यं शुक्रलं स्निग्धं मधुरं रसपाकयोः ।
 विष्टम्भि बृंहणं बल्यं कफाकृन् मारुतापहम् ।
 हन्ति पित्तासृत्तृद्दाहश्वासकासक्षतक्षयान् ॥

पक्कफलम्

पक्कं तु तत्फलं बल्यं पित्तमारुत् नाशनम् ।

मधूक तैलम्

कषायं स्वादु माधूकं तैलं पित्तकफप्रणुत् ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 458-461.

‘कषायं स्वादु माधूकं तैलं पित्तकफापहम् ।’

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 332.

मधूकः

मधूको मधुवृक्षः स्यात् मधुष्ठीलो मधुष्ठीलो मधुस्रवः ।
 गुडपुष्पो लोध्रपुष्पो वानप्रस्थश्च माधवः ॥

मधूकगुणाः

मधूकं मधुरं शीतं पित्तदाह श्रमापहम् ।

वातलं जन्तुदोषघ्नं वीर्यपुष्टिविवर्द्धनम् ॥

Rāja Nighaṇṭu, Āmrādi Varga, 91-92.

मधूकपुष्पफल गुणाः

मधूक पुष्पं मधुरञ्च वृष्यं हृद्यं हिमं पित्तविदाहादि ।

फलञ्च वातामयपित्तनाशि ज्ञेयं मधूकद्वयमेवमेतत् ॥

Rāja Nighaṇṭu, Āmrādi Varga, 95.

जलमधूकः

अन्यो जलमधूको मङ्गल्यो दीर्घपत्रको मधुपुष्पः ।

क्षौद्रप्रियः पतङ्गः कीरेष्टो गैरिकाक्षश्च ॥

जलमधूक गुणाः

ज्ञेयो जलमधूकस्तु मधुरो व्रणनाशनः ।

वृष्यो वान्तिहरः शीतो बलकारी रसायनः ॥

Rāja Nighaṇṭu, Āmrādi Varga, 93-94.

ज्ञेयो जलमधूकस्तु मधुरो व्रणनाशनः ।

वृष्यो वान्तिहरः शीतो बलकारी रसायनः ॥

Dhanvantari Nighaṇṭu.

‘गौरशाको मधूकोऽन्यो गिरिजः सोऽल्पपत्रकः ।’

Mādhava.

‘मधूकोऽन्यो मधूलस्तु जलजो दीर्घपत्रकः ।’

Kṣīrasvāmī.

विषे

सम्यग् मधूकसारेण गोमूत्र भावितेनतु ।

दद्याद् विषापहं नस्यं सिद्धं चापि प्रलेपनम् ॥

Gadanigraha, 7-3-8.

आयुष्यप्रदे

सद्यवच्युतं स्थूल मधूकपुष्पं संशोधितं केशरधूलिवर्जितम् ।

संवाचितं शुभ्रासिताघृताभ्यां सजीरकं जीवनदं हिजीविनाम् ॥

Kṣemakutūhala, 8-176.

रक्तपित्ते

‘तथा मधूकस्य तथाऽसनस्य क्षाराः प्रयोज्या विधिनैव तेन ।’

Caraka Saṁhitā, Cikitsā. 4-94.

हिक्कासु

‘मधूकं मधुसंयुक्तं.....हिक्काघ्नं वावनम् ।’

Bhāvaprakāśa.

ग्रहण्याम्

‘मधूकपुष्पस्वरसं शृतमर्धक्षयीकृतम् ।
क्षौद्रपादयुतं शीतं पूर्ववत् सन्निधापयेत् ॥
तं पिबन् ग्रहणीदोषान् जयेत्सर्वान् हिताशनः ॥’

Caraka Samhitā, Cikitsā. 19-148.

पित्तज शिरोरोगे

‘नावनं शर्कराद्राक्षामधूकैर्वापि पित्तजे ।’

Caraka Samhitā, Cikitsā. 26-162.

शिरोरोगे-पित्तजे

‘नावनं शर्करा द्राक्षामधूकैर्वापिपित्तजे ।’

Caraka Samhitā, Cikitsā. 26-179.

कर्णपूरणे

रसमाभ्रकपित्थानां मधूकधवशालजम् ।
पूरणार्थं प्रशसन्ति तैलं वा तै विपाचितम् ॥

Suśruta Samhitā, Uttara. 21-47.

शुक्रवैवर्ण्यनाशने

‘मधूकसारं मधुना योजयेच्चाञ्जने सदा ।’

Suśruta Samhitā, Uttara. 12-33.

भग्नास्थिबन्धनार्थम्

‘मधुकस्य त्वचं.....वा कुशार्थमुपसंहरेत् ।’

Suśruta Samhitā, Cikitsā. 3-6.

हिक्कायाम्

क्षौद्रं सितां वारणकेशरं च पिबेद्रसेनेक्षुमधूकजेन ।

Suśruta Samhitā, Uttara. 50-24.

वामिजयनार्थम्

‘मधूकमय ह्रीवेर मुत्पलानि मधूलिकाम् ।
लीढ्वा चूर्णानि मधुना सर्पिषा च वमिं जयेत् ॥’

Suśruta Samhitā, Uttara. 39-204.

अपच्याम्

‘मधूकसारश्च हितोऽवपीडे ।’

Suśruta Saṁhitā, Cikitsā. 18-23.

कफज शिरोरोगे शिरोविरेचनार्थं मधूक चूर्णनस्यः

‘मधूकसारेण शिरः स्वन्नाक्तान्ध्य विरेचयेत् ।’

Cakradatta, Śīroroga Cikitsā. 60-17.

ग्रहणीरोगे

‘मधूकासवः ।’

Caraka Saṁhitā, Cikitsā. 15-146/150.

तृष्णायाम्

.....मधूकपुष्पादिषु चापरेषु ।

राजादन क्षीरिकपीतनेषु षट् पानकान्यत्र हितानी च स्युः ॥

Suśruta Saṁhitā, Uttara. 48-26.

नेत्ररोमे-अभिष्यन्दे

‘मधूकसारं मधुना तुल्यांशं गैरिकेण च ।’

Suśruta Saṁhitā, Uttara. 12-41.

नेत्रगतशुक्ररोगे

मधूकसारं मधुना योजयेचाञ्जने सदा ।

विभीतकास्थिमज्जा वा सक्षौद्रः शुक्रनाशनः ॥

Suśruta Saṁhitā, Uttara. 12-33.

पामानि

मधूकपुष्पाणि पयःप्लुतानि बद्धानि पामोपरि कर्पटन ।

तत्तावृगुद्रिकातदीपदाह पीडाभृत्यापदमक्षिपन्ति ॥

Siddha Bhaisajya Mañimālā, 8-849.

रक्तपित्ते

मधूक.....चूर्णितैः ।

भिषग् विधभ्याच्चतुरः समाक्षिकान् हिताय लेहानसृजः प्रशान्तये ॥

Suśruta Saṁhitā, Uttara. 45-19.

B. MADHŪKAPUṢPĪ

Botanical name

Diploknema butyracea (Roxb.) H. J. Lamb.

Syns. *Madhuca butyracea* (Roxb.) Macbride. *Bassia butyracea* Roxb.

Family : Sapotaceae

Classical name : Madhūkapuṣpī

Sanskrit names

Madhūkapuṣpī, Madhūkaparṇī, Gucchapatrā, Tailabījā, Himamadhūka, Śailamadhūka, Jyotibījī, Guḍapuṣpī, Guḍapuṣpā, Madhurasā, Madhurapuṣpā.

Regional names

Chyura, Chura (U.P. Hills); Phalwara, Phulei, Phuleca, Chiura (Hindi).

Description

A large deciduous tree with dark-grey bark. Branchlets, petioles, underside of leaves, and pedicels with fine silky hairs.

Leaves 6-12 by 4-7 in., obovate or obovate-oblong, coriaceous, soft-tomentose beneath, crowded near the end of the branches; blade 6-12, petiole 1-1.5 in. long; lvs. coriaceous; lateral nerves 15-20 pairs (sec. nerves 15-20 pair), prominent, base rhomboid, stipules minute, caducous.

Flowers on drooping tomentose pedicels 1-1.3 in. long, crowded below the terminal leaves in the axils of the lower ones. Calyx coriaceous, rusty-tomentose, deeply 5-cleft; lobes 0.3-0.5 in. long. Corolla pale-yellow; tube 0.7 in. long, cylindrical, not fleshy; lobes 8-10, spreading. Stamens 30-40; anthers exserted, not hairy; filaments glabrous as long as anthers.

Fruits berry, fleshy, ovoid, smooth, 1 in. long, 1-3-seeded, seed 3/4 in. long.

Flowering and fruiting time

Plant is flowering during the period from autumn to winter or October - November to December - January. Fruiting stage during the period summers to rains or beginning of the rainy months.

Distribution

Plant occurs in the Subhimalayan tract from the

Eastern Dun eastwards ascending to 5,000 ft. Inner hills of Kumaon and Garhwal sectors, Uttarakhand Himalayan region in Uttar Pradesh. Kumon hills, from lower areas and valleys upto areas of 1200 meters, Uttar Pradesh. The cultivation or plantation is gaining suitability in the hill region with a good scope of utility.

Kinds and varieties

There are mainly three plants under the name(s) of Madhūka are mentioned in classical texts as well as prevalent in Indian medicine including ethnomedicine or traditional practices of medicine (medicinal plants utility in rural regions), they may be indicated alongwith their botanical sources :

Madhūka : *Mandhuca indica* J.F. Gmel.

Jalamadhuka : *Madhuca longifolia* (Koenig.) Macbride.

Madhūkapuṣpī : *Madhuca butyracea* (Roxb.) Macbride.

Chemical composition

The seeds Kernel forms about 70% of the weight of the seed (weight 100 seeds 78 g.). The composition of the seed kernel follows : moisture 5.0, ether extract 55.9, crude fibre and N-free extract 30.0, protein 5.2, and ash 3.82% Kernels contain saponin.

The yield of oil is 42-47% of the weight of the seeds or 60-67% of the weight of the Kernels. The characteristics of oil are recorded. The component fatty acids of the oil are : palmitic 56.6, stearic 3.6, oleic 36.0 and linoleic acid 3.8% Various component glycerides are present alongwith small quantities of stear odileins and triolein.

By crystallisation from acetone, 72% of the fat is obtained as a crystalline solid containing 58% of oleodipalmitin mixed with 8% tripalmitin and 6% palmitodioleins. It is thus a convenient source of natural oleodipalmitin.

Therapeutic uses

The plant is valued for its fruit, from the seeds of fruit which a vegetable butter is extracted. It makes good soap, and it is made into candles which burn without

smoke or unpleasant smell as per appreciation made by rural hill users. It is used as an external application for headache and for rheumatism. The oil-cake, as also the pulp of the fruit, is eaten. The sweet juice of fresh corolla is expressed and boiled into gur (Guda) which is much prized in hill region (i.e. Kumaon area) in Uttar Pradesh where multipurpose utility of chyura or chura (Madhūkapsūpī) is traditionally known and particularly the white vegetable butter of the consistence of the lard.

The fruit (berry) is blackish in colour, with a thick, soft, sugary pericarp and characteristic sweet colour. Pericarp, forming nearly 70% of the weight of berry which is edible and medicinal.

The seeds are rich source of fat which is known (in trade) as Phulwara Butter which has been classed alongwith commercial Mowra or Bassia fats. It is, however, distinct from the fats of both *Madhuca latifolia* Roxb. and *Madhura longifolia* Macb. (*Madhūka dvaya*) and is commercially more valuable than the Mowra fat. It is in fact an exception to Sapotaceae (*madhūka kula* or *varga*) fats as a whole. Phulwara butter is used mostly as a substitute or as an adulterant of ghee. Besides its commercial and other utility, it is medicinally useful.

The flowers form a rich source of sugars and are utilised for the preparation of a gur-like product and spirituous liquors which have also medicinal properties.

MADHŪKAPUSPĪ (मधूकपुष्पी)

‘मधूकपुष्पी’—मधूक विशेषः ।

Caraka Samhitā, Vimāna, 8-139.

MADHŪLIKĀ

Botanical name : *Eleusine carocana* Gaertn.

Family : Poaceae (Graminae)

Classical name : Madhūlikā, Rāgī

Sanskrit name : Madhūlikā

Regional names

Mandua, Mandal (Hindi); Marua (Beng.); Nagli (Mar.); Nachoni (Mar.); Banlo, Nagli (Guj.); Rangalu (Tel.); Ragi, Kalvarega (Tam.); Ragi (Kan.); Muttari (Mal.); Ragi, Finger Millet, African Millet (Eng.).

Description

An erect annual grass, 2-4 ft. high, with tillering tufted stems. Stems somewhat laterally flattened bearing when mature, a whorl of 2-7 but normally 4-6, digitate, straight or slightly incurved spikes. Spikes about 1/2 in. broad and 5-6 in. long. Spikelets numerous, about 70, arranged alternately on rachis; each spikelet contains 4-7 seeds, varying in diam. from 1 to 2 mm. Seeds nearly globose or somewhat flattened smooth or rugose, varying in colour from dark reddish brown to nearly white.

Flowering and fruiting time

Farming seasons (crop).

Distribution

It is typically a tropical crop. It is cultivated in India (data and informations on acreage, production of grains, races, agro-practices, farming, pests etc. on record) as a food grain throughout India specially in warmer regions, and also in the hilly regions of country.

Chemical composition

The growing plant is considered to be as nutritious as growing oats, but once the grains ripen, the nutritive value of the straw suffers. Green fodder contains : moisture 20.83, fat 0.48, protein 1.94, soluble carbohydrates 7.85, fibre 5.38, total ash 3.52 and ash soluble in HCL 2.28 per cent.

The average composition of the straw (on dry matter basis) follows : crude protein 3.67, fibre 35.93, N-free. extr. 51.38, ether extr. 0.92, total ash soluble in HCL 5.35, CaO 1.11, P.O. 0.16, MgO 0.45, Na₂O 0.26 and K₂O 1.50%. Digestive nutrients per 100 lb. of straw are : crude protein

0.21, starch equivalent 31.2 and total 50.1 lb. Nutritive value is enhanced as a result of stacking. Silage is also analysed.

Pharmacodynamics

Rasa	: Madhura, kaṣāya
Guṇa	: Guru
Vīrya	: Śīta
Vipāka	: Madhura
Doṣakarma	: Kaphapittaśāmaka

Properties and action

Karma	: Vāmaka Kāsaghna
Roga	: Kāsa-śvāsa Jvaropadrava Balaroga-bālaśoṣa-mukhamaṇḍikā.

Therapeutic uses

The drug Madhūlikā is prescribed in therapeutics of various diseases and also incorporated as an ingredient of some formulations recommended in treatment of different diseases.

In consumption of children (bālaśoṣa), the drug Madhūlikā is employed in preparation of Śṛṅgyādi ghṛta. Among pediatric disorders, it is also used against Bālagraha. Ghee or ghṛta cooked with milk, tugakṣīrī, Kākolyādi and laghu pañcamūla gaṇa is given in treating mukhamaṇḍikā, one of the bālagraha in children.

As the drugs prescribed for enemas (basti), Madhūlikā is also useful in enemas such as aphrodisiac unctous enema and non-unctous enemas (vṛṣyatam niruha basti).

Madhūlikā is prescribed alongwith other certain drugs for treatment of coryza (pratiśyāya caused by pitta and rakta), cough (kāsa) bronchial asthma (śvāsa) and some other ailments. Gaṇdhataila used in fracture (bhagna) contains Madhūlikā as an ingredient. Śṛṅgyādi ghṛta prescribed in bronchial asthma (śvāsa).

The complications of fever (jvaropadrava) are also treated with a recipe : Powder of Madhūlikā, hrivera and

utpala are given with honey (madhu) and ghee (ghṛta) in complications of fever like vomiting, excess mucus secretion, intrinsic haemorrhage, hiccough and dysmenorrhoea.

Madhūlikā (Rāgī) is the principal food grains of the agricultural classes, tribals and rural folks, particularly in southern and hill tracts of northern India. The ragi is usually converted into flour and a variety of preparations such as cakes, puddings, porridge etc. are made. A fermented drink or beer is prepared from the grains in some parts of the grains are also malted and the flour of the malted grain used as a nourishing food for infants and invalids. Madhūlikā grains is specially recommended as a wholesome food for diabetics. The nutritive value of the grains is higher than that of rice and equal to that of wheat. The husk forms only 5-6% of the weight of the grains and is the lowest among food grains.

The composition of the grain varies according to type. The average composition follows : moisture 13.1, protein 7.1, fat 1.3, mineral matter 2.2, carbohydrates 76.3, calcium 0.33, and phosphorous 0.27%, iron 5.4 mg.; carotene (I.U. vitamin A) 70, Vitamin B₁ 420 Y and nicotinic acid, 1.1 mg./100g. Madhūlikā is poor in vitamin B₂ and rich in calcium, phosphorous and iron; and it is rich in calcium, phosphorous and iron; the calcium content is higher than in the common cereals and millets. The iodine content 101.4/100g.) is reported to be the highest among food grains. It also contains sulphur (0.19%) and zinc (1.48 mg./100 g.). Ragi enjoys a traditional reputation as a nutritious and sustaining food.

Malt extracts with the colour and consistency of honey have been produced on a commercial scale and those prepared from white ragi conform to the specifications of the British pharmacopoeia for barley malt.

The grains of Madhūlikā are a staple food having good maintenance value and its growth promoting value can be greatly improved by supplementing it with pulses and milk.

Part used : Seeds (grains).

Dose : Powder 3-5 gm.

Formulation : Gandhataila, Śrṅgyādi ghṛta.

MADHŪLIKĀ (मधूलिका)

बस्तौ

वृष्यतमे स्नेहबस्तौ ।

Caraka Samhitā, Siddhi, 12-18 (1-3).

निरुह बस्तौ ।

Suśruta Samhitā, Cikitsā, 38-28.

बालरोगे

मुखमण्डिका प्रतिषेधे

मधूलिकायां पयसि तुगाक्षीर्यां गणे तथा ।

मधुरे पञ्चमूलं च कनीयसि घृतं पचेत् ॥

Suśruta Samhitā, Uttara, 35-5.

बालशोषे

शृङ्गयादि घृते ।

Aṣṭāṅga Hṛdaya, Uttara, 2 51/52.

श्वासे

शृङ्गयादि घृते ।

Suśruta Samhitā, Uttara, 51-21/22.

ज्वरोपद्रवे

मधूकामथ ह्रीवेरमुत्पलानि मधूलिकाम् ।

लीढ्वा चूर्णानि मधुना सर्पिषां च जयेद् वमिम् ॥

कफ प्रसेकासृक्पित्तहिक्काश्वासांश्च दारुणान् ।

Suśruta Samhitā, Uttara, 39-300/301.

वमनार्थम्

जीवक ऋषभकौ.....मधूलिका ॥

तद्रजोभिः पृथग् लेहाः धामार्गवरजोऽन्विताः ।

कासे हृदयदाहे च शस्ताः मधुसितादुताः ॥

Aṣṭāṅga Hṛdaya, Kalpa, 1-37/38.

कासे

खजूर.....मधूलिकैलामलकैः समांशैः ।

उत्कारिका घृते सिद्धा श्वासे पित्तानुबन्धजे ॥

Caraka Samhitā, Cikitsā, 17-111.

MADHUYASTĪ

Botanical name : Glycyrrhiza glabra Linn.

Family : Fabaceae (Papilionaceae)

Classical name : Madhuyaṣṭī

Sanskrit names :

Madhuyaṣṭī, Yaṣṭīmadhu-Yaṣṭīmadhuka, Madhuka, Klītaka-klītanaka.

Regional names

Muleṭhi, Jethimadhu (Hindi); Yastimadhu (Beng.); Jeṣṭimadh (Mar.); Jathimadh (Guj.); Atimadhuram (Tam.); Yaṣṭīmadhukam (Tel.), Asluspus (Arab.); Bekhanarak (Pers.); Liquorice (Eng.).

Description

Herbaceous perennials, 45 cm. to 1.5-1.8 meters (1.5-6 feet) high, tender stem, hardly perennial herb or under shrub attaining a height upto 100 cm.

Leaves multifoliate, imparipinnate, pinnae in 4-7 pairs, ovoid and lanceolate in shape (outline).

Flowers in axillary spikes, papilionaceous; colour lavender to white, or light pink to violet, purple; 1.25 cm. or more long.

Pods compressed, about (upto) 2.5 cm. or 1 inch. long, flat; seeds kidney-shaped, 2-3 or more.

Rootstock with roots and stolons. Dried pieces of small and big sizes, peeled and unpeeled liquorice root form (market) drug Madhuyaṣṭī or Yaṣṭīmadhu.

Root drug : Root consists of stolons and pieces of roots. Outer surface is dark reddish brown, longitudinally wrinkled. Stolons bear small bunds, scale leaves or scars of slender side roots. Smooth transeverse surface of the stolons show a thin brown cork externally, a well marked cambium line and a central whitish pith. Beneath the cork is a

very narrow band of phelloderm. Stale shows a radiate structure with pale medullary rays. Pith is absent in the root and well-marked medullary rays are visible.

Distribution

Plant occurs in Southern Europe, Spain, Syria, Russia, Egypt, Arab, Iran (Persia), Turkistan, Central Asia, Afghanistan, Peshawar and from Chenab to East in the Himalayas, Burma and Andaman Islands. Cultivation is being undertaken in various regions of India on trial basis.

Chemical composition

Roots chiefly contain an active principle glycyrrhizin; it is present in the form of glycyrrhizic acid which is sweet anrethan 50% in compare to sugar and its sweetness is observed even in 1 : 2000 solution. This prepared in hot water can be frozen. The content of glycyrrhizin is isolated from different species of Glycyrrhiza within the range of 2-10 per cent which is found and detected in only underground parts of the source plant and not in its urial part.

The yellow colour in roots of liquorice is due to presence of a glycoside isoliquiritin (2.2%) which is partially converted into liquiritin. These both active principles are bitter in taste with slightly sweetness and propelling salivary secretion. Extract is prepared of the roots.

A steroid eastrogen is also present in the roots. They contain glucose 3.8, suchrose 2.4-6.5, menite, starch 30%, asparagine, bitter substance, resinous matter 2.4 and a volatile oil 0.03-0.35 per cent and a colouring matter. Ash (water soluble) is less than 20 per cent in root and 10% in root with bark, but less than 6% in barkless root.

Pharmacodynamics

Rasa	: Madhura
Guṇa	: Guru, snigdha
Vīrya	: Śīta
Vipaka	: Madhura
Doṣakarma	: Vātapittaśāmaka

Properties and action

Karma	: Chedana (śleṣmahara)-kāśahara-
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kaṇṭhya
 Śoṇitasthāpana
 Chardinigrahaṇa-tr̥ṣṇānigrahaṇa-
 vātanulomana-mṛdurecana
 Āmāśayasthāmlatva nāśaka-kṣata
 sandhāniya
 Medhya-nāḍibalya
 Dāhaśāmaka
 Keśya
 Vedanāsthāpana
 Śothahara
 Mūtrala-mūtravirajāniya-snehana
 Vṛṣya-śukrajanana
 Varṇya-tvacya-kāndūghna
 Jvaraghna
 Jivāniya-sandhāniya-rasāyana
 Cakṣuṣya
 Vraṇaropaṇa
 Stanyaajanana
 Hikkānigrahaṇa
 Balya-bṛñhaṇa
 Viṣaghna.

Roga : Kāsa-śvāsa-hikkā-svarabheda-kaṇṭhā
 (gala)-vikāra
 Adhoga-urdhvag raktapitta
 Raktapitta
 Kṣaya-yakṣmā
 Vāta vikāra-āmavāta
 Maṣṭiṣka-nāḍīdourbalya-
 buddhimāndya
 Śīroroga
 Chardi-tr̥ṣṇā-vibandha-udaraśūla
 Amlapitta-āmāśayika vraṇa-
 pariṇāmaśūla
 Raktavikāra-raktālpā
 Pāṇḍu
 Prameha-pūyameha-paittikameha-
 mūtrakṣcchra
 Śukrameha-śukrakṣaya

Varṇavikāra-kaṇḍū-carmavikāra
 Urahkṣata-pārśvāsūla-kṣataksīṇa
 Vraṇa-sadyovraṇa-kṣata
 Apasmāra
 Stanyakṣaya.

Therapeutic uses

The drug Madhuyaṣṭi or yaṣṭimadhu (Ka) is a potent expectorant herbal agent possessing chedana (śleṣmahara) properties acting on respiratory system. It is a prominent plant drug recommended in cough, asthma, bronchitis and throat affections e.g. hoarseness of throat and voice abnormalities (including laryngitis and pharyngitis). The root-pieces are common remedy for chewing in throat disorders, cough and allied ailments. As per popular practice, the pieces of root (obtained from Madhuyaṣṭi plant identified as Glycyrrhiza glabra Linn.) are also component of betel in tradition (betel chewing - tambūla carvaṇa or bhakṣaṇa). Thus, yaṣṭimadhu has utility of a drug as well as condiment having oral use in health and morbidity particularly in vocal cavity and respiratory tract.

As an effective medicine, it is prescribed in pulmonary diseases including tuberculosis (yakṣmā); the drug acts as a good expectorant and also antipyretic and promotes functions of lungs and other respiratory organs. In cases of hiccough, cough, chest pain, coryza, catarrhal affections, influenza, cold and fever, the roots are used as single drug and combined in group of ingredients (of infusion, decoction, syrup, powder etc.) of any suitable recipe or formulation.

Madhuyaṣṭi is one of the rasāyana drugs (promotive and restorative) belonging to alterative group of medicinal plants, specially it has been recommended an intellect-promoting (medhya rasāyana) in ancient tradition of medicine among some specific drugs carrying rasāyana potentials under promotive therapy to human body (physically and mentally) as a whole with psychosomatic effects) in general and being intellect-promoting (or memory-improving) drug in particular. The textual references in classical compendia (Caraka Saṁhitā, Cikitsā, 1-3/30-31 etc.)

of Indian medicine are providing support of its medicinal efficacy as a major rasāyana (health promotive) drug.

For management of epilepsy (apasmāra), the paste (roots) of yaṣṭimadhu (80 gm.) is cooked in ghee (640 gm.) with fruit-juice dhātrī (*Emblica officinalis* Gaertn.) 10.24 litres. Thus, madhuyaṣṭi ghr̥ta is prepared which is orally given to epileptic patient suffering from epilepsy (specifically caused by pitta doṣa). Similarly, the paste of yaṣṭimadhu roots prepared by pounding in juice of Kūṣmāṇḍa (*Benincasa hispida*) has been suggested to be internally administered (*Bhāvaprakāśa*, *Cikitsā*, 23-17) in disease of epilepsy.

The drug is used in vātavikāra, vātarakta, nervous disorders, headache, śīroroga, hemicrania, rhumatic disorders and as a nervine tonic in addition to its intellect promoting (medhya) potentiality described in early texts of medicine. Madhuyaṣṭi is analgesic (vedanāsthāpana) and anti-inflammatory (śoṭahara). Externally the roots paste is applied to counter inflammation (vraṇaśoṭha) and poisonous affect (viṣa). In head and hair ailments (śīroroga and keśaroga), the decoction of drug-root is used as liquid wash (keśa-prakṣālaṇa). The drug is useful in greying of hairs (pālitya) and baldness (Khālitya-īndralupta). Yaṣṭimadhuka taila is prescribed in Indian medicine (*Śārṅgadhara Saṁhita*, 2-9-153) for treatment of pālitya (greying of hairs etc.).

Apart from rasāyana (health promotive), jivaniya (life-promotive and (rajuvenile), balya (body strengthening) and sandhaniya (union-promoting), the drug yaṣṭimadhu is varṇya (complexion and lustre promoting) that improves and protects skin health (including maintenance of pigmentation); it eradicates skin affections (tvagvikāra-varṇavikāra). In skin burn cases, the ghee mixed liquorice (madhuyaṣṭi) roots powder is suggested for local application especially burn caused by alkali (samyagdagdha : *Suśruta Saṁhitā*, *Sūtra*, 11-19).

In the management of wounds and ulcers, yaṣṭimadhu has been recommended in indigenous system of medicine. The drug is good wound healer and also use-

ful in post-operative surgery. It has been prescribed in Indian medicine by Suśruta, father of surgery in ancient India, that the pain is removed by applying locally warm ghee mixed with root-powder of drug *yaṣṭimadhu* (Suśruta Saṁhitā, Sūtra. 5-42) which is later followed in tradition of medical system (Vṛndamādhava, 45-1). Similarly, the paste of *madhuyaṣṭi* mixed with nimba leaves is applying over wounds (*vṛṇaśodhana*) cleaning (Caraka Saṁhitā, Cikitsā. 25-85). The paste of *madhuyaṣṭi* root mixed with tila seeds (*Sesamum indicum*) is applied on wound as healing medicine.

Madhuyaṣṭi has classically been recommended in the ophthalmic therapeutics. In the disorders of eye-lid after scarification of lid (*vartma lekha*), the liquorice root (*madhuyaṣṭi mūla*) powder or decoction of drug root is sprinkled on spot. Similarly in *upapakṣma*, the sprinkling of drug-root cooked with ghee has been prescribed in order to relieve pain immediately (Baṅgasena, *netraroga*, 288). In addition to eye-lid treatment with *madhuyaṣṭi* (*Aṣṭāṅga Hṛdaya*, *uttara*, 9-18), a collyrium has been suggested to prepare with *madhuyaṣṭi* (extract), out of the four drugs incorporated in texts (Vṛndamādhava, 61-96) and this collyrium (*añjana*) is applied in case of corneal opacity (*śukra*). In stage of *timira roga* (defects of vision or eye sight), the bath with *madhuyaṣṭi* and *āmalaka* (*añwlā*) has been suggested (Baṅgasena, *netraroga*, 288) for alleviating *pitta* and removing the visionary anomalies (*dṛṣṭidoṣa*). In general, the powder of liquorice root (*yaṣṭimadhu*) is advised for oral use with milk or with any other suitable vehicle (*anupāna*) for promoting eye vision (*dṛṣṭi vardhāna*) and as a *caḡṣuṣya* medicine (beneficial for eye or protection ophthalmic function).

The roots of drug *madhuyaṣṭi* are used as laxative, carminative, diuretic, anti-colic and herbal antacid being effective in hyper acidity peptic ulcer and duodenal ulcer. It is useful in vomiting, over thirst; *raktapitta* (intrinsic haemorrhage), blood diseases, anaemia, *prameha*, gonorrhoea, dysuria, spermatorrhoea, chronic fever, gen-

eral debility, pradara and other diseases. It is an aphrodisiac (vṛṣya) drug providing sexual potency.

Parts used : Roots.

Dose : 3.5 gms.

Formulations

Yaṣṭyādi cūrṇa, Yaṣṭyādi kvātha, Yaṣṭimadhvādyataila

Gana

Kaṅṭhya, Jivanīya, Varṇya, Kaṅḍūghna, Mūtravirajanīya, Śonitāsthāpana (**Caraka Samhitā**), Kākolyādi, Sārivādi, Anjanādi (**Suśruta Samhitā**), Chardinigrahaṇa, Snehopaga, Vamanopaga Āsthāpanopaga.

MADHUYAṢṬĪ (मधुयष्टी)

यष्टी हिमा गुरुः स्वाद्वी चक्षुण्या बलवर्णकृत् ।
सुस्निग्धा शुक्रला केश्या स्वर्या पित्तानिलास्रजित् ॥
व्रणशोथविषच्छर्दितृष्णाग्लानि क्षयापहा ।

Bhāvaprakāśa Nighaṅṭu, Harīṭakyādi Varga, 146.

मधुकं मधुरं वृष्यं वर्ण्यं स्वर्यं हिमं गुरु ।
सुस्निग्धं बृंहणं केश्यं वातपित्तकफापहम् ॥
सद्यः क्षतास्रतृच्छर्दिक्षयशोकव्रणान् हरेत् ।

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 1180-1181.

मधुरं यष्टिमधुकं किञ्चित्तक्तं च शीतलम् ।
चक्षुष्यं पित्तद्द्रुच्च शोषतृष्णाव्रणापहम् ॥

Rāja Nighaṅṭu, Pippalyādi Varga, 145.

क्लीतनकम्

क्लीतनं मधुरं रुच्यं बल्यं वृष्यं व्रणापहम् ।
शीतलं गुरु चक्षुष्यमस्र पित्तापहं परम् ॥

Rāja Nighaṅṭu, Pippalyadi Varga, 148.

मधुयष्टिः स्वादुरसा शीतपित्तविनाशिनो ।
वृष्याशोषक्षयहरा विषच्छर्दि विनाशिनी ॥
यष्टिकायुगलं स्वादु तृष्णापित्तास्रजित् समम् ।

Dhanvantari Nighaṅṭu.

धधायाः स्तन्यवृद्धयर्थम्

यष्टीमधुक संयुक्तं गव्यं क्षीरं सशर्करम् ।
पीत्वा धात्रौ भवेद् भूरिस्तन्यपूर्णं पयोधरा ॥

Vaidya Manoramā.

अर्शसि

‘ततो यष्टीमधुकमिश्रेण सर्पिषा निर्वाप्य ।’

Suśruta Saṁhitā, Cikitsā. 6-4.

पित्तजविद्रधिघ्नो यष्ट्याद्य लेपः

Cakradatta, 43-7.

रक्तप्रदरे

मधुकं कर्षमेकं तु कर्षकाञ्च सितां तथा ।
तण्डुलोदकसम्पिष्टां लोहितेप्रदरे पिबेत् ॥

Bhāvaprakāśa Strīrogādhikāra, 68-12.

केशकुञ्जनीकरण मधुकादि लेपः

Cakradatta, Kṣudraroga Cikitsā, 55-103.

हिक्कायाम्

‘मधुकं मधुसंयुक्तं.....हिक्काघ्नं नावनत्रयम् ।’

Śodhala, Vṛndamādhava, 12-3.

शोषे

‘पयसा सेकः शस्तश्च मधुकाम्बुना ।’

Caraka Saṁhitā, Cikitsā, 8-85.

बाजीकरणे

कर्षं मधुकचूर्णस्य घृतक्षौद्रसमन्वितम् ।
पयोऽनुपानं यो लिह्यान्नित्यवेगः सा ना भवेत् ॥

Śodhala.

केशश्चमश्रुजननार्थं यष्टीमधुकाद्यं तैलनस्यम्

Kṣudraroga cikitsā, Cakradatta, 55-111.

पैत्तिक स्वरभंगे

‘अशनीयाश्च ससर्पिष्कं यष्टीमधुक पायसम् ।’

Suśruta Saṁhitā, Uttara 53-13.

Śodhala, Gadanigraha.

भल्लातकोत्थश्चयथुप्रतिकारे

‘यष्टि दुग्धतिलैर्लेपो नवनीतेन संयुतः ।

शोथमारुष्करं

हन्ति..... ॥'

*Vṛndamādhava, 39-98.**Śoḍhala.*

हिक्कायाम्

'यष्ट्याह्वं वा माक्षिकेणावपीडे पिप्पल्यो वा शर्कराचूर्णं संयुक्ताः ।'

Suśruta Saṁhitā, Uttara, 50-16.

तिमिररोग

'मधुकामलक स्नानं पित्तघ्नं तिमिरापहम् ।'

Baṅgasena.

पित्तजे कर्णरोगे

'द्राक्षायष्टिशृतं क्षीरं शस्यते कर्णपूरणे ।'

Baṅgasena, Karṇaroga. 52.

तृष्णायाम्

क्षयोत्थितां क्षीरघृतं निहन्यान् मांसोदकं वा मधुकोदकं वा ।

Suśruta Saṁhitā, Uttara. 48-28.

अपस्मारे

कूष्माडकफलोत्थेन रसेन परिपेषितम् ।

अपस्मार विनाशाय यष्ट्याह्वंस पिबेत् त्र्यहम् ॥

Baṅgasena, Bhāvaprakāśa, 23-17.

उपपक्ष्मनाग्नि नेत्ररोगे

'यष्टि सिद्धं घृतं सेकात् सद्यो हरति वेदनाम् ।'

Baṅgasena.

मूत्ररोधज उदावर्त्ते

'.....क्षीरं द्राक्षायष्टीमथापि वा ।'

Bhāvaprakāśa, Cikitsā, 11-25.

मूत्रावरोधजन्योदावर्त्ते मधुयष्टी स्वरसम्

'सितामिक्षु रसं क्षीरं द्राक्षा यष्टीमथापि वा ।'

Bhāvaprakāśa, Śūladhikāra, 31-25.

सर्वेषु शिरोरोगेषु

यष्टीमधुककषायः स्यात् तुर्यांशं तु विषं भवेत् ।

तयोश्चूर्णं सुसूक्ष्मं स्यात् तच्चूर्णं सर्षपाचितम् ॥

नासिकाभ्यन्तरे न्यस्तं सर्वा शीर्षव्यथां हरेत् ।

दृष्टप्रयोगो

योगोऽयमनुभाविभिराद्यतः ॥

Bhāvaprakāśa, Cikitsā, 62-59/60.

नेत्रगते मसूरिका (पीडिका) शमनार्थं मधुकादि लेपः

Cakradatta, 54-38.

सद्योव्रणे

सद्यः क्षतव्रणं वैद्यः सशूलं परिषेचयेत् ।
यष्टीमधुककल्केन किञ्चिदुष्णैः सर्पिषा ॥

Cakradatta, Vraṇāśothacikitsā, 50-49.

रुधिरवमने

‘यष्टमयाह्वचन्दनोपेतं सम्यक् क्षीरप्रपेषितम् ।
तैनेवालोड्य पातव्यं रुधिरच्छर्दिनाशनम् ॥’

Cakradatta, Chardi Cikitsā, 15-25.

उदरे

‘भिषगत्रापि योजयेत् ।
सितां मधुकसंयुक्ताम्.... ॥’

Cakradatta, 51-3.

सम्यग्दग्धे

‘तत्राम्लवर्गः शमनः सर्पिमधुकसंयुक्तः ।’

Suśruta Saṁhitā Sūtra, 11-19.

हृद्रोगे

‘यष्ट्याह्विकातिककरोहिणीभ्याम् ।
कल्कं पिबेच्चापि सिताजलेन् ॥’

Caraka Saṁhitā, Cikitsā, 26-21.

वातरक्ते

‘सिद्धं (तैलं) मधुककार्श्यं रसैर्वा वातरक्तनुत् ।’

Caraka Saṁhitā, Cikitsā, 29.

रसायनार्थम्

‘क्षीरेण यष्टीमधुकस्य चूर्णम् ।’

Caraka Saṁhitā, Cikitsā. 1-3/30-31.

क्षतक्षीणे

‘कल्पोऽथ शुण्ठीमधुकयोस्तथा ।’

Caraka Saṁhitā, Cikitsā, 16.

मुखरोगे

यष्टीमधु पलमेकं त्रिंशन्नीलोत्पलस्य तैलस्य ।
प्रस्थं तद् द्विगुणपयोविधिनापक्वं तु नस्येन् ॥

निशि वदनस्य स्नावं क्षपयति गात्रस्य दोषसंघातम् ।
कचघर्षणत्वमवश्यं क्रमतोऽभ्यङ्गेन जन्तूनाम् ॥

Bhāvaprakāśa, Mukharogādhikāra, 66/166-167.

वातरक्ते

मधुकाद्विगुणं तैलं तैलादाजं पयो भवेत् ।
तद्यथाऽग्निबलं पेयं वातरक्तरुजाऽपहम् ॥

Bhāvaprakāśa, Vātaraktadhikāra, 29-56.

गर्भे शुष्के शुष्यति च बाले

‘सिताकाशमर्यमधुकैः हितमुत्थापने पयः ।’

Caraka Saṁhitā, Cikitsā, 28-96.

पित्तजापस्मारे

मधुकद्विपले कल्के द्रोणो चामलकी रसात् ।
तद्वत् सिद्धौ घृतप्रस्थः पित्तापस्मारभेषजम् ॥

Caraka Saṁhitā, Cikitsā, 10-31.

पाण्डुरोगे

पाण्डुरोगहरं लिह्याच्चूर्णं क्षौद्रविमिश्रितम् ।
यष्ट्याह्वस्य प्रयत्नेन तत्क्राथं वा पिबेन्नरः ॥

Gadanigraha, 2-7-43.

‘हितश्च यष्टीमधुकं कषायं,
चूर्णसमं वा मधुनावलिह्यात् ।’

Suśruta Saṁhitā, Uttara, 44-20.

अधोग रक्तपित्ते

‘यष्टिमधुकयुक्तं च सक्षौद्रं वमनं हितम् ।’

Suśruta Saṁhitā, Uttara, 44.

‘पिबेदक्षसमं कल्कं यष्टीमधुकमेव वा ।’

Suśruta Saṁhitā, Uttara, 45.

अर्धावभेदके

‘मधुकेनावपीडो वा मधुना सह संयुतः ।’

Suśruta Saṁhitā, Uttara, 46.

मेध्य रसायने

‘मण्डूकपर्ण्याः स्वरसः प्रयोज्यः क्षीरेण यष्टीमधुकस्य चूर्णम् ।’

Caraka Saṁhitā, Cikitsā, 1:3-30/31.

वृष्यमधुक योग

कर्षं मधुकचूर्णस्य घृतक्षौद्रसमन्वितम् ।

पयोऽनुपानं यो लिह्यान्नित्यवेगः स ना भवेत् ॥

Aṣṭāṅga Sangraha, Uttara, 50-43.

Caraka Samhitā, Cikitsā, 2:3-19.

Cakradatta, Vṛṣyādhikāra, 66-8.

वमनकर्मे परिकर्त्तिका (अतियोगात्)

‘यष्टीमधुकसिद्धं वा स्नेहबस्ति प्रदापयेत् ।’

Caraka Samhitā, Siddhi, 6-67.

बली-पलित निरोधार्थं देहकान्तिदायकवर्णकघृतम्

Cakradatta, 55/77-80.

स्तन्य रोगे

द्राक्षामधुककल्केन स्तनौः चास्या प्रलेपयेत् ।

प्रक्षाल्य वारिणा चैव निदुह्यात्तौ पुनः पुनः ॥

Caraka Samhitā, Cikitsā, 30-272.

मुखकान्तिदायक कनक तैलम्

Cakradatta, Kṣudraroga Cikitsā, 55/58-59.

विसर्पे

घृतमण्डेन शीतेन पयसा मधुकाम्बुना ।

पञ्चवल्कलकषायेण सेचयेच्छीतलेन वा ॥

Caraka Samhitā, Cikitsā. 21-94.

शतधौतघृतेनाग्निं प्रदिह्यात् केवलेन वा ।

सेचयेद् घृतमण्डेन शीतेन मधुकाम्बुना ॥

शीताम्भसाऽम्भोजजलैः क्षीरेणेशुरसेन वा ॥

Aṣṭāṅga Hṛdaya, Cikitsā, 18-21.

वातरक्ते

शतपाकं मधुक तैलम्

Caraka Samhitā, Cikitsā, 19-117/118.

‘अजाक्षीरं वाऽर्धतैलं मधुकाक्षयुक्तम् ।’

Suśruta Samhitā, Cikitsā, 5-7.

व्रणे

मधुकं निम्बपत्राणि प्रलेपो व्रणशोधनः ।

यष्टी तिलाः सुपिष्टा या स्मृता व्रणरोपणाः ॥

Vṛndamādhava, 44-73.

सद्यःक्षते

या वेदना शस्त्रविधात जाता तीव्रा शरीरं प्रदुनोति जन्तोः ।

घृतेन वा शान्तिमुपैति सिक्ता कोष्णेन यष्टीमधुकान्वितेन ॥

Suśruta Saṁhitā, Sūtra, 5-42,

Vṛndamādhava, 45-1.

वृद्धौ

‘यष्टीमधुकसिद्धेन ततस्तैलेन योजयेत् ।’

Suśruta Saṁhitā, Cikitsā, 19-7.

भगन्दरे

ततो मधुकतैलेन तस्य सिञ्चेत भिषग् व्रणाम् ।

Suśruta Saṁhitā, Cikitsā, 8-18.

मूत्राघाते

मधुककुङ्कुमकल्कमिदाम्बुना गुडयुतेन विलोड्यनिशाम्बितम् ।

शिशिरमाशु, पिबेन् जयतीद्धमप्याखिलमूत्रविकारभरं नरः ॥

Kalyāṇakāraka, 17-64.

रक्तप्रदरे

मधुकं कर्षमेकं तु कर्षकाञ्च सितां तथा ।

तण्डुलोदक सर्पिष्ठां लोहितप्रदरे पिबेत् ॥

Bhāvaprakāśa, Cikitsā, 68-13.

रक्तपित्ते

‘पिबेद्दक्षसमं कल्कं यष्टीमधुकेव वा ।’

Suśruta Saṁhitā, Uttara, 45-24.

यष्ट्याह्व चन्दनोपेतं सम्यक् क्षीरप्रपेषितम् ।

तैनेवालोड्य पातव्यं रुधिरच्छर्दिनाशनम् ॥

Cakradatta, 15-25.

MAHĀBALĀ

Botanical name

Sida rhombifolia (Linn.) Mast.

syns. *Sida rhomboidea* Roxb. ex. Fleming., *Sida rhombifolia* var. *rhomboidea* (Roxb. ex Fleming.) Mast.

Family : Malvaceae

Classical name : Mahābalā

Sanskrit names

Mahābalā, Śvetapuṣpā, Sahadevā, Kṣetrabalā.

Regional names

Pila Bariyara (Hindi); Pita badela, Halde Badela (Beng.); Khetrau bala (Guj.).

Description

Erect herbs or undershrubs, upto 1.5 m. high usually covered with shining stellate hairs; branches often red-tinged.

Leaves usually ovate-oblong or rhomboid, sometimes lanceolate, 1-10 cm. long, usually serrate-crenate in the upper part.

Flowers axillary, solitary or 2-5 together; pedicels upto 4 cm. long, jointed below apex, Calyx campanulate Ca 1 cm. across, with 5 prominent nerves above. Corolla Ca 15 mm. across, yellow or orange; petals obliquely obovate. Mericarps 9-10, flattened, trigonous, 2.5-3.5 mm. long, mostly mucous, sometimes with two small mucros or awns.

Flowering and fruiting time

Plant flowers in September-October and fruits in October-April.

Distribution

Plant occurs throughout India. It is generally found in wastelands, rock-cervices, forests and along streams and other places in various regions in country.

Chemical Composition

Roots contain mucilaginous matter, fatty acid, resin, potassium nitrate and other substances. Alkaline substance is found to be 0.085 per cent while seeds yield its higher content.

Pharmacodynamics

Rasa	: Madhura
Guṇa	: Laghu, snigdha, picchila
Vīrya	: Śīta

Vipāka : Madhura
Doṣakarma : Vātapittanāśaka

Properties and action

Karma : Balya-br̥ṇhaṇa-ojovardhana
Vātaghna-nāḍībalya
Vedanāsthāpana-śothahara
Grāhī
Hṛdya-raktapittaśāmaka
Śukrala-prajāsthāpana
Jvaraghna
Mūtrala.

Roga : Vātavikāra-nāḍidourbalya
Grahaṇī
Hṛddourbalya-raktapitta-urahkṣata
Śukrameha-pradara-gorbhāśaya
dourbalya
Mūtrakṛcchra
Jvara-viṣamajvara
Dourbalya-kṣayaroga-kṛsata
Vranaśoṭha
Netraroga.

Therapeutic uses

The drug Mahābala belongs to the group of four kinds of Balā which is known as 'Balācatuṣṭaya', and the medicinal properties and uses in therapeusis are almost similar to that of Balā drug or other components comprising Balā group.

Mahābalā is specially indicated (Baṅgasena and Bhāvaprakāśa) in filariasis (ślīpada) and malarial fever (viṣamjvara) besides various other diseases where Balā and Balācatuṣṭaya are recommended for therapeutic uses in different forms and formulations, in addition to single drug use of Mahābalā.

Parts used : Roots, seeds.

Dose : Juice 10-20 ml., Powder 3-6 gm.

Formulation : Balācatuṣṭaya (c.f.).

Gaṇa : Balācatuṣṭaya (c.f.).

MAHĀBALĀ (महाबला)

महाबला तु हृद्रोग वातार्शः शोफनाशिनी ।
शुक्रवृद्धिकरी हन्यात् विषमद्यं ज्वरं नृणाम् ॥

Dhanvantari Nighaṅṭu.

विषमज्वरे महाबला

‘महाबलामूलमहौषधाम्यां क्वाथो निहन्याद्विषमज्वरं हि ।
शीतं सकम्पं परिदाहयुक्तं विनाशयेद्द्वित्रिदिन प्रयोगात् ।’

Bhāvaprakāśa.

श्लीपदेमहाबलामूलम्

‘असाध्यमपि यात्यस्तं श्लीपदं चिरकालजम् ।
मूलेन सहदेवायास्तालमिश्रेण लेपितम् ॥’

Baiṅgasena.

MAKHĀNNA

Botanical name

Euryale ferox salisb.,
Syn. *Anneslia spinosa* Roxb.

Family : Nymphaeaceae

Classical name : Makhānna

Sanskrit names

Makhānna, Padmabījābha, Aṅkalodya, Pāniya-phala.

Regional names

Makhanna (Hindi); Makhana (Beng.); Jaibar (Punj.); Makane (Mar.); Makhana (Guj.); Kautapadma (U.); Fox nut, Gorgon Fruit (Eng.).

Description

Euryale Salisb : A monotypic genus *Euryale* Salisb. represented by species *E. ferox* Salisb. A dense prickly aquatic herb; root stock thick. Leaves orbicular, corrugate. Flowers violet-coloured, partially submerged. Sepals 4, erect inserted on the edge of the torus above the carpels. Petals numerous, 3-5-seriate, shorter than the sepals. Stamens many, many-seriate, in bundles of eight; filaments

linear. Ovary 8-celled. sunk in the dilated top of the torus; stigma discoid, depressed concave; ovules few, parietal. Berry spongy, crowned with the persistent sepals. Seed 8-20; aril pulpy; testa thick, black.

Euryale ferox Salisb. : A densely prickly, stemless aquatic herb. Rootstock thick, short. Leaves 1-4 ft. in diam, oval or orbicular, green above, downy red or purple beneath, with strong spiny ribs. Lvs. floating.

Flowers 1-2 in. long, violet-coloured inside green and shining outside. Sepals with recurved spines on their backs. Petals about 20, narrowly ovate-oblong, inner smaller. fls. violet, blue or red in colour.

Berry 2-4 in. diam., nearly sound. Seeds about 20, from the size of a pea to that of a cherry. Fruit a berry, round and prickly, almost in size of orange.

Flowering and Fruiting time

Plant flowers during the rains and fruiting stage begins afterwards. In some areas, plant commences to January-February and bears fruit in May-June.

Distribution

Plant occurs eastwards to East Bengal and China; it is also in Kashmir and Oudh, Utter Pradesh in tanks and Jhils. It is found (in aquatic habitat and as an aquatic plant like lotus) in northern, central and western India and also in north Bihar in abundance in tanks and ponds; fresh water tank and Jhils in northern, central and western India.

Chemical composition

Analysis of edible part of the seeds gave the following values : moisture 12.8, protein 9.7%, fat 0.1%, mineral matter 0.5, carbohydrates 76.9, calcium 0.02 and phosphorous 0.09%; iron 1.4 mg./100g.; carotene trace.

Seeds majorly contains carbose (carbohydrate), protein, mineral substance, calcium, iron, phosphorus, carotene and other substances.

Pharmacodynamics

Rasa	: Madhura
Guṇa	: Guru, snigdha/rūkṣa

Vīrya	: Śīta
Vipāka	: Madhura
Doṣakarma	: Vātapittaśāmaka

Properties and Action

Karma	: Śukrajanana-sūkrastambhana- vājikaraṇa Prajāsthāpana Hṛdya-Śonitasthāpana Balya-bṛñhaṇa Dāhapraśamana Grāhī Viṣṭambhi
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Roga	: Śukrameha-śukrakṣaya- napuñsakatva Garbhāśaya dourbalya Pradara-prasavottara dourbalya Dourbalya Dāha Hṛdroga-raktapitta.
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Therapeutic uses

The fruits are tonic, cardiac tonic, haemostatic and useful to check burning sensation, debility, weakness in females after delivery leucorrhoea and spermatorrhoea.

The farinaceous seeds are eaten after being roasted in hot sand. Seeds which may be of size of a pea or of a cherry, are black in colour and eaten raw or roasted. On roasting in hot sand the seed coat swells and bursts and can be easily peeled off. The seeds are available in market in the state of seeds attained after frying or roasting in hot sand (bhṛṣṭa bīja or roasted seeds) and used as edible item with utility of farinaceous food. The seed flour is also used as a substitute for arrowroot. It is nutritious and is easily digested, it is also recommended as food for certain ailing conditions and also in health as light and easy digestible food item, particularly it is also acceptable during fasts (vrata and upavāsa) of cultural (for specific fasting), traditions supported with its sanctity in some religious ceremonies. Seeds are wholesome (pathya) in certain diseases.

The seeds are used in medicine owing to their medicinal efficacy, and potentiality of nutrient values in health as well as in diseases. The seeds are tonic, astringent and deobstruent.

It is useful as an aphrodisiac (vṛṣya) and conception-promoting-preserving or foetus stabilising (garbha sansthāpaka-prajā sthāpana); it allays burning sensation in body, pitta and blood provocation (pitta rakta prakopaṇa). It is strengthening body and toning up body tissues (balya-br̥ṇhaṇa) and haemostatic (śonitasthāpana), semen promoting-propelling and checking the semen-discharge or delaying ejaculation (śukrajanana-śukra stambhana), cardiogenic and allaying provocation of vāta and pitta doṣa. Seeds are given in different forms in hṛdrogas, raktapitta, pradara, śukrameha and napuṁsakatā.

Part used : Fruit.

Dose : 5-10 gm.

Formulation : Pouṣṭika cūrṇa.

MAKHANNA (मखान्न)

मखान्नं पद्मबीजाभं पानीयफलमित्यपि ।
मखान्नं पद्मबीजस्य गुणैस्तुल्यं विनिर्दिशेत् ॥
विष्टम्भि वृष्यं रुक्षं च गर्भसंस्थापकं परम् ।
कफवातहरं बल्यं ग्राहि पित्तास्रदाहनुत् ॥

Bhāvaprakāśa Nighaṇṭu, Āmrāphaladi Varga, 91.

MĀLAṅGA (TUTAMALŅGĀ)

Botanical name : *Lallemantia royleana* Benth.

Family : Lamiaceae (Labiataceae)

Common name : Tutamalanga-Tukhmalanga.

Classical name : Mālaṅga, Mālaṅgā, Bālaṅga

Regional names

Balanga, Balangu, Tutamalanga, Lokamalanga (Hindi); Balangu (Bomb.); Balanka (South.); Ghareika-

shmah, Tukhm malanga (Punj.); Tukmevalung (Tredy); Balangu, Tukhme Balangu (Pers).

Description

Herbaceous erect, annual small herbs with angled stems, hoary-pubescent or glabrate herb; 15-45 cm. high. Leaves 1.25-2.5 cm. long (upto half to one inch long), opposite, ovate or oblong, 2.5 cm. long, coarsely crenate.

Flowers $5/3$ cm. long ($2/3$ inch. long), pinkish shade, small, pale lilac, in numerous whorls in long interrupted spikes. Nutlets 2.5 mm. long narrowly oblong, black and smooth.

Flowering and fruiting time

Farming season

Distribution

Plant is cultivated in India for its mucilaginous seeds. It responds well to cultivation and it is grown to a small extents in Punjab. It ascends to 3,000 ft. elevation.

Plant requires rich, loamy, well-drained soil and frequently irrigation. Seeds are sown in September-October at the rate of 3-4 lb. per acre and the crop is harvested in April. An yield of 4-5 md. of seeds per acre is estimated.

Kinds and varieties

The seeds of another plant *Salvia santolifolia* Boiss. (*Salvia aegyptiaca* L. var. *pumila* Hook. J.) are used as Tukhma Balanga particularly in northern India. Sometimes seeds of *Dracocephalum royleanum* Benth., belong to same family (Lamiaceae) are also considered substitutes/adulterants to the drug Tukhm-malanga. The seeds of Tukhmalanga are said to be imported from Persia or Indian market of drugs.

Seeds form raw materiel of drug Mālangā or Tūtamaṅga-Tukhmalanga and the market crude drug consists of black seeds $5/16$ cm. ($1/8$ inch long), triangular seeds when put into water (soaked) become mucilaginous, sticky, transparent, tasteless and fully brownish mucilage.

Chemical composition

Seeds yield 0.8% of a light, green, semi-drying oil with the characteristics recorded (with sp. gr., sap. val., iod.

val., acid val. and unsapon matter (sitosterol) 0.28%. The mixed fatty acids contain stearic 3.2, palmitic 10.1, oleic 59.4 and linolenic 26.1 percent.

Pharmacodynamics

Rasa	: Tikta, kaṣāya
Guṇa	: Picchila
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Vātapittahara

Properties and action

Karma	: Soumanasyajanana-hṛdya Śītasangrāhī Sangrāhi-picchila Puṣṭikara Mūtrajanana-mūtradaḥasāmaka Vraṇasoṭhahara-vraṇavidāraṇa- vimlāpana
Roga	: Atisāra-raktātisāra-pravāhikā Vraṇasoṭha-vidradhi Hṛdroga-hṛddourbalya

Therapeutic uses

The drug Mālāngā is medicinally active as cooling sedative and diuretic properties for which the seed are valued and used in medicine.

Seeds are also employed in preparation of beverages. They are given internally as soothing drink in urinary troubles and other similar problems or also normally using a drink with soothing effect.

The seeds are also recommended for checking cough. A poultice of seeds is applied to abscesses, boils and inflammations.

The seeds of drug when moistened become coated with a translucent, tasteless and sticky type of mucilaginous substance. The seeds are, however, considered dangerous for oral uses, as when the seeds are internally taken and they are ingested in alimentary canal, the mucilage forms rigid peltate masses which interlocking with intestinal contents tend to occlude the lumen of the bowel.

The seeds are used in diarrhoea, dysentery and diarrhoeal complaint with gripping and blood. Seeds are frequently pasted over boil and abscesses for (vidāraṇa) coming out pus and purification or cleansing (śodhana).

Part used : Seeds.

Dose : 5-7 gm.

MALAYAVACĀ

Botanical name : *Alpinia galanga* willd.

Family : Zingiberaceae

Classical name : Malayavacā

Sanskrit names

Malayavacā, Sugandhā, Sthūlagranthi, Kulañja, Kulañjana, Gandhamūla, Tikṣṇamūla, Sthūlagranthi, Ugragandha, Mahābharivacā.

Regional names

Kulanjan, Kulinjan (Hindi); Kulirldan (Mar., Guj.); Gerarattai (Tam.); Pencudarump (Tel.); Eestrakam (Andhra.); Khulanjan (Arab.); Khushhidaru (Pers.); Greater galangal, Java galangal (Eng.); Galanga Cardamon (fruits-English).

Description

Plant is 6-7 feet high, and bears perennial rhizomes which are deep orange-brown in colour, aromatic, pungent and bitter. The fruits are about 1/2 inch long, constricted in the middle, and they contain 3-6 seeds. The latter are slightly pungent, with an aroma similar to that of the rhizome. Rootstock perennial and rhizome aromatic (but less odorous than chinese source plant *Alpinia officinarum* Hance rhizome). Herb 90 cm. - 180 cm. high (or up to 6-12 feet high) depending upon ecological conditions and stem leafy similar to plant of *Acorus calamus* or *Vaca*. Leaves 20-50 cm. (8-20 inches) x 3.75-12.5 cm. (1.5-5 inches), acuminate, pointed, smooth uppersurface green and lower surface (back) fade colour. Flowers greenish white in colour. Fruits red when ripen, ovoid, 1.25-2.5 cm.

(1/2-1 inch.) long and attractive in matured state. Fruits are known as Galanga Cardamon.

Flowering and fruiting time

Plant flowers during summers and fruiting afterwards.

Distribution

It is native of Sumatra and Java and grows in South east Asian region. Plant is found in the Himalayas and southern-western India.

Kinds and varieties

Rootstock is perennial, potato-like tuberous and odorous. Pieces of about 1-2 inches long, finger like size (C.) of rootstock, known as lesser Galangal, are available in market. *Alpinia officinarum* Hance. is another kind of source plant (native of China) drug. Its rootstock is smaller, reddish-white, intense odorous and pungent taste.

The source plant (native of China) of the lesser Galangal or Kulanjan is *Alpinia officinarum* Hence. Deshi Kulanjan or the greater Galangal is *Alpinia galanga* willd.

Former plant is mainly distributed mainly in the eastern Himalayas and south west India, Bengal, Malabar and other regions in country. It is found wild and the plants are also cultivated. Plant is native of Java and Sumatra.

Chemical composition

The green rhizomes contain 0.04% essential oil. It consists of methyl-cinnamate (48%), cineol 20-30%, some camphor and probably d-pinene. Leaves also yield a volatile oil. Rhizome yield volatile oil 3/4-1%, and Kaempferine, a neutral, inodorous, tasteless crystalline principle, and galangin, alpinin and galangol (*A. officinarum*).

Pharmacodynamics

Rasa	: Kaṭu
Guṇa	: Tikṣṇa, laghu, rūkṣa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu

Doṣakarma : Kaphavātaśāmaka

Properties and action

Karma : Kaṅṭhya-svarya
Kaphaghna
Nādyottejaka-nāḍibalya
Sītapraśamana-lekhana-uttejaka
Mukhaśodhana-dīpana-pācana
lālāsrāvajanana
Anulomana
Hṛdayāvasādaka
Svāsahara
Vājikaṛaṇa
Sītapraśamana

Roga : Svarabhaṅga-svarabheda-gala
(kaṅṭha)-svara (minmina-gadgada)
vikāra
Kāsa-śvāsa
Prameha-bahumūtra
Dhvajabhaṅga
Śītādhikya (tvaggata)
Mukhāśuddhi
Agnimāndya-udarśūla
Vātika hṛdroga
Nāḍidourbalya-vātavyādhi.

Therapeutic uses

The rhizomes are used in rheumatism and catarrhal affections, specially in bronchial catarrh. The drug is a depressant of the cardio-vascular system. Respiration in experimental animals is stimulated by small doses but depressed by larger ones. It has important action on the bronchioles. It is useful in respiratory troubles, especially of children. The rhizomes are also carminative and stomachic. They (fruits) are also used (in Malaya) as substitutes for cardamon.

The drug Malayavacā or Kulinjana is rhizome of 'greater galangol' (obtained from the plant *Alpinia galanga* Willd.) of commerce, and in drug trade as well as pharmaceuticals in India. The imported raw drug is (obtained from the plant *Alpinia officinarum* Hance of

China) rhizomes of 'lesser galangal'. Cut pieces of the dried rhizomes form the drug material practically. The rhizomes of 'lesser galangal' is smaller and reddish brown in colour and with stronger odour and pungent taste.

The drug Malayavacā is effective in hoarseness (svarabhanga) and sore throat. Pieces of rhizome are given for chewing in throat affections as specific remedy. Powder of rhizome is orally recommended in cough, throat affections, asthma coryza, catarrhal affections, impotency, nervine disorders, abdominal colic, anorexia, vāta vyādhi, urinary ailments (prameha) mouth foul, excess cold (cutaneous), indigestion and the ailments caused by provoked vāta and kapha humors.

Part use : Rhizome

Dose : Powder 1-3 gm. or 1-2 gm.

Formulation : Kulinjanādyavaleha.

MALAYAVACĀ (मलयवचा)

महाभरी वचा (यस्या लोकेकुलिञ्जन इतिनामान्तरं तस्यागुणानाहः)

सुगन्धाऽप्युग्रगन्धा च विशेषात्कफकासनुत् ।

सुस्वरत्वकरी रुच्या हृत्कण्ठ मुखशोधिनी ॥

Bhāvaprakāśa Nighaṅṭu, Harītakṛyādi Varga, 105.

अपरा सुगन्धा स्थूल ग्रन्थि (यस्या लोके महाभरी वचा

इति नाम तस्या गुणानाह)

‘स्थूलग्रन्थिः सुगन्धा स्यात्ततो हीनगुणा स्मृता ।’

Bhāvaprakāśa Nighaṅṭu, Harītakṛyādi Varga, 106.

कुलञ्जः-कुलिञ्जन

कुलञ्जो गन्धमूलश्च तीक्ष्णमूलः कुलञ्जनः ।

कुलञ्जः कटुतिकोष्णो दीपनो मुखदोषनुत् ॥

Rāja Nighaṅṭu, Pippalyādi Varga, 55.

MALLIKĀ

Botanical name : Jasminum sambac (Linn.) Ait.

Family : Oleaceae

Classical name : Mallikā

Sanskrit names

Mallikā, Śītabhīru, Mālatī, Sumanā, Hṛdyagandhā, Priyamvadā, Rājaputrī, Rātripuṣpī, Bhadravallī, Gaurī.

Regional name

Motiyā, Mogrā, Belā (Hindi); Mogra (Mar.); Mogro (Guj.); Gundumalli (Tam.); Gundumalle (Tel.); Kolumallige (Kann.); Nallamulla (Mal.); Arabian Jasmine Tuskan Jasmine (Eng.).

Description

A straggling, erect or sub-scandent shrub with broadly ovate or elliptic leaves 1.5-3 in. long and white fragrant flowers, corolla usually doubles.

Shrub, often more or less climbing, branchlets and petioles pubescent. Leaves ovate, nearly glabrous.

Flowers white, fragrant, in terminal cymes, sometimes solitary calyx-teeth hairy, 1/4 in. long; corolla-lobes as long as tube. Fls. colour white, pinkish-violet in bud, usually double, in few or many. Ripe carpels 1 or 2 nearly globose flowered clustered.

Flowering and fruiting time

Plant flowers in summer season, and also in hot and rainy season.

Distribution

Plant is cultivated throughout India and in most tropical countries on account of its delightfully fragrant flowers in a number of varieties.

Kinds and varieties

Different varieties and types are planted in gardens. Flowers are in numerous varieties, erect and climbing with large and small, double and single flowers.

Distribution

It is very much cultivated in gardens for its odorous flowers which are largely used in worship, making garlands and also for perfumery purpose.

Chemical composition

Flowers contain a yellow pigment, used as a substitute of saffron.

Pharmacodynamics

Rasa	: Tikta, kaṭu
Guṇa	: Laghu, rūkṣa
Vīrya	: Uṣṇa
Vipaka	: Kaṭu
Doṣakarma	: Tridoṣaśāmaka.

Properties and action

Karma	: Stanyasaṅgrahaṇīya Śothahara Vraṇaropaṇa Kuṣṭhaghna Varṇya Grāhī Roktaprasādana (raktaśodhaka) Garbhāśayottejaka Ārtavajanana Vṛṣya-kāmottejaka Pittaprasāmana Cakṣuṣya Viṣaghna Tvacya Sugandha-souanasyajanana
Roga	: Stanaśoṭha Kuṣṭharoga Carmavikāra-kaṇḍū Netravikāra Mukharoga-mukhapāka-dantaroga Vraṇa Raktaja pravāhikā-Atisāra Raktavikāra-raktasrāva-raktapitta Rajorodha-kaṣṭārtava Kāmaśaitya Śīroroga Viṣa Aruci

Dāha
Pālitya
Yoniśūla
Apsmāra.

Therapeutic uses

The drug mallikā is medicinally potent. The flowers and other part of plant drug are used in medicine. A lotion made of the flowers is used for washing the face and eyes. Crushed flowers are used as a lactifuge. A decoction of the leaves is used for fevers. Leaves are applied as a poultice for skin complaints and ulcers. Roots are used with leaves in eye lotions.

Being an aromatic as well as medicinal plant, the flowers give perfume as perfume oil is extracted which is used an aromatic item, and also of cosmetic and perfumery value.

The plant is much valued for its exquisitely fragrant flowers which are widely used as common, favourite and pleasant flowers which have also religious importance.

Parts used : Roots, leaves, flowers.

Dose : Decoction 50-100 ml.

MALLIKĀ (मल्लिका)

‘मालती मल्लिके तिक्ते सौभ्यायात् पित्तनाशने।’

Suśruta Saṁhitā, Sūtra, 46.

मल्लिकोष्णा लघुर्वृष्या तिक्ता च कटुका भवेत्।

वातपित्तास्रदृग्व्याधिकुष्ठारुचि विषव्रणान् ॥

Bhāvaprakāśa Nighaṇṭu.

मालती

- क. मालती सुमना जाती हृद्यगन्धा प्रियम्वदा।
राजपुत्री रात्रिपुष्पी चेतिका तैलभाविनी ॥
- ख. मालती तुवरा तिक्ता कटूष्णा दोषनाशिनी।
शिरोऽक्षिमुखदन्तार्ति विषकुष्ठाव्रणास्रजित् ॥

Kaiyadeva Nighaṇṭu, Oṣadhi varga, 1473-1474.

मल्लिकाऽस्फोता वन्यजातिश्च

- क. भूमण्डली भूमिमण्डो भूमिदण्डो प्रबोधनी ॥
 प्रमोदनी विजयिनी भूपदी मुक्तबन्धना ।
 मल्लिका मदनीया स्याद् त्रिपुटा शीतभीरुका ॥
 अष्टापदी सुरुपा च तृणशून्यं गवाक्षिका ।
 मदयन्ती सुवर्षा स्यान्त्याऽस्फोता वनोद्भवा ॥
- ख. मल्लिका कटुका तिक्ता लघूष्णा शुक्रला हरेत् ।
 वातपित्तास्रहृद्रोगकुष्ठारुचिविषप्रणुत् ॥

Kaiyadeva Nighantu, Oṣadhi varga, 1469-1472.

मल्लिका

मल्लिका भद्रवल्ली तु गौरी च वनचन्द्रिका ।
 शीतभीरुः प्रिया सौम्या नारीष्ठा गिरिजा सिता ।
 मल्ली च दमयन्ती च चन्द्रिका मोदिनीमनुः ॥

मल्लिका गुणाः

मल्लिका कटुतिक्ता स्याच्चक्षुष्या मुखपाकनुत् ।
 कुष्ठविस्फोट कण्डूति विष व्रणहरा परा ॥

Rāja Nighantu, Karavīradī varga, 81-82.

‘मालती मल्लिके तिक्ते सौरभ्यात् पित्तनाशने ।’

Suśruta Samhitā.

‘मल्लिका सम्भव पुष्पं तिक्तं जयति मारुतम् ।’

Śoḍhala.

वार्षिकी-मल्लिका

वार्षिकी शीतला लघ्वी तिक्ता दोषत्रयापहा ।
 कर्णाक्षिमुखरोगघ्नी तत्तैलं तदुणं स्मृतम् ॥

Bhāvaprakāśa.

वार्षिका शिशिराहृद्या सुगन्धिः पित्तनाशिनी ।
 कफवात विषविस्फोट क्रिमिदोषामनाशिनी ॥

Rāja Nighantu.

मुद्गरो मधुरः शीतः सुरभिः सौख्यदायकः ।

मनोज मधुपानन्दकारी पित्तप्रकोपहत् ॥

Rāja Nighantu.

पालित्ये

महानील तैले

Caraka Samhitā, Cikitsā, 26-171.

योनिशूले

‘पृथकं मातुलुंगस्य मूलानि मदयन्तिकाम् ।
पिबेत् सलवणौर्मद्यैः ।’

Caraka Samhitā, Cikitsā, 30-56.

अपस्मारे

महापञ्चगव्यघृते ।

Caraka Samhitā, Cikitsā, 10-21.

दाहप्रशमनार्थम्

‘कपूरमल्लिकामालाः हाराः सहरिचन्दनः ।’

Aṣṭāṅga Hṛdaya, Sūtra, 3-40.

अतिसारे

श्रीपर्ण्या मदयन्त्याश्च यूथिकायाश्चपल्लवम् ।

.....कारयेत् ॥

स्नेहाम्ल सलवणोपेतान् खण्डान् संग्राहिकान् परम् ॥

Caraka Samhitā, Cikitsā, 8-129/130.

नेत्ररक्षार्थम्

‘मालतीमल्लिकापुष्पैर्वद्वाक्षी निवसेन्निशाम् ।’

Aṣṭāṅga Hṛdaya, Sūtra. 24-22.

नस्यधूमगते विषे

तत्र दुग्धैर्गवादीनां सर्पिः सातिविषैः शृतम् ।

पानै नस्यै च सश्वेतं हितं समदयन्तिकाम् ॥

Suśruta Samhitā, Kalpa. 1-65.

अङ्गरागे

हरीतकी चूर्णमरिष्टपत्रं चूतत्वचं दाडिमपुष्पवृन्तम् ।

पत्रञ्चदद्यान् मदयन्तिकायाः लेपोऽङ्गरागो नरदेव योग्यः ॥

Suśruta Samhitā, Cikitsā. 25-43.

रक्तपित्ते

रोध्रो वृषस्तण्डुलीयः कृष्णमृन् मदयन्तिका ।

रक्तपित्तहराः क्वाथास्त्रयः समधुशर्करा ॥

Aṣṭāṅga Hṛdaya, Cikitsā, 2-26-27.

MĀMSAROHINĪ

Botanical name

Soymida febrifuga (Roxb.) A. Juss.

Syn. *Swietenia febrifuga* Roxb.

Family : Meliaceae

Classical name : Māmsarohiṇī

Sanskrit names

Māmsarohiṇī, Rohiṇī, Atiruhā, Vṛttā, Carmakaṣā, Prahāravallī, Vikaṣā, Vīravatī, Vasā, Māmsarohī-māmsarohī, Sulomā-sulomakarāṇī.

Regional names

Rohana (Hindi); Rohan (Beng.); Rona, Rohini (Guj.), Kaim (Tam.); Sonida manu (Tel.); Sukhani bhanu (Kann.); Indian Red wood (Eng.).

Description

Trees, leaves clustered at the tips of branches; parapinnate up to 40 cm. long; rachis and midrib red; leaflets 3-6 pairs; obliquely elliptic, 5-10 cm. long. Bark exudes blood-red after incision.

Flowers in large terminal panicles, ca 8 mm. across, white. Fruits pendulous, 5-6 cm. long, 5-valved.

Flowering and fruiting time

Plant flowers and fruits in March-May.

Distribution

It occurs in hilly and drier forests and it is found in north-western, central and southern India.

Chemical composition

Bark contains a bitter resinous substance and tannin (17-41%).

Pharmacodynamics

Rasa	: Kaṣāya, kaṭu
Guṇa	: Laghu, rūkṣa
Vīrya	: Śīta
Vipāka	: Kaṭu
Doṣakarma	: Kaphpittaśāmaka

Properties and action

Karma	: Vraṇarohaṇa-vraṇaropaṇa- savarṇīkaraṇa Stambhana Raktastambhana Jvaraghna-viṣamajvara pratibandhana Sandhānīya Rasāyana Kaṇṭhaśuddhikara Vṛṣya-pouṣṭika Kṛmighna Vātāghna Rucya Varṇya Balya
Roga	: Vraṇa-kṣata Śoṭha Mukha-danta roga Atisāra-pravāhikā Raktapitta Jvara-viṣamajvara-jirṇajvara Raktasrāva Asthibhagna-māmsakṣata Uraḥkṣata Kṛmi Sangrahaṇī Vaivarṇya Dourbalya.

Therapeutic uses

The drug Māmsarohiṇī is chiefly a vraṇarohaṇa and vraṇaropaṇa (wound healer) herbal agent which is stambhana, haemostatic (raktastambhana), febrifuge, savarṇīkaraṇa (for skin colouring or pigmentation normalcy), sandhānīya (union promotor) and rasāyana.

The bark is used both externally and internally in various diseases. Local application of bark paste, decoction lotion wash and for dressing in ulcers, fracture, mouth and dental diseases, inflammation, trauma, bruises and other

similar conditions. Fruits are applied for making skin colour normal (savarnīkaraṇa). It is applied in māmśa kṣata and similar conditions.

Internally it is administered in diarrhoea, dysentery, raktapitta, chronic fever, malarial fever and general and sexual debility. Māmsarohiṇī is also a rasāyana drug.

Parts used : Bark

Dose : Powder 3-6 gm., Decoction 25-50 ml.

MĀMSAROHINĪ (मांसरोहिणी)

मांसरोहिण्यतिरुहा वृत्ता चर्मकषा वसा ।
प्रहारवल्ली विकशा वीरवत्यपि कथ्यते ॥
स्यान्मांसरोहिणी वृष्या सरा दोषत्रयापहा ।

Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi varga, 132.

मांसरोहिणी

प्रहारवल्ली विकसाऽतिरुहा वीरबल्यपि ।
मांसरोहा चर्मकषा वृन्ता पिशितरोहिणी ॥
मांसरोहा रसे पाके मधुरातुवरा हिमा ।
सर्वा संग्रहणी हन्ति नात्र कार्या विचारणा ॥

Kaiyadeva Nighaṇṭu, Ośadhi varga, 1600-1601.

रोहिणी-मांसरोहिणी

क. मांसरोहिण्यतिरुहा वृत्ता चर्मकषा च सा ।
विकसा मांसरोही च ज्ञेया मांसरुहा मुनिः ॥
ख. अन्या मांसी सदामांसी मांसरोहा रसायनी ।
सुलोमा लोमकरणी रोहिणी मांसरोहिका ॥

Rāja Nighaṇṭu, Candanādi varga, 145-146.

मांसरोहिणी गुणाः

विकसा कटुका तिक्ता तथोष्णा स्वरसादनुत् ।
रसायनप्रयोगाच्च सर्वरोगहरा मता ।
कषाया ग्राहिणी वर्ण्या रक्तपित्तप्रसादनी ॥

रोहिणीद्वय गुणाः

रोहिणी युगलं शीतं कषायं क्रिमिनाशनम् ।

कण्ठशुद्धिकरं रुच्यं वातदोष निसूदनम् ॥

Rāja Nighantu, Candānadi varga, 147-148.

रोहिणीवातहृत् कासश्वासशोणितनाशनी ।

रोहिणी द्वितीयं बल्यं रक्तपित्तनिषूदनम् ॥

पौष्टिकं शीतलं कण्ठशुद्धिकारि कषायकम् ।

रुच्यं सरं च मधुरं वृष्यं च कृमिवातहन् ॥

Nighaṅṭu Ratnākara.

MĀNAKANDA

Botanical name : *Alocacia indica* (Roxb.) Schott.

Family : Araceae

Classical name : Mānakanda

Sanskrit names : Mānaka, Mahāpatra, Mānakanda.

Regional names

Mankand (Hindi); Mankachchu (Beng.); Mansachchu (Mar.); Giant Taro (Eng.).

Description

A tall aroid with an underground rhizome, bearing a succulent stem, 4-8 inches in diameter.

Plant 7.5 cm. - 15 cm. high (3-6 feet tall). It somewhat resembles with other *Alocacia* species (Arabi or Bunda). Stem comparatively more thick 10 cm. - 20 cm. in diam. Leaves thick green colour, 60 cm. - 90 cm. (2-3 feet) long, triangular sagitate. Flowers on many peduncles, often 10-20 cm. long, (4-8 ft.), male and female flowers separately, covered with greenish yellow spathe. Male fl. white and female pale-yellow often. Fruit berry, round, 0.625-1 cm. in diam; red when ripens. Rootstock tuberous, roots from stem.

Distribution

It is cultivated in Assam and Bengal as a food crop. It is also an ornamental plant.

Chemical composition

Rhizome of Mānaka contains potassium oxalate, calcium and starch.

Pharmacodynamics

Rasa	: Madhura
Guṇa	: Guru, snigdha
Vīrya	: Śīta
Vipāka_	: Madhura
Doṣakarma	: Vātapittaśāmaka

Properties and action

Karma	: Śōthahara
	Vedanāsthāpana
	Vātaśāmaka
	Śūlapraśamana
	Anulomana-vibandhahara
	Raktarodhaka-raktapittahara
	Mūtrala
	Balavardhaka
	Arśoghna.
	Roga
Arśa	
Pāṇḍu	
Udararoga-udaraśūla-vibandha	
Yakṛtplīha vikāra	
Mūtrakṛcchra	
Dourbalya	
Sandhivāta-ānavāta	
Jihvāroga-jihvājāḍya (jihvāstambha)	
Karṇaroga-karṇaśūla-karṇasrāva.	

Therapeutic uses

The stems and root-stocks are edible, if boiled and washed thoroughly. It yields a pure white starch when the root is pulped and washed. The flour obtained is a light nutritious food, suitable for invalids. It is somewhat mucilaginous and is considered to be more easily digestible than rice.

The leaf juice is astringent. The rhizome is stated to act as a mild laxative and diuretic, and is considered useful in ansarca.

The drug Mānaka or Mānakanda has been prescribed in various diseases in Indian medicine. The ash of

mānaka mixed with salt and oil should be rubbed on the tongue for removing palsy (stiffness) of tongue (jihvājāḍya) as incorporated by Cakrapāṇi (Cakradatta, 56-53). Further, Mānaka stands as main component drug, in two classical formulations namely Mānaka pāyasa (Cakradatta, 37/57-98) and Mānaka-ghṛta (Vaidya manoramā, 19-25) which have been indicated in management of udararoga (abdominal diseases) and oedema (śoṭha) respectively. In addition, Mānakāḍya guṭikā has been recommended in treatment of liver and splenic disorders (Cakradatta, 38/15-18).

Parts used : Tuber, stem, leaves.

Dose : Leaves powder 5-10 gms., Juice 10-20 ml.

Formulations

Māṇaka ghṛta, Mānakāḍi guṭikā, Mānamaṇḍa.

MĀNAKANDA (मानकन्द)

मानकः स्यान्महापत्रः कथ्यन्ते तदुणा अथ ।

मानकः शोथहृच्छीतो रक्तपित्तहरो लघुः ॥

Bhāvaprakāśa Nighaṇṭu, Śāka Varga, 71.

स्थूलकन्दः माणकश्च

अ. स्थूलकन्दो ग्रामकन्दो महाकन्दस्तु माणकः ।

स्थूलकन्दः कटुः स्वादुः नात्युष्णस्तुवरो गुरुः ॥

ब. रुक्षो विष्टम्भकी वातकफकृत् पित्तशोफजित् ।

माणको मधुरः शीतो रक्तपित्तहरो गुरुः ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 1615-1616.

प्लीहा-यकृच्चिकित्सायाम् माणाद्य गुटिका

Cakradatta, 38/15-18.

शोथेमाणक घृतम्

मानकक्वाथकल्काभ्यां घृतप्रस्थं विपाचयेत् ।

एकजं द्वन्दजं शोथ त्रिदोषञ्च व्यपोहति ॥

Vṛndamādhava, 39-25.

Bhāvaprakāśa, Śoṭhādhikāra, 42-36.

Cakradaattas, 39-36.

उदररोग चिकित्सायां माणकपायसः

पुराणमाणकं पिष्ट्वा द्विगुणीकृततण्डलम् ।
साधितं क्षीर तोयाम्यामभ्यसेत् पायसन्तु तत् ॥
हन्ति वातोदरं शीघ्रं ग्रहणीं पाण्डुतामपि ।
सिद्धो भिषग्भिराख्यातः प्रयोगोऽयं निरत्ययः ॥

Cakradatta, Udara Cikitsā, 37/57-58.

जिह्वाजाड्ये (जिह्वारोग चिकित्सायां) माणक भस्म प्रयोगः

‘जिह्वाजाड्यं चिरजं माणकभस्म लवणतैलघर्षणं हन्ति ।’

Cakradatta, Mukharoga Cikitsā, 56-5.

MANDAPĪ

Botanical name : *Arachis hypogaea* Linn.

Family : Fabaceae

Classical name : Maṇḍapī

Sanskrit names : Maṇḍapī, Snehabīja, Bhuśimbī.

Regional names

Moongphali (Hindi); Ciniābadām, Moongphali (M.P.); Cini Badam (Beng.); Bhui Mug (Mar.); Verusangulu (Tel.); Verkadalai (Tam.); Nela gadale (Kann.); Nelakadala (Mal.); Groundnut, Peanut, Monkey Nut (Eng.).

Description

Semi-erect, much branched, slightly hairy annual herbs. Leaves stipulate, even-pinnate; stipules 2-4 cm. long, adnate to the petiole; leaflets 2 pairs, ovate or obovate or elliptic; obtuse or mucronate, 2 - 6.5 x 0.7 - 3.2 cm., glabrous or faintly pilose beneath.

Flowers solitary, axillary, or few in axils, pedicellate, primary bracts ovate-lanceolate, 10-14 x 4-5 mm., secondary bracts bifid, hypanthium pubescent. Corolla yellow, streaked with red, 0.5 - 1.5 cm. long; standard rounded narrowed towards base; wing free; keel beaked, incurved. Stamens 9. Pedicel elongates soon and enter the ground where ovary develops into 1-4-seeded jointed turgid pods.

A small branched herb which grows erect (1-2 feet high), or trails on the ground and bears small yellow flowers. After fertilisation the base of the ovary develops a long stalk (gynophore) which pushes the ovary into the soil where it begins to develop into a pod maturing in about 2 months. Cylindrical reticulated pods or nuts (1-2") usually contain 2 seeds within outer shell. Each seed is covered by a coloured seed-coat.

Flowering and fruiting time

Plant flowers in August-September and fruits in October-November.

Distribution

Plant is cultivated commercially under crop farming for edible seeds as well as seed-oil in different regions of country. *Arachis hypogaea* Linn. is one of the most important oil-seed crops (for groundnut oil production on large scale) of the warmer region of the world on commercial scale.

Brazil is regarded as the home of the groundnut but it is now cultivated in tropical and sub-tropical countries. The major groundnut producing countries are India, China, the U.S.A. and West Africa. Groundnut is also cultivated in Burma, the East Indies, Nigeria and in Southern Europe.

Chemical composition

The chemical composition of groundnuts (Indian) in general follows (per 100 g.) : moisture 7.9, protein 26.7, fat 40.1, carbohydrates 20.3, fibre 3.1, ash 1.9, Cal. val. 549, calcium 0.05, phosphorous 0.39, Iron (mg./100g.) 1.6; Vitamins (100 g.) A (AU) 63, B₁ 300 (AV); and nicotinic acid (mg.) 14.1%. Chemical profile of roasted nuts (Indian) varies (per 100 g.) : moisture 4.0, protein 31.5, fat 39.8, carbohydrate 19.3, fibre 3.1, ash 2.3, Cal. val. 561, Calcium 0.65, Phosphorus 0.44 and Iron mg. (100 g.) 0.3.

Pharmacodynamics

Rasa	: Madhura, kaṣāya
Guṇa	: Snigdha

Vīrya	: Uṣṇa
Vipāka	: Madhura
Doṣakarma	: Vātakaphakāraka

Properties and action

Karma	: Balya Mṛdusāraka
Roga	: Dourbalya.

Therapeutic uses

The groundnut is most common and favourite edible article which may be eaten either raw or after roasting but in general, roasted one are preferred. They are used in numerous ways, salted, sugared, or mixed with sweetmeats and other edible preparations. Groundnuts prove rather indigestible owing to their high oil content, and also because in chewing, the kernels are not broken into sufficiently small particles. Groundnuts are popular since they are within reach from common man to elite society in several forms and various modes and purposes of household utility and dietary requirements.

Groundnuts are useful for their high nutritive values. Maṇḍapī (groundnut) is medicinally potent. Oleum Arachis or Maṇḍapī taila is useful which is sometimes used in place of olive oil. Kernels (seeds) are tonic and nutritive and uṣṇa (heating), madhura and snigdha in properties. The oil is mṛdusāraka to some extent. It increases vāta and kapha. Excess use of groundnut may cause disfavour (ahita) in body particular mouth orifice abdomen and other parts concerned, and for the instance, it can cause vertigo sometimes and heaviness of stomach when groundnuts are consumed in excess.

Parts used : Seed, oil.

Dose : Seeds, Seed oil, Edible seeds.

MANDAPĪ (मण्डपी)

मण्डपी मधुरा स्निग्धा वातला कफकारका ।

ग्राहका बद्धवचञ्चि तत्तैलं तद्गुणं स्मृतम् ॥

Nighaṅṭu Ādarśa, Pūrvārdha, 396.

MANDŪKAPARNĪ

Botanical name

Centella asiatica (Linn.) Urban.,
Syn. *Hydrocotyle asiatica* Linn.

Family : Apiaceae (Umbelliferae)

Classical name : Maṇḍūkaparṇī

Sanskrit names

Maṇḍūkaparṇī, Māṇḍūkī, Brāhmī, Sarasvatī.

Retional names

Bengsag, Brahmi (Hindi); Thulkumi, Dhulkudi (Beng.); Karivana (Mar.); Khandbrahmi (Guj.); Vallarikiri (Tam.); Mandukabrahmi (Tel.); Indian Pennywort (Eng.).

Description

Trailing herbs; faintly aromatic; rooting at the nodes, young parts finely pubescent. Leaves long-petiolate reniform, crenate or dentate, deeply cordate, stipulate. Lvs. 0.5-2.5 in., orbicular, often lobid, glabrous or nearly so and shining. Stipules adnate to petioles.

Umbels several at a node with 2 involucre bracts, each 3-5 flowered. Flowers pink or deep red; sessile. Petals ovate, acute, pink. Fruits ovate to orbicular, primary ridges prominent; vittae absent. Carpels carpels ablong, subcylindric, curved, much longer than broad, slightly compressed. Fruits 1/8-1/6 in., carpels reticulate-rugose, each with 9 curvilinear subsimilar ridges and 2 within the commissure; pericarp thickened, woody, white.

Flowering and fruiting time

Plant flowers and fruits during summer. or May-June.

Distribution

Plant occurs almost throughout India from the base of Himalaya to Ceylon (up to 2,000 ft. altitude). It is found along streams, river-beds, tanks or ponds and moist places. Sri Lanka, Malaysia, and in all tropical and subtropical regions of the world.

Chemical composition

Plant contains alkaloid hydrocotylin ($C_{22}H_{33}NO_8$), glycoside asiaticoside (0.07-0.12%) vellerine, a white crystalline, bitter, medicinally potent principle, volatile oil in little quantity, fixed oil, resinous substance, pectic acid, ascorbic acid and other substances. Glycosides and volatile oil are generally found in green leaves of the plant drug. Dried herb contains centoic acid. ($C_{20}H_{48}O_6$) and centellic acid ($C_{30}H_{44}O_6$). *Centella asiatica* (Linn.) Urban plant contains various active principles and other constituents which are under detailed phytochemical screening and allied studies.

Kinds and varieties

Presently the source plants of Brāhmī and Māṇḍūkapaṇi are botanically identified and determined as *Bacopa monnieri* (Linn.) Pennel. and *Centella asiatica* (Linn.) Urban. respectively. Brāhmī is also classically named and considered as Aindri.

Pharmacodynamics

Rasa	: Tikta-Anurasa : Kaṣāya
Guṇa	: Laghu
Vīrya	: Śīta
Vipāka	: Madhura
Doṣakarma	: Kaphapittaśāmaka

Properties and action

Karma	: Medhya-medhya rasāyana- mastiṣkabalya-śāmaka Rasāyana-vayaḥsthāpana-balya Hṛdya Śothahara Agnidipana Kaphaniḥsāraka Pramehaghna Stanyajanana-stanyaśodhaka Āmapācana-jvarahara.
Roga	: Buddhimandatva-smṛtīhrāsa- mastiṣkadourbalya

Unmāda-apasmāra
 Agnimāndya-grahaṇī
 Hṛdvikāra-hṛddourbalya-hrcchotha
 Kāsa-śvasa-svarabheda
 Prasavottara vyāpat-stanyakṣaya
 Kuṣṭha-granthika kuṣṭha-jirṇa
 vraṇa-kṣayaja
 Phiraṅga-upadaṁśa
 Gaṇḍamāla-ślīpada
 Āmadoṣa-āmajanita vikāra
 Pisasa-śoṣa
 Vāyuvikāra
 Kamalā-pāṇḍu
 Pīṭika.

Therapeutic uses

Asiaticoside has been shown to be active in the treatment of leprosy. It probably acts by dissolving the waxy covering of *Bacillus leprae*, the bacillus thus becomes fragile and may easily be destroyed by the tissues or by some other drug. The results of injections of the solution prepared by Boiteau are reported as being remarkable. Leprosy nodules are broken down, diffuse infiltrations disappear, perforating ulcers and lesions on the fingers heal and most remarkable of all, eye lesions rapidly cured if treatment is given before the posterior chamber of the eyes is involved. Asiaticoside and oxy-asomaticoside which is prepared by permanganate oxidation of asiaticoside, have been employed in the treatment of certain types of tuberculosis.

The plant drug Maṇḍūkaparṇī enjoys a good reputation in Indian systems of medicine where it is credited for its effective medicinal potentiality. The drug is an alterative, diuretic, tonic and antidermatosis. An infusion of the plant is used in the treatment of leprosy and is known to ameliorate the symptoms of disease and to improve the general health of the patient. The leaves are commonly employed but the use of whole plant is suggested. An usual dose for oral administration is 5-10 grains of the plant powder thrice daily. In larger doses, the drug is a stupefying narcotic, producing giddiness and sometimes coma.

The drug Maṇḍūkāparṇī or Māṇḍūkī is chiefly medhya (intellect-promoting) and kuṣṭhaghna (anti-leprotic) herbal agent; which is cordiotonic (hr̥dya), stomachic (dīpana), tonic (balya), restorative (rasāyana), jvaraghna (febrifuge), stanyajanana (galactagogue) etc. in general.

Parts used : Whole plant.

Dose

Whole plant powder 3-5 gm., Juice 10-20 ml., Root powder 0.5-1.5 gm.

Formulations

Brāhmī pānaka, Brāhmī taila, Sārasvatāriṣṭa, Sārasvata ghr̥ta, Brāhmī ghr̥ta.

Gaṇa

Tiktaskandha, Prajāsthāpana, Vayaḥsthāpana (Caraka Saṁhitā), Tikta varga (Suśruta Saṁhitā).

MAṆḌŪKAPARNĪ (मण्डूकपर्णी)

रसायनार्थम्

‘मण्डूकपर्ण्याः स्वरसः प्रयोज्याः क्षीरेण..... ।’

Caraka Saṁhitā, Cikitsā, 18-176.

पुष्ट्यायुर्बलारोगकरत्वे

‘मण्डूकपर्ण्याः कल्पोऽथ शुण्ठीमधूकयोस्तथा ।’

Caraka Saṁhitā, Cikitsā, 16.

पिटिकायाम्

‘रसौ मण्डूकपर्ण्यां तु प्रलेपान् पिटिकायाम् ।

.....संप्रणाशयेत् ।’

Śodhala, Granthyādhikāra.

मेध्य रसायनम्

मण्डूकपर्ण्याः स्वरसः प्रयोज्यः क्षीरेण यष्टीमधुकस्य चूर्णम् ।

आयुप्रदान्यामयनाशनानि बलाग्निवर्णं स्वरवर्धनानि ।

मेध्यानि चेतानि रसायनानि..... ।

Caraka Saṁhitā, Cikitsā, 1/3-30

मेधायुष्यकामीये मण्डूकपर्णी

हृत्दोष एवं प्रतिसंसृष्ट भक्तः यथाक्रमम् आगारं प्रविष्य मण्डूकपर्णी स्वरसमादाय सहस्र संघाता भिहूतं कृत्वा यथाबलं पयसा आलोड्य पिबेत् ।

पयोऽनुपानं वा तस्यां जीर्णायां यवान्नं पयसोपयुञ्जीत् ।

तिलैर्वा सह भक्षयित्वात्रीन् मासान् पयोऽनुपानं जीर्णेपयः सर्पिरोदनइत्याहारः एवमुपयुञ्जन् ब्रह्मवर्चसौ श्रुति निगादौ भवति, शतवर्षमायुरवाप्नोति ।

त्रिरात्रोद्योषितश्च त्रिरात्रमेतां मक्षयेत् त्रिशत्रादुर्ध्वं पानः सर्पिरित चोपयुञ्जीत् ।

बिल्वमात्रं पिण्डं वा पयसाऽलोड्य पिबेत् । एवं दशरात्रमुपयुज्य मेधावी शतवर्षायु भवति ।

Suśruta Samhitā, Cikitsā, 28-4.

वायुविकारे

शालूरपर्णी मालूरमूलामयमधुप्लुता ।

शंखपुष्पीसहिता सेव्या वाचां विशुद्धये ॥

Bhāvaprakāśa, Cikitsā, 1-659.

कासे शोषे च

मण्डूकपर्ण्याः कल्पोऽयं यष्टयाः विश्वौधस्य च ।

Aṣṭāṅga Hṛdaya, Cikitsā, 3-119.

मण्डूकपर्ण्याः शुण्ठ्याश्च ब्राह्म्याश्च मधुकस्य च ।

तद्रुणः सर्वरोगघ्ने विधिर्नागबलाः समः ॥

Kāśyapa Samhitā, Page 109.

रसायने

मण्डूकपर्णी रसायनम् ।

Suśruta Samhitā, Cikitsā, 28-4.

मण्डूकपर्णीमपि भक्षयन्ते भृष्टां धृते मासमन्नभक्ष्याः ।

जीवन्ति कालं विपुलं प्रगल्भ स्तारुण्यलावण्यगुणोदयस्तथा ।

Aṣṭāṅga Hṛdaya, Uttara, 39-165.

पीनसे

मण्डूकपर्णी मरिचकुलत्थैः साधु साधितः ।

कषायः पीनसार्तिघ्नः कोष्णाम्बु पिबतो नृणाम् ॥

Vaidya Manoramā, 16-69.

कामलायाम्

मधुनानिशया धात्र्या क्षीरेण वा मिश्रितः प्रगोपीतः ।

स्यान् मण्डूकीस्वरसः कामलिनां हितकरो नृणाम् ॥

Vaidya Manoramā, 10-2.

MAÑJĪṢṬHĀ

Botanical name : *Rubia cordifolia* Linn.

Family : Rubiaceae

Classical name : Mañjiṣṭhā

Sanskrit names

Mañjiṣṭhā, Vikasā, Yojanavallī, Rataṅgī, Bhaṅḍīri-Bhaṅḍī, Aruṅā, Kālā Vastrarañjinī, Mañjūṣā, Samaṅgā, Vikasā, Kālameṣikā.

Regional names

Majith (Hindi); Manjistha (Beng.); Majith (Guj.); Manjitti (Tam.); Tamravalli (Tel.); Manjustha (Kann.); Manjetti (Mal.); Fubb (Ara.); Runas, Rodak (Pers.); Indian Madder (Eng.).

Description

A deciduous climber with weak flexible stems upto 10 feet high and 0.25 in. diam. Basal portions of stems usually persistent and often softly woody. Branches quadrangular, remorsely scabrid or glabrous.

Leaves 4 in. whorl, two often larger and with longer petioles, 1.5-4 in. long, ovate, acute, base cordate, scabrid or smooth with 5-7 strong basal nerves, prominent and usually remorsely scabrid beneath. Petiole 2-4 in. long. Upper leaves often acute at base and with shorter petioles.

Flowers less than 1 in. diam. dark red or pinkish brown, in terminal cymose, leafy panicles, the branches trichotomous, spreading, upto 8 in. long, with foliaceous bracts.

Fruits 0.2 in diam., globose, dark purple or black fleshy, succulent, with red juice. Seeds small 2.

Flowering and fruiting time

Plant flowers during rains or July-September, and its fruiting stage begins onwards i.e. September-November.

Distribution

It is commonly occurring throughout the hilly regions in India, ascending to 8,000 ft. altitude. Frequently in the Himalayan region of country from the North-west Frontier eastwards on the Himalaya (upto approx. 2,500 m.) and south to Ceylon and the Malay Peninsula; also in China, Japan, Java and Tropical Africa. Plant is generally found in Uttar Pradesh, the Sub-Himalayan tracts of Rohilkhanda and north Oudh and other similar areas.

Chemical constituents

The plant *Rubia cordifolia* Linn. (Manjiṣṭhā) contains various chemical components which belong to the anthraquinone group. Saponins and some naphthlene derivatives are also isolated. It contains Alizarin, pseudoparapurins, Rubiadin alongwith its glucoside, lucidin, Asperuloside, purpurin and Manjisthin.

Pharmacodynamics

Rasa	: Tikta, kaśāya, Madhura
Guṇa	: Guru, rūkṣa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphapittaśāmaka

Properties and action

Karma	: Raktaprasādana-raktaśodhaka Varṇya-tvacya Māstiṣka-nāḍiśāmaka Dipāna-pācana-āmapācana Stambhana Kṛmighna Kaphaghna Garbhāśayottejaka-ārtavajanana Stanyaśodhana Pramehaghna Kuṣṭhaghna
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	Jvaraghna
	Balaya-Rasāyana
	Viṣaghna
	Śothahara
	Vraṇaropaṇa
	Arśoghna
	Sandhānīya
	Svarya
Roga	: Kuṣṭha
	Carmavikāra-Raktavikār
	Vraṇa-visphoṭa-visarpa-pīḍikā
	Kṣudraroga-nīlikā-vyaṅga
	Arśa
	Viṣa-sarpaviṣa
	Prameha-mañjiṣṭhāmeha
	Agnidagdha
	Bhagna
	Ślīpada
	Śoṭha
	Mūtrakṛcchra
	Agnimāndya-āmadoṣa-atisāra
	Kṛmiroga
	Raktasrāva-raktavikāra
	Kāsa-svarabheda
	Kaṣṭhārtava-rajorodha
	Prasavottara vyāpat-stanyaśuddhi- prasūti jvara
	Jvara-jirṇajvara
	Dourbalya
	Akṣi-karṇaruk.

Therapeutic uses

The drug Mañjiṣṭhā is blood purifying agent and pigment stimulant; it is artringent, antiseptic bitter pungent, tonic and haemostatic. It is useful in diseases of blood, skin and urinary system, it is externally used for leucoderma. It is used in blood dysentery, ear and eye diseases, inflammation and urino-genital disorders.

The roots of Mañjisthā are administered in the forms of powder, decoction and in other modes in skin af-

fections, leucorrhoea, haemorrhage, pigmentation anomalies, amenorrhoea, prameha, kuṣṭha, jīrṇajvara, visarpa and several other diseases.

Manjiṣṭhā is an important varṇya (promoting lustre-complexion) herbal agent and applied in different forms and employed in various formulations which are frequently prescribed in several diseases coming under this group. Roots are esteemed as herbal cosmetic. Roots yield dye also.

Parts used : Roots.

Dose : Power 1-3 gm., Decoction 50-100 ml.

Formulation

Manjiṣṭhādi kvātha, Manjiṣṭhādyārka, Manjiṣṭhā-sava, Manjiṣṭhādyā ghṛtam, Manjiṣṭhādyā tailam, Manjiṣṭhādi lepam.

Gaṇa

Varṇya, Viṣaghna, Jvarahara (Caraka Saṁhitā), Priyāngvādi, Pittasamśodhana (Suśruta Saṁhitā).

MAÑJISṬHĀ (मञ्जिष्ठा)

मञ्जिष्ठा तुवरा तिक्ता स्वयोष्णा मधुरा गुरुः ।

कर्णाक्षियोनिरोगघ्नो कफशोफविषापहा ॥

विसर्पमेहकुष्ठार्शोत्रणरक्ततिसारजित् ।

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 1426-1427.

मञ्जिष्ठा शाकम्

‘शाकं स्वादु लघु स्निग्धं दीपनं वातपित्तजित् ।’

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 1427.

मञ्जिष्ठा गुणाः

मञ्जिष्ठा मधुरा तिक्ता कषाया स्वरवर्णकृत् ॥

गुरुरुष्णा विषश्लेष्मघ्नी शोथयोन्यक्षिकर्णरूक् ।

रक्तातीसारकुष्ठारसवीसर्पत्रणमेहनुत् ॥

Bhāvaprakāśa Nighaṅṭu, Harītakyaḍi Varga, 188-189.

Cakradatta, 42-8.

श्लीपदे मञ्जिष्ठादि लेपः

मञ्जिष्ठा मधुरा स्वादे कषायोष्णा गुरुस्तथा ।

व्रणमेहज्वरश्लेष्म-विषनेत्रामयापहा ॥

Rāja Nighaṅṭu, Pippalyādi Varga, 194.

चोलश्च योजनी कौञ्ची सिंहिली च चतुर्विधा ।

मञ्जिष्ठा चैव सा प्रोक्ता विलोमे चोत्तमोत्तमा ॥

Rāja Nighaṅṭu, Pippalyādi Varga, 195.

मञ्जिष्ठा मधुरा स्वादे कषायोष्णा गुरुस्तथा ।

कफोषव्रणमेहास्रविष नेत्रामयान् जयेत् ॥

Dhanvantari Nighaṅṭu.

‘मञ्जिष्ठा कुष्ठवीसर्प शोधघ्नी मूत्रकृच्छ्रजित् ।’

Rāja Vallabha Nighaṅṭu.

मंजिष्ठामेहे

‘मञ्जिष्ठा चन्दनकषायै मंजिष्ठामेहिनं पाययेत् ।’

Suśruta Samhitā, Cikitsā.

व्यङ्गेषु

‘.....मञ्जिष्ठा वा समाक्षिका ।’

Cakradatta.

कुष्ठरोगे

लघुमञ्जिष्ठाऽऽदि क्वाथ

मध्यमञ्जिष्ठाऽऽदि क्वाथ

बृहन्मञ्जिष्ठाऽऽदि क्वाथ

Bhāvaprakāśa, Kuṣṭharogādhikāra, 99-106.

अग्निदग्ध व्रण चिकित्सायां मञ्जिष्ठाद्य घृतम्

Cakradatta, Vraṇaśoṭha Cikitsā, 44-93

नीलिकाव्यङ्ग पीडिकाऽदयाः रोगाणां शमनार्थम्

मुञ्जिष्ठाद्य तैलम्

Cakradatta, Kṣudraroga Cikitsā, 55/61-62.

मुखकान्तिकर लेपः

(समञ्जिष्ठाऽन्य घटक द्रव्याः)

Cakradatta, 55-45.

अर्शांसि

‘शोणितार्शःसु मंजिष्ठागुरुङ्गयादीनां कषाये (सर्पिः) पाचयेत् ।’

Suśruta Samhitā, Cikitsā, 6-9.

व्यङ्गे

‘क्षौद्रेण वा पिष्टा मञ्जिष्ठा ।’

Aṣṭāṅga Saṅgraha, Uttara, 37-24.

सर्पविषे

‘पानञ्च क्षौद्रमञ्जिष्ठगृहधूमयुतं घृतम् ।’

Aṣṭāṅga Hṛdaya, Uttara, 36-59.

प्रमेहे

‘मञ्जिष्ठमेहिनं मञ्जिष्ठाचन्दन कषायम् ।’

Suśruta Saṁhitā, Cikitsā, 11-9.

भग्ने

‘आलेपनार्थं मञ्जिष्ठा मधुकञ्चाम्लपेषितम् ।’

Vṛndamādhava, 46-3.

MARICA

Botanical name : Piper nigrum Linn.

Family : Piperaceae

Classical name : Marica

Sanskrit names

Marica, Dharmapattana, Kṛṣṇa, Ūṣaṇa, Vellaja, Suvṛtta.

Regional names

Kāli mirca, gol mirca, mirica (Hindi); Golmarica (Beng.); Kare manesu (Kann.); Nallamuluku (Mal.); Philphil asvad (Arab.); Philphil Syah (Pers.); Black Pepper (Eng.).

Description

A stout climber vines perfectly glabrous more or less coriaceous, base cuneate or rounded, woody; suem thickened at the nodes, blade 4-6; petiole 1/2-in. long, basal nerve 3 or 5. Fruiting spike slightly interrupted. drooping 4-8 in. long; red when ripe.

Plant is branching, climbing, perennial shrub, mostly found in cultivated state. Branches stout, trailing and rooting at the nodes. Leaves entire, 12-5-17.5 by 5.0-

12.5 cm., very variable in breadth, sometimes glaucous beneath; base acute, rounded or cordate, equal or unequal; nerves about 5-7 pairs, basal; petiole stout.

Flowers minute in spikes, usually dioecious, but often the female bears 2 anthers and the male a pistillode. Anthers 2-celled, fl. spike very variable in length and robustness; rachis glabrous.

Fruiting spike very variable in length and pubescences, rachis glabrous. Fruits ovoid or globose, bright red when ripe. Seeds usually globose, testa thin, albumin hard. Fruit globose, berry sessile, red, pulp thin; 3-6 mm. in diam., surface (outer coat) dark brown or grey black strongly reticulated; apex shows remains of sessile stigmas. Plants continue to bear fruits (produce) for about 25-30 years in full swing normally and afterwards fruiting yield of plants tend to reduce gradually (sometimes and rarely it may go upto 100 years). Two crops of black pepper fruits are in practice during August-September and March-April.

Flowering and fruiting time

Plants flower in June-July and fruit in December-March. Farming seasons.

Distribution

Plant is cultivated in hot and moist parts of India Malaysia, Indonesia, Ceylon and other tropical countries. It cultivated particularly in Konkan, Malabar, Travancore and other parts of Southern India especially in hot and damp parts of the region, also found in Karnataka and Tamilnadu. There are several types of pepper (including hybrids and crosses) grown in India.

It is probably originated in the hills of south-western India and also Assam where it is met with in a wild state in the rain forests from North Kanara to Kanyakumari (Southern India, Kerala). It is most ancient crop of India.

Chemical composition

Analysis of green pepper (after discarding the stalks) gave following values : moisture 70.6, protein 4.8, fat

2.7, carbohydrates 13.7, fibre 6.4 and mineral matter 1.8%; calcium 170, phosphorous 70, iron 2.4, thiamine 0.05, riboflavin 0.04, necotinic acid 0.2 and ascorbic acid, 1 mg./100g., Carotene (as vit. A) 900 I.U./100g.

Analysis of black pepper (dried) gave following ranges of vallues : moisture 8.7-14.1, total nitrogen 1.55-2.60, nitrogen in non-volatile ether extract 0.70-4.22, volatile ether extract 0.3-4.2; non-volatile ether extract 3.9-11.5; alcohol extract 4.4-12.0; starch (by acid hydrolysis) 28.0-49.0; crude fibre 8.7-18.0; crude piperine 2.8-9.0, piperine (spectrometrically) 1.7-7.4; total ash 3.6-5.7 and acid insol. ash (sand)0.03-0.55%. Fruits mainly contain piperine 5-10%, piperdine 5%, piperttine and chavicine. Fruits also yield oil of pepper.

Pharmacodynamics

Rasa	: Kaṭu
Guṇa	: Laghu, tīkṣṇa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Vātakaphaśāmaka
Ārdra phala	: Guru, madhura vipākī, nātyuṣṇa (fresh or green)

Properties and action

Karma	: Dīpana-pācana-āmapācana- vātānulomana Yakṛduttejaka Kṛmighna Uttejaka (hṛdayottejaka) Kaphaghna-kaphaniḥśāraka Mūtrendriyottejaka (mūtrajanana) Svedajanana-kuṣṭhaghna Jvaraghna-viṣamajvara pratibandhaka Raktotkleśaka-lekhana Nāḍyottejaka-nāḍībalya Śūlapraśamana Dantya Cakṣuṣya
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	Śoṭhaśāmaka
	Srotorodhahara
Roga	: Agnimāndya-ajirṇa-ādhmāna-udaraśūla
	Yakṛdvikāra
	Kāsa-śvāsa-hikkā-pratiśyāya
	Mūtrakṛcchra
	Dhvajabhaṅga-rajorodha
	Kuṣṭha-carmavikāra
	Vātavikāra-nāḍīdourbalya
	Carmavikāra-śvitra-kilāsa-pāmā
	Śoṭha-vedanā yuktavikāra
	Pīḍikā-śoṭha
	Netravikāra-naktāndhya-arma-śukla
	Dantavikāra-dantaśūla-dentakṛmi
	Jvara-śītajvara-viṣamajvara
	Srotorodhajanya vikāra.

Therapeutic uses

The drug Marica is a dīpana drug (auśadhi) since it stimulates digestive fire or increase (promote) appetite (stomachic or appetizer) and promote digestive function, and it occupies a prominent place as dīpana-pācana herbal drug possessing various medicinal potentialities which make Marica one of the reputed drugs in Indian medicine. In addition to its very common utility as spice characteristic of pungency having various kinds and many fold utility.

In general, the drug is alterative, anthelmintic, appetizer, carminative, febrifuge, stimulant, tonic and urinary antiseptic. It is intense pungent (kaṭu) in taste (rasa) and hot (uṣṇa) in potency (vīrya); it allays provoked state of vāta and kapha doṣa. But the medicinal properties of green or fresh (ārdra) Marica differs. Normally the dried fruits of plant are used as drug Marica.

The drug is used in cough, bronchitis, cold, asthma, coryza, eczema, cataract, headache, influenza, intermittent fever, neuritis, night blindness, respiratory diseases, syphilis and worms. It is useful as nervine stimulant, expectorant, diuretic, diaphoretic, anti-dermatosis, emmenagogue, emaciating and blood provoking (raktotkleśaka)

and also cleansing the channels (sroto-śodhana) in human body.

The powder of Marica is externally applied in different and suitable forms in various ailments. In skin affections, it is applied locally (cūrṇa or taila) in powder form and mixed with oil, especially in śvitra, kilāsa and pāmā. Ailing conditions of organ with swelling and pain. It is applied. The fruit rubbed in honey and applied to eye diseases e.g. naktāndhya, arma, śukla and others. In dental complaints, it is used as tooth powder as well as gargle; and fruits also chewed in dental problems.

Marica is internally administered in a number of diseases as single drug, ingredient of several formulations (yoga) and also as component of trikaṭu (comprising three major pungent drugs viz. śuṅṭhi, marica and pippali) widely used in Indian medicine. The drug Marica is generally recommended in treatment of agni-vikāra (diseases caused by loss or reduction of normal digestive power or fire, digestive enzymatic abnormality) ajirṇa (dyspepsia), śūla (abdominal colic), ādhmāna (flatulence), yakṛdvikāra (liver disorders) and kṛmi (worms affections). It is used in hṛddourbalya (heart weakness), mūtrakṛchra (dysuria), dhvajabhaṅga (impotency), dysmenorrhoea and vātavikāra. The drug Marica is frequently given in kāsa, śvāsa, svāra-kaṅṭha vikāra, pratiśyāya, nāsāroga, śīroroga and other similar diseases (related to respiratory system, nose and throat etc.).

In addition, the marica powder is useful in obesity (medoroga); the ten marica grains with betel leaf (tāmbūla) are prescribed for intake of cold water for two months (Vaidya manoramā, 12-11). For digestion of ghee, the powder of marica is given or ghee mixed with marica is advisable (Bhāvaprakāśa, cikitsā. 6-44). Powder of marica mixed with butter is suggested in oedema of children (bālaśoṭha).

The decorticated fruits of marica (black pepper) are known as Śveta Marica which is also used in eye diseases, snake bite etc.

Parts used : Fruits

Dose : Powder 500 mg.-1 gm.

Formulation

Maricādi guṭikā, Maricādi taila, Bṛhanmaricādyā taila, Maricādi cūrṇa, Maricādyā cūrṇa, Apratisārāñjana Saṅmākṣika yoga.

Gaṇa

Dīpanīya, Śūlapraśamana, Kṛmighna, Śirovirecana (Caraka Saṁhitā), Trikaṭu (tryūṣaṇa), Pippalyādi (Suśruta Saṁhitā).

MARICA (मरिच)

नात्युष्णं मरिचं चार्द्रं स्वादुपाकमपित्तलम् ॥
कफप्रसेकि कटुकं किञ्चित् तीक्ष्णकरं गुरु ।
शुष्कं सोष्णं रसे पाके कटुकं लघु दीपनम् ॥
अवृष्यं रोचनं तीक्ष्णं रुक्षं वातकफापहम् ।
कृमिजित् श्वासशूलघ्नं छेदि शोषनुत् पित्तलम् ॥

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 1164.

मरिचं गुणाः

मरिचं कटुकं तीक्ष्णं दीपनं कफवातजित् ।
उष्णं पित्तकरं रुक्षं श्वासशूलकृमीन्हरेत् ॥

Bhāvaprakāśa Nighaṇṭu, Haritākyādi Varga, 60.

मरिचं कटु तिक्तोष्णं लघु श्लेष्मविनाशनम् ।
समीरकृमिहृद्रोगहरञ्च रुचिकारकम् ॥

Rāja Nighaṇṭu, Pippalyādi Varga, 32.

आर्द्रपक्कमरिच गुणाः

तदार्द्रं मधुरं पाके नात्युष्णं कटुकं गुरु ।
किञ्चित्तीक्ष्णगुणंश्लेष्मप्रसेकि स्यादपित्तलम् ॥

Bhāvaprakāśa Nighaṇṭu, Haritākyādi Varga, 61.

श्वेतमरिच

कटूष्णं श्वेतमरिचं विषघ्नं भूतनाशनम् ।
अवृष्यं दृष्टिरोगघ्नं युक्त्या चैव रसायनम् ॥

Rāja Nighaṇṭu, Pippalyādi Varga, 34.

‘मनःशिलाले मरिचानि तैलमार्कं पयः कुष्ठहरः प्रदेहः ।’

Caraka Samhitā, Sūtra, 3.

स्वादुपाक्वार्द्रमरिचं गुरु श्लेष्मप्रसेकि च ।
कटूष्णं लघु तच्छुष्कमवृष्यं कफवातजित् ॥
नात्युष्णं नातिशीतं च वीर्यतो मरिचं सितम् ।
गुणवन्मरिचेभ्यञ्च चक्षुष्यं च विशेषतः ॥

Suśruta Samhitā, Sūtra, 46.

नात्यर्थमुष्णं मरिचमवृष्यं लघु रोचनम् ।
छेदित्वाच्छोषणत्वाच्च दीपनं कफवातजित् ॥

Caraka Samhitā, Sūtra, 27.

सर्वकासहरणार्थम्

लिह्यान्मरिचं चूर्णं वा सद्युत क्षौद्रशर्करम् ।
सर्वकासहरं श्रेष्ठं लेहं कासादितो नरः ॥

Caraka Samhitā, Cikitsā, 22.

कासचिकित्सायाम्

मरिचाद्य चूर्णम्
मरिचादि गुटिका

Bhāvaprakāśa, Kāsarogādhikāra, 12-39/42.

अपतानके मरिचं चूर्णं प्रयोग

हन्त्यभुक्तवता पतिमम्लं दध्यपतानकम् ।
मरिचेन समायुक्तं स्नेहं बस्तिरथापि च ॥

Bhāvaprakāśa, Madhyakhaṇḍa, 24-203.

ग्रहणीरोगे

मरिचाद्य चूर्णम्

Caraka Samhitā Cikitsā. 15-108.

नक्तांध्ये

‘अचिराद्भन्ति नक्तान्ध्यं तद्वत्सक्षौद्रमूषणम् ।’

Bhāvaprakāśa, Netrarogādhikāra, 63-231.

अतिसारे मरिचं कल्कः

पयसा पिप्पलीकल्कः पीतो वा मरिचोद्भवः ।
त्र्यहात् प्रवाहिकां हन्ति चिरकालानुबन्धिनीम् ॥

Cakradatta, Atisāra Cikitsā, 3-97.

ग्रहणीरोगे मरिचादि चूर्णम्

चूर्णं मरिचमहौषध-कुटजात्वज्जं क्रमाद् द्विगुणम् ।
गुडमिश्रमथित पीतं ग्रहणी दोषापहं ख्यातम् ॥

Cakradatta, Grahaṇī Cikitsā, 4-28.

प्रतिश्याम प्रतिकारार्थं गुडमरिचयोगः

शोषणं गुडसंयुक्तं स्निग्धदध्यम्ल भोजनम् ।
नवप्रतिश्यायहरं विशेषात् कफपाचनम् ॥

Cakradatta, Māsāroga Cikitsā, 58-19.

अग्निमांद्ये

अविरुद्धोपदंशेन पक्कमन्नेन मात्रया ।
भक्षितं मरिचं पूर्वं भृष्टं दुर्जरतां जयेत् ॥

Vaidya Manoramā, 6-23.

उन्मादे मरिचाञ्जनम्

मरिचं वाऽऽतपे मासं सपित्तं हितमञ्जनम् ।
वैकृतं पश्यतः कार्यं दोषभूतहतस्मृते ॥

Cakradatta, Unnāda Cikitsā, 20-47.

कुष्ठचिकित्सायां मरिचाद्यं बृहन्मरिचाद्यञ्च तैल योगाः

Cakradatta Kuṣṭha Cikitsā, 50/35-36, 137-145.

पामा विकारे सिन्दूरादि लेपः

सिन्दूर मरिच चूर्णं महिषीनवनीत संयुक्तं बहुशः ।
लेपाद्विनिहन्ति पामां तैलं..... ॥

Cakradatta, Kuṣṭha Cikitsā, 50-48.

इन्द्रलुप्ते मरिच चूर्ण प्रयोगः

वृष्टस्य कर्कशैः पत्रैरिन्द्र लुप्तस्य गुण्डनम् ।
चूर्णितैभीश्वैः कार्यं मिन्द्रलुप्त विनाशनम् ॥

Cakradatta, Kṣudra roga Cikitsā, 55-101.

बालशोषे

‘मरिच नवनीताढ्यं शोषघ्नं भक्षयेत् शिशुः ।’

Bangasena, Bālaroga, 123.

शूले

शूलं तदांशु शमयेद् विणमूत्रे च्यावयेन्नियतम् ।
स्तन्य निधृष्टं मरिचं नसि निहितं नाशयेच्छूलम् ॥

Vaidya Manoramā, 8-23.

अतिनिद्रायाम्

क्षौद्राश्वबलालासंपृष्ठैः मरिचैः नेत्रमञ्जनात् ।
अतिनिद्रा शमंयाति तमः सूर्योदयादिव ॥

Bangasena, Netraroga, 575.

पामानि

अभिनवगोघृतेन मरिचस्य पिबतां
हुतवहदेशकालबलदोषसात्म्यवताम् ।
जघनकराङ्गुलिविष कूर्परजानुभवाः करुहवान्धवाः
सपदि यान्ति रुजः शमनम् ॥

Vaidya Manoramā, 11-49.

भुक्तसर्पिषः पाचनार्थम्

....सर्पिः ।

मरिचादपि तच्छीघ्रं पाकं यान्त्येव..... ॥

Bhāvaprakāśa, Cikitsā, 6-144.

नेत्र विकाराणां मरिचं प्रयोगाः

क. नेत्रस्त्रावे

मरिचांशः शिलार्धेन योजितः सुप्रचूर्णितः ।
नेत्रस्त्रावं हरत्याशु नराणामयमञ्जनात् ॥

Gadanigraha, 3-3-446.

ख. नक्तान्धे (रात्र्यांध्यत्वम्)

‘दध्ना विद्युष्टं मरिचं रात्र्यान्ध्याञ्जनमुत्तमम् ।’

Aṣṭāṅga. Hydaya, Uttara, 13-84.

ग. तिमिरे

षण्माक्षिक योगः

Aṣṭāṅga Hydaya, Uttara, 13-44.

अप्रतिसाराञ्जनम् ।

चिञ्चास्वरसनिधृष्टं मरिचं सायन्तने तथासाज्यम् ।

अक्षिनिषिक्तं शमयति कण्डूं तिमिरञ्च वातोत्थम् ॥

Vaidya Manoramā, 16-34.

रसवृद्ध्यर्थम्

‘मरिचैः क्लथितं दुग्धं पानै रात्रौ प्रशस्यते ।

रसानां तेन वृद्धिः स्यात्- ॥’

Hārīta Saṁhitā, 3-9-28.

ग्रहणी रोगे

पिप्पल्याः पिबतः सूक्ष्मं रजो मरिचजन्म वा ।
चिरकालानुवक्ताऽपि नश्यत्याशु प्रवाहिका ॥

Aṣṭāṅga Hṛdaya, Cikitsā, 9-40.

उदरविकाराणां मरिच प्रयोगः

तक्रेण या पिबेन्नित्यं चूर्णं मरिचसंभवम् ।
चित्रसौवर्चलोपेत ग्रहणी तस्य नश्यति ॥
उदरप्लीहमन्दाग्निगुल्मार्शीनाशनं भवेत् ।

Śārṅgadhara Saṁhitā, 2-6-53.

कासे

लिह्यान् मरिचचूर्णं वा मधु सघृतक्षौद्रशर्करम् ।
बदरीपत्रकल्कं वा घृतभ्रष्टं ससैन्धवम् ॥
स्वरभेद च कासे च लेहमेतं प्रयोजयेत् ।

Caraka Saṁhitā, Cikitsā, 18-180.

Aṣṭāṅga Hṛdaya, Cikitsā, 3-172.

‘लिह्याद् घृतक्षौद्रयुतां समांशां सितोपलां वा मरिचांशयुक्ताम् ।’

Suśruta Saṁhitā, Uttara, 52-18.

‘क्षौद्रेण लिह्यात् मरिचानि चापि ।’

Suśruta Saṁhitā, Uttara. 52-21.

मधुनामरिच लिह्यात् मधुनैव च जोंगकम् ।
पृथग्र रसांश्च मधुना व्याघ्रीवार्त्ताकभृंगजात् ॥
कासघ्नस्याश्वशकृतः सुरसम्यासितस्य च ॥

Aṣṭāṅga Saṅgraha, Cikitsā, 4-57-58.

Aṣṭāṅga Hṛdaya, Cikitsā, 3-70.

‘गुडोदकं वा क्वथितं सक्षौद्रमरिच हितम् ।’

Aṣṭāṅga Hṛdaya, Cikitsā, 3-70.

हिक्काश्वासयोः

.....जलेन वा ।

कोष्णेन भाङ्गीं शुण्ठीं च, क्षारं वा मरिचान्वितम् ॥

Aṣṭāṅga Saṅgraha, Cikitsā, 6-34.

प्रतिश्याये पीनसे च

ऊषणं गुडसंयुक्तं स्निग्धदध्यम्लभोजनम् ।
नवप्रतिश्यामहरं विशेषात् कफपाचनम् ॥

Vṛndamādhava, 60-21.

तारुण्यपिडकायाम्

‘तद्वद् गोरोचनामुक्तं मरिचं मुखलेपनम् ।’

Śaraṅgadhara Saṁhitā, 3-11-11.

स्थौल्ये

मासद्वयं प्रकुर्याद्दशमरिचोपेतमेकताम्बूलम् ।

खात्वा सुशीतमम्भः पिबेत् कुशः स्यादतिस्थूलः ॥

Vaidya Manoramā, 12-31.

MĀRIṢA

Botanical name : *Amaranthus blitum* var. *oleracea* Duthie.

Family : Amarantaceae

Classical name : Māriṣa

Sanskrit names : Māriṣa, Vāṣpaka, Marṣa.

Regional names : Marsa, Marasa, Chaulai (Hindi).

Description

A tall erect glabrous succulent herb. Stem stout, grooved, striate.

Leaves 1.5-2.5 in. long, ovate-oblong or rounded, usually notched at the apex; base cuneate; nerves prominent beneath; petioles 1-2.5 in. long.

Flowers in axillary clusters and in terminal simple or branched spikes; bracteoles shorter than sepals. Sepals 3, linear-oblong, obtuse or acute. Stamens 3, utricle 1/10 in. long, broadly ovate and with a blunt apex; styles 3, very short.

Seeds lenticular, dark-brown and shining.

Flowering and fruiting time

Distribution

Plant is cultivated throughout India and in Ceylon.

Kinds and varieties

Rakamārṣa, Śvetamārṣa, Amla mārṣa, Jalamārṣa and Sarandhra vaṣpa are some varieties (bhedaḥ) mentioned in texts of materia medica (nighaṅṭu).

Pharmacodynamics

Rasa	: Madhura
Gūṇa	: Guru
Vīrya	: Śīta
Vipāka	: Kaṭu
Doṣakarma	: Pittaśāmaka, Vātakaphakara (Variation in the kinds of Māriṣa).

Therapeutic uses

The drug Māriṣa is sweet (madhura), cold (śīta), and heavy (guru) in properties. It allays pitta doṣa and increases vāta and śleṣma doṣa. As a drug it pacifies raktapitta and controls viṣmāgni. It is also viṣṭambhi (uneasily digestible and causing flatulence).

The leaves are extensively used as a potherb; and in the submontane tracts of Uttar Pradesh hills (Garhwal and Kumaon regions). This plant is also grown also for its grain; and the parched seeds are either eaten with milk or mixed with sugar and made up into sweatmeat balls.

Medicinal properties are indicated in regard to different kinds of Māriṣa (vāṣpa) having variation accordingly.

MĀRIṢA (मारिषः)**मारिषः***Caraka Saṁhitā, Sutra, 27-98.***MĀRIṢA (मारिष)****मारिषः**

क. मारिषो वाष्पको मार्ष श्वेतो रक्तश्च सस्मृतः ।

मारिष गुणाः

ख. मारिषो मधुरः शीतो विष्टम्भी पित्तनुद् गुरुः ॥
वातश्लेष्मकरो रक्तपित्तनुत् विषमाग्निजित् ।

मारिष भेदाः

ग. रक्तमार्षो गुरुमर्ति सक्षारो मधुरः सरः ।

श्लेष्मलः कटुकः पाके स्वल्पदोषः उदीरितः ॥

Bhāvaprakāśa Nighaṅṭu, Śāka varga, 10-11

श्वेतरक्तमारिषौ

- अ. मारिषो मधुरो रुक्षः कटुः शीतो गुरुः सरः ।
वातश्लेष्मकरो हन्ति मदपित्तास्रतृट्विषम् ॥
- ब. रक्तवाष्पो गुरुर्नाति सक्षारो मधुरो रसे ।
श्लेष्मलः कटुकः पाके स्वल्पदोषं वदेदमुम् ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 634-635.

विचित्र मारिषः

हरितो रक्तवर्णश्च सक्षारः स्वादु पित्तलः ।

अम्ल मारिषः

अम्लवाष्पोऽम्ललवणो मधुरो दोषकोपनः ॥

जल मारिषः

जलवाष्पो विशेषेण रक्तार्शो विनिवारणः ।

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 634-637.

सरन्ध्रवाष्प

सरन्ध्रवाष्पं रुक्षं च हृद्यं कफकृमिप्रणुत् ॥
दीपनं तूष्णवीर्यञ्च रक्तपित्त प्रकोपणम् ।

कन्दगुणाः

वाष्पस्य कन्दः कफवातकोषी,
जन्त्वाकारः पित्तकरः सुरुच्यः ।
विष्टम्भमूत्री त्वतिसारकारी
विपाककाले कटुको गुरुश्च ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 637-638.

MĀRKANḌIKĀ- SVARNAPATRĪ

Botanical name

Cassia senna L. var. *senna* Brenan.,

Syn. *Cassia angustifolia* Vahl., *Senna officinalis*

Roxb.

Family : Caesalpinaceae

Classical name : Markaṇḍikā-Svarṇapatrī

Sanskrit names

Markaṇḍikā, Svarṇapatrī-patrikā, Bhumivallī, Markaṇḍī, Mr̥durecanī, Bhūpaitharikā, Pītapuṣpī, Svarṇamukhī, Hemapatrī, Malaśodhi, Kalyāṇī.

Regional name

Saray (Hindi); Sannamakki (Beng.); Sanpat, Sonamakhi (Mar.); Nat ki sona (Guj.), Nilabirai (Tam.); Telatpendu (Tel.); Telvarike (Kann.); Tilvak (Mal.); Sanay makki (Arab.); Indian Senna (Eng.).

Description

Shrub 0.60-0.75 meter high. Leaves paripinnate usually 5-8 jugate, the leaflets forming the drug senna, 2-4.5 cm. long 0.5-1.5 cm. wide, yellowish green in colour and glabrous. Flowers axillary racemes, erect, laxly many-flowered, usually exceeding the subtending leaf bracts membranous. Fruits legume flat, 1.5-1.7 mm. in breadth; seeds obovate, cuneate and compressed.

Leaf-drug character : Leaves pinnate compound with 10-16 leaflets, yellowish green in colour, isobilateral with somewhat prominent midrib and veins on the under surface, lanceolate measuring 1.7 - 5.5 x 0.4 - 1.2 cm. with a very small petiole of about 1 mm. in length, with more or less asymmetrical leaf base and an acute spiny apex, entire, reticulate, glabrous and transparent hairs on both the surface.

Flowering and fruiting season

Farming season. Plant of 3-5 months gives flowers and subsequent fruiting. Sown after rice crop.

Distribution

Plant is indigenous or native to Somaliland and Arabia. It is cultivated in South India (Tinnevely); Madurai and Trichinopoly. Further it has been introduced in Karnataka (Mysore) and others regions of India including Gujarat where it also grows. Plant belongs to cultivated group of plant drugs.

Kinds and varieties

Alexandrian Senna is obtained from the wild plants of *Cassia acutifolia* Delb. occurring in Africa and Sudan. The leaflets of this variety, also known as Sikandari Sanay (in Indian market), are shorter and narrower than those of *Cassia angustifolia* Vahl. Alexandrian Senna (*Cassia acutifolia* Delb.) is reported to be cultivated in India which is stated to be finer than either Tinnevelly Senna or Alexandrian Senna. As regards other characters for difference, the pods of Indian Senna are larger and narrower than those of the Alexandrian variety and brown area of pericarp surrounding the seeds is larger and the remains of the style are also not distinct.

Arabi Sanay or Makka (i) Sanay coming from Arabian countries to India (Bombay etc.) have larger and narrower leaves comparatively and whitish green in colour (Arabian, Mecca or Bombay senna), and the crude drug forms leaves obtained from wild source, which is almost considered similar to Indian (or Tinnevelly) Senna as well as Alexandrian Senna in regard to marketability and utility (medicinal value).

The chief adulterants of senna are the leaf-stalks and stems of the plant leaflets and fruits of other species of *Cassia* viz. *C. obovata* (L.) Collad. The seeds of *Cassia obovata* are reported to be mixed with those of *Cassia angustifolia* Vahl. (Tinnevelly Senna). Both kinds of Senna drug differ on the basis of structure and other characters of seeds and leaves.

The leaves of true senna are often mixed with those of *Tephrosia purpurea* (Linn.) Pers. (Śarapunkhā). Senna can be differentiated from *Tephrosia* by distinguishing architectural features of leaf (and also arrow or 'Śara' like structure of leaf) when it is broken as a common way (state) of fracture.

Sometimes the crude drug material of Indian Senna leaves is found to be unadulterated and in case of adulterated raw material the pharmacognostic and diagnostic key makes the difference and detection alongwith other

chemical methods as well as purity and drug standardisation tests.

Chemical composition

Some nonprotoplasmic cell contents like alkaloid, tennin, sugar, starch, fat, protein, mucilage, lignin, cutin, suberin and calcium oxalate present in the leaf drug react positively with different concentrations of acids, alkalies, salts and dyes. Senna leaves contain aloe emodin, a purgative constituent, which is found independently as well as in the form of glycoside. Broadly, the leaves contain flavenole and Anthraquinole groups compounds. First group includes isorhamnetin and Kaempferol, and in second group rhein and some emodin are included. It also contains two glycosides, sennoside (A & B) which are with chiefly cathartic effect. Besides these components, some other chemical constituents include manitol, sodium and potassium tartarate, salicylic acid, chrysophanic acid, volatile oil, resin, calcium oxalate and other contents in the plant.

The chromatographic studies isolated and fractionated the water-soluble polysaccharides from the leaves of plant *Cassia angustifolia* Vahl. Fractional precipitation and chromatographic study finds that the pods of *Cassia angustifolia* Vahl. contain besides sennosides A and B, glycosides of rhein and chrysophanic acid. Chrysophanic acid was best isolated by acidification of the aqueous extract of pH₃. Biological studies indicated that a mixture of these anthraquinone glycosides and the bianthranol glycosides was more active than either individually. The possibility of the presence of traces of aloe emodin or emodin glucoside was also indicated. The development of free and combined anthraquinones in plant *Cassia angustifolia* Vahl, the source of drug.

The chemical studies have found that the cathartic principles of drug Senna are soluble in water and dilute alcohol but insoluble in absolute alcohol. The odorous and colouring principles are soluble both in alcohol and water. Petroleum ether extract of the Senna leave, a colourless

crystalline wax (m.p. 80-83°C) and myricyl alcohol (m.p. 87-88°C). The leaf powder left after extraction with petroleum ether gave flavonol and anthraquinone groups of compounds separately. The flavonol portion consists of isorhamnetin and Kaemferol in more or less equal quantities, while anthraquinone portion contains mostly rhein alongwith small quantities of emodin.

The presence of two glycosides, one easily hydrolysable yielding emodin and the other hydrolysable with difficulty and slow in laxative effect, has been reported. Two glycosides, Sennoside A and Sennoside B which are believed to be the laxative principles of senna, both have the same formula, but differ principally in the manner of linkage of glucose to the aglycone fraction. Among other substances detected generally in senna; manitol, sodium, potassium tartarate, myriclalcohol, salicylic acid, chrysophanic acid, an ethereal oil and a resin.

The flowers of the plant drug Senna have been found to contain chrysophanic acid. Fruits of this plant are reported to occur exymethyl anthraquinone to the extent of 1.33 percent. The presence of rosette aggregate crystals of calcium oxalate throughout the parenchyma is also revealed (through microscopic examination). Most of the inorganic matter from the leaves seems to be extractable with water. Calcium, potassium and magnesium salts of organic acids are also present in plant drug *C. angustifolia* Vahl.

Drug Production

The source plants of the drug *Mārakaṇḍikā* or *Svārṇapatrikā* are of cultivated group in India for procurement of raw drug. The crop of *Cassia angustifolia* Vahl. can thrive on a variety of soils, but is largely grown on red loams including even coarse gravelly soils, on alluvial loams and on the rich clayey rich fields. The plant also has great tolerance for salinity or saline soils. The tolerance is lower at seedling stage and progressively increases further with growth of plant of Senna which have been found to accumulate salts at terminal regions particularly in the condition of cultivation (planting) in the saline soils.

The cultivation technique of Senna is followed for producing crop. It is necessary to give inter-culturing once or twice after which the rows close up in growing plants beds. Plants do not grow tall but when the flower-stalks begin to grow in plots, they elongate and become almost equal in height to the lower portion of the plants. At this stage, the flower stalks are cut which induces further branching and perhaps increasing potency or biological activity of the leaves. Application of the fertilizers including nitrogenous is considered to be beneficial especially under irrigated conditions. The cultivation practices usually maintain that the crops leguminous group do not generally require use of nitrogenous fertilizers since roots of plant are not forming nodules and not fixing atmospheric nitrogen. In Senna plants, the nitrogenous fertilizers are recommended in view of these conditions.

The harvesting of crop is done after two months of time, but usually first plucking of leafless is done after three months of sowing and growth. The most suitable stage for collection or plucking of leaves from plants is actually related with maturity of bulk of leaves it can be judged by the leaves becoming full grown, thick and bluish in colour, losing the tender green of the young leaf stages. It is observed that first 6-7 leaves bear elliptical broad leaflets which are deep green and valued more for collection. The second picking is done after a month of first picking and third one after 4-6 weeks of second picking. Last picking of leaves from senn plants also includes the picking the pods of plants.

Under common practice of collection and preservation of raw drug Senna, the leaves are plucked by hand in the way of tea leaves plucking. Leaves are picked after 3-4 months growth of plants when the leaves are fully matured and become bluish. Lot of plucked leaves is dried under shade for 7-8 days. Raw material of leaves and pods is kept properly in storage.

Pharmacodynamics

Rasa

: Kaṭu, tikta, madhura, kaṣāya.

Guṇa	: Laghu, rūkṣa, tīkṣṇa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Pittaśodhaka Vātahara (anulomaka).

Properties and action

Karma	: Sransana-vātānulomana- mṛdurecana (sukhavirecana) Kāyaśodhana (ūrdhvādhaḥ) Dīpana Yakṛduttejaka Kṛmighna Kuṣṭhaghna Plīhahara Raktaśodhaka Lekhana-tvagdoṣahara
Roga	: Vibandha-jirṇakoṣṭhabaddhatā Ānāha-adhmāna Gulma-udararoga Kṛmi Āmavāta-vātarakta Paittika vikāra Raktavikāra Kapha-pittajanya roga (śodhanārtha) Vāyu vikāra (anulomanārtha).

Therapeutic uses

The pharmacological studies find the antitumour activity of the poly sacchride fractions obtained from the leaves of *Cassia angustifolia* Vahl. tested against the solid sarcoma—180 in CDI mice various investigations on the plant drug record some important observations.

Anthraquinone glycoside tend to accumulate mostly during the period September-October. The sennosides of leaves are at maximum after 49 days seeds germination and then its yield progressively decrease with the maturation of pods. The extent of sennoside in pods are at maximum when total seeds weight per pod is 23-30 per cent. The leaves of drug contain maximum sennosides

at the time of flowering in source plant. Main pharmacologically active substances of plant drug Mārkaṇḍikā (Svarṇapatrikā) are found in favourable season, stage and condition of source plant alongwith its proper collection and storage, in accordance to the standards of pure and quality drug which is considered therapeutically potent and clinically useful in treatment of diseases.

The drug Mārkaṇḍikā or Svarṇapatrī is one of the important laxative drugs (anulomana-sransana or sukhavire-cana) or mild purgative which is esteemed as an ideal laxative medicine. Hence it is valued in medicine for its cathartic properties.

This drug is useful in constipation, loss of appetite, liver complaints, abdominal troubles, splenic enlargements, dyspepsia, typhoid, jaundice, anaemia, leprosy, poisoning symptoms, foul breath, bronchitis and tumours. It is useful specially in habitual and chronic constipation. It decreases the peristaltic movements of the colon. The tendency to gripe caused by Senna drug may be obviated by combining it with aromatics or with a saline laxative.

The pods have the same therapeutic effect as the leaves but they cause less griping. Cassia acuminata and Cassia angustifolia are recognised by British Pharmacopoeia and United States Pharmacopoeia.

Parts used : Leaves, pods, roots.

Dose : 500 mg.-1gm.

Formulation : Saṭsakāra cūrṇa, Pañcasakāra cūrṇa.

MĀRKANḌIKĀ-SVARṆAPATRĪ (मार्कण्डिका-स्वर्णपत्री)

- क. मार्कण्डिका भूमिवल्ली मार्कण्डी मृदुरेचनी ।
ख. मार्कण्डिका कुष्ठहरी उर्ध्वाधःकायशोधिनी ।
विषदुर्गन्ध कासघ्नी गुल्मोदर विनाशिनी ॥

Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi Varga, 289-290.

मार्कण्डिका

अपरा भूपैठारिका मार्कण्डी मृदुरेचनी ।
मार्कण्डिका जयेत् कुष्ठमूर्ध्वाधः कायशोधनी ॥
विषदुर्गन्ध कासघ्नी गुल्मोदर विनाशनी ।

मार्कण्डिका मूलम्

तन्मूलं तु सरं रक्तपित्ततृण्मोहनाशनम् ।
स्वादुपाकेऽनिलहरं गुरु शुक्रक्षयापहम् ।
कृमिकुष्ठप्लीहहरं दीपनं वर्णकृत् परम् ॥

Kaiyadeva Nighantū, Oṣadhi Varga, 1003-1005.

सनामकी

‘रूक्षोष्णं शोधिनी बाढं वातश्लेश्मविरोधिनी ।
शान्ता सनामकी नाम मनाक्पीत तनुच्छदा ॥’

Siddha Bhaiṣajya Manimālā.

मार्कण्डिका

मार्कण्डिका कुष्ठहरी उर्ध्वाधःकायशोधिनी ।
वातरुक् कृमिकासघ्नी गुल्मोदर विनाशिनी ॥

Nighantū Saṅgraha.

MARUBAKA**Botanical name**

Majorana hortensis Moench.,
Syn. Origanum majorana Linn.

Family : Lamiaceae (Labiatae)

Classical name : Marubaka-Maruvaka

Sanskrit names

Marubaka, Maruva-maruvaka, Kharapatra, Prastha-
puṣpa.

Regional names

Marua (Hindi); Bantulsi (Kumaon); Murwa
(Deccan); Murru (Beng.); Mameva (Mar.); Murru (Tam.);
Maruvamu (Tel.); Marum (Kann.); Maruvamu (Mal.);
Sweet marjoram (Eng.).

Description

An aromatic, branched perennial, 30-60 cm. high

(plant, though perennial, treated as an annual under cultivation).

Leaves oblong-ovate.

Flowers small, whitish or purplish, in terminal clusters.

Seeds minute, oval, dark brown.

Flowering and fruiting time

Farming seasons. Autumn or colder months generally (fls. & fts.).

Distribution

Plant is commonly grown in Indian gardens; it is particularly suited for hill stations. Its native of southern Europe, North America and Asia Minor. It is cultivated in India.

Plants of Sweet Majorana or *Majorana hortensis* Moench grow in any well-drained fertile garden loam. It is propagated by seed and cuttings. Seeds are sown in the plains in October and in the hills from March to the middle of June. Seeds are sown in pots and seedlings when large enough to handle, are transplanted in the field 8-10 in. apart in rows which are spaced 12 in. apart. Propagation by cuttings sometimes done at higher elevations. The crop is readily available for harvesting in c. 5-6 months. Tops are cut when plants begin to flower in beds.

Kinds and varieties

Another plant species occurs in India and named as *Origanum vulgare* Linn. which is a source for Maruvaka grows in Himalayas from Kashmir to Sikkim at 7,000-12,000 ft. altitude.

***Origanum vulgare* Linn.** is known as common or wild. Morjoram and also Sathra (Hindi), Mridu-maruvamu (Tel.), Maruga (Kann.) and Mirzanjosh (Punjabi).

It is an aromatic, branched perennial herb, 30-90 cm. high, Leaves broadly ovate, entire or rarely toothed. Flowers purple or pink, in corymbose cymes. Nutlets smooth, brown.

Plants occurs wild in the temperate Himalayas from Kashmir to Sikkim, at altitude of 1,500-3,600 meters. It is very common in Shimla region of Himachal Pradesh and Kashmir region (valley) of Jammu and Kashmir state.

It is hardy and can be grown in all warm garden soils. Plant is propagated by seeds, cuttings, layers and root-division. It can be sown during October in the plains during March and April in the hilly regions.

Chemical composition

The analysis of dry herb gave the following values : water 7.61, protein 14.31, fixed oil 5.60, volatile oil 1.72, pentosans 7.68, fibre 22.06 and ash 9.69 per cent. Tannin, a bitter substance and ursolic acid (0.21% in tops and 0.05% in stem). Leaves and flowering heads of *Majorana hortensis* yields sweet *Majorana* oil.

Another plant (source of Maruvaka) *Origanum vulgare* Linn. contains a volatile oil (0.15-0.40%), tannin (C. 80%) and a bitter principle. Steam distillation of the whole plant gave a pale yellow oil (yield 0.2%) with a pleasant smell which has been analysed. It contained dl-pinene, dipentene, linalool bi- and tri-cyclic sesquiterpenes etc.

Pharmacodynamics

Rasa	: Kaṭu, tikta
Guṇa	: Laghu, rūkṣa, tikṣṇa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarman	: Kaphavāta śāmaka Pittavardhaka

Properteis and Action

Karma	: Vātānulomana Rocana-dīpana Kṛmighna Kaphaghna-śvāsahara Hṛdayottejaka Ārtavajanana Svedajanana-Kuṣṭhaghāna Jvaraghna
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	Kaṭupouṣṭika
	Viṣaghna
	Sothahara
	Vedanāsthāpana
	Vraṇaropaṇa
	Durgandhanāśana.
Roga	Ādhmāna-udaraśūla-vidbandha
	Aruci-agnimāndya-udararoga
	Kṛmi
	Kāsa-śvāsa-hikkā
	Hṛddourbalya
	Kaṣṭārtava-rajorodha
	Carmaroga-kuṣṭha
	Jvara
	Dourbalya.

Therapeutic Uses

The plant drug Maruvaka (*Origanum vulgare* Linn.) possesses an aromatic, thyme-like flavour. The leaves and tops cut prior to blooming are used to flavour food in the same way as sweet Majorana (*Majorana hortensis* Moench). The plant, a pot herb, is also eaten as vegetable in some remote hilly region. It was formerly employed to flavour ole and beer before hops were introduced in the brewing industry.

Maruvaka taila (oil of origanum) possesses carminative, stomachic, diuretic, diaphoretic and emmenagogue properties. It is given a stimulant and tonic in colic and diarrhoea; it is also applied in chronic rheumatism, toothache and earache. On account of sapsmolytic action of the oil, it is used in whooping cough and bronchitis. It is useful in hysteric condition.

Sweet majorana (*Majorana hortensis* Moench) is characterised by a strong, spicy and pleasand colour and flavour. The volatile oil content of leaves is maximum when the plant is under harvesting before seeds formation.

The oil obtained from herb *Origanum vulgare* Linn., called oil of origanum in trade, is really Thyme oil (oil obtained from *Thymus vulgare* Linn.); oil of origanum vulgare Linn. herb is often confused with Sweet Majorana

oil (*Majorana hortensis* Moench.) which is, however, dextrorotatory (upto 40°). The oil of origanum possesses an aromatic, spicy, somewhat basal like odour and it has thymol (upto 7%). The origanum oil is medicinally and chemically potent.

The origanum oil (Maruvaka oil) is used externally; it is applied in healing lotions for wounds, usually in conjunction with other herbs. The oil has been employed in veterinary medicine for preparing liniments applied to cattles. The oil is used in gargle and baths. It is stimulating agent to growth of hairs. The oil is employed in cosmetic and soap preparations as health protectives for skin care. The origanum oil is considered helpful, in view of medicinal activity of herb. for ulcers and skin affections in general in different modes of administration.

The drug Maruvaka (*Majorana hortensis* Moench.) is useful as medicine as well as condiment and also an aromatic herbal. The leaves of the plant are used fresh or dried and highly esteemed as a condiment for seasoning food. They are used also as a poultry-scasoner. Fresh leaves are employed as garnish and incorporated in salads. They are used also for flavouring vinegar. Dried flowering tops are used for sachets and potpouri. The aromatic seeds are used in confectionary and French confitures.

The oil of Sweet Majorana or Majoram oil (contained in the leaves and flowering heads as a volatile oil, obtained by steam distillation from flowering herb : yield 0.3-0.4% and 0.7-3.5% of frash and dry herbal material respectively) is employed to a small extent in high grade flavour preparations and perfumes and in soap and liquor (liqueur) industries being an aromatic herbal source of utility.

The sweet majoram (Maruvaka) is considered carminative, expectorant and tonic. Leaves and seeds are astringent. An infusion of the plant is used as stimulant, sudorific, emmenagogue and galactagogue. It is reported to be useful in asthma, hysteria and paralysis.

The maruvaka taila (sweet majoram oil) is

employed to a small extent in high grade flavour preparations and perfumes. Extremally it is used as local application for sprains, bruises, stiff and paralytic limbs and toothache. It is also used for hot fomentation in acute diarrhoea. Herb is applied is scorpion sting.

Marubaka or Maruvaka is indicated in aruci, agni-māndya, ādhmāna, udaraśūla, kṛmi, hṛddourbalya, kāsa, śvāsa, hikkā, kaṣṭārtava, rajorodha, tvagvikāra, jvara, dourbalya and kuṣṭha roga. The herbal drug is topically applied to rheumatism, headache, toothache, ulcer and scorpion sting. It is employed in the modes of svedana, lepa, upanāha and fumigation.

Parts used : Whole plant.

Dose

Juice 5-10 ml., Oil 2-5 minims (drops), Infusion 10-20 ml.

MARUBAKA (मरुबक)

मरुदग्निप्रदो हृद्यस्तीक्ष्णोष्णः पित्तलो लघुः ।
वृश्चिकादि विषश्लेष्मवात कुष्ठकृमि प्रणुत् ॥
कटुपाकरसो रुच्यास्तिको रुक्षः सुगन्धिकः ।

Bhāvaprakāśa Nighaṇṭu.

मरुवः कटुतिक्तोष्णाः कृमिकुष्ठविनाशनः ।
विड्बन्धाध्मानशूलघ्नो मांद्यत्वग्दोष नाशनः ॥

Rāja Nighaṇṭu.

‘मरुबकः कफहरो रुच्यो मुखसुगन्धिकृत् ।’

Dhanvantari Nighaṇṭu.

मरुबकः

- क. मरुबकः खरबुसः खरपत्रः सुखात्मकः ॥
सूक्ष्महीनः सुगन्धोऽन्यः प्रस्थपुष्पो मरुत्तकः ।
ख. सुखात्मकः कटुस्तिको ग्रहजित् पाचनो हिमः ॥
निहन्ति कफपित्तास्र कुष्ठकण्डू विषज्वरान् ।

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 1571-1573.

MĀṢA

Botanical name

Vigna mungo (L.) Hepper.,
Syn. *Phaseolus mungo* Linn.

Family : Fabaceae (Papilionaceae)

Classical name : Māṣa

Sanskrit names

Haribīja, Bijavara, Saṭī, Vṛṣya, Vṛṣākari-vṛṣākara.

Regional names

Urhad, masa, mah, urada (Hindi); Mah (Punj.); Mashakalai (Bang.); Urhid (Mar.); Arhad (Guj.); Ulundu (Tam.); Bhinumu (Tel.); Mashe syah, Mashe Hindi (Arab., Pers.); Black gram, Kidney-bean (Eng.).

Description

Much branched climbing or erect annual herbs, with 30-60 cm. long straggling branches densely clothed with greyish to grey brown reflexed hairs.

Leaves 3-foliolate; petioles 5-20 cm. long; stipules peltate, 7-10x4-5 mm.; leaflets ovate, rhomboid to ovate-deltoid or elliptic-ovate, acuminate, entire or slightly lobed, 5-8x4-6 cm.

Racemes capitate. 4-8 flowers; peduncles 1.5-4 cm. long. calyx 2-3 mm. long; teeth lanceolate. Corolla yellow, 9-13 mm. long.

Pods 3.5-6.5 cm. long, covered with long spreading hairs, 6-12-seeded, the rim-aril distinctly raised around the hilum of the seeds which are dirty green in colour.

Flowering and fruiting time

Plant flowers in August-September and fruits in October-November. Forming season. Flowering and fruiting during cold season.

Distribution

It is commonly cultivated in India as Kharif crop for agro produce of pulse. Forming in northern India specially in western Uttar Pradesh, Punjab and Harayana and different regions in country.

Kinds and varieties

These are mainly two varieties of Māṣa in texts of indigenous materia medica and medicine (nighaṅṭu and samhitā) viz. Māṣa and Rājamāṣa (alāsāndra), classified in Śimbīdhānya varga (leguminous seeds) which are botanically known as *Vigna mungo* (L.) Hepper syn. *Phaseolus mungo* Linn. and *Vigna unguiculata* (Linn.) Walp. respectively.

Chemical composition

Seeds contain albuminoid 22.7%, starch 55.8%, oil 2.2%, fibre 4.8% and alkalies (including phosphoric acid) 4.4 per cent.

Pharmacodynamics

Rasa	: Madhura
Guṇa	: Guru, snigdha
Vīrya	: Uṣṇa
Vipāka	: Madhura
Doṣakarma	: Vātaśāmaka Pittakaphakara

Properties and action

Karma	: Vātaghna Vedanāsthāpana Nāḍibalya Mādaka Rocana-puriṣajanana-sransana- śūlapraśamana Yakṛduttejaka Mūtrala Vṛṣya-stanyajanana-ārtavajanana Balya-br̥ṇhaṇa-jivanīya- medovardhaṇa Santarpaṇa
Roga	: Vātavyādhi-ardita-pakṣāghāta- sandhivāta Nāḍīdourbalya Aruci-vibandha-udaraśūla Yakṛdvikāra Arśa-gudakila

Bastiśoṭha-mūtrakṛcchra
 Klaibya-śukrakṣaya
 Rajorodha
 Stanyalpatā
 Dourbalya-medakṣaya-māmsakṣaya-
 kṛśatā.

Therapeutic uses

The drug Māṣa is aphrodisiac, carminative, diuretic, laxative, galactogogue, emmenagogue and nervine tonic. It is useful in anorexia, gastrointestinal diseases, impotency, liver disorders, nervine and neurological diseases and urinary tract ailments. It is used frequently in all types of nervine and neurological disorders and also used in impotency. Māṣa is very commonly consumed as a household food article belonging to pulse (dāli or dal) group.

Māṣa has been employed as a drug in a number of classical recipes and formulations which are prescribed mainly for vājīkaraṇa and vātanāśaka medicine. The compounds of māṣa (employed as major component and subsidiary drug also with different parts of māṣa) are recommended mainly in various ailments of related with nervine, neuralgic and sexual disorder.

Māṣa is specifically incorporated as effective drug in treatment of vātavyādhi such as arḍita, pakṣāghāta, manyāstambha, viśāci, avabāhuka, sandhivāta and other vāta roga. The oil prepared with māṣa is frequently recommended and the poultice is also suggested in case of vātavyādhi. Among important formulations Māhāmāṣa taila and Māṣa taila are prominent oil formulations which are generally prescribed in clinical management of the diseases under vātavyādhi group.

Large number of classical recipes and formulations have classically been incorporated in context of vājīkaraṇa compounds by Caraka and Suśruta followed by other therapeutic texts. They appreciate and recommend use of Māṣa as an effective aphrodisiac drug in various forms and modes of administration including unique type of aphrodisiac therapy (e.g. māṣaparnabhṛtiya vājīkaraṇa-aphrodisiacs on cow-fed on black gram leaves etc. Caraka, Cikitsā -3).

Māṣa is indicated as wholesome (pathya) and unwholesome (apathya) diet in various diseases.

Parts used : Fruit-seeds, root.

Dose : Powder 5-10 gm.

Formulations

Māṣabalādi pācana, Mahāmāṣa taila, Māṣa taila, Bṛhanmāṣa taila, Vṛṣyamāṣa yogaḥ (Caraka Saṁhitā, cikitsā. 2/1-4 : Vājīkaraṇa).

MĀṢA-RĀJAMAṢA (माष-राजमाष)

क. माषो गुरुः स्वादुपाकः स्निग्धो रुच्योऽनिलापहः ।
स्नंसनस्तर्पणो बल्यः शुक्रलो बृंहणः परः ॥
भिन्नमूत्रमलः स्तन्यो मेदः पित्तकफप्रदः ।
गुदकीलार्दितश्वासपक्तिशूलानि नाशयेत् ॥

Bhāvaprakāśa Nighaṇṭu, Dhānya varga, 41-42.

कफपित्तकरा माषादयः

ख. कफपित्तकरा माषः कफ पित्तकरं दधि ।
कफपित्तकरा मत्स्या वृन्ताकं कफपित्तकृत् ॥

Bhāvaprakāśa Nighaṇṭu, Dhānya varga, 43.

राजमाषः

क. राजमाषो महामाषश्चपलश्च बलः स्मृतः ।
राजमाषो गुरुः स्वादुस्तुवर स्तर्पणः सरः ॥
रूक्षो वातकरो रुच्यः स्तन्यो भूरिबलप्रदम् ।

राजमाषभेदाः

श्वेतो रक्तस्तथा कृष्णास्त्रिविधः स प्रकीर्तितः ।
यो महास्तेषु भवति स एवोक्तो गुणाधिकः ॥

Bhāvaprakāśa Nighaṇṭu, Dhānya varga, 44-45.

माषः

माषो हरिर्बीजवरः सटी वृष्यो वृषाकरिः ॥

माष गुणाः

माषः स्निग्धो गुरु स्वादुः पाकेऽम्लो बृंहणः सरः ।
वीर्योष्णस्तर्पणः स्यन्दी शुक्रवृद्धि विरेककृत् ॥

कफपित्तबलस्तन्य मेदो मासबलप्रदः ।
पक्तिशूलार्दितश्वासदुर्नामानिलनाशनः ॥

Kaiyadeva Nighaṅṭu, Oṣadhi varga, 56-58.

राजमाषः

अलसान्द्रो राजमाषश्चपलश्चबलस्तथा ।
राजमाषः स्वादुपाको रुक्षो बहुशकृद् गुरुः ॥
कषायस्तर्पणो वातकरः स्तन्यरुचिप्रदः ।

Kaiyadeva Nighaṅṭu, Oṣadhi varga, 59-60.

कषायमाषात्र पुरीषभेदो,
न मूत्रलो नैव कफस्य कर्ता ।
स्वादुर्विपाके गृहजोऽलसान्द्र,
संतर्पणः स्वादुरुचि प्रदश्च ॥

Kaiyadeva Nighaṅṭu, Oṣadhi varga, 60.

धान्यमाष-माषः

माषस्तु कुरुविन्दः स्याद्धान्धवीरो वृषाकरः ।
मांसलश्च बलाढ्यश्च पित्राश्च पितृजोत्तमः
माषः स्निग्धो बहुमलकरः शोषणः श्लेष्मकारी
वीर्येष्णोष्णो झटिति कुरुते रक्तपित्तप्रकोपम् ।

माष गुणाः

हन्याद्घातं गुरुबलकरो रोचनो भक्ष्यमाणः ।
स्वादुर्नित्यं श्रमसुखवतां भेदनीयो नराणाम् ॥

Rāja Nighaṅṭu, Śālyādi varga, 80-81.

राजमाषः

राजमाषो नीलमाषो तृणमाषो नृपोचितः ।
कफपित्तकरो रुच्यो वातकृद्बलदायकः ॥

Rāja Nighaṅṭu, Śālyādi varga, 82-83.

वृष्यमाष योगः

माषयूषेण यो भुक्त्वा घृताढ्यं षष्टिकौदनम् ।
पयः पिबति रात्रिं स कृत्स्नां जागर्ति वेगवान् ॥

Caraka Saṁhitā, Cikitsā. 2-1/47.

वाजीकरणार्थं योगाः (माष घटकद्रव्य)

वाजीकरण घृतम्

वाजीकरण पिण्ड रस

वृष्यमाहिष रस

Caraka Samhitā, Cikitsā, 2-1/33.

अपत्यकर स्वरस योग —

वृष्यक्षीर योग —

Caraka Samhitā, Cikitsā, 2-2/14-20.

अपत्यकरी षष्टिकादि गुटिका —

Caraka Samhitā, Cikitsā, 2-2/3-9.

त्रय वृष्य गोदग्ध योगाः (माषपर्णभृतीय वाजीकरणं पादम्)

माषपर्णभृतां धेनुं गृष्टिं पुष्टां चतुःस्तनीम् ।

समानवणवत्सां च जीवद्वत्सां च बुद्धिमान् ॥

रोहिणीमथवा कृष्णमूर्ध्वशृङ्गामदारुणाम् ।

इक्ष्वादामर्जुनादां वा सान्द्रक्षीरां च धारयेत् ॥

केवलं तु पयस्तस्याः शृतं वाऽशृतमेव वा ।

शर्कराक्षौद्रसर्पिर्मियुक्तं तद्वृष्यमुत्तमम् ॥

Caraka Samhitā, Cikitsā, 2-2/3-5.

अपत्यजननं क्षीरयोगः

मण्डलैर्जातरुपस्य तस्या एव पयः शृतम् ।

अपत्यजननं सिद्धं सघृतक्षौद्र शर्करम् ॥

Caraka Samhitā, Cikitsā, 2-3/11.

वृष्यपञ्चदशयोगाः

प्रहर्षयोनयो योगा व्याख्याता दशपञ्च च ।

माषपर्णभृतीयेऽस्मिन् पादे शुक्रबलप्रदाः ॥

Caraka Samhitā, Cikitsā, 2-3/31.

वृष्यपूपलिका योग

वृष्यपायस योग—

Caraka Samhitā, Cikitsā, 2-3/14-17.

वाजीकरणार्थं माषपायसयोगः घृतभृष्टो

दुग्धमाषपायसोवृष्य उत्तमः ।

Cakradatta, Vyādhikāra, 66-10.

‘माषाः श्लेष्म पित्तजननानाम् (श्रेष्ठम्) ।’

Caraka Samhitā, Sūtra, 25.

माषः-राजमाषः

Caraka Samhitā, Sūtra, 4-2.

वृष्यः परं वातहरः स्निग्धोष्णमधुरो गुरुः ।
बल्यो बहुमलः पुंस्त्वं माषः शीघ्रं ददाति च ॥

Caraka Samhitā, Sūtra, 27-24.

माषो गुरुर्भिन्न पुरीषमूत्रः स्निग्धोष्णवीर्यो मधुरोऽनिलघ्नः ।
सन्तर्पणः स्तन्यकरो विशेषाद् बलप्रदः पित्तकफावहश्च ॥
कषायभावान्न पुरीषभेदी न मूत्रलो नैवः बलासकर्ता ।
स्वादुर्विपाके मधुरोऽलसान्द्रः सन्तर्पणश्चैव रुचिप्रदश्च ॥
माषैः समानं फलयात्मगुक्षमुक्तं च काकाण्ड फलं तथैव ।

Suśruta Samhitā, Sūtra, 46-34/35.

माषः स्निग्धो मारुतघ्नो गुरुष्णो वर्चः पित्तश्लेष्मकृतेजहेतुः ।
शुक्राधिक्याद्द्रावकर्ता सरः स्यात् काकाण्डोलान्यात्मगुप्तापितद्वत् ॥
स्निग्धोऽथ वृष्योमधुरश्च बल्यः स्तन्यः कफानां परिवृंहणश्च ।
पाकेऽम्लकोऽयं कथितो हि शुक्रभेदप्रदोऽनल्पबलो हि माषः ॥
माषः स्निग्धो बलश्लेष्ममलपित्तकरः सरः ।
गुरुष्णोऽनिलहा स्वादुः शुक्रवृद्धि विरेककृत् ॥

Aṣṭāṅga Hṛdaya.

वृष्य योगः

माषाणां पलमेकं तु संयुक्तं क्षौद्रसर्पिषा ।
अवलिह्य पयः पीत्वा तेन वाजी भवेन्नरः ॥

Suśruta Samhita, Cikitsā, 26-211.

वाजीकरणे

माषयूषेण यो भुक्त्वा घृताढ्यं षष्टिकौदनम् ।
पयः पिबति रात्रिं स कृत्स्नां जागर्ति वेगवान् ॥

Caraka Samhitā, Cikitsā, 2-45.

विश्वाच्याम्

‘मूलं बलायाः..... ।

नस्यं तु यो माषरसेन कुर्यान्मासदसौ वज्रसमानबाहुः ।’

Vṛndamādhava, Vātādhikāre.

वाजीकरणे प्रयोगः

माषयूषेण यो भुक्त्वा घृताढ्यं षष्टिकौदनम् ।

पयः पिबति रात्रि स कृत्स्नां जागर्त्ति वेगवान् ॥

Caraka Saṁhitā, Cikitsā, 21-45.

‘समाष विदला वृष्या घृतक्षीरोपसाधिता ।’

Caraka Saṁhitā, Sūtra, 2-32.

‘शुक्रस्रुतिकरं किञ्चित्, किञ्चिच्छुक्रविवर्धनम् ।

स्रुतिवृद्धिकरं किञ्चित् त्रिविधं वृष्यमुच्यते ॥’

‘पुंस्त्वं शीघ्रं ददाति च ।’

शोषे

‘घृतेन चाजेन समाक्षिकेण तुरङ्ग गन्धा तिल माष चूर्णम् ।’

Saśruta Saṁhitā, Soṣapratīṣedhaka.

स्वप्नदर्शनान्तरम्

‘दद्यान्माषांस्तिलाल्लोहं.....विप्रेभ्यः काञ्चनं तथा ।’

Suśruta Saṁhitā, Sūtra, 29-72.

प्रदेहार्थम्

‘वातामयितां प्रदेहः ।’ स्वेदोपग दशेमानि ।

Caraka Saṁhitā, Sūtra, 3.

अन्नद्रवशूले ससैन्धव प्रयोगः (सिद्धाहारकल्पना)

माषेण्डरीं सलवणां सुस्वित्रां तेलपाचिताम् ।

तादृशीं सर्पिषा खादेदन्नद्रवनिपीडितः ॥

Bhāvaprakāśa, Sūlādhikāra, 30-72.

सोमरोगे

माषचूर्णं समधुकं विदारीं मधुशर्कराम् ।

पयसा पाययेन्नातः सोमधारणमुत्तमम् ॥

Bhāvaprakāśa, Somorogādhikāra, 69-8.

अन्नद्रवशूले माषेण्डरी पथ्यम्

‘माषेण्डरी सतुषिका स्वित्ना सर्पियुता हिता ।’

Cakradatta, Pariṇāmaśūla Cikitsā, 27-85.

वातव्याधि चिकित्सायां तैल योगाः

स्वल्पमाष तैलम्

माष तैलम्

द्वितीय माषतैलम्

तृतीय माषतैलम्

सप्तप्रस्थबृहन्माषतैलम्

महामाषतैलम्

Cakradatta, Vātavyādhi Cikitsā, 22/154-172.

Cakradatta, 22/187-200.

दारुणक रोगे माष लेपः (शिरगत)

‘काञ्जिकायाः त्रिसप्ताहं माषा दारुणकापहाः ।’

Cakradatta, Kṣudraroga Cikitsā, 55-86.

चिरकालीन प्रतिश्यायहरो माष (बीज) योगः

भक्षयति भुक्तमात्रे सलवणमुत्स्विञ्चमाषमत्युष्णम् ।

स जयति सर्वसमुत्थं चिरजातञ्च प्रतिश्याययम् ॥

Cakradatta, Nāsāroga Cikitsā, 58-22.

शिरोरोगे वातिके

माषान् मुद्गान् कुलत्थान् वा तद्वत् खादेद्घृतान्वितान् ।

तैलं तिलानां कल्कं वा क्षीरेण सह पाययेत् ॥

Aṣṭāṅga Hṛdaya, Uttara. 24-2.

वाजीकर प्रयोगः

प्रसृतं माषचूर्णस्य धात्रीस्वरसभावितम् ।

विदारिरीजसो वापि लिहन् मधुघृतद्रुतम् ॥

क्षीरानुपश्चटकवत् दारकृत्वो ब्रजेत् स्त्रियः ।

Aṣṭāṅga Sangraha, Uttara, 50-40.

वातव्याधौ विश्वाची-अवबाहुके

दशमूली बलामाषक्राथं तैलाज्यमिश्रितम् ।

सायं भुक्त्वा पिबेन्नस्यं विश्वाच्यामवबाहुके ॥

मूलं बलायास्त्वथः पारिभद्रात्तथात्मगुप्ता स्वरसः पिबेद् वा ।

नस्यं तु यो माषरसेन कुर्यादमासादयोन्नजसमबाहुः ॥

Vṛndamādhava, 22-31-62.

तैल संकुचितैऽभ्यंगो माषसैन्धवसाधितम् ।

बाहुशीर्षगते जलं पानं चोत्तरभक्तिकम् ॥

Vṛndamādhava, 22-219.

पक्षाघात मन्यास्तम्भे

माष बलाशूकशिम्बीकतृणरास्नाश्वगन्धोरुबूकाणम् ।

क्राथो तस्यनिपीतो रामठलवणान्वितः कोष्णः ॥

अपहरति पक्षाघातं मन्यास्तम्भं सकर्णनादरुजम् ।

दुर्जयमर्दितवातं

सप्ताहाज्जयति

चावश्यम् ॥

Vṛndamādhava, 22-21.

MĀṢAPARNĪ

Botanical name : *Teramnus labialis* Spreng

Family : Fabaceae (Papilionaceae)

Classical name : Māṣaparnī

Sanskrit names

Māṣaparnī, Mahāsahā, Sūrpaparnī, Pāṇḍurā, Hayapucchikā, Haṁsamāṣā, Svādumāṣā, Māmsamāṣā, Kambojikā, Kṛṣṇavr̥ntā, Simhavinṇā, Māṣapatrikā.

Regional names

Masavan, Ban Urhad (Hindi); Masani, Vankalai (Beng.); Ran urhad (Mar.); Jangli Arhad (Guj.).

Description

A wide-spreading slender, climber, with a few appressed hairs on the stems.

Leaves long 1.5-3.3 cm. or 3/5 - 10 1/3 in. (sometimes upto 2.5-7.5 cm. or 1-3 in. long) or length of leaves exceeds upto about 4 in., with minute lanceolate deciduous; stipules minute, subulate; petiole 1 in. or more, leaflets 3, membranous or subcoriaceous, one inch to two and half inches long, ovate-oblong with a rounded base, subacute or obtuse, glabrescent above, sparsely appressed-hairy beneath; lateral slightly than the terminal.

Racemes axillary, elongated lax; pedicels solitary below, fascicled upwards; bracts narrowly lanceolate, caducous; bracteoles minute, subulate. Calyx-teeth subequal, about as long as the tube. Corolla reddish. Fls. pink-purple or sometimes white in colour.

Pods upto 2 in. long, linear, globrous, recurved, 8-12-seeded. flat, erect or curved. Seeds red in colour in fresh or green state but turned black when dried.

Flowering and fruiting time

Plant flowers during winter season and fruiting begins afterwards.

Distribution

Plant is cosmopolitan in the tropics. It occurs in Punjab plains, Bengal and Southern India to Sri Lanka. It is found in U.P. and central India.

Chemical composition

Seeds contain albuminoids 22.7%, starch 55.8%, oil 2.2%, fibres 4.8%, and alkalies 4.4%.

Pharmacodynamics

Rasa	: Madhura, tikta
Guṇa	: Laghu, snigdha
Vīrya	: Śīta
Vipāka	: Madhura
Doṣakarma	: Vātāpittaśāmaka Kaphavardhaka

Properties and action

Karma	: Jivaniya Rasāyana Śukrajanana-vājīkaraṇa Dīpana-snehana-anulomana-grāhī Vātaghna Raktaśodhaka-raktapittaśāmaka- śothahara Dāhapraśamana Jvaraghna Prajāsthāpana.
Roga	: Raktapitta-raktasrāva Vātavyādhi-ardita-pakṣāghāta- sandhivāta-vātarakta Udarśūla-viṣṭambhī-grahaṇī Raktavikāra Śoṭha Śukrameha-śukrakṣaya Jvara Dāha Kṣayaroga Kāsa Dourbalya-śoṣa.

Therapeutic uses

The drug is used as an aphrodisiac and employed in Śaṣṭikādi guḍikā. It is an ingredient in Balāghṛta as well as Balā taila which are recommended for holding conception. In treatment of vātarakta, the formulations (yoga) Dvipaṅcamūlyādi (jīvanīya) ghṛta and Jivakādyā ghṛta-taila containing the drug Māṣaparnī are recommended. It is one of the Rasāyana drugs and it is an ingredient of important formulations viz. Brāhmarasāyana and Cyavanaprāśa. As an aphrodisiac, it enters into formulation known as Śaṣṭikādi guḍikā incorporated in texts (Caraka Saṁhitā, cikitsā. 2-2-5), and some other recipes (Yoga).

For treatment of cough (Kāsa), ghṛta (ghee) is cooked with paste of śarkarā, jīvaka, mudgaparnī, māṣaparnī and durālabhā alongwith eight times milk ('ksireṇāṣṭagunen'). This preparation is recommended to be given as linctus (leha), drink (pāna) and food (bhojana), in order to alleviate cough (pittaja kāsa) caused by pitta provocation (Aṣṭāṅga Hṛdaya, cikitsā. 3/38-39).

In rat poisoning (mūṣika viṣa), Māṣaparnī, mixed with sindhuvāra and māḥṣika, is suggested to be taken as linctus (Suśruta Saṁhitā, kalpa. 6). The drug Māṣaparnī is used in some other ailments. The māṣaparnī plant (pañcāṅga) is cooked in oil and it is applied in vagina (picudhāraṇā) in ailment of leucorrhoea and pradara (vātasrgdara) with menorrhagia and metrorrhagial condition.

Parts used : Whole plant, root.

Dose : Decoction 50-100 ml., Powder 3-6 gm.

Gaṇa

Jīvanīya, Śukrajanana, Madhuraskandha (Caraka Saṁhitā), Kākolyādi, Vidārigandhādi (Suśruta Saṁhitā).

MĀṢAPARNĪ (माषपर्णी)

माषपर्णी हिमा तिक्ता रुक्षां शुक्रबलासकृत् ।

मधुराग्राहिणी शोथवातपित्तज्वरास्रजित् ॥

Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi Varga, 56.

- अ. माषपर्णी सूर्यपर्णी पाण्डुरा हयपुच्छिका ।
हंसमाषा स्वादुमाषा मांसमाषा महासहा ॥
काम्बोजिका कृष्णवृन्ता सिंहविन्ना विशाचिका ।
- ब. माषपर्णी हिमा रुक्षा मधुरा कफशुक्रला ।
तिक्ता संग्रहिणी वातपित्तदाहज्वरास्त्रजित् ॥

Kaiyadeva Nighanṭu, Oṣadhi Varga, 104-106.

माषपर्णी

माषपर्णी तु काम्बोजी कृष्णवृन्ता महासहा ।
आर्द्रमाषा मांसमाषा मङ्गला हयपुच्छिका ॥
हंसमाषाश्वपुच्छा च पाण्डुरा माषपत्रिका ।
कल्याणी वज्रमूली च शालिपर्णी विसारिणी ॥
आत्मोद्भवा बहुफला स्वयम्भूः सुलभा घना ।
इत्येषा माषपर्णी स्यदिक विंशति नामका ॥

Rāja Nighanṭu, Guḍūcyādi Varga, 30-32.

माषपर्णी गुणाः

माषपर्णी रसे तिक्ता वृष्या दाहज्वरापहा ।
शुक्रवृद्धिकरी बल्या शीतला पुष्टिवर्धिनी ॥

Rāja Nighanṭu, Guḍūcyādi Varga, 33.

‘माषपर्णी महावृष्या चक्षुष्या मुद्गपर्णिका ।’

Raja Ballabha Nighanṭu.

वातासृग्दरे

माषपर्णी विपक्वेन तैलेन पिचुधारणम् ।
कर्तव्यं रक्तनाशाय मार्दवाय सुखाय च ॥

Baṅgasena, Asṛgdara Cikitsā.

मूषकविषे

‘सहे ससिन्धुवारे च लिह्यात् तत्र समाक्षिके ।’

Suśruta Samhitā, Kalpa, 6.

बाजीकरणे

षष्टिकादि गुडिकायाम्

Caraka Samhitā, Cikitsā, 2-5.

गर्भधारणार्थम्

बलाघृततैले

Caraka Samhitā, Cikitsā, 30-50.

वातरक्ते

द्विपञ्चमूलाग्र घृते ।

Caraka Samhitā, Cikitsā, 29-61.

रसायने

ब्राह्मरसायने ।

Caraka Samhitā, Cikitsā, 2-1-43.

च्यवनप्राशे ।

Caraka Samhitā, Cikitsā, 1-1-62.

कासे

शर्करा जीवकं मुद्गाषपण्यो दुरालभाम् ।

कल्कीकृत्य पचेत् सर्पिः क्षीरेणाष्ट गुणेन तत् ॥

पानभोजनलेहेषु प्रयुक्तं पित्तकासजित् ।

Aṣṭāṅga Hr̥daya, Cikitsā, 3-38/39.

MASTAKĪ-(RUMIMASTAGI)

Botanical name : Pistacia lentiscus Linn.

Family : Anacardiaceae

Classical name : Mastakī

Common name : Rumi Mastagi

Sanskrit names

Carvaṇikā, Mukhaśodhikā, Sthiradantā, Mastakī, Rūmaja, Gundrā.

Regional names

Rumi Mastagi, Mastagi (Hi.); Ruma mastaki (Mar.); Mastaki, Alakarumi (Arabic); Kundar rumi (Pers.); Mastic tree (Eng.).

Description

A variable evergreen shrub or a small tree, up to 4 meters in height with pinnate leaves and small (4-5 mm. in diam.), globose black drupes, found chiefly in the Mediterranean region. Plant (mastic tree) yields resin mastic forming drug Mastakī or Rumimastagi which is imported to India.

Evergreen small tree or shrub upto 15 feet tall. Leaves pinnatifid. Fruits 4-5 mm. in diam., drupes, globose, black.

Drug Mastakī : The resin Mastic forms drug. Mastakī or Rumi mastagi. Resin exudes naturally from the bark, but for commercial purposes, it is obtained by making small vertical incisions in it and picking off the hardened product about three weeks later. Mastic varies in colour and appearance according to the commercial grade, but generally it occurs in globular, pyriform or elongated tears, 4-8 mm. in diam., pale yellow, clear and glassy when fresh, becoming dull and brittle on keeping; it has an aromatic odour and agreeable taste.

The powdering of drugs raw material is required care and promptness while put in Kharala (for mardana) to avoid its sticky nature. Material is put into a cloth (poṭṭali) and soaked in water and then quickly it is put for powdering after cleaning with cloth.

Distribution

The mastic trees occur in Mediterranean region and the main source of supply of mastic is the island of chios in the Aegean Sea where the plants grow mainly in the south-east corner of island upto an altitude of 500 meters (average rainfall 73 cm.).

Propagation is done by cuttings, only male trees are cultivated as the female ones yield an inferior resin. A tree gives 4-5 kg. resin in a year.

Chemical composition

It contains a volatile oil, masticine 10%, resin soluble in 30% alcohol, masticonic and masticolic (soluble in alcohol). Essential oil occurs both in fruit and leaves.

The seeds yield over 30 per cent of a fatty oil. Leaves contain tannin 9-10% and they also contain myrecetin probably as a glucoside, and quinic and shikimic acid.

Pharmacodynamics

Rasa : Madhura, Kaṣāya
Guṇa : Laghu, rūkṣa

Vīrya	: Uṣṇa
Vipāka	: Madhura
Doṣakarma	: Vātapittasāmaka Kaphaniḥsāraka.

Properties and action

Karma	: Chedana-śleṣmahara Dourgandhyahara- mukhadurgandhahara- sugandhihara Daśanasthiratākara Varṇya Śoṭhahara Raktarodhaka Dīpana-vātānulomana Yakṛduttejaka Grāhī Mūtrajanana Vājīkaraṇa Ārttavajanana
Roga	: Mukhadourgandhya-calandante Kāsa-śvāsa Mūtrakṛcchra Kaṣṭhārtava Klaiyya Agnimāndya-ādhmāna Sangrahaṇī Yakṛdvikāra.

Therapeutic uses

The drug Mastaki or Rumimastagi (Mastic) is considered carminative, stimulant and diuretic. Mastic has been used specially (in the Mediterranean countries) as a masticatory to sweeten the breadth and to preserve teeth and gums. It is used in the preparation of chewing gum. It has also been used to flavour alcoholic beverages and cordials. Besides its more or less use as medicine it still enters into the preparation of various pharmaceutical products, perfumes and incenses. It is also used for filling of carious teeth and in paints used as protective covering for wounds.

Mastic has also other utility besides medicine, aromatic and masticatory item.

The gum resin of Mastakī (Rumimastagi) is useful in cough, asthma, dysuria, loss of appetite, flatulence, sangrahaṇī, liver disorders, painful menses, impotency and dysuria. It is useful in the diseases caused by provoked vāta and pitta doṣa and also in kaphaja vikāra for saṁśodhana.

It is used externally on inflammation and pigmentation abnormalities including skin discolouration (varṇa vikāra). The chewing of drug is useful to check foul smell. It is chewed for stabilising teeth and good for gums.

Parts used : Exudate (gum-resin).

Dose : 1-3 gms.

MASTAKĪ (RUMI MASTAGI)

मस्तकी (रूमी मस्तगी)

‘रुमजो मस्तकीगुन्द्रो दशनस्थिरताकरः ।’

Siddha Bhaiṣajya Maṇimālā.

मधुरो मस्तकी गुन्द्रो लघुरुष्णः सुगन्धयुत् ।

कफघ्नो मूत्रलो हृद्यः संग्राही दीपनो मतः ॥

Dravyaguṇa Vijñāna, Part II, P. 260.

MASŪRA

Botanical name

Lens culinaria Medic.

Syns. *Ervum lens* L., *Lens esculenta* Moench.

Family : Fabaceae (Papilionaceae)

Classical name : Masūra

Sanskrit names

Maṣūra, Maṅgalya, Maṣūrikā, Rāgadāli, Pṛthubījaka, Pāṇḍurā, Śūra, Kalyāṇabīja, Gurubīja, Maṣūraka.

Regional names

Masura, malka (Hindi); Masur, Masser, Masuri

(Hindi, Bengla, Marathi, Gujarati); Misurpappu, Chirisangalu (Telugu); Massur, Chanangi (Kan.); Masur, Malka, Massur, Musri (Punjab); Masurmoha (Assam); Lentil (Eng.).

Description

Erect much branched hairy herb, 30-60 cm. tall, with angular branches; softly pubescent herb.

Leaves paripinnately compound, ending in a short bristle, sometimes in a tendril, leaflets 4-7 pairs, subopposite, pilose on both sides, entire, up truncate to retuse, apiculate.

Inflorescence peduncled, 1-4-flowered, ending in a bristle. Calyx pilose, teeth subequal acute. Corolla pale purple, wings adnate to the keel and to the staminal tube. Style bearded longitudinally on the inner face. Flowers white, rose, red violet.

Pods rhomboid, glabrous, 8-14 x 5.8 mm. Seeds 2, compressed, grey; pods smooth with lenticular seeds, varying in colour from pale pinkish buff to prussian red.

Flowering and fruiting time

Plant flowers and fruits during the period from November to April. Farming seasons as pulse crops (rabi crop and depending upon various agro-practice factors).

Distributions

It is commonly cultivated in India as a cold weather crop for seed-pulse. Large scale crop farming for commercial purpose (trade) of lentils (masūra) specially northern, western and eastern regions to varying extents (mainly in U.P., M.P., Bihar and West Bengal etc.) other than Southern India (excluding Mysore).

Chemical Composition

Analytical data on values of pulse (lentil) follow : moisture 12.4, protein 25.1, fat (etherextr.) 0.7, Carbohydrates 39.7 and mineral matter 2.1% the carbohydrates present are : hemicellulose, starch, paragalactoaraban stachyose and reducing sugars. Lentils contain high protein value, similar to those of peas and beans. In common

with other pulses, lentil is good source of vitamins of the B group. Mineral various contents are reported in lentil. Lentil contains amylase, proteolytic enzymes, phosphates and phytase.

The germinating plant shows high dipeptidase activity. A saponin name esculenin has been isolated in appreciable amounts. Asparagin is present in the embryo.

Pharmacodynamics

Rasa	: Madhura, Kaṣāya
Guṇa	: Laghu, rūkṣa
Vīrya	: Śīta
Vipāka	: Madhura
Doṣakarma	: Kabhapittanāśaka Vātala

Properties and action

Karma	: Grāhī Jvaraghna Raktapittaśāmaka Mūtrala Varṇya Adhmānakara vātala Tvacya Viṣaghna Chardinigrahaṇa
Roga	: Atisāra Raktapitta Mūtrakṛcchra Varṇavikāra Kṣudraroga-vyaṅga-nīlikā Sarpadamśa Chardi.

Therapeutic uses

Masūra is useful as medicine. Its grains and pulse are used in various ailments. In diarrhoea (atisāra), masūra ghṛta is prescribed and similarly another formulation masūra ghṛta has been indicated in sangrahaṇī (śāraṅgadhara saṁhitā, 2-9/25-26, Vṛndamādhava, 4-21/22). For checking the vomiting (chardi nigrahaṇa), the

parched flour of masūra mixed with honey and churned with the juice of pomegranate (dāḍima) is given in condition of vomiting caused by tridoṣa provocation (Śāraṅgadhara Saṁhitā, 2-3-11) which incorporated as Masūramantha yoga.

The drug Masūra is valued as varṇya (lustre pigmentation, or complexion promoting) and sundarikaṛaṇa (beautifying) herbal agent. Besides its use as paste over face and other parts of body, the some is applied in freckles (vyaṅga). Various recipes have been mentioned in Indian medicine (viz. Aṣṭāṅga Hṛdaya, Uttara. 32-19; Bhāvaprakāśa, 61-43; Vaidyamanoramā, 52-39); Cakradatta, Vṛndamādhava, 57-39) recommending external application of Masūra in health and disease for skin complaints as herbal cosmetics in traditions.

The lentil (masūra) is commonly valued as an article of food and is mostly used as pulse (dāli) or dhal (dehusked grain). For removing the husk, the seed is moistered with oil and water, dried in shade and passed through a mill (2-3 times). Everytime the dhal, chooni (broken bits) husk are separated. To give an attractive apperance, the husked pulse is polished with magnesite powder and gritty powder.

Masūra (lentil) is used mainly in soups flavoured with spices and condiments and also component of khichri (kṛśārā) and similar other dietary preparations (regimens). Young pods are eaten as vegetable. Lentil meal mixed with barley or other cereal flour and common salt, is maraketed as invalid food in some countries. In northern Inida, for the instance, Uttar Pradesh, fairly large quantity of whole seed is used in preparing dal-mot, a salted fried preparation popularly marketed and consumed. Masūra is recommended as wholesome food (pathya) is various diseases.

Parts used : Seeds.

Dose : Decoction, 50-100 ml.

Formulation : Masūrikā lepa, Masura gṛṭta.

MASURA (मसूर)

क. मङ्गल्यको मसूरः स्यान्मङ्गल्या च मसूरिका ।

ख. मसूरो मधुरः पाके संग्राही शीतलो लघुः ।
कफपित्तास्रद्रूक्षो वातलो ज्वरनाशनः ॥

Bhāvaprakāśa Nighaṅṭu, Dhānya Varga, 50.

अ. मसूरो रागदालिस्तु मङ्गल्यः पृथुबीजकः ।

शूदः कल्याणबीजश्च गुरुबीजो मसूरकः ॥

ब. मसूरो मधुरः शीतः संग्राही कफपित्तजित् ।

वातामयकरश्चैव मूत्रकृच्छ्रहरी लघुः ॥

Rāja Nighaṅṭu, Śālyādi Varga, 94-95.

क. मसूरिका मसूराख्या मङ्गल्या पाण्डुरा तथा ।

ख. मसूरा मधुराः पाके कषाया मधुरा मधुरा हिमाः ॥
लघवो ग्राहिणो रुक्षा रक्तपित्तकफापहाः ।

मसूरशाकम्

ग. वर्ण्यं वातोल्बणं बल्यास्तेषां शाकं सतिक्तकम् ।

ऋते मुद्गमसूराभ्यामन्ये त्वाध्मानकारकाः ॥

Kaiyadeva Nighaṅṭu, Dhānya Varga, 71-73.

मसूरः

मसूरो रागदालिन्तु मङ्गल्यः पृथुबीजकः ।

शूरः कल्याणबीजश्च गुरुबीजो मसूरकः ॥

मसूरगुणः

मसूरो मधुरः शीतः संग्राही कफपित्तजित् ।

वातामयकरश्चैव मूत्रकृच्छ्रहरो लघुः ॥

Rāja Nighaṅṭu, Śālyādi Varga, 94-95.

विसर्पे मसूर घृत योगः

पटोलादिकषायं वा पिबे त्रिफल्यासहा ।

मसूरविदलैर्युक्तं घृतमिश्रं प्रदापयेत् ॥

Caraka Samhitā, Cikitsā, 21-60.

विसर्पे मसूर प्रदेहः (अन्य योग सहित)

‘हरेणवो मसूराश्च समुद्राः श्वेतशालयः ॥

पृथक् पृथक् प्रदेहाः स्युः सर्वे वा सर्पिषा सह ।'

Caraka Samhitā, Cikitsā, 21/80-81.

मसूरः

'मस्यति परिणमति पाके मधुरो लघुश्च इति मसूरः ।'

मसूर गुणाः

विपाके मधुराः प्रोक्ता मसुराः बद्धवर्धनः ।

ऋते मुद्गमसूराभ्याम् अन्ये त्वाध्मानकारकाः ॥

Suśruta Samhitā, Sūtra, 46.

मधुरस्यापि मसूरस्य बद्धवर्चस्त्वं प्रभावात् ।

Cakrapāṇi.

'चणकाश्च मसूराश्च..... ।'

लघवस्ते मधुराः शीताः सकषाया विरुक्षणाः ।

पित्तश्लेष्मणि शस्यन्ते सूपेष्वालेपनेषु च ॥

तेषां मसूरः संग्राही..... ।

Caraka Samhitā, Sūtra, 27.

दद्याम्

मसूरमन्थः ।

Śārṅgadhara Samhitā, 2-3-71.

क्षौद्रयुक्ता मसूराराणां सक्तवो दाडिमामम्भसा ।

मथिता वारन्त्याशु छर्दि दोषत्रयोद्भवाम् ॥

Śārṅgadhara Samhitā.

मसूरघृतम् ।

Śārṅgadhara Samhitā, 2-9-25/26.

अतीसारे

मसूराणां पलशतं नीरद्रोणे विपाचयेत् ।

पादशेषं शृतं नीत्वा दत्त्वा बिल्वपलाष्टकम् ॥

घृतत्रस्थं पचेत्तेन सर्वातीसारनाशनम् ।

ग्रहणीं भिन्नविट्क च नाशयेच्च प्रवाहिकाम् ॥

Śārṅgadhara Samhitā.

मसूरघृतम्

Vṛndamādhava, 4-21/22.

संग्रहव्याम्

पीतो मसूरयूषेण कल्कः शुण्ठीशलाटुजः ।

जयेत्संग्रहणी तद्वत्तक्रेण बृहतीभवः ॥

Śārṅgadhara Samhitā.

‘मसूरयूषः संग्राही बृही स्वादुः प्रमेहनुत् ।’

Bhāvaprakāśa, Jvarādhikāra - 1/239.

व्यङ्गे

मसूरैः क्षीरसम्पिष्टैर्लिप्तमास्यं घृतान्वितैः ।

सप्तरात्रात्मवेत्सत्यं पुण्डरीकदलोपमम् ॥

Bhāvaprakāśa, Kṣudrarogādhikāra, 61-43.

मुखसौन्दर्ययुक्त मसूरिका लेपः

मसूरैः सर्पिषा पिष्टैर्लिप्तमास्यं पयोऽन्वितैः ।

सप्तरात्राद्भवेद्वक्रपुण्डरीकदलोपमम् ॥

Cakradatta, Kṣudraroga Cikitsā, 55-47.

सर्पदंश सावधिभयमुक्तिदायकं मसूर गुड योगः

मसूरं निम्बपत्राभ्यां खादेन्मेषगते रथौ ।

अब्दमेकं न भीतिः स्याद्विघात् तस्य न संशयः ॥

Cakradatta, Viṣa Cikitsā, 3.

मुख सुन्दरीकरणे

क्षीरपिष्टाः घृतक्षौद्रयुक्ता वा भृष्टनिस्तुषाः ।

मसूराः क्षीरपिष्टा वा तीक्ष्णाः शाल्मलिकण्टकाः ॥

Aṣṭāṅga Hṛdaya Uttara, 23-19.

मसूरैः सर्पिषा पिष्टैर्लिप्तमास्यं पयोन्वितैः ।

सप्तरात्रेण भवति पुण्डरीकदलप्रभम् ॥

Vṛndamādhava, 57-39.

MATSYĀKṢAKA

Botanical name : Alternanthera, sessilis (Linn.) R. Br.

Family : Amaranthaceae

Classical name : Matsyākṣaka

Sanskrit names

Matsyākṣaka, Matsyākṣī, Gart Kalāyaka, Matsyāksikā,
Nāḍikalāyaka, Matsyādani, Gaṇḍālī.

Regional name

Machechi (Hindi); Ponnaganta kura (Tel.);

Ponnanganni-keeray (Tam. & Mal.); Honagyone soppu (Kan.).

Description

Polymorphic herbs, highly variable in size, habit and colour. Stem upto 40 cm. long, hairy on nodes, with 2 lines of hairs, lengthwise on internodes.

Leaves variable in shape, acute or cuneate at base; dark-green above, pale beneath, or suffused with red on both sides.

Spikes globose-cylindric, 1-3 in the axils of leaves. Tepals nearly equal, ovate, finely acuminate. Pseudostaminodes entire or 2-3-dentate. Utricle obcordate-obreniform, deeply notched at apex.

Flowering and fruiting time

It bears flowers and fruits in August-April.

Distribution

Plant occurs in paleotropic regions. It is common in moist or waterlogged places in gardens, near ponds or rivers, in low lands, along roads or railway tracks. It is often cultivated as a pot herb. Plant is common weed occurring throughout India and Sri Lanka.

Chemical Compoition

The young-shoots are nutritious and they contain protein 5% and iron 16.7 mg./100 mg.

Pharmacodynamics

Rasa	: Tikta, Kaṣāya, Madhura
Guṇa	: Laghu
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Pittakaphahara Vātala.

Properties and action

Karma	: Grāhī Kuṣṭhaghna Medhya Rasāyana
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	Raktaprasādana
	Vraṇalekhana
Roga	: Kuṣṭha
	Kaṇḍu
	Raktavikāra.

Therapeutic uses

The drug Matsyākṣaka or Matsyākṣi is mainly blood purifier (raktaśodhana), vraṇalekhana, saangrāhi, cakṣuṣya and śukramehahara in pharmacological action. It is bitter, astringent and sweet (tikta-kaṣāya-madhura) in taste (rasa) and usṇa (hot) in potency or power (vīrya). It allays pitta and kapha doṣa and may increase vāta doṣa.

The herb is given in diseases caused by blood impurities (rakta-suddhi janya vikāra). It is mixed in the ointments (malahara) for applying on ulcers and wounds which forms the yellow pus (pītapūyasrāvi vraṇa), such ulcerations become dry after application for a few days. For such purpose of external application of drug, the herb's paste is boiled (cooked) with sesame oil (tila taila) and after preparing oil (under procedure of oil pharmaceuticals); the matsyākṣaka taila is locally applied on ulcers and other similar conditions including kaṇḍu and skin affections.

Whole plant is useful in dysentery, diarrhoea, spermatorrhoea, śukrasrāva and bloody diarrhoea (raktātīsāra). A varti prepared with matsyākṣi, bhṛṅgaraja and punarnavā which is used as añjana (by rubbing or as collyrium) in some eye diseases i.e. conjunctivitis (netrabhiṣyanda), glaucoma (raktadhimantha), eye itching (netrakaṇḍū), trachoma (pothakī) and weak eyesight (drṣṭimāndya).

Parts used : Whole plant (pancāṅga), stem, leaves.

Dose : Juice 10-20 ml., Herb 3-6 and 5-7 gm.

MATSYĀKṢĪ-MATSYĀKṢAKA

(मत्स्याक्षी-मत्स्याक्षक)

मत्स्याक्षी ग्राहिणी शीतकुण्ठपित्तकफास्रजित् ।

लघुस्तिका कषाया च स्वाद्वी कटुविपाकिनी ॥

Bhāvaprakāśa Nighaṇṭu, Guḍucyādi Varga, 266.

क. मत्स्याक्षिका मत्स्यगन्धा बाह्वी नाडीकलायकः ।

मत्स्यादनी तु गण्डाली तथा गर्तकलम्बुकः ॥

ख. बाह्वी तिका स्वादुशीता कषाया ग्राहिणी लघुः ।

वातला कटुका पाके कफपित्तास्रकुष्ठजित् ।

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 728-729.

मेध्यलेहे

मत्स्याक्षकः शंखपुष्पी मधुसर्पिः सकाञ्चनम् ।

कमाराणां वपुर्मेधाबलबुद्धिविवर्धनाः ॥

Suśruta Samhitā, Śārira, 10-68.

रसायने

ऐन्द्ररसायने

Caraka Samhitā, Cikitsā, 1-3-24.

MĀYĀPHALA

Botanical name : Quercus infectoria Oliv.

Family : Fagaceae

Classical name : Māyāphala

Sanskrit names

Māyāphala, Māyuka, Majjaphala, Māyiphala, Māyikā, Chidraphala, Kīṭavāsa.

Regional names

Majuphal (Hindi); Majuphala (Guj.); Machkai (Tam.); Machikay (Tel.); Machikai (Kann.); Majkani (Mal.); Afs (Arab.); Maju (Pers.); Galloak, Dyers oak, (Eng.).

Description

A small tree or shrub, c. 2-5 meters high, Leaves 4-6 cm. long, very rigid, often glabrescent with spinous teeth; acorns cylindrical. Tree yields the oak galls which arise as excrescences on the young twigs are caused by the deposition of egg by a small hymenoptermus insect, Adheria

gallae tinctorius Oliver. The female fly lays the egg. on or in the cambium of a young shoot. Egge develops into a larva and get surrounded by the tissues of the developing gall. The galls are collected before the escape of the insect and are well dried.

These galls are spherical or pear-shaped and measure 6-50 mm. in diam. The surface of the mature dry gall may be smooth and shining as though varnished, and chestnut brown colour, when the galls are gathered at the correct stage i.e. before the insect emerges, the inner tissue is soft, of a deep greenish yellow colour, with a very astringent taste and slightly sweet after taste. The galls vary generally in size, colour and general appearance depending upon the producing region or country etc.

Drug : Galls (not fruit), produced by specific insects cynips gallas infectoriae. Olivier (family cynipidae), formed on branches of *Quercus infectoria olivier* form drug Mâyâphala. Galls are galla and they are also known as Aleppo Gall or Blue Galls. Gall are studded with numerous tuberortities on outer surface and insects inside, bluish-dark outside in colour and inside yellow or whitish and middle light yellowish, odourless and very astringent in taste; cavity inside with insect, insectless light.

Distribution

Turkey, Persia, Yunan and other regions. Exported to India. The galls of *Quercus infectoria* Oliver. as well as of some allied species are imported into India and other countries.

Chemical composition

The galls of oak contain tannic acid (gallotannic acid) as the principal constituent (50-70%). They also contain gallic acid, ellagic acid, gum, starch, sugar and essential oil.

The chemical constituents and other characteristics may differ in some of the galls nuts employed in India, other than imported galls of various types in trade e.g. Aleppo Gall, Mecca Gall, Turkey Gall, Levant Gall, Smyrna

Gall, Syrian Gall, Acorn or Knoppers Galls, Bassorah Galls etc. which are also obtained from indigenous species of oaks found in U.P. hilly region.

Pharmacodynamics

Rasa	: Kaṣāya
Guṇa	: Laghu, rūkṣa
Vīrya	: Śīta
Vipāka	: Kaṭu
Doṣakarma	: Kaphapittaśāmaka.

Properties and action

Karma	: Stambhana Vāmaka (higher or excess dose) Raktastambhana Kaphaghna Mūtrasaṅgrahaṇīya Lekhana Svedāpanyana Viṣaghna Keśaraṅjana Dantya Vraṇaropaṇa
Roga	: Raktasrāva Yonisrāva-yonimargasrāva-pradara yonisaṅkocaka Mūtrasaṅgrahaṇīya- mūtramārgasrāva hrāsaka Atisāra-grahaṇī-raktārśa Raktapitta Kāsa Prameha-pūyameha Aṣṭgdara Mukharoga-dantaroga Kanthavikāra Gudabhramśa Arśa Vraṇa.

Kinds and varieties

Another plant *Rhus semi-alata* Mill. belonging to

family is also referred in context of *Mayāphala* particularly its market adulterant, or substitutes.

Likewise to *Karkaṭaśṛṅgī* or *kakrhasingi* (*Pistacia integerrima* Stewart), the galls Chinese or Japanese galls produced by hemipterous insect *Melophis Chinonsis* Bell. (belonging to family *Aphididae*) on this plant are admixed with galls of *Māyāphala* (*Quercus infectoria* Oliver) which form genuine drug material in drug trade.

***Rhus semialata* Merr. Syn. *Rhus chinensis* Mill.**

A small deciduous tree or middle-sized tree. Resin-canals in the bark filled with white milk which is sticky, but does not turn black. Young parts covered with dark-grey pubescence. Branchlets, petioles, underside of leaves and inflorescence clothed with short, soft, brownish-grey pubescence. Leaves 4-6 pairs, opposite, sessile, 2-4 by 1-2 m., elliptic, acuminate, deeply crenate or dentate, glabrous above, soft-tomentose beneath; lateral nerves, 10-15 pairs, parallel; base rounded, somewhat oblique. Lvs. not aromatic, dentate, teeth large, triangular often sharp; lateral leaflets sessile, the terminal on a marginate petiolule; upper part of common petiole generally marginate or winged or winged. Pedicels terminal 0.6-0.3 long, conical, dense-flowered. Flowers 0.1 in. diam., white or pale-green. Sepals ovate. Petals oblong, ciliate much exceeding the tepals. Drupe 0.2 in. diam., subglobose, compressed, tomentose, edible.

The plant known as *Tibri*, *Arkhoi*, *Tekri*, *Titri*, *Avkhoi* and also by other names in the Himalayan regions where it grows wild; Uttar Pradesh hills, outer Himalayas, North-West Himalaya, areas between 3,000-6,000 ft. altitude; Assam; Khasi and Naga hills, Siam hills, Upper Burma, Martalan. China and Japan.

The plants of *Rhus semi-alata* Murray. begin flowering during April to September; and fruiting in September-October. Leaves turn red before they fall. Galls are produced by insect and they form frequently on the branches and galls are of various shapes. Besides galls, the fruits are often eaten and used medicinally in hill regions.

As the substitutes and adulterants and besides the plant *Rhus chinensis* Mill. syn. *Rhus semialata* Murr., the galls formed and produced on some species of oak occurring in Uttarakhand Himalaya (Uttar Pradesh) and other regions in the Himalayas in India are also obtained and employed as other kind of raw drug material; and as subsidiary plant sources certain plants e.g. *Quercus ilex* Linn., *Q. incana* Roxb., *Quercus dilatata* Lindl. ex Royle., known as Holly or Holm oak, Ban oak or Grey oak and Green oak respectively. and also some other species (as Indian galls nuts are also exported).

Gall nuts, also known as Magic nut; are *Māyāphala* are of different kinds in view of their colour, size and other features in generally appearance.

Therapeutic uses

The drug *Māyāphala* is chiefly *stambhana* medicine (*auśadha* showing stiffening action, also haemostatic) with *grāhī* (astringent) activity (owing to *kaṣāya* rasa or taste : *Grāhī* and *Kaṣāya* both indicate to *kaṣāyatva* in general).

Māyāphala is *stambhana* and also emetic (if used in excess or overdose), *raktastambhana* (haemostatic), *lekhana* (emaciating), *viśaghna* (antipoison), *mūtra-sangrahaṇīya* (anti-diuretic), *yonisrāvahara* (checking vaginal discharge), *keśarañjana* (hair colouring or dyeing), *vraṇaropaṇa* (wound healer-antiseptic) and other pharmacological activities as considered in Indian medicine.

The drug in the form of galls in generally used in medicine after making powder as a single drug as well as an ingredient entering in some preparations and recipes. Some other forms and modes of drug usage are also prevalent in medical practice.

Māyāphala is chiefly used internally in *atisara* (diarrhoea), *grahaṇī*, *arśa* (piles) especially *raktārśa* (bleeding piles); *rakta pitta* (intrinsic haemorrhage), *kāsa* (cough), *prameha*, *pūyameha* (gonorrhoea), *pradara* and *yonisrāvā kleda* (leucorrhoea-vaginal discharge), *garbhāśayāsuddhi* (impurity of uterus needing cleansing or checking-uterine

and vaginal) and yonikanda (a kind vaginal diseases). In these diseases, the powder of galls is recommended to be administered as useful remedy and for application in vaginal and ulerine disorders, the basti prayoga, vartidhāraṇa and cūrṇa uddhūlana (powder dusting) are specifically advised. It also checks slackness of vulva or vaginal organ (orifice) in female (yonīśaithilyahara).

The powder of drug (galls) of Māyāphala is esteemed for applying as tooth powder (danta mañjana) having frequent and potent utility. The gargle (gaṇḍūṣa and kavala) of galls is useful in dental, throat and mouth (vocal) ailments. The dusting of powdered galls is prescribed in prolapse of anus (gudabhraṁśa) and bleeding haemorrhoids (raktarśa). In excess sweatening (svēdādhikya), the fine powder is dusted (avacūrṇana-uddhūlana). The galls are suggested to be useful for applying as hair dyeing herbal agent (keśakṛṣṇikaraṇa).

Parts used : Gall (Kiṭagrha).

Dose : 1-3 gm.

Formulation

Vajradanta mañjana, Māyāphalādi malahara.

MĀYĀPHALA (मायाफल)

मायाफलं मायिफलञ्च मायिका
छिद्राफलं मायि च पञ्चनामकम् ।
मायाफलं वातहरं कटूष्णकम्
शैथिल्यसङ्कोचकेशकाष्ण्यं प्रदम् ॥

Rāja Nighaṇṭu, Pippalyādi Varga, 25-9.

मायाफलं हिमं रूक्षं कषायं कफपित्तनुत् ।
संग्राहि परमं रक्तस्थापनं मुखरोगहत् ॥

Dravyagūṇa Vijñāna.

मायुकं शीतलंरूक्षं कषायं मायाफलादि मलहर ।
विपाके कटुकं ग्राहि कफपित्तहरं परम् ॥

Śoḍhala Nidhaṇṭu.

कीटावासो मज्जफलं ग्राहि बल्यं ज्वरापहम् ।
 शोणितास्रुतिहृद् हन्ति मुखदन्तगदान् गदान् ॥
 श्वेतपद्मशांसि योनिकन्दं सुदारुणम् ।
 अतीसारं महावीरं ग्रहणीं सप्रवाहिकाम् ॥

Ayurveda Vijñāna.

MAYŪRAŚIKHĀ

Botanical name : Adiantum caudatum Linn.

Family : Polypodiaceae

Classical name : Mayūraśikhā

Sanskrit names

Mayūraśikhā, Madhucchada, Nilakaṅṭhaśikhā.

Regional names

Mayurshikha (Hindi).

Description

It is a fern with sharply pinnate-pinnae fronds and sporangia.

Distribution

Plant occurs mostly in moist hills along river and rivulets. Plant dries up in January and fruiting begins in July-December.

Kinds and varieties

Various plants resembling to appearance of Mayūraśikhā are claimed as source for Mayūraśikha such as Actinopteris dichotoma Bedd., Elephantopus scaber Linn. and Celosia argentea Linn.

Pharmacodynamics

Rasa : Tikta, Kaṣāya, Madhura

Guṇa : Laghu, rūkṣa

Vīrya : Śīta

Vipāka : Kaṭu

Doṣakarman : Kaphapittaśāmaka

Properties and action

Karma : Stambhana

	Kṛmighna
	Raktapittahara
	Pramehaghna
	Kuṣṭhaghna
	Jvaraghna
	Viṣaghna
	Prajāsthāpana
Roga	: Atisāra-pravāhika
	Kṛmiroga
	Raktapitta
	Prameha
	Carmaroga
	Jvara.

Therapeutic uses

The drug Mayūraśikhā is mainly stambhana and Kṛmighna; it is given in diarrhoea, dysentery, worms, raktapitta, prameha, skin diseases and fever.

Mayūraśikhā is suggested in medical texts for promoting conception (garbhadhāraṇa), snake bite (sarpaviṣa) and specific child disease (ahituṇḍikā). Whole plant is administered in medicine.

Parts used : Whole plant.

Dose : Juice 10-20 ml.

MAYŪRAŚIKHĀ (मयूरशिखा)

मयूराह्विशिखा प्रोक्ता सहस्राहिर्मधुच्छदा ।
नीलकण्ठशिखा लघ्वी पित्तश्लेष्मातिसारजित् ॥

Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi Varga, 309.

मयूराह्वा शिखा शीता कषाया कटुपाकिनी ।
लघ्वी पित्तकफौ रक्तमतीसारं विनाशयेत् ॥

Kaiyadeva Nighaṇṭu.

शिशूनां अहितुण्डिकाप्रतिकारार्थं मयूरशिखा मूल प्रयोगः

सोमग्रहणे विधिवत् केकिशिखामूलमुद्धृतं बद्धम् ।

जघनेऽथ कन्धरायां क्षपयत्यहितुण्डिकां निपतम् ॥

Cakradatta, Bālaroga Cikitsā, 63-6.

सर्पविषे

साज्या मयूरचूडा तु पीता तण्डुलवारिणा।
सर्वसर्पविषं हन्यात् काकजंघाऽथवा ध्रुवम्॥

Gadanigraha, 7-3-6.

गर्भधारणार्थम्

शिफां बर्हिशिखायास्तु क्षीरेण परिपेषिताम्।
पिबेद् ऋतुमतीनारी गर्भधारण हेतवे॥

Gadanigraha, 6-5-10.

MEDĀSAKA

Botanical name

Litsaea chinensis Lamk.,

Syn. *Litsea glutinosa* (Lour.) C.B. Robins., *L. sebifera* Pors., *Tetranthera longifolia* Jacq.

Family : Lauraceae.

Classical name : Medāsaka

Sanskrit names

Medāsaka, Sadāruṇa, Gandhaparṇa, Sadāparṇa.

Regional names

Medalakarhi (Hindi); Karkmeda, Medalakarhi (Ma.); Meda lakarhi (Mar., Guj.); Kukurchite (Beng.); Medalakavi (Tam.); Meda (Tel.); Magase Hindi (Arab.); Kilz (Pers.).

Description

A moderate-sized evergreen tree with dark-green soft-corky bark; young parts grey-tomentose. Wood greyish-brown, close and even-grained, durable (not attacked by insects); heartwood not distinct; weight 46 lbs. per C.ft.; inner bark granular and viscid. Bark forms the drug Medāsaka or maidalacrhi sold in raw drug market in the form of broken quills or pieces (a few inches in length).

Leaves 4-10 in. long, elliptic-ovate, oblong or lanceolate, acute or acuminate; pubescent or glabrescent above; grey-tomentose beneath, soft-coriaceous; lateral nerves 8-12 pairs; petiole 0.5-1.5 in.

Umbels 0.3-0.6 in. diam.; pedicels clustered on a common peduncle 0.2-0.3 in. long; bracts 4, rounded, tomentose. Stamens 9-20 or more; filaments hairy.

Fruit about 0.3 in. diam., globose, supported by the club-shaped pedicel. Ft. like a pea (rounded), black or violet in colour.

Flowering and fruiting time

Flowering stage begins during rainy season and fruiting from autumn to winters. Flowers in July and fruits in September-October.

Distribution

It occurs upto 4,500 ft. elevation and almost throughout tropical forests in India specially in Uttar Pradesh, West Bengal, Bihar, Madhya Pradesh, and provinces. Plant generally grows in shady places, valleys and along Nallas. It is commonly found in forests U.P. hills in low valleys terai. Siwaliks and specially in shady revines. Plants may be propagated by seeds or by coppice shoots.

Kinds and varieties

Another kind of Medāsaka (medalakarhi) is *Litsaea polyantha* Juss. and the bark of this tree is used as substitute or adulterant of the drug material.

***Litsaea polyantha* Juss.** Syn. *Tetranthera monopetula* Roxb. Karka, Karkaua (Dehradun, U. P.); Medalakari (Hindi); Porajo, Pojo (Santhal); Kukurchita (Beng.); Beghlal (Mal., Panj.), Motwa (Tha.).

A moderate-sized evergreen tree with dark grey, smooth-bark. Leaves 4-8 in. long, oblong ovate or ovate or obovate, tip acute or rounded, glabrous above, rusty tomentose and strongly reticulate beneath; lateral nerves 5-10 pairs; petiole 5-1 in. Umbels stoutly pedicelled, 5-6-flowered; bracts 5, membranous. Stamens 9-13, filaments hairy. Fruit ovoid, 2-3 in. long; on a small perianth-base. Wood of a dark grey colour and durable (weight 38 lbs. per c.ft.).

Flowering during the period from March to April and also irregularly throughout the year. Fruiting after months of flowering.

Plant occurs in Himalayan terai region upto Assam ascending to 3,000 ft. altitude, and in Bihar, Satpura hills and coromandel. It is found in Himalayan terai, foothills and Siwalik regions in Uttar Pradesh.

The leaves of the tree as well dark smell like odour of cinnamon bark and leaves. Bark particularly inner bark of obtained from tree is admixed and supplied with bark of Medāsaka (Medalakarhi).

Chemical composition

Bark contains tannin and an alkaloid namely Laurotetanine. Seeds yield 35% of a fat with strong aromatic odour and disagreeable taste. The component fatty acids are : lauric 96.3 and oleic 2.3%. A reddish colouring matter is present in the bark.

Pharmacodynamics

Rasa	: Kaṭu, tikta, kaṣāya
Guṇa	: Laghu, snigdha
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphavātaśāmaka

Properties and action

Karma	: Vedanāsthāpana Śothahara Ākṣepahara-nāḍībalya Dipana-grāhī Raktastambhana (kiñcit) Kaphaniḥsāraka Kamottejaka Mārdavakara Vātaśāmaka.
Roga	: Sandhiśoṭha-abhighāta- asthibhagna-sandhijāḍya Vātavyādhi-gradhr̥sī-vātarakta- kaṭiśūla-ākṣepaka-āmvāta Agnimandya-atisāra-udararoga Śotharoga-raktasrāva Jīrṇakāsa Klaibyaroga

Carmavikāra (rūkṣa-śūṣka).

Therapeutic uses

The drug Medasaka is vātaśāmaka, vedanāsthāpana (analgesic or anodyne) and śothahara (anti-inflammatory) in particular. The bark constitutes the drug Medāsaka which is mucilaginous, feebly balsamic and mildly astringent. It is used in diarrhoea and dysentery. Ground and pasted material is used as an emollient application for sprains, bruises and rheumatic and gouty joints. It is also applied as a styptic dressing for wounds. Paste is applied externally to joints swelling, fracture, trauma and joints painful and inflammatory ailing conditions. The drug is useful in sciatica, nervine and neuralgic disorders, gout, backache, rheumatic disorders, convulsions and other similar complaints caused by provoked vāta doṣa (humor). It is also used in cough (chronic), oedema, haemorrhage, impotency, skin affections loss of appetite, diarrhoea and other ailments caused by vātakapha provocation.

The fruits (medāsaka phala) are edible. They are good source of fat and also rich in lauric acid and may be utilised for the preparation of lauryl compounds used as detergent. Roots are sweetish bitter, astringent and tonic. Root decoction is considered emmenagogue in menstrual troubles. Leaves are mucilaginous and considered emollient and antispasmodic. Their infusion or poultice is applied to bruises and wounds.

Parts used : Bark (inner bark).

Dose : Powder 1-3 gm.

MEDĀSAKA (मेदासक)

- क. मेदासकः सदारुणैः गन्धपर्णञ्च स स्मृतः ।
मध्यमाकृति वृक्षञ्च वन्यदेशोद्भवोऽपि च ॥
- ख. मेदासको लघुः स्निग्धः कटुस्तिक्तः कषायकः ।
उष्णो वातकफौ हन्ति शोथशूलविनाशनः ॥
दीपनः स्तम्भनश्चैव सर्ववातविकारनुत् ।

आग्निमांद्येऽतिसारे च रक्तस्रावे च युज्यते ॥

Dravyaguna Vijnāna, 71.

MESAŚRŪGĪ

Botanical name : *Gymnema sylvestre* R. Br.

Family : Asclepiadaceae

Classical name : Meṣaśrūgī

Sanskrit names

Meṣaśrūgī, Madhunāśinī, Viṣāṇī-viṣāṇikā, Meṣavallī, Ajaśrūgikā, Putraśreṇī, Vartikā, Putraśreṇī, Sarpada-nṣṭrikā, Cakṣuṣyā, Tiktadugdhā.

Regional names

Medhasingi, Gurhmar (Hindi); Medhasingi (Bang.); Kabali (Mar., Guj.); Shirukuriy (Tam.); Vodapatte (Tel.).

Description

Diffuse, twining shrubs with pubescent young parts. Leaves short-petioled, ovate, elliptic or oblong, acute or acuminate, rounded below, densely pubescent beneath.

Flowers greenish-yellow, spirally arranged in lateral corymbose cymes, calyx pubescent, divided to the base, segments obtuse, ciliolate. Corolla campanulate. Corona projections with a decumbent base, flanked by 2 rows of short, stiff hairs, ciliate. Cymose cynostegium without corona.

Follicles terete, lanceolate, acuminate, up to 7.5 x 0.8 cm. Seeds flat, with marginal wing.

Flowering and fruiting time

Plant flowers and fruits in March-June. Flowering in autumn and fruiting colder season end.

Distribution

Plant occurs in tropical Africa, Asia and Malesia. It is occasionally found upon bushes or trees in various regions of India; central, northern and western India and from Konkan to Travancore.

Kinds and Varieties

The kinds and plant sources for drugs in the context conclusively follow :

Meṣāśṛṅgī : *Gymnema sylvestre* R. br. : Climber (latā)

Meṣāśṛṅga : *Dolichandrone falcata* Seem : Tree (vṛkṣa)

Uttamāraṇī : *Pergularia daemia* (Forsk.) Chow. : Climber (latā).

Presently the source plant for drug Meṣāśṛṅgī is considered as *Gymnema sylvestre* R. Br. (gurhmar-madhunaśinī).

Chemical Composition

The leaves of source plant (*Gymnema sylvestre* Br.) contain two resins - one soluble and another insoluble in alcohol. A bitter neutral principle in lower dose (little quantity), albuminous substance, colouring matter, calcium oxalate, gymnemic acid 6%, quercitol and sugar yeast. Ash contains ferric oxide, manganese and other matters.

Pharmacodynamics

Rasa	: Kaṣāya, tikta
Guṇa	: Laghu, rūkṣa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphavātaśāmaka.

Properties and action

Karma	: Rasagrahaṇa nirodhaka (madh) Dīpana-yakṛduttejaka Mūtrala-vāmaka Mūtra-raktagataśarkarā hrāsaka Madhumehaghna Hṛdayottejaka Kaphaghna Mūtrala Garbhāśayottejaka Viṣamajvaraghna Kaṭu pouṣṭika Viṣaghna.
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Roga	: Madhumeha-prameha-ikṣumeha Aśmarī-mūtrakṛcchra Agnimāndya-vibhandha Kāmalā Arśa Hṛddourbalya Kāsa-svāsa-pratiśyāya-śiraḥśūla Rajorodha Viṣamajvara Sarpa viṣa Dourbalya Śoṭha Granthiśoṭha-yakṛcchotha- plihavṛddhi.
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Therapeutic uses

The plant drug is stomachic, stimulant, laxative and diuretic. It is useful in cough, biliousness and sore eyes. The drug is initially action on rasanā or jihva (tongue). It is used in diabetes insipidus and diabetes mellitus in particular for which leaves powder is prescribed as a single drug or as an ingredient of a recipe. Roots decoction is orally given in case of snake-bite. The drug is bitter tonic. Seeds are useful in coryza, cold, cough and asthma; the root-bark is employed in dhūmapāna (smoking) in respiratory ailments. The drug is useful in calculus, dysuria, dysmenorrhoea, malarial fever, heart trouble, constipation, loss of appetite, jaundice and piles. Leaves paste mixed with castor oil is applied to joints inflammation, liver complaints (e.g. yakṛcchotha), spleen enlargement and other problems. Root paste is also suggested in snake-bite. Roots are countering poison, anti-inflammatory and analgesic medicine.

The leaves of the plant (meṣaśṅgi patra) when chewed, possess the remarkable property of paralysing for a few hours, the sense of taste for sweet and bitter substances; acid taste is not affected while salt taste is very slightly, if at all influenced. The plant is so named Gurhmar with sense of killing the gur or anti-sweetening effect of peculiarity. The leaf powder is tasteless with a faint pleasant aromatic odour. Leaves powder is traditionally

given in glycosuria and diabetes (ikṣumehaa madhumeha) as a valued herbal remedy in folk medical practices in different regions of country showing frequent uses of this drug among anti-diabetic herbs of tribal medicine.

The plant leaves cause hypoglycaemia in experimental animal when administered orally or by infection. Leaves are considered effective medicine in diabetes sometimes it has gained importance, despite the experimental claim, however, the effect is not due to any direct influence on the carbohydrate metabolism, but to indirect stimulation of insulin secretion by pancreas (and also stimulation of thyroid and adrenal glands secretion alongwith liver function) and hence the hypoglycaemia is induced in experimental animals during biological trials, and further experimental screenings support the hypoglycaemic activity of leaves of plants, which has been mentioned and recommended in Indian medicine as anti-diabetic agent. Leaves powder, thus, stands as hypoglycaemic herbal drug of clinical significance in Āyurveda.

Parts used : Leaves, roots, Seeds.

Dose

Leaves powder 3-6 gm., Root decoction 50-100 mg.,
Seeds powder 1-3 gm.

Formulation

Madhumehāntaka cūrṇa (powder of plant drug leaves).

MESAŚRŪŢĪ (मेषशृङ्गी)

- क. मेषशृङ्गी विषाणी स्वान्मेषवल्ल्यजशृङ्गिका ।
ख. मेषशृङ्गी रसे तिक्ता वांतला श्वासकासहत् ।
रूक्षा पाके कटुः पित्तत्रण श्लेष्माक्षिशूलनुत् ॥
ग. मेषशृङ्गी फलं तिक्तं कुष्ठमेहकफप्रणुत् ।
दीपनं स्रंसनं कासक्रिमित्रण विषापहम् ॥

Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi Varga, 254-255.

मेषशृङ्गी दलं तिक्तं कुष्ठमेहकफप्रणुत् ।
दीपनं स्रंसनं कासक्रिमि व्रणविषापहम् ॥

Bhāvaprakāśa op. Cit.
(with alteration 'dalam' instead of 'Phalam').

A. MEṢAŚRŪŢĠĪ (मेषशृङ्गी)

प्रथमा-मेषशृङ्गी

अ. श्रीवृक्षको मेषशृङ्गी बस्तशृङ्गी च शृङ्गिका ॥
पादवृक्षो घनशृङ्गश्चक्षुष्यो बहुलाङ्गकः ।
अवल्कलोऽबलाङ्गः स्यात् नदी बहुल चक्षुषी ।
(वृश्चिकाली मेषशृङ्गी कूर्चपर्णी विषाणिका ॥)
महाफला तिक्तदुग्धा स्वजशृङ्गयक्षविषजम् ।

द्वितीया-मेषशृङ्गी

ब. दक्षिणावर्त्ता वृश्चिकाली सपुच्छिका ॥

मेषशृङ्गी गुणाः

स. निहन्ति तिमिरश्वासकासव्रण विषकृमीन् ।

मेषशृङ्गीफलम्

द. मेषशृङ्गी फलं तिक्तकुष्ठमेहकफप्रणुत् ।
दीपनं पाचनं चैव कृमिदोषनिबर्हणम् ॥

Kaiyadeva Nighaṅṭu, Oṣadhi Varga, 735-739.

मेषशृङ्गी अजशृङ्गी

अजशृङ्गी मेषशृङ्गी वर्त्तिका सर्पदंष्ट्रिका ।
चक्षुष्या-तिक्तदुग्धा च पुत्रश्रेणी विषाणिका ॥
अजशृङ्गी कटुस्तक्ता कफार्शःशूल शोफजित् ।
चक्षुष्या श्वासहृद्रोग विषकासातिकुष्ठजित् ॥

अजशृङ्गीफलम्

अजशृङ्गी फलं तिक्तं कटूष्णं कफवातजित् ।
जठरानलकृत् हृद्यं रुचिरं लवणाम्लकम् ॥

Rāja Nighaṅṭu, Prabhadrādi varga, 32-34.

B. MEṢAŚRŪṄGA (मेषशृङ्ग)

शिरोरोगे

शिरो मधूकसारेण स्निग्धं चापि विरेचयेत् ।
इङ्गुदस्य त्वचा वापि मेषशृङ्गस्य वा भिषक् ॥

Suśruta Saṁhitā, Uttara, 26-20.

नेत्ररोगे दृष्टिप्रसादनार्थम्

दृष्टेरतः प्रसादार्थमञ्जने शृणु मे शुभे ।
मेषशृङ्गस्य पुष्पाणि शिरीषधवयोरपि ॥
सुमनायाश्च पुष्पाणि मुक्ता वैदूर्यमेव च ।
अजाक्षीरेण संपिष्य ताप्रे सप्ताहभावयेत् ॥
प्रविधाय च तद्वर्तीयोजयेच्चाञ्जने भिषक् ॥

Suśruta Saṁhitā, Uttara, 17-16/18.

काचप्रतीकारार्थम्

‘समेषशृङ्गाञ्जनभागसंमितं जलोद्भवंकाचमलं व्यपोहति ॥’

Suśruta Saṁhitā, Uttara, 17-40.

व्रणरोपणे

त्वचोऽश्वकर्णधवयोर्मोचकीमेषशृङ्गयोः ।
शल्लक्यर्जुनयोश्चापि विदार्याः क्षीरिणां तथा ॥
बलामूलानि चाहृत्य तैलमेतैर्विपाचयेत् ।
व्रणं संरोपयेत्तेन ।

Suśruta Saṁhitā, Cikitsā, 2-64/65.

C. UTTAMĀRĀNĪ (उत्तमारणी)

अर्शःसु

कासीसाद्यतैलम्

Suśruta Saṁhitā, Cikitsā, 6-12.

महाकुष्ठे

शिंशपादि सुराकल्पः

Suśruta Saṁhitā, Cikitsā, 10-8.

METHIKĀ

Botanical name : *Trigonella foenum-graceum* Linn.

Family : Fabaceae (Papilionaceae)

Classical name : Methikā

Sanskrit names

Methikā, Methī, Pītabījā, Methinī, Dīpanī, Bahupatrikā, Bodhinī, Bahubijā, Jyoti, Gandhaphalā, Kairavī, Kumbhikā.

Regional names

Methi (Hindi); Mettikura (plant), Mettulu (seeds); Vendayam (Tam.); Mentiya (Kann.); Fenugreek (Eng.).

Description

Erect, glabrous or hispid, annual herbs, 30-60 cm. high. Leaves 3-foliolate; petioles 1-2 cm. long; leaflets obovate, oblanceolate or oblong; cuneate, toothed, 1.5-3 x 0.5-1.5 cm., stipes 6-8 mm. long, lanceolate, acuminate, entire.

Flowers 1-2, sessile, axillary. Calyx 4-8 mm. long; teeth linear. Corolla yellow, sometimes tinged with lilac, 8-18 mm. long.

Pods linear, falcate, 5-15 cm. long, hispid, with a long persistent beak, 10-20-seeded.

Flowering and fruiting time

January to February-March winters. Forming season.

Distribution

Plant commonly cultivated as a cold weather leafy vegetable and for seeds-spice. It is grown almost throughout India; and it is also wild in Punjab and Kashmir.

Kinds and varieties

There are two varieties viz. small and big (laghu and brhat methikā) which are used for vegetable (patra śāka) and cattle fodder (paśu khādyā) respectively.

Grāmya (cultivated) and vanya (wild) are two kinds mentioned in texts of materia medica (nighaṇṭu). Culti-

vated variety is grāmya methikā and its leaves are commonly used for vegetable and food item for humans while Vanya methikā or variety found in nature (wild) is considered suitable for horse fodder. It is named as Ahitya in Dhanvantari Nighaṅṭu and 'Hispittha' appears to be more relevant in this context with 'Aśvabalā'. Another plant *Medicago sativa* Linn. is suggested to be botanical source of Aśvabalā.

Chemical Composition

Seeds contain moisture 13.7, protein 26.2%, fat 5.8%, fibres 7.2%, carbohydrate 44.1% and ash 3.0 per cent. They contain minerals, which include calcium, phosphorous, iron, sodium and potassium. Seeds contain various vitamins. Seeds yield a better fixed oil 6-8% with unpleasant odour and white intense odorous oil in little quantity. Leaves contain various nutrients.

Pharmacodynamics

Rasa	: Kaṭu
Guṇa	: Laghu, snigdha
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarman	: Vātaśāmakā Vātakaphanāśaka.

Properties and action

Karma	: Vātaghna Vedanāhara Śothanāśana Nāḍibalya Raktapittakopaka Angamardapraśamana Dīpana-pācana-anulomana- śūlapraśamana Stanyajanana-garbhāśāyaviśodhana
Roga	: Vātajanita vikāra-vātavyādhi Śūla Śoṭha Angamarda Agnimāndya-udarśūla-koṣṭhagata

vāta-ādhmāna

Stanyakṣaya-garbhāśyāśuddhi-
prasavottara vyāpat (sūtikā roga)

Dourbalya.

Therapeutic uses

The seeds are used as medicine and spice while leaves or tender vegetative part (whole plant rootless) are utilised as leafy vegetable eaten after cooking which belongs to common household vegetable group. Leafy vegetable (methikā śāka) is available in vegetable market in season. Matured seeds are sold in market.

The drug Methikā is antiphlogistic, stomachic, appetiser, tonic, demulcent, nervine tonic, antipyretic, cardiac and anthelmintic. It checks vomiting and nausea. Seeds allay cough, vata, kapha, vomiting and worms. It helps to regulate menstruation, scanty and painful periods. Seeds are of hot properties and potency. The drug specifically seeds is esteemed for using in puerperal disorders (sūtikā roga) of female (mothers), after child delivery as a traditional as well as classical medicine. Medicated sweet preparations are made as household dietetic item (e.g. laḍḍu or modaka) consisting of various other aromatic, spicy and tonic medicinal items. Such preparations are conventionally used during puerperal stage (sūtikākāla) and also other conditions. In general medicated preparations of Methikā (sweet and salty etc.) are of specific properties i.e. tonic, strengthening body, appetising, increasing desire to relish, digestive, and other similar effects and usefulness.

Methikā kṛśārā (methi ki khicari) is prepared by adding rice and pulse (or rice and fenugreek combination only). It is a good medicated food item (kṛtānna khādyā) which is more suitable in colder season (relished in hilly regions) and in conditions of body when hot, energetic, digestive and nutritious diet is required.

Generally the seeds of Methikā or Fenugreek are pungent and bitter with spicy taste. Seeds become tasty, and spicy when fried. Seeds become more bitter when they are soaked in water. Seeds give a pleasant odour in general.

The seeds are quite useful in vātavyādhi; they are used in nervine complaints including neuralgic pain since the drug Methikā has properties of pacifying provoked vāta doṣa in general (vāta kapha śāmaka). As a single drug, the fenugreek seeds are given in form of powder or any other suitable mode for treatment of vātaroga. It enters in compound formulations. Caturbīja consisting Methika seeds (composed of four kinds of seeds : Methikā, candrasūra, kālājāī and yavānī) is made powder which is taken for alleviating vātavyādhi, indigestion, colic, flatulence, pain in sides and lumbago. Among other formulations of classical importance, Pañcajīraka pāka and Methi modakā are compound preparations which are specially recommended in puerperal diseases (sūtikā roga) and also other ailments.

The vegetable of leaves (methikā śāka) is useful to remove constipation (vibandha) and it is specially suitable to persons of paittika constitution (pitta prakṛti). Methika patra (fenugreek leaves) are pounded and applied to inflammation (śvayathu vilayana) and the seeds are also suggested for same purpose (vraṇaśothahara śāmaka). Methika is vitiating or aggravating raktapitta (raktapitta prakopaṇa) in general, particularly by excess use.

Recently the fenugreek seeds (methikā bīja) have become prominent as an anti-diabetic drug possessing hypoglycaemic activity. The powder of seeds and any other suitable form (e.g. seeds soaked in water or infusion - śṛtaśīta) are recommended for oral use in diabetic cases. Beside the curative drug, the use of seeds regularly is suggested to be a good preventive measure against diabetic condition and it is considered a wholesome dietary item (pathya) for such group of persons. Thus, the seeds of fenugreek (methikā bīja) are esteemed presently both as diet and as medicine. For treatment of diabetes or madhumeha, there are several new formulations of herbo-mineral drugs that contain fenugreen in suitable forms. The pharmaco-clinical and allied studies on hypoglycaemic effects of the drug Methikā (fenugreek seeds) have been conducted in view of anti-diabetic potentials of Methika attracting scientific studies.

There is peculiar effect of drug Methikā on sexual activity of human body. It has been marked that the regular use of fanugreek seeds in good quantity or even in normal dose (as medicine) in any form and mode of administration helps to control and pacify intensity of sexual desire and undesirable sexual instincts (anecchika kāmottejanā or lingothāna - atīśaya kāma samprahaṛṣa) and simultaneously the drug Methika is found to be tonic strengthening body as a whole and it ultimately promotes virility or sexual capability in human. It appears that the drug is somewhat sedative to fragmentary or untimely sexual desire or stimulation and on the other hand, the same is promotive and tonic to sexual act (male organ and coitus—organic and functional) in proper at actual occasion of sexual need. This pharmacological aspect of drug Methikā is of scientific interest. In Āyurveda, the drug Methikā is indicated as 'śukranut' (harmful or causing loss to semen : śukranāśana) to strengthen body as a whole. It may be mentioned that Vanya-methikā is wholesome diet for horses (aśva) in order to increase body strength.

Parts used : Seeds, leaves, whole plant.

Dose : 1-3 gm.

Formulation : Methi (Kā)modaka, Pañcajīraka pāka.

METHIKĀ (मेथिका)

मेथिका-वनमेथिका

- क. मेथिकामेथिनी मेथी दीपनी बहुपत्रिका ।
बोधिनी बहुबीजा च ज्योतिर्गन्धफला तथा ॥
- ख. वल्लरी चन्द्रिका मन्था मिश्रपुष्पा च कैरवी ।
कुञ्चिका बहुपर्णी च पीतबीजा मुनिच्छदा ॥
मेथिका वातशमनी श्लेष्मघ्नीज्वर नाशिनी ।
ततः स्वल्पगुणावन्या वाजिनां सा तु पूजिता ॥
- Bhāvaprakāśa Nighaṇṭu, Harītakyaḍi Varga, 93-95.*

मेथिका

- अ. मेथिका मेथिनी मेथी दीपनी बहुपत्रि ।

- वेधनी गन्धबीजा च ज्योतिगन्धफला तथा ॥
 वल्लरी चन्द्रिका मेथी मिश्रपुष्पा च कैरवी ।
 कुम्भिका बहुपर्णी च पीतबीजा मुनीन्दुधा ॥
 ब. मेथिका कटुरुष्णा च रक्तपित्तप्रकोपणी ।
 अरोचकहरा दीप्तिकरा वातघ्नदीपनी ॥
Kaiyadeva Nighaṅṭu, Oṣadhi varga, 67-69.
- क. मेथिका मेथिनी मेथी दीपनी लघुपत्रिका ।
 वेधनी गन्धबीजा च ज्योतिर्गन्धफला तथा ॥
 वल्लरी चन्द्रिका मेधा मिश्रपुष्पा च कैरवी ।
 कुञ्चिका बहुपर्णी च पीतबीजा सुनीन्दुधा ॥
 ख. मेथिका कटुरुष्णा च रक्तपित्तप्रकोपणी ।
 अरोचकहरा दीप्तिकरा वातप्रदीपनी ॥
Rāja Nighaṅṭu, Pippalyādi varga, 67-69.

मेथिकाशाकम्

मेथीशाकं पयसि विधृतं स्वेदितं पीडितं हि
 प्राज्ये स्वाज्ये जरणसहिते मेलितं भर्जितं हि ।
 कासोच्छ्वासं प्रसृतमधिकं कर्षितो जाठराग्नि-
 र्येनप्राणं सुबहुगुणितं भक्ष भूयोऽपि भूयः ॥
 मेथिका दीपनी हृद्या बद्धविट्कृमिशुक्रनुत् ।
 रूक्षोष्णं तत्फलं कासानिलश्लेष्मवमीञ्जयेत् ॥

Kṣemakutūhalaṃ.

सूतिकारोगे

पञ्चजीरकपाके

Bhāvaprakāśa, Cikitsā, 70-158/162.

मेथीमोदकः

Bhaiṣajya Ratnāvalī, P. 223.

वातव्याधौ

मेथिका चन्दशूरश्च कालाजाजी यवानिका ।
 एतच्चतुष्टयं युक्तं चतुर्बीजमिति स्मृतम् ॥
 तच्चूर्णं भक्षितं नित्यं निहन्ति पवनामयम् ।
 अजीर्णं शूलमाध्मानं पार्श्वशूलं कटिव्यथाम् ॥

Bhāvaprakāśa Nighaṅṭu, 1-98-99.

MÍSREYA

Botanical name : *Foeniculum vulgare* Mill.

Family : Apiaceae (Umbelliferae)

Classical name : Mísreya

Sanskrit names : Mísreya, Miśi, Madhurikā, Madhurā.

Regional names

Sounf (Hindi); Mouri (Beng.); Sounf (Punj.); Barhi shep (Mar.); Bariyali (Guj.); Shoumbu (Tam.); Soupu (Tel.); Barhi sounpu (Kann.); Rajiyanaj (Arab.); Rajiyan; Fennel (Eng.).

Description

Perennial glaucous herbs; with aromatic smell, upto 5-6 ft. tall; stems striate. Leaves 3-4-pinnate; segments filiform; leaf bases sheathing. Umbels compound, terminal; involucre and involucre absent, rays 5-30. Calyx absent. Petals yellow. Fruits oblong to ovoid 3-5 m. (6-7 mm.) long, glabrous, not winged, fr. cylindrical, straight or slightly curved, greenish or yellowish brown, pericarp 5-ridged with prominent vittae.

Flowering and fruiting time

Plant bears flowers and fruits during cold to spring seasons; December-March.

Distribution

It is commonly cultivated for leaf-vegetable and seedspice. Fennel cultivated mostly as a garden or homeyard crop throughout India at all altitudes upto 6,000 ft.

Chemical composition

Fennel fruits contain a volatile oil. The percentage of oil varies considerably, being lowest in fruits of Indian origin (0.7-1.2) and highest in fruits from eastern Europe (4-6). They also contain a fixed oil (9-13%), pentosan and pectin. Starch is present in small concentrations, if at all. Trigonelline and choline are present. The percentage of ash does not exceed 12 per cent.

Fruits also contain iodine C. 20.8 y/100 g., vitamin A 139 I.V./100 mg., thiamine 36y/100 g. Traces of albumin, barium, lithium, copper, manganese, silicon and titanium have been reported.

The oil of Fennel is obtained by the steam distillation of crushed fruits. It is a colourless or pale-yellow liquid with a characteristic taste and odour. Main constituent of the oil from the fruits (obtained from cultivated source plant) is anethole which should be present 50-60 per cent in good quality oil.

Pharmacodynamics

Rasa	: Madhura, kaṭu, tikta
Guṇa	: Snigdha, laghu, tīkṣṇa
Vīrya	: Śīta
Vipāka	: Madhura
Doṣakarma	: Vātapittaśāmaka.

Properties and action

Karma	: Vātānulomana Trṣṇānigrahaṇa-chardinigrahaṇa- dīpana-pācana Anulomana (fruits)-recana (root) Śūlaprasaman Hṛdya-raktaprasādana Kaphaniḥsāraka Mūtrala Yonīśūlahara Stanyajanana Vṛṣya Svedajanana Jvaraghna Dāhapraśamana Balavardhana Medhya Drṣṭisaktivardhana Āmapācana Jantughna Plīhāhara Mukhaśodhana.
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Roga	: Āmadoṣajanya vikāra Pravāhikā-atisāra-grahaṇī Vamana-tṛṣṇā-agnimāndya-ajīrṇa- ādhmāna-udaraśūla Arśa Amlapitta Kāsa-śvāsa Hṛdroga-raktavikāra Mūtrakṛcchra-mūtrāghāta Stanyālpatā-śukrakṣaya Carmaroga Jvara-dāha Dourbalya-kṣaya Kṛmi vikāra Plihāvikṛti Mukhadourgandhya.
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Therapeutic uses

The fruits of fennel (miśreyā) are aromatic, stimulant and carminative. They are official in the pharmacopocias of all countries and are considered useful in diseases of the chest, spleen and kidney. They are employed as corrective for less pleasant drugs, particularly senna and rhubarb. Fennel is component of liquorice. An infusion prepared with 8-12 fruits in 500 cc. of boiling water is employed as an enema for infants for the expulsion of flatus. A hot infusion of the fruits is used in indigenōus medicine to increase lacteal secretion and to stimulate sweating.

The dried fruits of miśreyā (fennel) have a fragrant odour and a pleasant aromatic taste. They are used for flavouring soups, meat dishes and sauces, breadrolls, pastries and confectionery. They are also used for flavouring liqueurs and in the manufacture of pickles.

The drug Miśreyā or Miśī is possesses action as carminative (vātānulomana), stomachic (dīpana), digestive (pācana), vermifuge (kṛmighna), emmenagogue (ārtavanana), galactagogue (stanyajanana), diaphoretic (svedajanana) and hṛdayottejaka (cardiostimulant). It is sothahara and kaphaghna (allaying oedema and kapha),

also analgesic (vedanāsthāpana). This drug is useful in cough, hiccough and asthma. Fruits are given frequently in dyspepsia, abdominal colic, flatulence and other similar ailments. It is āmadoṣa pācana and, given effectively in udaravikāra.

The oil of fennel or miśreya taila is largely used as a flavouring agent in culinary preparations, confectionery, cordials and liquours. Earlier it was utilised as a in place of anise oil as a source of anethole. It is a grateful aromatic and is mildly carminative. It is useful in infantile colic and flatulence. It checks griping in purgation (purgatives) and is considered a vermicide against hookworm (in dose of 60 minims). It is employed as a corrective for medicinal preparations with less pleasant flavour and colour and enters into the composition fennel water used medicinally as a vehicle for drugs. Not much is used in perfumery but for scenting soap of cosmetic use.

The feed is utility of residue left after the distillation of essential oil from the fruits, for cattles; it contains protein 14-22% and fat 13-13.5%.

Parts used : Fruits, root, oil.

Dose

Fruit powder 3-6 gm., Root powder 3-6 gm., Oil 5-10 minims (drops) ., Aqua (arka) 20-40 ml.

Formulation : Śatapuspādi cūrṇa, Śatapuspā Arka.

MISREYĀ (मिश्रेया)

माधुरी कटुका पाके स्त्रीणां गर्भप्रदा सरा ।
 तिक्ता कट्वी च मधुरा वृष्या चाग्निप्रदीपनी ॥
 वातं ज्वरं च शूलं च दाहं नेत्ररुजं तृषाम् ।
 व्रणवान्तिमत्तिसारमामं चैवं विनाशयेत् ॥

Gada Nigraha.

माधुरी मधुरो स्निग्धा कटुः कफहरा परा ।
 वातपित्तोत्थादोषघ्नी प्लीहजन्तुविनाशिनी ॥
 मिश्रेया कटुका पाके रसे तीक्ष्णाग्रिकृल्लघुः ।

रूक्षोष्णा बद्धविट् हृद्या कृमिशुक्रानिलापहा ॥

Kaiyadeva Nighaṇṭu, Oṣadhi varga, 1199.

मिश्रेयाफलम्

‘फलं दाहारुचिच्छर्दिकासश्लेष्मानिलप्रणुत् ।’

Kaiyadeva Nighaṇṭu, Oṣadhi Varga, 1200.

मिश्रेयागुणाः

मिश्रेया तद्गुणा प्रोक्ता विशेषाद्योनिशूलनुत् ॥

आग्निमान्द्यहरी हृद्या बद्धविट् कृमिशुक्रहत् ।

रूक्षोष्णा पाचनी कासवमिश्लेष्मानिलान् हरेत् ॥

Bhāvaprakāśa Nighaṇṭu, Haritakyādi varga, 91-92.

मिश्रेया मधुरा स्निग्धा कटुः कफहरा परा ।

वातपित्तोत्थदोषघ्नी प्लीहजन्तुविनाशिनी ॥

Rāja Nighaṇṭu, Śatāhvādi varga, 16.

MOKṢAKA

Botanical name : Schrebera swietenioides Roxb.

Family : Oleaceae

Classical name : Mokṣaka

Sanskrit names

Mokṣaka, Muṣkaka, Kṣārī-kṣārapādapa-kṣārasreṣṭha, Śikhari, Mūṣaka, Muncaka, Golīḍha.

Regional names

Mokha (Hindi); Moka, Ghanta (U.P., Bundel khand).

Description

A moderate-sized tree, 40-50 ft. high, with grey scabrous bark; young parts pubescent. Wood grey close-grained.

Leaves deciduous, common petiole 2-3 in. long; leaflets 7-9 opposite, glabrous when mature, the lowest pair smaller; blade 2-4 in. long, ovate or ovate-lanceolate, bluntly acuminate base often oblique; main lateral nerves 6-8 pairs.

Cymes 5-6 in. long and almost as wide, many flowered; bracts small, linear, pubescent. Flowers shortly pedicelled, fragrant. Calyx 1.6 in. long, pubescent; limb irregularly 4-6-toothed or sub-truncate. Corolla 1.3 in. long, white with elevated brown glandular dots on the inner surface of the elliptic-oblong, ciliate lobes.

Capsule pandulous 2 in. long, pearshaped, hard and woody surface rough, with white raised specks. Seeds 3-4 in. each cell.

Flowering and fruiting time

Plant flowers in February-April and fruiting stage onwards. Flowers fragrant at night.

Distribution

Plant occurs subtropical Kumaon upto 1,500 feet, North Bengal, Chota Nagpur and from the Central Province to the drier parts of Southern India, and also in Upper Burma. It is found in Central India and hotter regions and terai of lower hills in Uttar Pradesh and other regions of country.

Kinds and Varieties

There are two kinds of Mokṣaka (Muṣkaka dvaya) i.e. śveta (white) and kṛṣṇa (black) which are claimed to be botanically known as *Schrebera swietenioides* Roxb. and *Elaeodendron glaucum* (Rottl.) Pers. respectively.

***Cassine glauca* (Rottl.) Pers.**

Family : Celastraceae.

Syn. *Elaodendron glaucum* (Rotte.) Pers.

A moderate sized tree usually, with numerous, often reddish branches, forming a close oval crown; sometimes large tree. Reddish branchlets, bark dark-grey, smooth, blood-red inside, exuding when cut a profuse watery sap from the cambium-layer.

Leaves opposite or sub-opposite, less frequently alternate, 2-6 by 1-3 in., elliptic ovate-oblong or obovate, acuminate, crenate, sub-coriaceous, glabrous, dark-green and shining above, glaucous beneath (when the specific

name); stipules small, deciduous, main lateral nerves about 10 pairs, slender; petiole 0.4-1 in. long, channeled.

Cymes axillary, dichotomous, 3-5 in. long; peduncle 1.2-5 in. long, often red, longer than the petiole, branches divaricate; bracts small, caducous. Calyx-lobes broad, obtuse. Petals 4-5 about 0.1 in. long, oblong, yellowish-brown edged with white often red. Stamens shorter than the petals; filaments recurved; anthers roundish. Flowers 0.2 in. diam., whitish. Calyx 4-5-cleft, segments obtuse. Disk fleshy. Segments obtuse. Ovary adnate to the disk; style very short.

Fruits a dry obovoid drupe, .4-6 in. long, 1-celled, 1-seeded, tipped with the persistent style, mostly sterile (reproduction chiefly by root-suckers), ovoid or obovoid; yellowish-green when ripe, tipped with the persistent style.

Wood moderately hard, even and close-grained, deep-red when fresh-cut, turning light-brown in seasoning; weight 40-50 lbs, per c. ft.

Flowering and fruiting time

Plant becomes leafless in April. It flowers in April-June and fruiting during the period of January to June of the next year.

Distribution

Plant occurs in outer Himalayas upto 6,000 ft, Chota Nagpur, Central Province to Southern India and Ceylon; also in the Malay Archipelago, Siwaliks, Oudh, Bundelkhand, lower valleys in U.P. hills, also in Sal forests.

Plant is commonly known as Dhebri, Jangela, Jangel, Paniala, Jamrasi, Kala-muka, Mainiri (U.P. hills and plains) and other names in different regions.

Pharmacodynamics

Rasa	: Kaṭu, tikta
Guṇa	: Tikṣṇa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphapittaghna Tridoṣaghna (puspa-flowers).

Properties and action

Karma	: Rocana-pācana-bhedana Kaṇḍūghna-kuṣṭhaghna Viṣaghna Kṛmighna Arśoghna Kṣārasreṣṭha Śoṭhahara
Roga	: Kuṣṭha-kaṇḍū Grahaṇī-udararoga Prameha Vātavyādhi Mukharoga Viṣa-dūṣiviṣa Śukradoṣa Pāṇḍu Bastiruk-bastivikāra Pliharoga Śoṭha.

Parts used

Bark, Alkalī (Kṣāra), Flowers, Flowers, Exudation, (Niryāsa).

Dose : Powder 3.5 gm., Alkali 1-3 gm.

Formulation : Muṣkaka (mokṣaka) kṣāra.

MOKṢAKA (मोक्षक)

- क. मोक्षकः कफवातघ्नो ग्राही गुल्मविषक्रिमीन् ।
हन्त्युष्णो बस्तिरुक्कण्डूस्तत्पुष्पं कफपित्तजित् ।
ख. निर्यासोऽस्य परं वृष्यः शोथपित्तानिलापहः ।

Madanapāla Nighaṇṭu.

मोक्षकपुष्पम्

पुष्पं कुष्ठहरं ज्ञेयं वातपित्तकफप्रणुत् ।

Rāja Nighaṇṭu.

‘तस्यपुष्पं कफं पित्तं कुष्ठं चार्त्तिं नियच्छति ।’

Kaiyadeva Nighaṇṭu.

मोक्षकफलम्

फलमग्रेः दीप्तिकरं भेदकं रोचकं मृतम् ।
गुल्ममेहार्शपाण्डुघ्नं शुक्रदोषोहरं जयेत् ॥

Rāja Nighaṇṭu.

मोक्षकं फलमतीव दीपनं

गुल्ममेहकफपाण्डुशुक्रजित् ।

भेद्यरोचकगुदाङ्कुरान् जये-

दशमरीजठररोगनाशनम् ॥

Kaiyadeva Nighaṇṭu, Oṣadhi varga, 977.

मुष्ककः

मुष्ककः कटुकः तिक्तो ग्राह्योष्णः कफवातहृत् ।

विषमेदोगुल्मकण्डूबस्तिरुकृमिशुक्रनुत् ॥

Bhāvaprakāśa Nighaṇṭu.

मोक्षकः

अ. मुष्कको मोक्षको क्षारी शिखरी क्षारपादपाः ॥

मूषकः मुञ्चको घण्टापाटलिः क्षुद्रपाटलिः ।

गोलीढो मुञ्चको मुष्टिः क्षारश्रेष्ठो विषापहः ।

ब. मोक्षस्तीक्षणः कटुस्तिक्तो ग्राह्योष्णः कफपित्तहा ।

विषमेदोगुल्मकण्डूबस्तिरुकृमिशुक्रजित् ॥

Kaiyadeva Nighaṇṭu, Oṣadhi varga, 873-875.

मुष्ककद्वयम्

'श्वेतः कृष्णश्च स द्वेधा स्यात् त्रयोदश संज्ञकः ।'

Rāja Nighaṇṭu, Āmrādi phala varga, 205.

मुष्कक(द्वय)गुणाः

मुष्ककः कटुकोऽम्लञ्च रोचनः पाचनः परः ।

प्लीहगुल्मोदरार्तिघ्नो द्विधा तुल्यगुणान्वितः ॥

Rāja Nighaṇṭu, Āmrādi phala varga, 206.

मोक्षकः कफवातघ्नो ग्राही गुल्मविषक्रिमीन् ।

हन्त्युष्णो बस्तिरुकृकण्डूस्तत्पुष्पं कफपित्तजित् ॥

निर्यासोऽस्य परं वृष्यः शोषपित्तानिलापहः ॥

Madanapāla Nighaṇṭu.

कुष्ठे

‘हन्यात् कुष्ठं मुष्कके चापि सर्पिः ।’

Suśruta Saṁhitā, Cikitsā, 9-49.

विषसंसृष्टेऽञ्जने

मुष्ककस्याजकर्णस्य (पुष्पस्य) फेनो गोपित्तसंयुतः ।

Suśruta Saṁhitā, Kalpa, 1-71.

मुखरोगे कण्ठरोगेषु

पलाशमुष्ककक्षारयवक्षारश्च चूर्णिताः ।

गुडे पुराणे द्विगुणे क्वथिते गुडिकाः कृताः ॥

कर्कन्धुमात्राः सप्ताहं स्थिता मुष्ककभस्मानि ।

Caraka Saṁhitā, Cikitsā, 26-192/193.

ग्रहणीरोगे मुष्ककप्रयोगः

Caraka Saṁhitā, Cikitsā, 19-181.

कफपित्तहरणाय

मुष्ककपुष्पम्

Suśruta Saṁhitā, Sūtra, 46-284.

क्षारनिर्माणे

मुष्ककं क्षारश्रेष्ठत्वम्

Suśruta Saṁhitā, Sūtra, 11-11.

क्षारश्रेष्ठः

Dhanvantari Nighaṇṭu, 5-132.

‘मोक्षको द्विविधो ज्ञेयः श्वेतः कृष्णो विभेदतः ।’

‘शिखरी वनवासी च द्विविधः श्वेतकृष्णकः ।’

Śodhala.

दूषीविषे

अथवा मुष्ककश्चेतासोमत्वक्ताम्रवल्लितः ।

शिरीषाद् गृध्रनख्याश्च क्षारेण प्रतिसारयेत् ॥

Aṣṭāṅga Hr̥daya, Uttara, 35-46.

प्रमेहे

‘शालकम्पिल्लकमुष्कककल्कभक्षमात्रं वा

मधुमधुरमामलकरसेन हरिद्रायुतम् ।’

Suśruta Saṁhitā, Cikitsā, 11-8.

MUCAKUNDA

Botanical name

Pterospermum acerifolium Willd.,

Syn. *Pentapetes acerifolia* L.

Family : Sterculiaceae

Classical name : Mucakunda

Sanskrit names

Mucakunda, Kṣatraykṣa, Pratiṣṇuka, Cibuka, Bahupatra, Sudala, Harivallabha, Supuṣpa, Ardhyārḥ, Lakṣmaṇaka, Raktaprasava, Vasunāmā.

Regional names

Muchakund (Hindi, Mar., Guj.); Gule Muchkun (Pers.); Muchkund Chonpa (Beng.).

Description

Lofty large trees upto 20 meters tall. Leaves crowded at the top of branchlets, digitate, long petioled; leaves oblong, obovate, ovate, orbicular, or rectangular, 10-40x8-35 cm., cordate, often peltate, margin wavy to distantly coarse toothed or irregularly lobed, silvery to rusty pubescent beneath, glabrescent and dark green above, petiole 5-15 cm. long, tomentose; stipules pinnatifid, caducous.

Flowers mostly solitary, 10-15 cm. long and across large, flashy, white, fragrant; pedicels Ca 2 cm. long; bracts lacinate. Sepals linear-lanceolate; united at base into a short tube, 8-12 cm. long, about 1 cm. broad, obtuse, rusty pubescent outside, thick, reflexed, deciduous. Petals linear-oblong or obovate; 6-12 cm. long, reflexed. Fertile stamens 5-9 cm. long, staminodes equalling the petals; anthers 1-15 cm. long. Carpels 5; ovary pentagonal, rusty tomentose, capsule 5-10 cm. long, glabrescent, rusty-brown, 5-valved. Seeds compressed.

Flowering and fruiting time

Plant flowers in February to April, and fruits in June to July. Springs to rainy season.

Distribution

Plant occurs in Indo-Malaysia. It is occasionally planted in gardens. Plant is found in eastern and south-western regions specially West Bengal, Orissa, Assam, Konkan and north Canara, upto 5,000 ft. altitudy in India.

Chemical composition

Flowers contain volatile oil (responsible for aroma in flowers); and the seeds yield an yellowish oil 22.6 per cent.

Pharmacodynamics

Rasa	: Kaṣāya, Kaṭu, tikta
Guṇa	: Picchila
Vīrya	: Kiñcit uṣṇa (Kiñciduṣṇa)
Vipāka	:
Doṣakarma	: Tridoṣaghna

Properties and action

Karma	: Vedanāsthāpana Raktastambhana Śīrorujāhara Kaphaghna-kañṭhya Viṣaghna Kuṣṭhaghna-tvacya-kaṇḍūghna Vraṇaropaṇa-śodhana Dāhapraśamana
Roga	: Śīraḥśūla Raktārśa Raktapitta Mosūrikā-dāha Vedanāpradhāna vātavikāra Raktarāva Kāsa-śvāsa-svarabheda Viṣa Tvagvikāra-kuṣṭha-kaṇḍū.

Therapeutic uses

The drug Mucakunda is astringent and slightly pungent-bitter. It pacifies tri-humors (tridoṣa) and raktapitta. The drug is blood purifier, haemostatic, analgesic and anti-pruritic. It is benefecial for throat. Externally the flowers of drug Mucakunda are pounded with water and applied over

head (front head or lesion of pain-śiraḥ or śiraḥśūla) as the flowers of Mucakunda relieves headache immediately which is an important medicinal utility in classical uses of Mucakunda. Mucakunda is recommended for external application as a paste over abscess (vidradhi). The drug in general is considered useful in cough (kāsa), tvagdoṣa (cutaneous affections), poison (viṣa), pruritis (kaṇḍu), or eczeema (pāmā), throat affections (kaṇṭha vikāra), inflammatory conditions (śoṭha-śopha), blood diseases (raktadoṣa-rakta vikāra), and painful conditions (vedanā vikāra). The oil is prepared with the flowers of Mucakunda (flowers cooked in tīla taila or sesame oil according to tailapāka vidhi) and the oil is applied to head (śīroabhuṅga). The drug flowers are also employed in some medicated oils as an ingredient. The flowers of plant drug (mucakundapuspa) are pounded and fried in gṛīta or ghee by adding sugar (for preparing Halvā) and it is taken in cases of haemorrhage (raktasrāva) specially in diseases of raktapitta, raktārśa and other similar ailments.

Parts used : Flowers.

Dose : 3-6 gm.

Formulation : Himānśu taila.

MUCAKUNDA (मुचकुन्द)

क. मुचकुन्दः क्षत्रवृक्षश्चित्रकः प्रतिविष्णुकः ।

ख. मुचकुन्दः शिरःपीडापित्तास्रविषनाशनः ॥

Bhāvaprakāśa Nighaṇṭu, Puṣpa varga, 55.

मुचकुन्दः क्षत्रवृक्षश्चिबुकः प्रतिविष्णुकः ॥

मुचकुन्दोऽस्रपित्तघ्नः शिरोऽर्तिविषनाशनः ।

Kaiyadeva Nighaṇṭu, Oṣadhi varga, 1520-1521.

मुचकुन्दः

मुचकुन्दो बहुपत्रः सुदलो हरिवल्लभः सुपुष्पश्च ।

अर्ध्याही लक्ष्मणको रक्तप्रसवश्च वसुनामा ॥

मुचकुन्दगुणाः

मुचकुन्दः कटुतिक्तः कफकास विनाशनश्चकण्ठदोषहरः ।

त्वग्दोषशोफशमनी

व्रणपामाविनाशनश्चैवः ॥

Rāja Nighantu, Karavīrādi varga, 103-104.

मुचकुन्दः शिरःपीडापित्तास्रविषनाशनः ।

मुचकुन्दः कटुश्चोष्णः तिक्तः स्वर्यः कफापहः ।

कासत्वग्दोषशोफघ्नः वीर्यपीडानिवारकः ॥

त्रिदोषरक्तपित्तघ्नः पित्तरक्तविकारनुत् ।

Nighaṅṭu Ratnākara.

शिरःपीडायाम्

‘शिरोऽर्तिं नाशयत्याशु पुष्पं वा मुचकुन्दजम् ।’

Ākradatta, Vyṅdamādhava, 62-2.

विद्रथौ

‘मुचकुन्दः कण्टकायबदरः अन्ये मुचकुन्दमाहुः ।’

Dalhana, Suśruta Saṁhitā Cikitsā, 18-10.

‘मुचकुन्दः कुन्दभेदः प्रसिद्धः ।

तौ तु शुक्लरक्तभेदेन ज्ञातव्यौ ॥’

Ādhyamalla, Śārṅgadhara Saṁhitā.

शिरःशूले

कुष्ठमरेण्डतैलेन लेपात् काञ्जिकपेषितम् ।

शिरोऽर्तिं वातजां हन्यात् पुष्पं वा मुचकुन्दजम् ॥

Śārṅgadhara Saṁhitā, 3-11-62.

MUDGA

Botanical name

Vigna radiata (Linn.) wilezek.,

Syn. *Phaseolus radiatus* Linn., *P. aureus* Roxb., *P. mungo* Linn.

Family : Fabaceae (Papilionaceae)

Classical name : Mudga

Sanskrit names

Mudga, Sūpaśreṣṭha, Vājibhojana, Rasottama, Bhuktiprada, Varṇārha, Hayānanda, Bhubala.

Regional names

Moong, Mung, Pessara (Hindi); Uthulu,

Patchapessalu (Tel.); Mug (Mar.); Mung (Beng.); Hesaru (Kan.); Cherupayaru (Mal.); Green Gram, Golden Gram (Eng.).

Description

Climbing or erect herbs, 30-45 cm. long; stem and branches covered with brown or greyish-brown spreading hairs.

Leaves 3-foliolate; petioles 5-21 cm. long, stipules peltate, ovate, hairy, 5-7 x 3-5 mm.; leaflets elliptic-ovate, glabrous or pilose, acute or acuminate at apex, cuneate or truncate at base, 5-15 x 3-10 cm., entire or faintly lobed; laterals oblique.

Racemes capitate peduncles 1.5-8 cm. long, 4-8-flowered; flowers 1-1.5 cm. long, bracteolate. Calyx 3-4 mm. long, glabrous, teeth ciliate corolla yellow; keel curled upwards.

Pods linear, cylindrical, bristly hairy, 4-10 cm. long, 8-15-seeded of plant.

Flowering and fruiting time

Flowers and fruits appear during the period from September to December. Farming seasons. Kharif crop (also cold season crop).

Distribution

Plant is commonly cultivated as a Kharif crop for seeds-pulse. Area, production, types (strains etc.), yield and all details relating to commercial scale farming of Mung or Green gram are available in relevant sources.

Kinds and varieties

There are some classical varieties of Mudga viz. Kṛṣṇa mudga, Śārada mudga and Dhūsara mudga. Vanamudga or Makuṣṭha is also another kind mentioned in texts (Nighaṇṭu etc.).

A number of types, varieties and kinds (strains etc.) are under forming of crop.

Chemical composition

The seed-coat or husk forms 10-12 per cent of the

weight of the seed (dry basis) : the cotyledons and the rest of the embryo (cotyledons as a part of the embryo) form 85-86 and 2.0-2.5 per cent, respectively.

Analysis of the whole seed and of pulse (dal) with out husk gave, respectively, the following values : moisture 10.4, 10.1; protein 24.0, 24.5; fat 1.3, 1.2; fibre 4.1, 0.8; other carbohydrates 56.7, 59.9; minerals 3.5, 3.5 g.; Ca 24, 75; P. 326, 405 (Phytin P. 148, 209); Fe 7.3, 1.13; S 188, 214; and Cl 12, 25 mg./100 g.; calorific value 334, 348 K cal./100 g.

The iodine content of the seeds has been reported to be 0.034 Kg./g. (fresh basis). Sprouted beans (also used as found) contain water 88.8, protein 3.8, fat 0.2, crude fibre 0.7, total carbohydrates 6.6 and ash 0.6 g./100 g., mineral constituents : Ca 19, P 64, Fe 1.3, Na 5 and K 223 mg./100 g.

Pharmacodynamics

Rasa	: Kaṣāya, madhura
Guṇa	: Laghu, rūkṣa
Vīrya	: Śīta
Vipāka	: Madhura
Doṣakarma	: Pittakaphanāśana

Properties and action

Karma	: Balya
	Jvaraghna
	Dāha-santāpahara
	Rocana-dīpana-pācana
	Grāhī
	Caḥṣuṣya
	Tṛṣṇāpraśamana
	Chardinigrahaṇa
	Kāsaghna
	Raktarāvahara
	Raktaprasādana
	Pathya
	Roga
	Dourbalya
	Aruci-agnimāndya

Netravikāra-dr̥ṣṭimāndya
 Kāsa
 Raktapitta-raktasrāva
 Śīroroga
 Madātyaya-śukra
 Visarpa.

Therapeutic uses

The drug Mudga is tonic (balya), febrifuge (jvaraghna), stomachic (dīpana), digestive (pācana), haemostatic (raktasrāvahara), blood purifier (rakta-prasādana) and expectorant (kāsaghna). It allays burning sensation (dāhāpraśamana), excessive thirst (tr̥ṣṇāpraśamana), vomiting (chardinigrahaṇa) and excessive fat (medohara). It has properties of grahi, laghu (light), supācya (easily digestible), pathya (wholesome) and cakṣuṣya (good for eyes and vision). It is cordiotonic (hṛdya) and indicated in fever, diarrhoea, abdominal disorders and ailments caused by loss of digestive power (pācakāgni). The mudga yūṣa (soup) has been given due importance in Indian medicine, in various forms or mixed and flavoured with spices and suitable drugs, for making its use as medicated article. Such preparations are generally suggested and consumed in ailing conditions and convulsing stages.

The pulse is also useful in vertigo (bhrama) and given in some areas. Decoction of the seeds is used as an effective diuretic in beri-beri. The mungo extract is reported to have protective and curative in polyneuritis gallinarum.

Green gram or Mudga, commonly known as Mung, ranks high among the pulse crops of India. Mature of seeds are rich in protein and cooked seeds and dal from a valuable constituent of the daily diet and component of several dishes, regimen and food articles consumed by a considerable number of people in the country. Mudga belong to Śīmbīdhānya varga (legume seeds). Being a potent dietary item with medicinal properties, the preparations and use of Mudga as wholesome (pathya khādyā) diet is indicated

in several diseases, in addition to its common utility as an ideal, light and healthy ingredient of dietetics.

Part used : Seeds.

Dose : Decoction 50-100 ml., Edible (pulse).

MUDGA (मुद्ग)

- क. मुद्ग रूक्षो लघुर्ग्राही कफपित्तहरो हिमः ।
स्वादुरल्पानिलो नेत्र्यो ज्वरघ्नो वनजस्तथा ॥
- ख. मुद्गो बहुविधः श्यामो हरितः पीतकस्तथा ।
श्वेतो रक्तश्च तेषान्तु पूर्वः पूर्वो लघुः स्मृतः ॥
- ग. सुश्रुतेन पुनः प्रोक्तो हरितः प्रवरो गुणैः ।
चरकादिभिरप्युक्त एष एव गुणाधिकः ॥

Bhāvaprakāśa Nighantu, Dhānya varga, 38-40.

शिम्वीधान्यम्

- क. शमीजाः शिम्बिजाः शिम्बीभवाः सूप्याश्च वैदलाः ।
- ख. वैदलः मधुरा रूक्षाः कषायाः कटुपाकिनः ।
वातलाः कफपित्तघ्ना बद्धमूत्रमला हिमाः ।
- ग. ऋते मुद्गमसूरभ्यामन्येत्वाध्मानकारिणः ॥

Bhāvaprakāśa Nighantu, Dhānya varga, 36-37.

वनमुद्ग-मकुष्ठः (वनमुद्गः)

- क. मकुष्ठो वनमुद्गः स्यान्मकुष्ठकमुकुष्ठकौ ।
- ख. मकुष्ठो वातलो ग्राही कफपित्तहरो लघुः ।
वह्निजिन्मधुरः पाके कृमिज्वरविनाशनः ॥

Bhāvaprakāśa Nighantu, Dhānya varga, 48-49.

शिम्वीधान्यभेदाः

- मुद्गो माषो राजमाषो मकुष्ठो वल्लकस्तथा ॥
सतीनको हरेणुश्च कलायस्त्रिपुटश्चणः ।
मसूरिकाख्या मङ्गल्या तुवरी चक्रकादयः ॥

Kaiyadeva Nighantu, Dhānya varga, 44-45.

शिम्वीधान्यगुणकर्माणि

क. सामान्यगुणाः

शिम्वीधान्यं हिमं रूक्षं कषायं मधुरं लघु ।

कटुपाकं बद्धमूत्रं बिबन्धाध्मानवातनुत् ॥
कफपित्तास्त्रमेदांसि हन्ति लेपादियोजनात् ।

ख. धान्यशिम्वी:

तेषां शिम्वी: कटुः स्वादुपाका समधुरोषणा ॥
हृद्या रुच्या सरानुष्णशीता विष्टाम्बिनी गुरुः ।
कषाया विशदा रूक्षा वातपित्तविदाहकृत् ॥
कफाग्निविषट्कशोफबलशुक्रप्रमेहजित् ।

ग. शिम्वीशाकम्

शाकं सलवणं स्वादु कषायं तिक्तकोपणम् ।
विष्टाम्बि सृष्टविण्मूत्रं कफमारुतवर्द्धनम् ॥

Kaiyadeva Nighantu, Dhānya varga, 46-50.

मुद्गः

मुद्गस्तु सूपश्रेष्ठः स्याद्वर्णाहंश्च रसोत्तमः ।
भुक्तिप्रदो हयानन्दो भूबलो वाजिभोजनः ॥

Rāja Nighantu, Śālyādi varga, 73.

मुद्गजातयः

क. कृष्णमुद्गः

कृष्णमुद्गस्तु वासन्तो माधवश्च सुराष्ट्रकः ।
कृष्णमुद्गस्त्रिदोषघ्नो मधुरो वातनाशनः ॥
लघुश्च दीपनः पथ्यो बलवीर्याङ्गपुष्टिदः ।

ख. शारदमुद्गः

शारदस्तु हरिन्मुद्गो धूसरोऽन्यश्च शारदः ॥
हरिन्मुद्गः कषायश्च मधुरः कफपित्तहृत् ।
रक्तमूत्रामयघ्नश्च शीतलो लघुदीपनः ॥

ग. धूसरमुद्गः

तद्वच्च धूसरो मुद्गो रसवीर्यादिषु स्मृतः ।
कषायो मधुरो रुच्यः पित्तवातविबन्धकृत् ॥

Rāja Nighantu, Śālyādi varga, 74-78.

मुद्गयूषगुणाः

पित्तज्वरार्तिशमनं लघु मुद्गयूषं
सन्तापहारि तदरोचकनाशनञ्च ।

रक्तप्रसादनमिदं यदि सैन्धवेन

युक्तं तदा भवति सर्वरुजापहारि ॥

Rāja Nighaṇṭu, Śālyādi varga, 79.

ज्वरे यूषयोग्यद्रव्यं मुद्गादयः

मुद्गान्मसूरांश्चणकान् कुलत्थान् समकुष्ठान् ॥

यूषार्थे यूषसात्म्यानां ज्वरितानां प्रदापयेत् ।

Caraka Samhitā, Cikitsā, 3-188/189.

वमने भृष्टमुद्गकषायः

कषायो भृष्टमुद्गस्य सलाजमधुशर्करः ।

छर्द्यतीसारतृड्दाह-ज्वरघ्नः सम्प्रकाशितः ॥

Cakradatta, Chardi cikitsā, 15-8.

Vṛndamādhava, 15-7.

जिह्वारोगे पथ्यानि

‘क्षारसिद्धेषु मुद्गेषु यूषाश्चाप्यशने हिताः ।’

Cakradatta, Mukharoga cikitsā, 56-12.

MUDGAPARNĪ

Botanical name

Vigna trilobata (L.) Verdicourt., *Phaseolus trilobus* Ait; *Dolichos trilobata* L.; *Phaseolus trilobatus* auct. non (L.) Ait.; *P. trilobatus* (L.) Schreb.; *P. trilobus* sensu Baker.

Family : Fabaceae (Papilionaceae)

Classical name : Mudgaparnī

Sanskrit names

Mudgaparnī, Sūrpaparnī, Śimbī, Kākamudgā, Hansī, Kuraṅgikā, Mṛgagandhā, Vanajā, Kṣudrasahā, Śimbiringiṇī, Mahāmārjāra gandhikā, Vanamudgā.

Regional names

Mungvan (Hindi); Mugam, Mungam (Central India); Mugani (Beng.); Ranmug (Mar.); Udvaisan, Janglisan; Pillipesara (Tel.); Panipayer, Naripayer (Tam.), Ceruvidukol (Mal.).

Description

Trailing, twining, straggling or suberect annual or

perennial herbs; variable habit (slender, prostrate or trailing) herbs.

Leaves long-petioled, 3-foliolate; stipule oval; leaflets deeply 3-lobed or entire, petiolule of terminal leaflet much longer than 2 lateral ones.

Racemes capitate, long-peduncled. Bracts deciduous, bracteolas below calyx. Calyx glabrous, teeth minute.

Pod linear upto 5.0 x 0.3 cm., turgid, 6-12-seeded.

Flowering and fruiting time

Plant flowers and fruits in September-December or autumn to winters.

Distribution

It is paleotropical plant. Plant occurs throughout India and it is occasionally found along railway tracks on ridges, in cultivated fields and roadsides. Plant is found in the plains of India (old gardens, broken or waste buildings and other similar places) and shady places in forests. It occurs in Himalayan region ascending to 7,000 ft. altitude. Another wild variety grows wild in forests.

Chemical composition

An analysis of the fodder gave (on air-dry basis) following values : moisture 10.7, protein 11.4, fat 1.3, N-free extract 41.4, fibre 22.1, ash 13.4, calcium (as CaO) 2.69, and phosphorous 0.40 per cent. The plant can also be made into hay and the animals are fed alongwith rice-straw; it is much relished by the cattles being succulent and also with nutritive values of the green and tender herbage when the flowers have first appeared (best time for cuttings as fodder), having veterinary utility.

Pharmacodynamics

Rasa	: Madhura, tikta
Gūṇa	: Laghu, rūkṣa
Vīrya	: Śīta
Vipāka	: Madhura
Doṣakarma	: Tridoṣaśāmaka Vātapittaśāmaka

Properties and action

Karma	: Jivaniya Vṛṣya-śukrala Rasāyana Kṛmighna Dāhapraśamana Jvaraghna Cakṣuṣya Śothahara Kṣayahara Arśoghna Prajāsthāpana Viśaghna Kuṣṭhaghna Kāsaghna Chardinigrahaṇa Mūtrala Raktaśodhaka-raktastambhana
Roga	: Śukrameha Jvara Dāha Raktapitta Śoṭha Kṣayaroga Atisāra-grahaṇī Arśa Vātarakta-raktavikāra Raktapitta Netraroga Viṣa-mūṣikaviṣa Raktapradara Trṣṇā Madātyaya Kuṣṭha.

Therapeutic uses

During cold season, whole plant of the drug Mudgaparṇī is collected after maturity or in flowering and fruiting stage, and the crude material is dried under shade.

Raw drug is ready for use in medicine. Crude drug material is stored/packed in airtight container kept in non-humid cold place. The dried whole plant forms the crude market drug.

Besides the importance of Mudgaparnī as a medicine, its seeds or pulse is eatable as food item and the plant are valued as green fodder being succulent and nutritious to cattles.

The drug Mudgaparnī pacifies provocation of all the three body-humors (tridoṣa) specifically vāta and pitta doṣa. It is stomachic, vitaliser carminative, haemostatic, antipyretic, aphrodisiac and antiphlogistic. The drug purifies blood, allays or pacifies burning sensation and counters toxication or poisonous affect. It is benefecial for eyes and pacifying rakta pitta. The pulses (seeds) are highly nutritive.

Parts used : Whole plant, roots, seeds.

Dose : Decoction 50-100 ml.

Groups (gaṇa)

Jivaniya, Śukrājanana, Madhuraskandha (Caraka Samhitā), Kākolyādi, Vidarigandhādi (Suśruta Samhitā).

MUDGAPARNĪ (मुद्गपर्णी)

मुद्गपर्णी हिमा रूक्षा तिक्ता स्वादुश्च शुक्रता ।

चक्षुष्या क्षतशोथघ्नी ग्राहिणी ज्वरदाहनुत् ।

दोषत्रयहरी लघ्वी ग्रहण्यर्शोऽतिसारजित् ॥

Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi varga, 53-54.

मुद्गपर्णी

अ. मुद्गपर्णी सूर्यपर्णी शिम्बी हंसी कुरङ्गिका ।

मृगगन्धा शिम्बपर्णी वनजा शिम्बिरिगिणी ॥

काकमुद्गा क्षुद्रसहा महामार्जारगंधिका ।

ब. चक्षुष्या क्षतशोषघ्नी मुद्गपर्णी तु तद्विधा ॥

दोषत्रयहरा लघ्वी ग्रहण्यर्शोऽतिसारजित् ।

Kaiyadeva Nighaṇṭu, Oṣadhi varga, 107-109.

मुद्गपर्णी

मुद्गपर्णी क्षुद्रसहा शिम्बी मार्जारगन्धिका ।
वनजा रिङ्गणी ह्रस्वा सूर्यपर्णी कुरङ्गिका ।
कांसिका काकमुद्गा च वनमुद्गावनोद्भवा ।

मुद्गपर्णीगुणाः

अरण्यमुद्गा वन्धेति ज्ञेया पञ्चदशाह्वया ।

Rāja Nighaṇṭu, Guḍūcyādi varga, 34-35.

मुद्गपर्णी

अरण्यमुद्गावल्ली सशिम्बा पीतपुष्पका ।
मुद्गवल्ल्यामपर्णा या मुद्गपर्णीति सा स्मृता ॥
माषपर्णसदृक्पर्णा रोमालुः वनसम्भवा ।
मार्जारमोदिनी माषपिण्डी च वक्रनालका ।
हयपुच्छसमाकारा मधुरा पर्वतोद्भवा ॥

Śivadatta.

मुद्गपर्णी हिमा स्वादुः वातरक्तविनाशिनी ।
पित्तदाहज्वरान् हन्ति कृमिघ्नी कफशुक्रनुत् ॥
माषपर्णी रसे तिक्ता शीतला रक्तपित्तजित् ।
कफपित्तशुक्रकरी हन्ति दाहज्वरानिलान् ॥

Dhanvantari Nighaṇṭu.

मुद्गपर्णी हिमा कासवातरक्तक्षयापहा ।
पित्तदाहज्वरान् हन्ति चक्षुष्या शुक्रवृद्धिकृत् ॥

Rāja Nighaṇṭu.

वातासृग्दरे

मुद्गपर्णी विपक्वेन तैलेन पिचुधारणम् ।
कर्तव्यं रक्तनाशाय मार्दवाय सुखाय च ॥

Baṅgasena, Strīroga, 18.

वाजीकरणे

षष्टिकादिगुडिकायाम् ।

Caraka Saṁhitā, Cikitsā, 3-2-5.

मद्यजतृष्णायाम्

पाटलोत्पलकन्देषु मुद्गपर्ण्याश्च साधितम् ।
पिबेत् मागधिका तत्राम्भो हिमशीतलम् ॥

Suśruta Saṁhitā, Uttara, 40-51.

गर्भधारणार्थम्

बला-घृततैले ।

Caraka Samhitā, Cikitsā, 38-50.

रसायने

ब्राह्मरसायने

Caraka Samhitā, Cikitsā, 1-1-43.

च्यवनप्राशे

Caraka Samhitā, Cikitsā, 1-1-62.

विषे

मृतसञ्जीवन अगदे

Caraka Samhitā, Cikitsā, 23-56.

कुष्ठे

पूतीकदारु जटिलाः शक्रसुरा क्षौद्रमुद्गपर्णी च ।

लेपः सकाकनासे मण्डलकुष्ठापहः सिद्धः ॥

Caraka Samhitā, Cikitsā, 7-123.

वातरक्ते

द्विपञ्चमूलाद्यघृते ।

Caraka Samhitā, Cikitsā, 29-61.

जीवकाद्यस्त्रेहम्

Caraka Samhitā, Cikitsā, 19-73.

कासे

शर्करां जीवकं मुद्गमाषपण्यो दुरालभाम् ।

कल्कीकृत्य पचेत् सर्पिः क्षीरेणाष्ट गुणेन तत् ॥

पानभोजनलेहेषु प्रयुक्तं पित्तकासजित् ।

Aṣṭāṅga Hṛdaya, Cikitsā, 3-38/39.

छद्याम्

निशि स्थितं वारि समुद्गृष्णं सोशीरधान्यं चणकोदकं वा ।

गवेधुकामूलजलं गुडूच्या जलं पिबेदिक्षुरसं पयो वा ॥

Caraka Samhitā, Cikitsā, 20-61.

मुद्गविदलैर्विपक्वे केरीक्षीरेण भक्षितैर्बुहुशः ।

छर्दिर्नश्यति सहसा तयोस्तुल्याम्बुभिः पीतैः ॥

Vaidya Manorama, 4-9.

मुद्गामलकयूषो वा ससर्पिष्कः ससैन्धवः ।

यवागूं मधुमिश्रो वा पञ्चमूलीकृतां पिबेत् ॥

Suśruta, Saṁhitā, Uttara, 49-19.

Vṛndamādhava, 15-3.

रक्तपित्ते

शालिपर्ण्या युता मुद्गाः पृश्निपर्ण्या मसूरकाः ।

तुवर्यो वातिवलया वलया वा हरेणवः ॥

तत् कषाये हिताः पेया मांसपेयास्तथा रसाः ।

Aṣṭāṅga Saṅgraha, Cikitsā, 3-20/21.

तृष्णायाम्

‘मुद्गमसूरचणकजः रसास्तु भृष्टाः धृत्ते देवाः ।’

Caraka Saṁhitā, Cikitsā, 22-31.

विसर्पे

मुद्गान् मसूरांश्चणकान् युषार्थमुपकल्पयेत् ।

अनम्लान् दाडिमाम्लान् वा पटोलामलकैः सह ॥

Caraka Saṁhitā, Cikitsā, 21-111.

मदात्यये

मुद्गयूषः सितायुक्तः स्वादुर्वा पेशितो रसः ।

पित्तपानात्यये योज्याः सर्वतश्च क्रियाः हिमाः ॥

Vṛndamādhava, 18-7.

कासे

कण्टकारिरसे सिद्धो मुद्गयूषः सुसंस्कृतः ।

सगौरामलकः साम्लः सर्वकासभिषग्जितम् ॥

Caraka Saṁhitā, Cikitsā, 18-184.

नेत्ररोगेशुक्त्रे

मुद्गान् वा निस्तुषान् भृष्टान् शङ्खक्षौद्रसितायुतान् ।

मधूकसारं मधुना योजयेच्चाञ्जने सदा ॥

Suśruta Saṁhitā, Uttara, 12-32.

Aṣṭāṅga Hṛdaya, Uttara, 11-46.

शिरोरोगे

मुद्गान् कुलत्थान् माषांश्च खादेच्च निशिकेवलान् ।

कटूष्णांश्च ससर्पिष्कानुष्णं चानु पयः पिबेत् ॥

Suśruta Saṁhitā, Uttara, 26-4.

शोधे

मूलकानि च शुष्काणि भद्रमुस्तं समारिच्यम् ।
गोमूत्रपिष्टो लेपोऽयं श्वयथोर्विनिवारणः ॥

Kāśyapa Saṁhitā, p. 243.

मूलकानि च सिद्धानि सानिले भक्षयेन्नरः ।
रसेन मूलकानां तु कुर्यात् परिषेचनम् ॥

Bhela Saṁhitā, Cikitsā, 17-26.

मूत्रकृच्छ्रे

उत्पाट्यं मूलकं भक्तमुदजीपरि विन्यसेत् ।
प्रातः पिबेद् रसं कृच्छ्री सयवक्षारसोरकम् ॥

Siddha Bhaiṣajya Maṇimālā, 4-531.

विसर्पे

शुष्कमूलककल्केन नक्तमालत्वचापि वा ।
विभीतकत्वचा वापि कल्केनोष्णेन लेपयेत् ॥

Caraka Saṁhitā, Cikitsā, 21-124.

अर्शासि

अग्रिमन्थस्य शिग्रोश्च पत्राण्यश्मन्तकस्य च ।
जलेनोत्क्राथ्य शूलार्ते स्वभ्यक्तमवगाहयेत् ॥

Caraka Saṁhitā, Cikitsā, 14-45/46.

पाण्डुरोगे कामलायाञ्च

पलं बालकमूलाम्बु शर्करामधुरीकृतम् ।
अप्युच्चैर्दुर्जयं हन्ति पाण्डुं कतिपयैर्दिनैः ॥

Siddha Bhaiṣajya Maṇimālā, 4-287.

कासे

वास्तुको वायसी शाकं मूलकं सुनिषण्णकम् ।
शस्यते वातकासे तु स्वाद्वम्ललवणानि च ॥

Caraka Saṁhitā, Cikitsā, 18-81/82.

अर्बुद-ग्रन्थ्यादौ

लेपनं शङ्खचूर्णेन सह मूलकभस्मना ।
कफार्बुदापहं कुर्याद् ग्रन्थ्यादिषु विशेषतः ॥

Vṛndamādhava, 41-37.

आमवाते

शुष्कमूलकयूषे वा यूषं वा पाञ्चमौलिकम् ।

काञ्जिकं वापि शुष्कीचूर्णाविचूर्णिताम् ॥

Bhāvaprakāśa, Cikitsā, 26-17.

वातव्याधौ

मूलकाद्यतैलम् ।

Caraka Saṁhitā, Cikitsā, 28-167/169.

शोथे पीनसादौ

मूलकानां कुलत्थानां यूषैर्वा सुपक्वस्थितैः ।

यवगोधूमशाल्यन्नैर्यथासात्म्यमुपाचयेत् ॥

Caraka Saṁhitā, Cikitsā, 8-68.

अतिसारे

‘यूषेण मूलकानां तु बदराणामथापि वा ।

दधिदाडिमसिद्धेन बहुस्त्रेहेन भोजयेत् ॥’

Caraka Saṁhitā, Cikitsā, 19-31/33.

MŪLAKA

Botanical name : *Raphanus sativus* Linn.

Family : Cruciferae

Classical name : Mūlaka

Sanskrit name : Mūlaka

Regional names

Muli, Mura, Murai (Hindi); Mura (Beng.); Mula (Mar.); Mulo (Guj.); Muri (Punj.); Turb (Pers.); Phujl, Fujal (Ar.); Radish (Eng.).

Description

Erect herbs with fusiform tap root. Stem corymbosely branched, 20-90 cm. tall. Lower leaves lyrate-pinnate-partite, with sinuate-dentate segments, very variable, 3-5 jugate; upper ones entire or dentate, subsessile or sessile. Lvs. pinnate or pinnatifid, terminal leaflet or lobe very broad.

Racemes 10-30-flowered. Flowers 15-20 mm. across, usually lilac, white or violet; pedicels 5-10 mm. long increasing to 20 mm. in fruit. Sepals 6-8 x 1.5 x 2 cm., oblong,

subequal. Petals 15-20 x 5-7 mm. long, clewed. Stamens 7-9 and 10-20 mm. long; anthers 2-3 mm. long. Fls. with purple veins.

Pods 20-60 x 4-5 mm., beak 9-20 mm., long; seeds 6-12 subglobose uniseriate, brown, reticulated. Pods indhiscent, terete, thick, 2.5 cm., more or less constricted between the seeds, prolonged beyond the valves in a pointed beak about half the length of pod; seeds separated by pith. Roots long, fleshy, white, thick.

Flowering and fruiting time

It is flowering and fruiting during December to April. Farming season.

Distribution

Plant is commonly cultivated as popular vegetable throughout India.

Chemical composition

Seeds and root contain non-volatile oil and a volatile oil which resembles oil of Indian mustard seeds (Rājikā or rai). It is colourless and in taste like radish (Mūlaka or muli). Mūlaka (radish) is a good source of ascorbic acid (15-40 mg./100 g.) and supplies a variety of mineral salts.

Trace elements in radish include aluminium, barium, lithium manganese, silicon, titanium, fluorine and iodine (up to 18 mg./100 g.).

Pink-skinned radish is generally richer in ascorbic acid than the white-skinned one. In the former the vitamin is more concentrated in the skin in association with the pigment than in the flesh.

Kinds and varieties

Mūlaka is chiefly of two kinds on the basis of classical consideration viz. Mūlaka, and cāṇakyamūlaka, other than Bālamūlaka or Laghumūlaka and Piṇḍamūlaka, as mentioned in texts (Nighaṇṭus).

There are large number of types of radish (indigenous as well as introduced) with wide range of forms, cultivars (and races etc.) are under cultivation under horticultural practices for large scale almost round the year.

Pharmacodynamics

Rasa	: Kaṭu
Guṇa	: Laghu (laghu mūlaka); Guru (bṛhat mūlaka)
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Tridoṣahara (laghu mūlaka)- Tridoṣakara (bṛhat mūlaka)

Properties and action

Karma	: Rocana-dīpana-pācana Vātānulomana-bhedana Yakṛduttejaka Kaphaniḥsāraka-kaṇṭhya-svarya Mūtrala-aśmarībhedana Ārtavajanana
Roga	: Agnimāndya-ādhmāna Atiśara Arśa Kāmalā Tvagvikāra Kāsa-śvāsa-kṣaya Svara-kaṇṭha vikāra Yakṛdvikāra Udāvarta-śūla-gulma Jvara Kuṣṭha Nāsāroga Netrāmaya Karṇaroga Śoṭha.

Therapeutic uses

The drug Mūlaka is the tuberous tap root of the plant (*Raphanus sativus* Linn.) which is commonly known as rādish (and several other regional names) and used throughout country. Radish is highly medicinal and similarly its other parts such as leaves (patra), pods (śimbi), seeds (bija) and flowers (puṣpa) have medicinal properties and utility.

Mūlaka (radish) root (tap and tuberous-mulaka kanda) is credited with refreshing and depurative properties. Radish preparations are useful in liver, spleen and gall bladder troubles. They are used for neuralgic headaches, sleeplessness and chronic diarrhoea. Roots, leaves, flowers and pods are reported to be active against Gram-positive bacteria. The roots are considered useful in urinary complaints, piles and in gastrodynia. A salt extracted from the (roots dried) and burnt to white ash is suggested to be useful in stomach troubles. The juice of fresh leaves is used as diuretic and laxative. The seeds are considered to be peptic, expectorant, diuretic and carminative. In general, Mūlaka, as a whole, is much valued for nutritive and medicinal values and it has utility as drug in therapeutics.

The radish is extensively used as Mūlaka śāka (vegetable) all over country as a most popular root-vegetable (mūla or kanda śāka including patra and phalaśāka). Mūlaka (radish) is eaten raw as salad as well as cooked as vegetable (mūlaka kanda śāka). It is much relished for its pungent flavour and is considered an appetizer. The leaves are also boiled or cooked for using as eatable; the raw leaves (lender) are eaten. Pods (commonly known as Mugra) are eaten after cooking as vegetable or raw.

The salad made from coloured upper skin together with young radish leaves could serve as an excellent source of ascorbic acid. There is appreciable loss of ascorbic acid during storage, cooking or drying of radish. Pink-skinned radish, in comparison to white-skinned radish, is quite useful as it is generally rich source of ascorbic acid, since the vitamin has been reported to be more concentrated in the skin of radish (especially pink-skinned type) with the pigment in comparison to flesh within radish, the tuberous tap roots, of mūlaka.

Parts used : Roots, leaves, seeds.

Dose : Juice 10-20 ml., Decoction 50-100 ml.

Formulations (yoga)

Śuṣkamūlakādyā tailam, Śuṣkamūlakādyā ghṛtam, Mūlakādyā tailam, Mūlaka kṣāra, Mūlaka bijādi lepa, Kṣāra tailam.

MŪLAKA (मूलक)

बालमूलकम्

बालमूलकमत्यल्पक्षारं तिक्तोष्णं लघु।
 मूलकं बालकं रुच्यं स्वर्योष्णं पाचनं लघु॥
 दोषत्रयज्वरं श्वासनासाकण्ठाक्षिरोगनुत्।
 रोचनं दीपनं स्वर्यमुष्णं हृद्यं त्रिदोषजित्॥
 निहन्त्याद्दुदुः शूलामकोठोदावर्त्तपीनसान्।
 गुल्मकासक्षयश्वासव्रणनेत्रजलामयान् ॥

Kaiyadeva Nighaṇṭu, Oṣadhi varga, 699-671.

महामूलकम्

महदामं कटु स्वादु रसे पाके त्रिदोषकृत्।
 रूक्षं विदाहि तीक्ष्णोष्णमुत्क्लेशि स्तम्भि गुर्वपि ॥

स्नेहसिद्धमूलकम्

तदेव स्निग्धसिद्धं तु दोषत्रयनिर्बर्हणम्।

शुष्कमूलकम्

शुष्कं लघु हरेच्छोषं विषं दोषत्रयं तथा ॥

मूलकस्य पुष्पं फलञ्च

तत्पुष्पं कफपित्तघ्नं फलं तु कफवातजित्।

Kaiyadeva Nighaṇṭu, Oṣadhi varga, 672-673.

मूलकपत्रम्

पाचनं लघु रूक्षोष्णं पत्रं मूलकणं नवम्।
 स्नेहसिद्धं त्रिदोषघ्नमसिद्धं कफपित्तकृत् ॥

Bhāvaprakāśa Nighaṇṭu, Śāka varga, 33.

मूलकद्वयम्

- क. मूलकं द्विविधं प्रोक्तं तत्रैकं लघुमूलकम्।
 शालामर्कटकं विस्त्रं शालेयं मरुसम्भवम् ॥
- ख. चाणक्यमूलकं तीक्ष्णं तथा मूलकपोतिका।
 नेपालमूलकं चान्यत्तद्भवेद्भजदन्तवत् ॥
- ग. लघुमूलं कटूष्णं स्याद्रुच्यं लघु च पाचनम्।
 दोषत्रयहरं स्वर्यं ज्वरश्वासविनाशनम् ॥
 नासिकाकण्ठरोगघ्नं नयनामयनाशनम्।

घ. महत्तदेव रूक्षोष्णं गुरु दोषत्रयप्रदम् ।
स्नेहसिद्धं तदेव स्याद दोषत्रयविनाशनम् ॥

Bhāvaprakāśa Nighaṇṭu, Śāka varga, 99-103.

कफजाबुदे मूलकलेपः

लेपनं शङ्खचूर्णेन सह मूलकभस्मना ।
कफार्बुदापहं कुर्याद् ग्रन्थ्यादिषु विशेषतः ॥

Cakradatta, 41-52.

शोथचिकित्सायां शुष्कमूलकाद्यतैलम्

शुष्कमूलकवर्षाभूदारुरास्त्रामहौषधैः ।
पक्वमभ्यञ्जनात् तैलं सशूलं श्वयथुं जयेत् ॥

Cakradatta, Śoṭha cikitsā, 39-40.

मूलकगुणाः

मूलकं तीक्ष्णमुष्णञ्च कटूष्णं ग्राहि दीपनम् ।
दुर्नामगुल्महृद्रोगवातघ्नं रुचिदं गुरु ॥

Rāja Nighaṇṭu, Mūlakādi varga, 16.

चाणाख्यमूलकम्

चाणाख्यमूलकं सोष्णं कटुकं रुच्यदीपनम् ।
कफवातक्रिमीन् गुल्मं नाशयेद्ग्राहकं गुरु ॥

Rāja Nighaṇṭu, Mūlakādi varga, 18.

पिण्डमूलकम्

‘पिण्डमूलं कटूष्णं च गुल्मवातादिदोषनुत् ।’

Rāja Nighaṇṭu, Mūlakādi varga, 21.

बालमूलकम्

सोष्णं तीक्ष्णं च तिक्तं मधुरकटुरसं मूत्रदोषापहारि
श्वासार्षः कासगुल्मक्षयनयनजा नाभिशूलामयघ्नम् ।
कण्ठ्यं बल्य च रुजं मलविकृतिहरं मूलकं बालकं स्यात्-
दुष्णं जीर्णं च शोथप्रदमुदितमिदं दाहपित्तास्रदायि ॥

Rāja Nighaṇṭu, Mūlakādi varga, 22.

अपि च

आमं सङ्ग्राहि रुच्यं कफपवनहरं पक्वमेतत्कटूष्णं
भुक्तेः प्राग्भक्षितं चेत्सपदि वितनुते पित्तदाहास्रकोपान् ।
भुक्त्या सार्धन्तु जग्धं हितकरजलकृदेशवारेण तच्चेत्

पक्वं हृद्रोगशूलप्रशमनमुदितं शूलरुग्वारि मूलम् ॥

Rāja Nighaṅṭu, Mūlakādi varga, 23.

कर्णरोगे क्षारतैलम्

निर्माणविधिः क.

शुष्कमूलकशुष्ठानां क्षारो हिङ्गु महौषधम् ।

....सर्वैरैतैयथोद्दिष्टैः क्षारतैलं विपाचयेत् ॥

प्रयोगाः ख.

वाधिर्यं कर्णनादश्च षूयस्त्रावश्च दारुणाः ।

क्रिमयः कर्णशूलं च पूरणादस्य नश्यति ॥

Caraka Saṁhitā, Cikitsā, 26-226/227.

अतिसारे मूलकयूषम्

(अन्यद्रव्याणां सह प्रयोगः)

‘यूषेण मूलकानां तं बदराणामथापि वा ।’

Caraka Saṁhitā, Cikitsā, 19-31.

कुष्ठरोगे

‘लिम्पेन्मूलकबीजैः पिष्टैस्तक्रेण सिध्मनाशाय ।’

Cakradatta, 50-31.

अम्लमूलकम्

‘काञ्जिके व्युषितं पक्वं मूलकं त्वम्लमूलकम् ।’

Cakradatta, Prathamam Pariśiṣṭam.

शुष्कमूलकाद्यघृतम्

मूलकं शुष्कमार्द्रं च वर्षाभूः पञ्चमूलकम् ।

कृतमालफलं चाप्सु पक्त्वा तेन घृतं पचेत् ॥

तत्पीतं शमयेत् क्षिप्रमुदावर्तमशेषतः ॥

Bhāvaprakāśa, Udāvartādhikāra, 31/43-44.

अर्शःसु

‘शुष्कमूलकयूषं वा.....छागलं वा रसं

दद्याद् यूषैरैतैर्विमिश्रितम् ।’

Caraka Saṁhitā, Cikitsā, 9.

प्रवाहिकायाम्

‘तं मूलकानां यूषेण.....भोजयेत् ।’

Caraka Saṁhitā, Cikitsā, 10.

ग्रन्थिविसर्पे

‘सुखोष्णया प्रदिह्याद्वा....शुष्कमूलककल्केन ।’

Caraka Samhitā, Cikitsā, 11.

कफजशोथे

‘शस्तस्तथा मूलकतोयसेकः ।’

Caraka Samhitā, Cikitsā, 17.

वातव्याधिचिकित्सार्थं मूलकाद्यतैलम्

‘मूलकस्वरसं क्षीरं तैलं दध्याम्लकाञ्जिकम् ।
तुल्यं विपाचयेत् कल्कैर्बलाचित्रकसैन्धवैः ॥
.....पुष्कराह्वशटीबिल्वशताह्वानतदारुभिः ।
तत्सिद्धं पीतमत्युग्रान् हन्ति वातात्मकान् गदान् ॥’

Caraka Samhitā, Cikitsā, 28-167-169.

मूलकतैलम्

‘रास्ना शिरीषयष्ट्याह्वशुण्ठी सह्यरामृताः ॥
....दध्यारनालमार्षाम्बुमूलकेक्षुरसैः शुभैः ॥
पृथक् प्रस्थोन्मितैः सार्धं तैलप्रस्थं विपाचयेत् ।
प्लीहमूत्रग्रहश्वासकासमारुतरोगनुत् ॥
एतन्मूलकतैलाख्यं वर्णायुर्बलवर्धनम् ।’

Caraka Samhitā, Cikitsā, 28-172/176.

वातरोगे मूलकतैलम्

मूलकस्वरसे क्षीरसमे स्थाप्यं त्र्यहं दधि ॥
तस्याम्लस्य त्रिभिः प्रस्थैस्तैलप्रस्थं विपाचयेत् ।
यष्ट्याह्वशर्करारास्नालवणार्द्रकनागरैः ॥
सुपिष्टैः पलिकैः पानात्तदभ्यङ्गाच्च वातनुत् ।

Caraka Samhitā, Cikitsā, 28-136/137.

वातोदरे मूलकबीजतैलम्

सरलामधुशिग्रुणां बीजेभ्यो मूलकस्य च ॥
तैलाभ्यङ्गपानार्थं शूलघ्नान्यनिलोदरे ।

Caraka Samhitā, Cikitsā, 13-155/156.

मूलकम्

शुष्कं त्रिदोषशमनं शोथघ्नं गरजिल्लघु ।

तत्पुष्पं कफपित्तघ्नं तत्फलं कफवातजित् ॥

Rāja Ballabha Nighaṅṭu.

बालं दोषहरं वृद्धं त्रिदोषमारुतापहम् ।

स्नेहसिद्धं विशुष्कं तु मूलकं कफवातजित् ॥

Caraka Saṁhitā, Sūtra, 27.

हिक्काश्वासयोः

‘शुष्कमूलकयूषश्च हिक्काश्वासनिवारणः ।’

Caraka Saṁhitā, Cikitsā, 17-99.

कफशोथे

‘शस्तस्तथा मूलकतोयसेकः ।’

Caraka Saṁhitā, Cikitsā, 12-73.

वातकासिणः पथ्यार्थम्

‘...मूलकं सुनिषण्णकं....शस्यते वातकासे तु.... ।’

Caraka Saṁhitā, Cikitsā, 22.

विसूच्याम्

‘बालमूलस्य तु द्वाथः पिप्पलीचूर्णसंयुतः ।

विसूचीनाशनः श्रेष्ठः जठराग्निविवर्द्धनः ॥’

Bhāvaprakāśa, Cikitsā, 6-111.

शोफे

‘मूलकं च तिलेनाशु सवंशोफहरं परम् ।’

Śodhala, Gadanigraha, 2-33-76.

कर्णशूले

‘मूलकस्य च स्वरसः श्रेष्ठः कटूष्णः कर्णपूरणे ।’

Śuśruta Saṁhitā, Cikitsā, 3-21.

कुष्ठचिकित्सायां मूलकबीजादिलेपः

Cakradatta, Kuṣṭha Cikitsā, 50-34.

शीतपित्ते

‘शुष्कमूलकयूषेण.... भोजनम् सर्वदा कार्यम् ॥’

Cakradatta, 51-14.

सिध्मे

‘शिखरिरसेन सुपिष्टं मूलकबीजं प्रलेपतः

सिध्मं....नाशयति ।’

Baṅgasena, Kuṣṭha, 71, Cakradatta, 50-26.

कफवातात्मके ज्वरे

‘ह्रस्वमूलकयूषस्तु कफवातात्मके हितः ।’

Cakradatta.

शुष्कार्शःसु

‘शुष्कमूलकपिण्डैर्वा.....स्वेदयेत् पोट्टलीकृतैः ।’

Caraka Samhitā, Cikitsā, 9-42/43.

श्वित्रे मूलकबीजलेपम्

‘मूलकबीजावल्गुजलेपः पिष्टो गवां मूत्रे ।’

Caraka Samhitā, Cikitsā, 7-169.

सशूलशोथे शुष्कमूलकतैलम्

शुष्कमूलकवर्षाभूदारुरास्त्रामहौषधैः ।

पक्वमभ्यञ्जनं तैलं सशूलं श्वयथुं हरेत् ॥

Bhāvaprakāśa, Śothādhikāra, 42-37.

MUNḌĪ

Botanical name

Sphaeranthus Senegalensis Dc.,

syns. *Sphaeranthus indicus* Linn.; *S. indicus* auct.

non L.

Family : Asteraceae (compositae)

Classical name : Muṇḍī

Sanskrit names

Muṇḍī, Śravaṇī, Tapodhanā, Śravaṇaśīrṣaka, Muṇḍa-
tikā, Bhikṣu, Śravaṇā, Paribrājī, Prannajitā.

Regional names

Mundi, Gorakhmundi (Hindi); Murh-murhiya
(Beng.); Gorakhmundi (Mar.); Kottakarantai (Tel.);
Bhirangni (Mal.); Buikadam (U.).

Description

Annual, prostrate-decumbent, procumbent-ascending, glandular, villous, tomentose aromatic herbs, 30-60 cm. high; stems narrowly winged, wing toothed.

Leaves sessile, 2.5-5 x 1.5 - 2 cm., obovate-oblong,

acute to rounded at tip, mucronate, margins dentate, glandular-villous on both surfaces.

Leaves lanceolate, oblong or oblong-spathulate, obtuse-mucronate; base semi-amplexicaul, margins acutely serrate (rarely double dentate at some places, both sides villous, glands sessile. Peduncles 2-6 cm. long, glandular-pubescent, with a compound purple head. Involucral bracts membranous, toothed along margins and shorter than heads.

Heads Ca 13 mm. in diam, globose or ellipsoid, purplish, involucral bracts 2-seriate; outer bracts Ca 3 mm. long, linear, apiculate, ciliate and glandular; inner bracts Ca 3 mm. long, linear-oblancheolate, acuminate. Ray florets Ca 1.5 mm. long, 2-toothed, disc florets 2-2.5 mm. long, 5-lobed. Inflorescence capitula.

Achenes Ca 1 mm. long, glandular hairy; pappus absent; achenes tipped with persistent corolla.

Flowering and fruiting time

Plant flowers and fruits from winters to summers. January-June.

Distribution

Plant occurs almost throughout India ascending to 5,000 feet elevation. It is commonly found in gardens, fallow fields, waste places, along the roadsides, railway tracks, ponds or ditches, dried ponds and dry open forests.

Kinds and varieties

There two kinds of Muṇḍī viz. Muṇḍī (śrāvānī) and Mahamuṇḍī (mahāśrāvānī). Botanical source of the both *Sphaeranthus indicus* Linn. and *Sphaeranthus africana* Linn. respectively.

***Sphaeranthus africanus* Linn.**

A slender, glabrous or pubescent, fragrant herb, commonly occurring in marshy situations all along the coast from West Bengal to Kerala and Maharastra. Branches winged, wings entire; leaves obovate, finely toothed; flowers in heads, white or purple.

This plant is suggested to be plant species for Mahāmuṇḍī (and known in southern region with different names e.g. Velutha adakkamantiyan in Malayalam) and used medicinally specially substitute for sphaeranthus indicus Linn. or Muṇḍī (for the instance; in Kerala).

Plant is reported to be useful as cattle fodder. An aqueous extract of the stems and leaves is found to be toxic to American cockroaches. The aerial parts of the plants are reported to contain an unidentified alkaloid.

Chemical composition

The flowering herb contains a volatile oil which yields sphaeranthine alkaloid and a glucoside. A reddish aromatic oil 0.01-0.02% from the herb is reported to contain ugenol, ocimin and other constituents. An yellowish fixed oil (3%) is also found.

Pharmacodynamics

Rasa	: Tikta, Kaṭu
Guṇa	: Laghu, rūkṣa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Tridoṣaśāmaka

Properties and action

Karma	: Raktaprasādana-raktaśodhaka Śōthahara Hṛdayottejaka Dīpana-pācana-anulomona Yakṛduttejaka Kṛmighna Kaphaghna Vṛṣya Mūtrala Svedajanana Kuṣṭhaghna-kaṇḍūghna Jvaraghna Rasāyana Medhya-nāḍibalya Vedanāsthāpana
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Roga

Chardinigrahaṇa
 Medohara.
 : Raktadoṣa-raktavikāra
 Vātarakta-visphoṭa
 Śothavedanayukta vikāra
 Apasmāra
 Mastiska-nāḍīdourbalya
 Śīroroga-śīraḥśūla-ardhāvabhedaka-
 sūryāvarta
 Agnimāndya-śūla-udaravikāra
 Yakṛdplihavṛddhi
 Kāmalā
 Arśa
 Kṛmi
 Jīrṇakāsa-śvāsa
 Napuṃsakatva
 Mūtrakṛcchra-pūyameha-prameha
 Kuṣṭha-visarpa-tvagvikāra
 Jvara
 Dourbalya.

Therapeutic uses

The drug Muṇḍī is a raktaprasādana or raktaśodhana (blood purifying) herbal agent which possesses various other medicinal properties. It is mainly used in blood anomalies and ailments caused by blood impurities, gout, eruptive conditions, skin diseases, erysepalas, gonorrhoea, filaria, goitre, gaṇḍamālā, obesity (esp. foul smell of body) and rheumatism. It is used in inflammatory and painful ailments. The drug is useful in headaches, epilepsy, vātavyādhi, agnimāndya, colic, jaundice, chronic cough, asthmā and liver-splenic enlargement. It is also used as nervine and brain tonic including memory promoter (medhya). Being a vṛṣya medicine, the oil of root is given for aphrodisiac action. Drug is also used in dysuria; prameha, fever and general debility.

All parts of the plant drug find uses medicinally and whole plant and inflorescence (capitula) generally form the raw drug as Muṇḍī for therapeutic use.

Parts used : Whole plant.

Dose : Juice 10-20 ml., Decoction 50-100 ml.

Formulation (yoga) : Muṇḍī arka

Group (gaṇa) : Rasāyana (Caraka Saṁhitā).

MUNḌĪ-MUNḌITIKĀ (मुण्डी-मुण्डितिका)

मुण्डी महामुण्डी च

क. मुण्डी भिक्षुरपि प्रोक्ता श्रावणी च तपोधना ।

श्रवणाह्वा मुण्डितिका तथा श्रवणशीर्षिका ॥

ख. महाश्रावणिकाऽन्या तु सा स्मृता भूकदम्बिका ।

कदम्बपुष्पिका च स्यादव्यथाऽतितपस्विनी ॥

Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi varga, 215-216.

मुण्डितिका कटुः पाके वीर्योष्णा मधुरा लघुः ।

मेध्या गण्डापचीकृच्छ्रकृमियोन्यर्त्तिपाण्डुनुत् ॥

श्लीपदारुच्यपस्मारप्लीहमेदोगुदार्त्तिहत् ।

महामुण्डी च तत्तुल्या गुणैरुक्ता महर्षिभिः ॥

Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi varga, 217-218.

श्रावणी

श्रावणी स्यान्मुण्डितिका भिक्षुः श्रवणशीर्षिका ।

श्रवणा च प्रन्नजिता परिव्राजी तपोधना ॥

श्रावणीगुणाः

श्रावणी तु कषाया स्यात् कटूष्णा कफपित्तनुत् ।

आमातीसारकासघ्नी विषच्छर्दिविनाशिनी ॥

Rāja Nighaṇṭu, Parpatādi varga, 17-18.

मुण्डिका कटुतिक्ता स्याद् अनिलास्रविनाशिनी ।

आमारुचिघ्न्यपस्मारगण्डश्रीपदनाशिनी ॥

Dhanvantari Nighaṇṭu.

महाश्रावणी

महाश्रावणिकाऽन्या सा महामुण्डी च लोचनी ।

कदम्बपुष्पी विकचा क्रोडचूडा पलङ्कषा ॥

नदीकदम्बो मुण्डाख्या महामुण्डितिका च सा ।

छिन्ना ग्रन्थिनिका माता स्थविरा लोभनी तथा ।
भूकदम्बोऽलम्बुषा स्यादिति सप्तदशाह्वया ॥

महाश्रावणीगुणाः

महामुण्ड्युष्णतिका च ईषद्गौल्या मरुच्छिदा ।
स्वरकद्रोचनी चैव मेहहृच्च रसायनी ॥

Rāja Nighaṅṭu, Parpatādi varga, 19-21.

मुण्डितिका कटुः पाके वीर्योष्णा मधुरा लघुः ।
मेध्या गण्डापचीकृच्छ्रकृमिपित्तार्तिपाण्डुनुत ॥

Madanapāla Nighaṅṭu.

रक्तगुल्मे (रुग्णा)

गुण्डारोचनिकाचूर्णं शर्करामाक्षिकान्वितम् ।
विदधीताशु गुल्मिन्या मलसञ्चङ्क्रमाय च ॥

Bhāvaprakāśa, Gulmādhikāra, 32-42.

सूर्यावर्त्तावभेदयोः

पीत्वा मुण्डितिकोत्थं स्वरसं मरीचावचूर्णितं चोष्णम् ।
भक्तादौ खलु सप्ताहात् सूर्यावर्त्तावभेदकौ हन्यात् ॥

Śārṅgadhara Saṁhitā, 2-1-17.

Śoḍhala, Gadaniḡraha, 3-1-66.

योनिशूले

एरण्डतैलेन परिप्लुता स्यात् कार्पासपिण्डौ यदि योनिमध्ये ।
शूलं तदानीं शमयेत्तदीयं संयावको मुण्डिकया कृतो वा ॥

Rāja Mārtaṅḍa, 31-36.

आमवाते

‘विश्वालम्बुषयोः कल्कमद्यात् ।’

Bhāvaprakāśa, Cikitsā, 26-29.

सूर्यावर्त्तादौ

‘रसो मुण्ड्याः सकोष्णो वा मरिचैरेव धूलितः ।
जयेत्सप्तदिनाभ्यासात् सूर्यावर्त्ताऽवभेदकौ ॥’

Śārṅgadhara Saṁhitā.

अपच्यादौ

अलम्बुषायाः स्वरसः पीतो द्विपलमात्रया ।
अपचीगण्डमालानां कामलायाश्च नाशनः ॥

Śārṅgadhara Saṁhitā.

छिन्ना ग्रन्थिनिका माता स्थविरा लोभनी तथा ।
भूकदम्बोऽलम्बुषा स्यादिति सप्तदशाह्वया ॥

महाश्रावणीगुणाः

महामुण्ड्युष्णतिका च ईषद्गौल्या मरुच्छिदा ।
स्वरकृद्रोचनी चैव मेहहृच्च रसायनी ॥

Rāja Nighaṅṭu, Parpatādi varga, 19-21.

मुण्डितिका कटुः पाके वीर्योष्णा मधुरा लघुः ।
मेध्या गण्डापचीकृच्छ्रकृमिपित्तार्तिपाण्डुनुत ॥

Madanapāla Nighaṅṭu.

रक्तगुल्मे (रुग्णा)

गुण्डारोचनिकाचूर्णं शर्करामाक्षिकान्वितम् ।
विदधीताशु गुल्मिन्या मलसञ्चङ्क्रमाय च ॥

Bhāvaprakāśa, Gulmādhikāra, 32-42.

सूर्यावर्त्तावभेदयोः

पीत्वा मुण्डितिकोत्थं स्वरसं मरीचावचूर्णितं चोष्णम् ।
भक्तादौ खलु सप्ताहात् सूर्यावर्त्तावभेदकौ हन्यात् ॥

Śārṅgadhara Saṁhitā, 2-1-17.

Śoḍhala, Gadanigraha, 3-1-66.

योनिशूले

एरण्डतैलेन परिप्लुता स्यात् कार्पासपिण्डौ यदि योनिमध्ये ।
शूलं तदानीं शमयेत्तदीयं संयावको मुण्डिकया कृतो वा ॥

Rāja Mārtaṇḍa, 31-36.

आमवाते

‘विश्वालम्बुषयोः कल्कमद्यात् ।’

Bhāvaprakāśa, Cikitsā, 26-29.

सूर्यावर्त्तादौ

‘रसो मुण्ड्याः सकोष्णो वा मरिचैरेव धूलितः ।
जयेत्सप्तदिनाभ्यासात् सूर्यावर्त्ताऽवभेदकौ ॥’

Śārṅgadhara Saṁhitā.

अपच्यादौ

अलम्बुषायाः स्वरसः पीतो द्विपलमात्रया ।
अपचीगण्डमालानां कामलायाश्च नाशनः ॥

Śārṅgadhara Saṁhitā.

आमवाते

‘विशालम्बुषयोः कल्कमद्यात् ।’

Bhāvaprakāśa, Cikitsā, 26-29.

अलम्बुषादिचूर्णम् ।

Bhāvaprakāśa, Cikitsā, 26-63/70.

गात्रदौर्गन्ध्ये

‘विमलारणालसहितं पीतमिवालम्बुषाचूर्णम् ।’

Cakradatta, 36-38.

अपचीगण्डमालासु

अलम्बुषादलोद्भूतात् स्वरसात् द्वे पले पिबेत् ।

अपच्याः गण्डमालायाः कामलायाश्च नाशनः ॥

Cakradatta.

वातरक्ते

लीढ्वा मुण्डितिकाचूर्णं मधुसर्पिः समायतम् ।

छिन्ता क्वाथं पिबन् हन्ति वातरक्तं सुदुस्तरम् ॥

Cakradatta, 23-7.

शिशोः विच्छिन्नामचर्मरोगे

अलम्बुषाजटाकल्कं सर्ज्जचूर्णसमन्वितम् ।

बहुधा कटुतैलेन मिश्रयित्वा च पाचितम् ॥

सन्दद्यात्तन्तुलीमात्रं गते विच्छत्राः प्रलेपनम् ॥

Baṅgasena, Bālaroga, 128.

पतितयोः (वनितायाः) स्तनयोः

अलम्बुषाकणाकल्कैः सिद्धं तैलं करोति वनितायाः ।

पिचुधारणनस्यदानात् कुचद्वयं श्रीफलाकारम् ॥

Baṅgasena, Storoḡa, 367.

आमवाते

अलम्बुषादिचूर्णम्

द्वितीयालम्बुषादिचूर्णम्

तृतीयालम्बुषादिचूर्णम्

Bhāvaprakāśa, Āmavātādhikāra, 26-63/70.

आमवाते अलम्बुषाऽऽद्यचूर्णम्

Cakradatta, Āmavāta cikitsā, 25/19-22.

मेदोजन्यतीव्रदेहदौर्गन्धे

अलम्बुषाभवं चूर्णं पीतं काञ्जिकसंयुतम् ।

दौर्गन्धं नाशयत्याशु दुष्टं मेदोभवं नृणाम् ॥

Bhāvaprakāśa, Sthoulyādhikāra, 49-70.

गण्डमालाऽपचीकामलाचिकित्सायां मुण्डीप्रयोगः

अलम्बुषादलोद्भूतात् स्वरसाद् द्वे पले पिबेत् ।

अपच्या गण्डमालायाः कामलायाश्च नाशनः ॥

Cakradatta, Galagaṇḍādi cikitsā, 41-23.

स्थौल्ये गात्रदौर्गन्धे

‘अपगच्छति दौर्गन्धं मुण्डीचूर्णस्य पानाद् वा ।’

Rāja Mātaṇḍa, 8-20.

MUÑJĀTAKA

Botanical name : Orchis latifolia Linn.

Family : Orchidaceae

Classical name : Munjātaka

Sanskrit name : Muñjātaka

Regional names

Salam, Salampanja' (Hindi); Goru chettu (tel.);
Salab (Arabic); Salep (Eng.).

Description

A herb with purple flowers; herb 1-3 high, stem hollow. Leaves 2-6 in. long, many, on top of herb (stem). Flowers peduncled, peduncle 1-6 in. long, fls. 2/3 in. long, violet or purple in colour. Roots tuberous.

Tuber drug : Tubers of orchis latifolia Linn. are known as Salep. The tuberous roots of the main source plant (though the tuberous roots of some species of orchid genus including Orchis yield the salep).

Salep consists of washed, scalded and dried tubers which are yellowish white or greyish in colour and rounded, ovate or digitate in form (0.5-2 cm. x 0.4 cm.) having somewhat wrinkled appearance and hard corny con-

sistency. They are to some extent translucent, odourless and nearly tasteless.

Distribution

Plant occurs in Western Himalaya and Tibet at altitude of 8-12,000 feet. It is imported from Iran and Afghanistan, some of which is probably of European region. Orchis genus is chiefly distributed chiefly in Europe, temperate Asia and North Africa with a species occurring in North America and Canary Islands.

The observations on drug market are usually suggest finding to suggest two kinds of raw drug under the name of 'Salam-miśhri' viz. Panjasalam and Lahasuni salam. Mostly the tuberous raw drug is imported from Persia also. Persian panja and Lahasuni salam mainly are obtained from *Orchis latifolia* Linn. and *orchis laxiflora* Linn. (both belonging to family orchidaceae). Salam obtained from Indian plant sources and is collected from various parts of country where these plant occur (Himalays and Southern India, Nilgiris and Khasi hills and other areas). The characteristics of raw material of tuber-drug available under the name of Salampanja and Lahsuni salam are helpful to differentiate those two types and also detect the adulterated material for which microscopic investigation is also made for comparison with genuine drug features.

Kinds and varieties

Tubers of *Eulophia campestris* Wall. are also used as Salam or Salampanja. Another plant *Eulophia herbacea* Linn. is a substitute or adulterant of raw drug material of Muñjātaka. Sometimes the tubers or roots of Muśālī, Śatāvārī, Tālamūlī and other similar plant drugs are also found admixed with raw drug material.

***Eulophia campestris* wall.** is known as Salibmisri (Hindi, Bengla and Marathi), Salum (Gujarati), Salibmisri (Punjabi), Hattipaila (Nepalese). It is another plant source of Salep or Salamishri. It is a slender herb found throughout the greater part of India, mostly in the plains. It bears two linear leaves, 25-40 cm. long and a raceme of yellow or

green flowers with pink stripes. The rhizome consists of ovoid, often lobed tubers which are esteemed as tonic and aphrodisiac. They are reported to be used in stomatitis, purulent cough and heart troubles.

Eulophia nuda Lindl. is known as Goruma, Amarkand (Hindi), Budbar (Bangla), Amvarkand (Marathi) and Mankand (Bombay). It is herb found in tropical Himalayas from Nepal eastwards to Assam and in Deccan from Konkan southwards. It bears rather large, green or purple flowers and bulbous tubers (5-7 cm. in diam). The tubers are reported to be used for tumours, scrofulous glands of the neck, bronchitis and diseases of the blood. They are also used as vermifuge.

Eulophia spp. The tubers of *Eulophia epidendrea* Fischer syn. *Eulophia virans* R. Br. inhabiting dry areas in Bengal, Madhya Pradesh and Deccan are used as vermifuge. The tubers of *Eulophia pratensis* Lindl. (known as satawar in Marathi) found in pasture lands of Deccan from Konkan southwards are used in applications for scrofulous glands.

The tuberous roots of *Eulophia herbacea* Lindl. are also esteemed as Salep. This herb is distributed in western Himalayas, Bangal and western parts of the Deccan Peninsula.

Eulophia, a genus of perennial terrestrial orchids with fleshy tubers, rarely pseudobulbs is distributed in warm parts of Asia and Africa including India where several species are growing in Himalayas and other parts of country. Some of other species are ornamental and some yield salap. Thus, the tubers of certain *Eulophia* species are collected from their areas of occurrence and are adulterated or substituted with/for Salep tuberous raw material of drug Muñjātaka.

Chemical composition

Leaves contain a glucoside and loroglossin. Tuberous roots contain mucilage, a bitter substance and volatile oil. It should not contain more than moisture 14% and ash 6% (vide specifications in Russian pharmacopoeia). The

powder when macerated or soaked in water gives much mucilage due to high mucilage content in the tubers.

Pharmacodynamics

Rasa	: Madhura
Guṇa	: Guru, Snigdha
Vīrya	: Śīta
Vipāka	: Madhura
Doṣakarma	: Vātapittaśāmaka.

Properties and action

Karma	: Bṛmhāṇa	
	Sukrala-vṛṣya (param)	
	Balya	
	Koṣṭha snehana-anulomana	
	Mastiṣka nāḍībalya	
	Tarpaṇa	
	Tṛṣṇānigrahaṇa	
	Samsōdhana.	
	Roga	: Kṛśatā-dourbalya
		Śukrakṣaya-klaibya
		Prasavottara dourbalya
		Pravāhikā
		Vātapaittanita vikāra
		Kaphaja visarpa
Śīroroga		
Vātarakta		
Tṛṣṇā.		

Therapeutic uses

The drug is an esteemed aphrodisiac and prescribed generally in seminal disorders, spermatorrhoea and sexual weakness; it is also a popular sexual tonic.

It is useful in general debility and debility particularly after delivery. It is used brain and nervine tonic. It dysentery the tubers are given (after little maceration in water) in mucilaginous form.

The tubers are used as farinaceous food, nervine tonic and aphrodisiac. They yield as lot of mucilage with water and form a jally supposed to be nutritious and useful in diarrhoea, dysentery and chronic fevers. A decoction of

salep containing some sugar and flavoured with spices makes an agreeable drink for the sick. Salep is also used as a sizing material in silk industry. An infusion of the tubers is used to relieve hoarseness.

The drug Muñjātaka is chiefly an aphrodisiac and semen promoting-propelling herbal agent enjoying a place of precious tuberous which is known as sexual tonic, general tonic or strengthening body and nervine tonic.

Muñjātaka is used in impotency, consumption, debility, dysentery, loss of semen, brain and nervine debility, post-natal or puerperal debility and also in headache and diseases of head (śīroroga), gout (vātarakta), crysepalas (visarpa) and overthirst (tṛṣṇā).

The drug is useful for allaying the diseases caused by the provocation of vāta and pitta doṣa.

Parts used : Tubers.

Dose : Powder 3-5 gm.

Formulations

Mahāmayūra ghr̥ta, Dvipañcamūlādyā ghr̥ta, Sukumāraka taila, Godhumādyā ghr̥ta.

MUÑJĀTAKA (मुञ्जातक)

बल्यः शीतो गुरुः स्निग्धस्तर्पणो बृंहणात्मकः ।

वातपित्तहरः स्वादुर्वृष्यो मुञ्जातकः परम् ॥

Caraka Saṃhitā, Sūtra, 25.

वाजीकरणे

गोधूमाद्यघृते ।

Cakradatta, 67-27.

संशोधने

पित्तहरबस्तौ ।

Caraka Saṃhitā, Siddhi, 3-50.

तृष्णायाम्

तृणपञ्चमूलमुञ्जातकैः प्रियालैश्च जाङ्गलासु कृताः ।

शस्ताः रसाः पयो वा तैः सिद्धं शर्करामधुमत् ॥

Caraka Saṃhitā, Cikitsā, 22-30.

शिरोरोगे

महामायूरघृते ।

Caraka Saṁhitā, Cikitsā, 26-171.

वातरक्ते

द्विपञ्चमूलाद्यघृते । सुकुमारकतैले ।

Caraka Saṁhitā, Cikitsā, 29-66-96.

कफजविसर्पे

कालानुसर्यागुरुचोचगुञ्जारास्त्रावचाशीतशिवेन्द्रपण्यैः ।

पालिन्दिमुञ्जातमहीकदम्बा हिता विसर्पेषु कफात्मकेषु ॥

Suśruta Saṁhitā, Cikitsā, 17-15.

MŪRVĀ

Botanical name : *Marsdenia tenacissima* W. & A.

Family : Asclepiadaceae

Classical name : Mūrvā

Sanskrit names

Mūrvā, Mourvī, Tiktavallī, Mūrvavallī, Corasnāyu, Moraṭa, Murvā (feminine-strīliṅga) and Moraṭa (masculine-pulliṅga).

Regional names

Maruva bel, Jartor, Chinharu (Hindi); Bahuni lahara, Sunamarai (Nepal); Banal jak (M.P.); Kamtiongrik (Lepcha); Babaljak (Central India); Chiti, Jiti (Beng.); Karudushtupatige (Telugu).

Description

A. Mūrvā : *Marsdenia tenacissima* W. & A.

A large twining shrub; extremities soft-tomentose; bark grey, corky and deeply furrowed on old stems. Bark of young shoots yields a silky-white fibre of great strength (used for fishing-lines and bow-strings).

Leaves 4-6 by 3-4 in., broad-ovate, cordately 2-lobed, acuminate, pubescent or tomentose when young; petiole 3-4 in. long.

Flowers in corymbosely branched cymes. Corolla .2 in. diam; lobes, oblong ciliate.

Follicles 4-6 by 1.2 in., lanceolate, finely pubescent, longitudinally wrinkled; pericarp very thick. Seeds ovate-oblong, 0.5 in. long.

Flowering and fruiting time

Plant flowers in April-May and fruiting in cold season.

Distribution

It occurs in Khair forests of valleys in Siwalik Terai, and along the foot of the Himalaya. Plant is found in the plains and warm regions in country.

B. Morata : *Maerua arenaria* (Dc.) Hook. f. & Thoms. syn. *Niebuhria arenaria* Dc.

Unarmed, large, glabrous, climbing shrubs. Leaves entire, glabrous, leathery petiolate. Flowers 1.5-2.5 cm. across, in axillary and terminal corymbs; calyx tube half as long as the limbs, dilated upwards. Fruits 4-5 cm. long, glabrous, pendulous; deeply constricted between the seeds; seeds brown, glabrous, chinate.

Flowering and fruiting time

Plant bears flowers and fruits in February-June; springs to summers.

Distribution

Plant occurs on lower hill slopes in dry deciduous forests in Madhya Pradesh; It is found in different parts of India.

Kind and varieties

As regards *Mūrva*, the root without its bark (peeled off roots) of *Marsdenia tenacissima* W. & A. is so market raw drug under the name *Safed Nisboṭh*.

Chemical composition

The analysis of latex coagulum gave the following values : caoutchonic 13.3, resins 81.8, and insolubles 4.9%. The fresh latex contains caoutchonic 2.4; and water solubles 82.1 per cent.

Pharmacodynamics

Rasa	: Tikta, Kaṣāya
Guṇa	: Guru, rūkṣa
Virya	: Uṣṇa
Vipāka	: Uṣṇa
Doṣakarma	: Tridoṣahara

Properties and action

Karma	: Jvaraghna Svedajanana Tvagdoṣahara Raktaśodhaka Hṛdya Kuṣṭhaghna-Kaṇḍūghna Stanyaśodhaka Dīpana-āmapācana-pittasāraka Anulomana Śūlapraśamana Kṛmighna Rasāyana
Roga	: Jvara-viṣamajvara Carma vikāra Amlapitta-āmadoṣa Vibandha Grahaṇī Kāmalā Śūla Kṛmi Chardi Hṛdroga Raktavikāra Prameha Stanya vikāra Kuṣṭha Kaphavātaja-paittika vikāra Netraroga.

Description

The drug Mūrvā is bitter (tikta), astringent (kaṣāya), and hot (uṣṇa) in potency; it is antipyretic

(Jvaraghna), blood purifier (raktaśodhana), galactogogue (stanyaajanana), diaphoretic (svedajanana), cardiatic (hṛdya), cholagogue (pittasāraka), carminative (anulomana), āmapācana, anti-colic (śūlaprasāmana), stomachic (dīpana) and anti-emetic (chardinigrahaṇa). Mūrvā is rasāyana and it allays prameha, tvagdoṣa, kuṣṭha and provocation of tridoṣa (tri-humors) and allied ailments.

Mūrvā has been therapeutically used in various diseases in medical texts. It is employed in some compound formulations, and as an ingredient of few recipes and also as a single drug for treatment of different ailments particularly chardi, grahaṇī, jvara, kuṣṭha, netra roga and some other ailing conditions. Mūrvā enters into certain preparations (yoga) such as kanakakṣīrī taila, Mahātiktaka ghṛta, Tiktekṣvakādi taila, Gahaṇī bala-varadhana kṣāra, jvarahara kaṣāya and other recipes incorporated in medical texts.

Parts used : Roots.

Dose : Decoction 50-100 ml., Powder 3-5 gm.

Groups (gaṇa)

Trptighna, Stanyaśodhana, Tiktakandha (Caraka Saṁhitā), Paṭolādi, Pittasaṁśamana (Suśruta Saṁhitā).

A. MŪRVĀ (क. मूर्वा)

कुष्ठे

प्रायोगिकाभक्ष्ये ।

Caraka Saṁhitā, Cikitsā, 7-65/68.

रसायने

मूर्वावृहती..... ।

.....वदन्ति पौनर्नवमेव कल्पम् ॥

Aṣṭāṅga Hṛdaya, Uttara, 39-156.

छर्द्याम्

समाक्षिका मधुरसा पीता वा तण्डुलाम्बुना ।

तर्पणं वा मधुयुतं तिसृणामपि भेषजम् ॥

Suśruta Saṁhitā, Uttara, 49-28.

नेत्ररोगे

सौबीरं सैन्धवं तैलं मूर्वामूलं तथैव च ।
कांस्यपात्रे विघृष्टं स्यादक्ष्णोः शूलनिवारणम् ॥

Baṅgasena, Netraroga, 125.

ज्वरे

जलवेतसयोर्मूले मूर्वायां देवदारुणि ।
कषायं विधिवत् कृत्वा पेयमेतज्ज्वरापहम् ॥

Suśruta Saṁhitā, Uttara, 39-204.

ज्वरहरे कषाये ।

Caraka Saṁhitā, Cikitsā, 3-204.

ग्रहणीरोगे

ग्रहणीबलवर्धनक्षारे ।

Caraka Saṁhitā, Cikitsā, 15-179.

कुष्ठे

महातिक्तकघृते

Caraka Saṁhitā, Cikitsā, 7-146.

प्रायोगिकभक्ष्ये ।

Caraka Saṁhitā, Cikitsā, 7-65/68.

तिक्तेक्ष्वाकुवादि तैले ।

Caraka Saṁhitā, Cikitsā, 7-108.

कनकक्षीरीतैले ।

Caraka Saṁhitā, Cikitsā, 7-113.

छर्द्याम्

‘मूर्वा तथा तण्डुलधावनेन ।’

Caraka Saṁhitā, Cikitsā, 20-33.

B. MORATA (ख. मोरट)

पित्तजाश्मर्याम्

कुशः काशः शरो गुन्द्रा इत्कटो मोरटोऽश्मभित् ।

.....कथितास्तेषु साधितम् ॥

घृतम् ।

Suśruta Saṁhitā, Cikitsā, 7-9/11.

MUŚALĪ

Botanical name : *Asparagus adscendens* Roxb.

Family : Liliaceae

Classical name : Muśali

Sanskrit name : Muśali

Regional names

Safed musali, musali, Hazarmuli (Hindi); Jhirna (Garhwal, U.P. hills), Safed musali (Marathi); Dholi musali, Ujali musali (Guj.); Tannir vittang (Mal.); Salligadda (Tel.); Shakakule hindi (Arab., Pers.).

Description

A suberect excessively branching and tall with densely crowded whitish cladophylls shrub with stout, terete stem and grooved ascending branchlets; spines .5-.7 in., stout, straight. Cladodes 6-20 together, terete and very slender.

Racemes 1-2 in. long, many-flowered; pedicels .1-.2 in., jointed. Flowers white, .1-.15 in. diam.

Berries .2-.3 in. diam., 1-seeded.

Flowering and fruiting time

Plant flowers in autumn and fruits in cold season.

Distribution

Plant occurs in western Himalaya, Punjab, Gujarat, Madhya Pradesh and provinces of India. Common in Dun valley, Siwaliks and Sal forests in Uttar Pradesh foot-hills. It is distributed in Afghanistan, the Punjab and in the Himalayas up to an altitude of 6,300 feet.

Kinds and varieties

There are two kinds of Muśali viz. Muśali (Śveta muśali) and Tāla mūli (Kṛṣṇa muśali) which are botanically known as *Asparagus adscendens* Roxb. and *Curculigo orchioides* Gaertn. respectively. They are also popularly named safed musali and kali musali respectively. Tālmūli or kṛṣṇa mūśali is dealt separately.

Another plant *Chlorophytum tuberosum* Baker. (Liliaceae family) is used as Safed musali (śveta muśālī).

Pharmacodynamics

Rasa	: Madhura
Gūṇa	: Guru, snigdha
Vīrya	: Śīta
Vipāka	: Madhura
Doṣakarma	: Vātapittaśāmaka Kaphavardhaka

Properties and action

Karma	: Śukrājanana Vṛṣya Bṛmhaṇa Balya Rasāyana
Roga	: Śukrakṣaya-dhātukṣaya Klaibya Dourbalya Śukrameha Ikṣumeha Kṣaya Karṇaroga-Bādhirya Vyaṅga.

Therapeutic uses

The drug Muśālī is an aphrodisiac (vṛṣya or vājīkaraṇa) drug of repute. As a single drug the roots are used in powder or anyother suitable form, with proper vehicle (anupāna) or adjutant (sahāyaka) dravya; and the drug becomes a major ingredient of various compound formulations, prescribed as aphrodisiac medicine.

The drug Muśālī is an esteemed drug properties and action as tonic, strengthening body tissues, promoting body-weight, promoting as well as propelling semen and restorative as well as promotive of human body as a whole since it has efficacy as vājīkaraṇa and rasāyana both kinds of medicinal activities on systems of body, being vṛṣya, śukrājanana, bṛmhaṇa, balya and rasāyana in action, the drug Muśālī is effectively used in impotency, sexual,

seminal and urinary disorders, general debility, consumption, skin affections (also discolouration or pigmentation difficiency), prameha and ear diseases (deafness). The drug is sweet (in taste), heavy (in property) and cold (in potency); it allays vāta and pitta doṣa, and it increases kapha doṣa in human body.

In classical texts of indigenous medicine, several recipes are incorporated. The powder of muśalī root is combined with guḍūci-satva, kapikacchu, gokṣura, śālmalī, āmalakī and śarkarā; and these ingredients are suspended in milk and added with ghee (ghṛta). This recipe (Bhāvaprakāśa, Cikitsā. 72/25-28) is given in order to stimulate sex urge and manhood.

It is sometimes used as a vegetable. The white tubers are hairy on and mucilaginous and swell up with water. They are reported to possess cooling and demulcent properties. Their uses are similar to those of Salep misri (Orchis mascula Linn.).

The powder of muśalī and bākucī are useful for alleviating deafness of ear (Baṅgasena, Karṇaroga, 35). The root of muśalī pounded with goat's milk and mixed with honey is applied on face for eradicating freckles (vyaṅga) as prescribed in textual sources (Aṣṭāṅga Hṛdaya, Uttara. 32-21) which also incorporate Muśalyādi cūrṇa (Yogaratanākara, p. 446) as an effective aphrodisiac (vājīkaraṇa) and similar other formulations based on the drug of good therapeutic utility.

Parts used : Tubers.

Dose : Powder 3-6 gm.

Formulations (yoga)

Muśalī pāka, Muśalyādi yoga, Muśalyādi cūrṇam.

MUŚALĪ (मुशली)

मुशली मधुरा वृष्या वीर्योष्णा बृंहणी गुरुः ।

तिक्ता रसायनी हन्ति गुदजान्यनिलं तथा ॥

Bhāvaprakāśa Nighaṅṭu.

गोधापद्या मूलं क्रथितं घृततैलगोरसोन्मिश्रम् ।

पीतं निरुद्धमचिराद्भिनत्ति मूत्रस्य सङ्घातम् ॥

Bhāvaprakāśa, Mūtraghātādhikāra, 36-29.

कर्णपालीवृद्धयर्थं मुशलीकन्दप्रयोगः

माहिषनवनीतयुतं सप्ताहं धान्यराशिपरिनिहितम् ।

नवमुशलीकन्दचूर्णमृद्धिकरं कर्णपालीनाम् ॥

Cakradatta, Karṇaroga Cikitsā, 57-58.

कर्णरोगेवाधिर्ये

‘मुशलीबाकुचीचूर्णं खादेद् बाधिर्यशान्तये ।’

Baṅgasena, Karṇaroga, 85.

वाजीकरणे

मुसल्यादि चूर्णम्

Yogarātnākara, p. 446.

मुशलीकन्दचूर्णं तु गुडूचीसत्वसंयुतम् ।

वानरीगोक्षुराभ्याञ्च शाल्मलीशर्करामलैः ।

आलोड्य घृतदुग्धेन पाययेत् कामवर्धनम् ॥

Sārṅgadhara Saṁhitā, 26-58.

Bhāvaprakāśa, Cikitsā, 3-25/28.

व्यङ्गे

‘पिष्ट्वा वा छागलाद्या सक्षौद्रा मौशली जटा ।’

Aṣṭāṅga Hṛdaya, Uttara. 32-21.

MUSTAKA

Botanical name

Cyperus rotundus Linn.,

syns. *Cyperus* L. ssp. *retzil* kuk., *Cyperus retzil* kuk.,

C. tuberosus sensu Cl., *C. scariosus* R. Br.

Family : Cyperaceae

Classical name : Mustaka

Sanskrit names : Mustaka, Vārida.

Regional names

Motha, Nagarmotha (Hindi); Mutha (Beng.);

Moth. Nagarmoth (Mar., Guj.); Muthakach, Korai (Tam.);

Tungmuste (Tel.); Tungegadde (Kann.); Soyad-kuphi (Arab.); Mushke jami (Pers.); Nut grass (Eng.).

Description

(*Cyperus rotundus* ssp. *rotundus* Kern.)

Syn. *Cyperus rotundus* L.

Polymorphic sedge up to 60 cm. tall. Rhizome emitting long, slender, wiry stolons ending in a fleshy, blackish tuber.

Leaves shorter than stems. Inflorescence simple or compound, upto 12 cm. across. Involucral bracts 2-4, variable in size, the largest often overlapping the inflorescence. Spikelets linear, acute, 30x2 mm.; rachilla broadly winged.

Glumes 3.5 x 1.4 mm.; ovate, keeled, 5-7-nerved over 1/3 to 1/2 on either side, rest portion hyaline. Stamens 3. Nut 1.5 x 0.7 mm., narrowed at apex.

Flowering and fruiting time

Plant flowers and fruits during rainy to spring season. July to March.

Distribution

It is cosmopolitan plant. Herb (sedge) is very common in almost every sort of terrestrial habitats. Plant occurs throughout India in aquatic wet and moist places upto 6,000 ft. altitude.

Cyperus rotundus ssp. *tuberosus* (Rottb.) Kuk. syn. *Cyperus tuberosus* Rottb.

Stouter than preceding plant species (ssp.) *Cyperus rotundus* ssp. *rotundus* Kern., reaching upto 1.25 m. high. Rays more slender, pendent - spikelets 40.0 x 2.2 mm. Glumes 3.8 x 1.5 mm. Nut 1.5 x 1.25 mm. fusiform, brown, paler ends.

Flowering and fruiting time

Plant flowers and fruits in September-December.

Distribution

It is occasionally found in wet places in gardens. Plant occurs in tropical Africa and Indo-malasia.

Tuber-Drug morphology : The drug comprises of dried tubers in varying sizes. The tubers are oval to spindle shaped, somewhat compressed and tapered at both the ends, spreading the root system. The tubers generally range from 1.5-3.5 cm. in length 0.5-2.5 cm. in diam. The tubers are unbranched and sometimes flattened or uniformly cylindrical with comparatively longer central portion. There are slightly semisucculent when fresh, but turn hard in nature after drying. These are dark brown to black in colour and are covered with numerous rootlets. Some of the tubers have tears or remains of rootlets. Tubers are not easily breakable due to smaller size and hardened nature. The fracture is short exposing white interior with light brown dots. The tubers have an aromatic fragrance and a slightly agreeable taste.

Flowering and fruiting time

Rainy season and onwards.

Distribution

The plant grows abundantly as weed after rainy season and commercial supplies are based on collection from natural habitats. It is not cultivated commercially on large scale. Plant can be cultivated and raised through tubers, and the plant is undertaken for experimental cultivation as it is considered a suitable cultivation species in marshy open and fields, alongwith other medicinal plants undertaken for cultivation in herbal garden or farming plots. By nature the plants thrive best in slightly marshy areas. the drug is collected from most of the parts of country after rainy season when it flourishes well as a common weed in the areas of occurrence.

The source plant *Cyperus rotundus* Linn. of drug *Mustaka* occurs throughout India particularly in marshy and moist areas ascending to 6,000 ft. elevation in different regions where the localities with water courses or any other similar watery or aquatic situations alongwhich the plants find their suitable habitat. It is a common annual weed of the pasture lands, road sides and other moist places in the plains and also in the hilly region.

The plant is commonly growing along water course or near ponds and tanks or similar habitats in eastern and southern India and Bengal, Uttar Pradesh, Rajsthan and other states in India.

Kinds and varieties

Generally, the three kinds of Mustaka are prevalent in Ayurveda on the basis of texts (Nighaṅṭu) viz. Mustaka (bhadra-mustaka), Nāgaramustaka and Jalamustaka (Kaivartamustaka). In comparison to other major classical works on materia medica (e.g. Dhanvantari Nighaṅṭu and Rāja Nighaṅṭu) incorporating the foregoing three kinds of Mustaka, Bhāvamiśra (Bhāvaprakāśa Nighaṅṭu) also similarly mentions three kinds of Mustaka, but Bhadramusta and Nāgaramusta are termed synonymous in this particular Nighaṅṭu work.

Various species of *Cyperus* genus are referred in context of Mustaka specially *Cyperus rotundus* Linn., *Cyperus scariosus* R. Br. *Cyperus esculentus* Linn., *Cyperus platy stylis* Br. and *Cyperus amabilis* Vahl. Some of these species are almost morphologically similar or their morphological differences are minute, and result they are difficult to be distinguished during collection in field and use as the raw drug material.

Most commonly the drug Mustaka is identified and recognised as *Cyperus rotundus* Linn. which is generally used in current medical practice. As regards the classical varieties and botanical species, the correlation and probable identity are made. For instance, Mustaka and Bhadra mustaka are synonymous and so they indicate to single drug which is botanically identified as *Cyperus rotundus* Linn., a commonly and abundantly found weed in the field. Nāgarmustaka can be considered as *ciccoḍa* which may be botanically known as *Cyperus esculentus* Linn. instead of *Cyperus scariosus* R. Br. which is almost similar to *C. rotundus* Linn. Kaivarttamustaka or Jalamustaka may be known as *Cyperus platystilis* Br. or *Cyperus amabilis* R. Br. which is generally found in paddy fields. In materia medica texts (Nighaṅṭu), Nāgarmustaka is also

given synonymous names like Uccaṭā, Cūḍāla etc. Uccaṭā is indicated as Mustā viśeṣa (Amarakoṣa) and interestingly. Nāgarāmūstaka is one of the Nāgaraka given in Kāmasāstra (classical sexology) where Nāgarāmūstaka is also named as Uccaṭā. Another variety of Mustaka is kṣudramūstaka, classically termed as Paripelam or Paripelavam (in Kaiyadeva Nighaṇṭu) and Kaivarti (a) mustaka is termed as vitunnakam (Bhāvaprakāśa Nighaṇṭu). Classical description of Mustaka regarding its habit and habitat alongwith characteristics of ideal or quality drug Mustaka (praśasta mustaka) is given in Ayurveda.

Chemical composition

The tuber of the plant drug *Cyperus rotundus* Linn. contains an aromatic oil 0.5-0.9 per cent and remaining quantity is of fixed oil. Another plant species *Cyperus esculentus* Linn., a tonic and aphrodisiac drug, tubers yield chupa oil and they also contain protein 5.21%, starch 22.72% and other carbohydrate 24.79%.

Mainly two species of *Cyperus* (out of a number of *Cyperus* species growing in India) are source of an aromatic oil, known as *Cyperus* oil which is obtained by distillation. *Cyperus rotundus* Linn. (Motha) yield an essential oil which obtained by distillation. The chemical values of oil are on record. The Sudanese oil has lower refractive index, specific gravity and negative optical rotation. The oil is not of much commercial production owing to the difficulty in collection of commercial quantities of the raw material. Similarly *Cyperus scariosus* R. Br. (Nagar motha) rhizomes are used for commercial distillation of oil. Chemical characteristics and saponification values are on record. *Cyperus* oil is useful as flavouring agent.

Pharmacodynamics

Rasa	: Tikta, kaṭu, kaṣāya
Guṇa	: Laghu, rūkṣa
Vīrya	: Śīta
Vipāka	: Kaṭu
Doṣakarma	: Kaphapittaśāmaka

Properties and action

Karma	: Pācana-āmapācana Grāhī-sangrāhaka Dīpana-pācana Tṛṣṇānigrahaṇa Kṛmighna Raktaprasādana Mūtrala Garbhāśayasānkocaka Balya Medhya-nāḍibalya Śothahara Tvagdoṣahara-kaṇḍūghna Lekhana Stanyajanana-stanyaśodhana Kuṣthaghna Ārtavajanana
Roga	: Aruci-vamana Atisāra-saṅgrahaṇī Agnimāndya Tṛṣṇā-dāha-śrama Raktavikāra Kāsa-śvāsa Mūtrakṛcchra Rajorodha-sūtikāroga Stanyavikāra Carmavikāra-kaṇḍū-pāmā-visarpa- kaṇḍū-visphoṭa Kuṣtha Jvara Dourbalya Viṣa Mastiṣkadourbalya-apasmāra Mūtrakṛcchra Vātarakta Madātyaya Vraṇa-granthi Kāmalā-halimaka.

Therapeutic uses

The drug Mustaka is tubers obtained from *Cyperus rotundus* Linn. It is used as anthelmintic, antipoisonous, astringent, attenuant, carminative, demulcent, diaphoretic, diuretic, emmenagogue, expectorant, febrifuge, galactagogue, lithontriptic, nervine tonic, sedative (intestinal), stomachic and tonic. It is medicinally utilised in appeasing of thirst, disorders of stomach, irritation of bowels, febrile and dyspeptic ulcerations. It heals wounds and ulcers and cures abdominal pain. It is also used in scorpion stings.

It is an important drug of Ayurveda and the drug is used in the classical formulations and some of the reputed classical formulations viz. Karpūrādyarka, Kaṇṭakāryāvāleha, Cyavanaprāśa, Cāturbhadra kvātha-cūrṇa, Punarnavādi kvātha-cūrṇa, Kunkunādi taila, Kacchurādi cūrṇa-lepa, Kāyasthadi vaṭī, Punarnavādi maṇḍūra, Karpūra rasa and Candanādi louha. Besides classical formulations, the drug Mustaka is commercially exploited for using in various medicinal products in pharmaceutical field.

The therapeutic utility of Mustak is wide-ranging and is mainly based on its chief action as Saṅgrāhaka, dīpana, pācana (and āmapācana) according to pharmacoclinical consideration in Indian medicine. The drug Mustaka is prescribed in vomiting, dyspepsia, anorexia, flatulence, diarrhoea, chronic dysentery, colitis, excess thirst, worms and allied ailments of digestive system. Decoction of drug rhizome mixed with honey is prescribed in diarrhoea. Rhizomes of drug Mustaka are boiled in milk and the liquid (water) reduced, and this preparation is given for treating diarrhoea. A decoction of rhizome of this plant drug is prepared (by crushing the rhizomes and boiling in water or milk and reducing it one fourth), after mixing honey or other suitable adjuvants, in diarrhoea with mucous and blood. The water processed with drug Mustaka and Parpaṭa (*Fumaria indica*) is given as drink to diarrhoeal patients. Rhizomes of drug Mustaka (2 Kg.) are crushed and cooked in milk (640 ml.) adding sufficient wa-

ter till only milk portion remains in boiling vessel, then remaining quantity of medicated and cooked milk (kṣirapāka), after removing crushed (Mustaka) rhizomes, is curdled. This medicated curd (mustaka dadhi) prepared with drug Mustaka is recommended for using in diarrhoea and other abdominal disorders.

The drug Mustaka is effectively prescribed in fever due to its certain medicinal properties resulting to check temperature, overthirst, burning sensation, weakness and other symptoms and complications. Mustaka boiled in water is prescribed in fever and addition of Parpaṭa (and also other drugs needed in different conditions and stages) make decoction or cold infusion more efficacious in cases of fever. It is useful to alleviate pitta and kapha jvara and other diseases in particular.

In condition of alcoholism due to overdrink (or excess intake of alcohols), the drug Mustaka is prescribed. Water is boiled with rhizome of Mustaka and same is given orally all types of alcoholism (madātyaya). Mustaka rhizomes are ground to prepare powder and Lauha bhasma is properly mixed; this preparation is given with decoction of Khadira (Acacia catechu) in Halimaka (an advanced stage of Kāmalā or jaundice). In glandular erysipelas (granthivisarpa), the use of parched grain flour prepared with Mustaka and other drugs is classically prescribed.

The powder of rhizome of drug Mustaka mixed with Karkaṭaśrṅgī (Pistacia integerrima Stew ex Brandis) or Durābhā (Fagonia cretica Linn.) added with honey is taken to check vomiting caused by kapha (kaphacchardi). The decoction of rhizomes of Mustaka with Drākṣā (Vitis vinifera) and Haridrā (Curcuma domestica), mixed with honey, is taken orally in vātarakta-predominant in kapha. Similarly this preparation further added with Amalaka (Emblia officinalis (Gaertn.)). In treatment of gout and rheumatic complaints, the rhizome of Mustaka are considered efficacious by using in various forms and as ingredient of medicinal preparations.

In the disease of epilepsy (apasmāra), the drug is recommended. Roots (rhizome) of Mustaka are suggested

to be taken out (collected or uprooted) from the northern direction (uttara diggatamūlam) and pounded which is taken with cow's milk (milching cow mother having calf of similar colour : 'goḥ savarṇavatsāyah').

Root of Bhadramustaka rubbed with goat's urine is applied as netrāñjana (collyrium) and it cures chronic corneal opacity and redness of eye. In Nagarjuna guṭikā prescribed in ophthalmic diseases, Bhadramusta is an ingredient which helps in alleviation of blindness and defects of vision.

The root of Mustaka is pounded with cow ghee and this paste is applied on the wound, specially accidental wound (āgantuka or sadyojāta vraṇa). Drug is externally applied to skin affections as it is good for skin and drug is blood purifier (raktaśodhaka). It is useful in various skin ailments (pāmā, kacchū and carmavikāra).

The drug Mustaka is employed in major component of Mustādi vaṭī which is prescribed in condition of loose teeth (cala danta) and teeth ailments. Mustādi taila is prescribed in dental carries (danta krimi). Śarkarādi formulation mixed with Mustā and Marica in cough caused by pitta associated with kapha.

The rhizomes of drug are ground and paste is applied over mammal or breast of females (stana vṛddhikara and stanyajanana) in order to develop the organ and to promote secretion of latex or lactation (galactogogue).

It treatment of abdominal colic (śūla and āmadoṣajanya vikāra), Mustādiyoga is prescribed against āmadoṣa. Mustākṣīra is given in stage of Āmātiśāra. Drug rhizome is useful in general debility and poison or toxic conditions (viṣa).

In general, the drug Mustaka possesses various medicinal properties and recommended to be useful as anthelmintic, aromatic, astringent, demulcent, diaphoretic, diuretic, emmenagogue, stimulant and galactogogue medicine. It is given in anorexia, cough diarrhoea, fever and haemophilic conditions. An infusion or water of drug (processed with roots of Mustaka) is prescribed for

frequent oral use in fever, diarrhoea and some other ailments.

Parts used : Rhizomes.

Dose : Powder 3-5 gm., Decoction 50-100 ml.

Formulations (yoga)

Mustakādi kvātha, Mustakāriṣṭa, Mustādi cūrṇa, Mustādileha, Ṣaḍaṅgapānīya.

Group (gaṇa)

Tṛptighna, Tṛṣṇānigrahaṇa, Lekhanīya, Kaṇḍūghna, Satnyaśodhana (Caraka Saṁhitā), Mustādi, Vacādi (Suśruta Saṁhitā).

MUSTAKA (मुस्तक)

मुस्तकम्

मुस्तं तिक्तं हिमं ग्राहि दीपनं पाचनं कटु ॥
कषायं कफपित्तास्रतृट्ज्वरारुचिजन्तुजित् ।

Kaiyadeva Nighaṅṭu, Oṣadhi varga, 1358-1359.

क्षुद्रमुस्तकम् (परिपेलवम्)

परिपेलं हिमं तिक्तं कषायं कटु कान्तिदम् ।
कफपित्तास्रविसर्पकुष्ठकण्डूविषप्रणुत् ॥

Kaiyadeva Nighaṅṭu, Oṣadhi varga, 1361.

मुस्तकं नागरमुस्तकञ्च

मुस्तं कटु हिमं ग्राहि तिक्तं दीपनपाचनम् ।
कफपित्तास्रतृट्ज्वरारुचिजन्तुहत् ।

प्रशस्तमुस्तकविशेषम्

अनूपदेशे सञ्जातं मुस्तकं तत्प्रशस्यते ।
तत्रापि मुनिभिः प्रोक्तं वरं नागरमुस्तकम् ॥

Bhāvaprakāśa Nighaṅṭu, Karpūrādi varga, 93-94.

कैवर्तीमुस्तकम्

वितुन्नकं हिमं तिक्तं कषायं कटु कान्तिदम् ।
कफपित्तास्रविसर्पकुष्ठकण्डूविषप्रणुत् ॥

Bhāvaprakāśa Nighaṅṭu, Karpūrādi varga, 124.

भद्रमुस्तकम्

भद्रमुस्ता कषाया च तिक्ता शीता च पाचनी ।

पित्तज्वरकफघ्नी च ज्ञेया सङ्ग्रहणी च सा ॥

Rāja Nighaṇṭu, Pippalyādi varga, 140.

नागरमुस्तकम्

तिक्ता नागरमुस्ता कटुः कषाया च शीतला कफनुत् ।

पित्तज्वरातिसारारुचितृष्णादाहनाशनी श्रमहत् ॥

Rāja Nighaṇṭu, Pippalyādi varga, 143.

‘मुस्ता सङ्ग्राहकदीपनीयपाचनीयानाम् ।’

Caraka Saṁhitā, Sūtra, 25.

‘क्वाथश्च मुस्तककृतः समधुः सुशीतः

पीतः प्रवृद्धमतिसारगदं निहन्ति ।’

Baṅgasena.

मुस्ता तिक्तकषायातिशिशिरः श्लेष्मरक्तजित् ।

पित्तज्वरातिसारघ्नी तृष्णाकृमिविनाशिनी ॥

Dhanvantari Nighaṇṭu.

आमातिसारे मुस्ताक्षीरम्

पयस्युत्क्राथ्य मुस्ता वा विंशतिं भद्रकाह्वयाः ।

क्षीरावशिष्टं तत् पीतं हन्यादामं सवेदनम् ॥

Cakradatta, Atisāra cikitsā, 3-32.

मुस्तकशुद्धिः (तैलकल्पना)

मुस्तकन्तु मनाक् क्षुण्णं काञ्जिके त्रिदिनोषितम् ।

पञ्चपल्लवपानीयस्विन्नमातपशोषितम् ॥

गुडाम्बुना सिच्यमानं भर्जयेच्चूर्णयेत् ततः ।

आजशोभाञ्जनजलैर्भावयेच्चेति शुध्यति ॥

Cakradatta, Vātavyādhi cikitsā, 22/289-290.

शूलचिकित्सायाम् - आमदोषपाचनार्थं मुस्तादियोगः

Cakradatta, Śūla cikitsā, 26-45.

सर्वविसर्पे (त्रिदोषजविसर्पातिरिक्तं) मुस्तकादिक्वाथः

‘मुस्तारिष्टपटोलानां क्वाथः सर्वविसर्पनुत् ।’

Cakradatta, Visarpa-visphoṭa cikitsā, 53-18.

क्रिमिदन्तरोगे मुस्तादितैलम्

Cakradatta, Mukharoga cikitsā, 56-39.

ज्वरे

मुस्तापर्पटकः ज्वरे

Aṣṭāṅga Hṛdaya, Uttara, 40-48.

मुस्तापर्पटकोशीरचन्दनोदीच्यनागरैः ।

शृतशीतं जलं दद्यात् पिपासाज्वरशान्तये ॥

Caraka Saṁhitā, Cikitsā, 3.

मुस्तया पर्पटं युक्तं शुण्ठ्या दुःस्पर्शयापि वा ।

पाक्यं शीतकषायं वा— ॥

Aṣṭāṅga Hṛdaya, Cikitsā, 1-75.

चलदन्ते

मुस्तादिवटी ।

Bhāvaprakāśa, Cikitsā, 36-44/45.

कासे

‘पित्ते समुस्तमरिचः सकफे— ।’

Caraka Saṁhitā, Cikitsā, 18-90.

नेत्ररोगे

छागमूत्रेण सङ्घृष्टभद्रमुस्ताञ्जनेन हि ।

चिरकालोद्भवं पुष्पं रक्तत्वञ्चापि नश्यति ॥

Gadanigraha, 3-3-200.

‘.....निर्घृष्टं वा वारिणा भद्रमुस्ता ।

आन्ध्यं सद्यस्तैमिरं हन्ति पुंसामत्युद्गाढनेत्रयोरञ्जनेन ॥’

Gadanigraha, 3-3-299/302.

अपस्मारे

उत्तरदिग्गतमुस्तकमूलं बुद्ध्या समुद्धृतं पेयम् ।

पीतं पयसा हन्यादपस्मृतिं गोः सवर्णवत्सायाः ॥

Baṅgasena, Apasmāra, 34.

मदात्यये

जलं मुस्तैः शृतं वापि दद्याद् दोषविपाचनम् ।

एतदेव च पानीयं सर्वत्रापि मदात्यये ॥

Caraka Saṁhitā, Cikitsā, 24-167.

वातरक्ते

मुस्तद्राक्षाहरिद्राणां पिबेत् क्राथं कफोल्वणे ।

सक्षौद्रं त्रिफलाया वा गुडूची वा यथा तथा ॥

Aṣṭāṅga Hṛdaya, Cikitsā, 22-14.

मुस्तामलकनिशाभिः क्वथितं तोयं समाक्षिकं पेयम् ।

जयति मदागतिरक्तं सकफं वा सततयोगेन ॥

Bhāvaprakāśa, Cikitsā, 29-78.

ग्रन्थविसर्पे

मुस्तभल्लातसक्तूना प्रयोगैर्माक्षिकस्य च ।

देवदारुगुडूच्याश्च प्रयोगैर्गिरिजस्य च ॥

Caraka Saṁhitā, Cikitsā, 21-130.

अतिसारे

पयस्युत्क्वाथ्य मुस्तानां विंशतिं त्रिगुणाम्भसि ।

क्षीरावशिष्टं तत्पीतं हन्त्यामं शूलमेव च ॥

Suśruta Saṁhitā, Uttara, 40-47.

Aṣṭāṅga Hṛdaya, Cikitsā, 9-39-60.

‘मौस्तं कषायमेकं वा पेयं मधुसमायुक्तम् ।’

Suśruta Saṁhitā, Uttara, 40-72.

मुस्तकक्षीरम्

मुस्तां सङ्क्षुद्य शुद्धां समपयसि दृढं मर्दयित्वा सपूतं

पक्त्वा पादावशिष्टो मृदुतरिशिखिना शीतली कृत्य पश्चात् ।

लीढ्वा क्षौद्रान्वितां तां जयति सहकफं रक्तयुक्तातिसारं

विष्णोः पूजेव सद्यः शमयति दुरितं पूर्वजन्मार्जितं तु ॥

Vaidya Manoramā, 6-19.

मुस्तकदधि

पयःप्रस्थे सम्यङ् नवमुदकमासिच्य जलदान् ।

शतद्वन्द्वान् क्षुण्णानपि सपदि निक्षिप्य विपचेत् ॥

पयः शिष्टे त्यक्त्वा जलदशकलानि प्रतिवपे-

दुदश्चित्तज्जातं दधि जठररोगानपनयेत् ॥

Vaidya Manoramā, 6-19.

आगन्तुव्रणे

कान्तक्रामकमेकं सुशूक्ष्णं गव्यपयसा पिष्टम् ।

शमयति लेपान्नियतं व्रणमागन्तुजं न सन्देहः ॥

Cakradatta, 44-53.

विसूच्यातृष्णायाम्

‘.....शृतं भद्रघनस्य वा।’

Cakradatta, 6-91.

हलीमके

मारितं चायसं चूर्णं मुस्ताचूर्णेन संयुतम्।

खदिरस्य कषायेण पिबेद्धन्तुं हलीमकम् ॥

Bhāvaprakāśa, Cikitsā, 8-45.

छद्याम्

सजाम्बवं वा बदराम्लचूर्णं मुस्तायुतं कर्कटकस्य शृङ्गीम्।

दुरालभा वा मधुसम्प्रयुक्ता लिह्यात् कफच्छर्दिनिप्रहार्यम् ॥

Caraka Samhitā, Cikitsā, 20-38.

NĀDĪHINGU

Botanical name : Gardenia gummifera Linn. f.

Family : Rubiaceae

Classical name : Nāḍīhiṅgu

Sanskrit name : Nāḍīhiṅgu

Regional names

Dikamali (Hindi); Telbhanga (Tel.); Kikamalapi (Tam.); Dikkaimalli (Kann.).

Description

Small trees, shrub-like or bushy, up to 3 meters[‡] high or generally 5-6 feet high. Leaves obovate-oblong or elliptic-oblong, sessile, glabrous acute at base, 4-10 x 2-6 cm., main nerves 15-18 pairs; stipules ochrea like wood white somewhat lustrous, smooth in feel.

Flowers white scented yellowish, on short peduncle or sessile. Calyx-teeth triangular, pubescent. Corolla-tube upto 6 cm. long, pubescent outside. Stamens clavate.

Fruit oblong, 2 x 3 cm. with numerous ribs, fleshy.

Gum yellowish in colour by found incisions on branches and breaking points of leaves (on back side of branches), drying in air and smell like asafoetida or Hiṅgu

(Hing). Gum in pieces and yellowish black in colour marketed in the name of Dikamali or Cumbi gum.

Wood (specific gravity C. O. 74, wt. 48 lb./cu. ft.), and branches exudating gum with the characteristics as that of other species of *Gardenia* genus.

Flowering and fruiting time

Plant flowers and fruits during the period from March to August. Flowers appear in April when plant becomes leafless, and fruiting begins in June-August.

Distribution

It occurs in hilly regions, Maharashtra, central India (Madhya Pradesh), southern India, Bihar and Bengladesh (Chittagong).

Kinds and varieties

Gardenia lucida Roxb. syn. *Gardenia resinifera* Roth. is named as Dikamali. The gum known as Dikamali gound or cumbi collected from this species is identical with that from *Gardenia gummifera* Linn. f.

Chemical composition

It contains resin 89.9%, volatile oil 0.1% and colouring matter gardenin alongwith plant impurities 10.0%.

Destructive distillation of wood yields (on dry basis) charcol 30.1%, pyrolygneous acid (dry) 39.5, tar 10.8, pitch and losses 1.3, acid 5.47, ester 1.67, acetone 3.80 and methanol 1.19%, gas (at N.T.P.) 1.35 cu. ft./lb. (*Gardenia lucida* Roxb.).

The resin (*Gardenia gummifera* Linn. f.) has the following characteristics : m.p. 40-50°, acid val. 17.1, iodine val. 80.8 and saponin val. 172.3. It also yields a colouring matter gardenin which can be obtained (yield upto 1.4%) by digesting the resin with hot alcohol.

Samples of gum Nāḍihingu or dikamali which are deep yellow in colour give higher yields of gardenin.

Pharmacodynamics

Rasa : Kaṭu, tikta

Guṇa	: Laghu, rūkṣa, tīkṣṇa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphavātaśāmaka

Properties and action

Karma	: Vātānulomana Rocana-dīpana-pācana Kṛmighna Kaphaniḥsāraka-śvāsahara- śleṣmapūtihara Kuṣṭhaghna-svedajanana Jvaraghna-viṣamajvaraghna Lekhana Hṛdayottejaka-plihavṛddhahara Vedanāsthāpana-Vraṇaropaṇa.
Roga	: Aruci-agnimāndya-ajīrṇa-ādhmāna Gulma-udarasūla Arśa Kṛmiroga-gaṇḍupadakrimi Hṛddourbalya Jvara-viṣamajvara Plihavṛddhi Jīrṇakāsa-śvāsa-hikkā Carmaroga Medoroga Vraṇa Dantaśūla Vedanāyukta Vikāra.

Therapeutic uses

The drug Nādihiṅgu (resinous substance of plant *Gardenia gummifera* Linn. f.) is chiefly carminative (vātānulomana), stomachic (dīpana), digestive (pācana), appetiser and vermifuge (kṛmighna). It is useful in various ailments related with these pharmacological actions, and in case of worms, it is especially given in round worms.

The drug is suggested to be useful in chronic cough, hiccough, asthma, skin diseases, splenic enlargement, malarial fever, obesity and heart weakness. Externally the

resin is recommend for ulcers, piles, toothache and joints. A decoction or infusion of resin (nāḍīhiṅgu kvātha) is suggested to be used in fevers. In dyspepsia attended with flatulence, the resin has been frequently used with advantage.

Externally it acts as an antiseptic and stimulant. The resin is extensively employed in veterinary medicine to keep away flees from sores, for destroying maggots in wound and sheep waste. Nāḍīhiṅgu resin (niryāsa) is also applied to cleanse foul ulcers on account of its action as vranaviśodhana (cleansing ulcers).

The resin forms the drug Nāḍīhiṅgu 'is antispasmodic, expectorant, carminative, diaphoratic and anthelmintic. It is given to children in nervous disorders and diarrhoea due to dentition and rubbed on gums to allay irritation.

An ether extract of the leaves of *Gardenia lucida* Roxb. show antibiotic activity against *Staphylococcus aureus* and *Escherichia coli*.

The uses of the gum obtained from *Gardenia lucida* Roxb., also known as Dikamali, are similar to that of *Gardenia gummifera* Linn. f.

The leaf buds and the young shoots of Nāḍīhiṅgu vṛkṣa (*Gardenia gummifera* Linn. f. as also of *G. lucida* Roxb.) yield a resinous exudation, known in commerce as Dikamali or cumbi Gum. The resin is secreted freely in the form of tears or resin attached and marketed either in this form or after agglutination into cakes or irregular masses. The resin is transparent, greenish yellow, with a sharp pungent taste and a peculiar offensive odour. Resin mainly exudes from branches (lesion of incision) and broken points of leaves.

Parts used : Resin

Dose : 1/4 - 1/2 gm.

NĀDĪHINGU (नाडीहिङ्गु)

क. नाडीहिङ्गु पलाशाख्या जन्तुका रामठी च सा ।

वंशपत्री च पिण्डाह्वा सुयोज्या हिङ्गुनाडिका ॥

Rāja Nighaṇṭu.

ख. नाडीहिङ्गु कटूष्णं च कफवातार्त्तिशान्तिकृत् ।

विष्टाविबन्धदोषघ्नमानाहामयहारि च ॥

Rāja Nighaṇṭu.

नाडीहिङ्गुस्तु कटुकस्तीक्ष्णश्चोष्णश्च दीपकः ।

कफवातमलस्तम्भमनोमोहामनाशनः ॥

Nighaṇṭu Ratnākara.

NĀGABALĀ

Botanical name : *Grewia hirsuta* vahl.

Family : Tiliaceac

Classical name : Nāgabalā

Sanskrit names : Nagabala, Gudaśarkarā.

Regional names

Gulshakri, Gurkhkhandi, Gur-sukri (Hindi); Govali (Mar.); Jibilike (Tel.); Tabidru (Tam.); Kuli (Urh.).

Description

Shrubs, about 1 meter tall; younger branches brown pubescent, older glabrous, evenly fissured.

Leaves elliptic-acuminate, 9 x 3.5 cm., rounded at base nerves and nervules impressed above; petiole Ca 5 mm. long; stipules Ca 5 mm. long, linear, falcate.

Flowers white, Ca 8 mm. across, in about 4 cm. long, axillary 3-flowered umbellate cymes. Sepals 6 mm. long, elliptic, pubescent. Petals Ca 8 mm. long, ovate-oblong, villous outside, glandular within. Ovary villous, styles glabrous: stigmas slightly lobed lacerate.

Drupes Ca 1 cm. across, lobed, sparsely hairy, 4-stoned, small, yellow, ripe fruits tasty, sweet, edible (also called 'Shikari meva').

Flowering and fruiting time

Plant flowers in September and fruits in December-June. Flowering begins in rainy season and fruits appear by cold season.

Distribution

Plant occurs in warm, stony and hilly regions upto 4,500 feet elevation. It is generally found in Bihar, Vindhya Pradesh, Mādhya Pradesh, Rājasthan, Uttar Pradesh, Konkan and other parts of country.

Pharmacodynamics

Rasa	: Madhura, Kaṣāya
Guṇa	: Snigdha, picchila, guru
Vīrya	: Śītā
Vipāka	: Madhura
Doṣakarma	: Vātapittaśāmaka

Properties and action

Karma	: Rasāyana Nāḍibalya-medhya Snehana-amlatānāśaka-anulomana Hṛdya-raktapittaśāmaka Kaphaniḥsāraka Vṛṣya-garbhasthāpana Mūtrala Dāhapraśamana Jvaraghna Raktastambhana Vedanāsthāpana Vraṇaropana
Roga	: Amlapitta Koṣṭhagatavāta-vibandha Kāsa-śvāsa-svarabheda Uraḥkṣata-rājayakṣmā- śoṣa-kṣataksīṇa Śukradourbalya Raktapradara-garbhapāta Mūtrakṛcchra-pūyameha Jvara-viṣamajvara Hṛdroga-raktapitta Raktapitta Raktasrāva-vraṇa-kṣata Nāḍidourbalya-smṛtidourbalya Vātavyādhi.

Therapeutic uses

The plant drug Nāgabalā has properties to pacify provocation of vāta and pitta humor (vātapittaśāmaka). Drug is useful as nervine tonic, brain tonic, demulcent, anti-acidic, expectorant, antipyretic, diuretic, aphrodisiac, carminative and cardiac tonic. It is alterative or restorative (promotive) and analgesic. It pacifies burning sensation (dāhaśāmaka) and raktapitta. It has foetus stabilising (garbhasthāpana) properties. It has wound-healing, styptic or blood-coagulant and analgesic action.

The drupes (Nāgabalā phala) are given in diarrhoea and dysentery. A paste of the root in water is applied to wounds to hasten suppuration and as a dressing of wounds (vraṇaropaṇa); it is an external use of drug.

The management of heart disease (hṛdroga) has use of drug Nāgābala. The powder of Nāgabalā root and Arjuna tvak (bark of tree Terminalia arjuna W. & A.) are mixed and used with milk. This recipe is given to patient of a month. It eradicates heart disease, cough and dyspnoea. It is also useful as excellent rasāyana and if taken for a year the man lives full life of hundred years as mentioned in medical text.

The powder of Nāgabalā mixed with gḥṛta (ghee) and madhu chest-wound and (honey) is recommended for use in morning for treatment of consumption (kṣaya-śoṣa and kṣata-kṣīṇa). The powder of root of the drug plant (Nāgabalā mūla) is prescribed as rasāyana and balya medicine for promoting strength, life-span, body tissue and preserving disease-free health in general (puṣṭyāyurbalārogya-kara) Nāgabalā cūrṇa (root powder) is given in the dose of 5 gms. to begin with increasing gradually upto 40 gms. with milk for a month keeping on milk-diet without cereals. For the purpose of Rasāyana, Nāgabalā rasāyana is recommended in classical texts of medicine (Caraka Saṁhitā, Cikitsā, 12-11 and Aṣṭāṅga Hṛdaya, Uttara, 39/54-55).

The drug Nāgabalā is used in treatment of kṣaya, raktapitta, hṛdroga, kṣata kṣīṇa and klaivya.

Parts used : Root, root-bark.

Dose : Decoction 50-100 ml., Root bark powder 3-6 gm.

NĀGABALĀ (नागबला)

बल्या नागबला गुर्वी रक्तपित्तक्षयापहा ।
वृध्या रसायनी तस्याश्मन्तकफलवत् फलम् ॥

Kaiyadeva Nighaṇṭu, Oṣadhī varga, 1057-1058.

बला चतुष्टयं शीत मधुरं फलकान्तिकृत् ।
स्निग्धं ग्राहि समीरास्त्रपित्तास्त्रक्षतनाशनम् ॥

Bhāvaprakāśa Nighaṇṭu, Guducyādi varga, 144.

नागबलारसायनम्

क. नागबलासङ्ग्रहणविधानम्

‘धन्वनि कुशास्तीर्णे स्निग्धकृष्णमधुरमृत्तिके सुवर्ण-
मृत्तिके वा व्यपगतविषश्चापदपवनसलिलाग्निदोषे
कर्षणवल्मीकश्मशानचैत्योषरावसथवर्जिते देशे
यथर्तुसुखपवनसलिलादित्यसेविते जातान्यनुपहता-
न्यनध्यारूढान्यबालान्यजीर्णान्यभिगवीर्याणि
शीर्णपुराणपर्णान्यसञ्जातान्यपर्णानि तपसि तपस्ये वा
मासे शुचिः प्रयतः कृतदेवार्चनः स्वस्तिवाचयित्वा
द्विजातीन् चले सुमुहूर्ते नागबलामूलान्युद्धरेत् ।’

Caraka Saṁhitā, Cikitsā, Rasāyanapāda, 1-11.

‘तेषां सुप्रक्षालितानां त्वक्पिण्डमात्रमात्रक्षमात्रं
वा श्रूक्ष्णपिष्टमालोड्य पयसा प्रातः प्रयोजयेत् ।’

ख. नागबलाप्रयोगविधानम्

‘चूर्णीकृतानि वा पिबेत् पयसा, मधुसर्पिभ्यां वा
संयोज्य भक्षयेत्, जीर्णं वा क्षीरसर्पिभ्यां शालि-
षष्टिकमक्षीयात् । संवत्सरप्रयोगादस्य वर्षशतमजरं
वयस्तिष्ठतीति समानं पूर्वेण ।’

Caraka Saṁhitā, Cikitsā, Rasāyanapāda, 1-11.

रसायने

नागबला-रसायनम् ।

*Caraka Saṁhitā, Cikitsā, 1-2-11.
Aṣṭāṅga Hr̥daya, Uttara, 39-54/55.*

शोषे क्षतक्षीणे च

चूर्णं नागबलायास्तु घृतमाक्षिकमिश्रितम् ।
प्रलिह्यात् प्रातरुत्थाय क्षयव्याधिनिवारणम् ॥

Gadanigrāha, 2-9-65.

घृतकुसुमसारलीढं क्षय नयति गजबलामूलम् ।
दुग्धेन केवलेन तु वायसजङ्घा निपीतैव ॥

Cakradatta, 10-13.

पिबेन्नागबलामूलमर्थकर्षविवर्धितम् ।
पलं क्षीरयुतं मासं क्षीरवृत्तिरनन्नभुक् ॥
एष प्रयोगः पुष्ट्यार्युबलारोग्यकरः परः ।
मण्डूकपर्ण्याः कल्पोऽयं शुण्ठीमधुकयोस्तथा ॥

Caraka Samhitā, Cikitsā, 11-91/92.

हृद्रोगे

मूलं नागबलायास्तु चूर्णं दुग्धेन पाययेत् ।
हृद्रोगकासश्वासघ्नं ककुभस्य च वल्कलम् ॥
रसायनं परं बल्यं वातजित् मासयोजितम् ।
संवत्सरप्रयोगेण जीवेद् वर्षशतं ध्रुवम् ॥

Vṛndamādhava, 31-15-16.

NĀGADAMANA

Botanical name : Sansevieria roxburghiana Schult. f.

Family : Liliaceae

Classical name : Nāgadamana

Sanskrit name : Nāgadamana

Regional names

Nagdoun, Murva (Hi.); Murga (U.); Indian Bow-string Hemp (Eng.).

Description

Herb 1-2 feet. high rootstock prostrati. Leaves 6-25 in number like garland, linear, 3/4-2 ft. long and 1/2-1 inch broad, blackish-green, with strips dark coloured.

Spadix 1-2.5 ft. long. Flowers white or light green in colour.

Leaves with stout fibres suitable for ropes.

Flowering and fruiting time

Plant flowers in June-July and fruiting in December.

Distribution

Plant occurs in eastern sea coastal region, from west Bengal to Tamilnadu.

Kinds and varieties

Another species *Sansevieria hycinthoides* (Linn.) Druce is also prevalent and used. It occurs in Sri Lanka and Southern India. Leaves are broader and inflorescence longer comparatively to *Sansevieria roxburghiana* Schult. f.

Pharmacodynamics

Rasa	: Madhura
Gūṇa	: Snigdha, picchila
Vīrya	: Śīta
Vipāka	: Madhura
Doṣakarma	: Vātapittaśāmaka Kaphasamśodhana.

Properties and action

Karma	: Balya
	Mūtrala
	Jvaraghna
	Kaphaniḥsāraka
	Anulomana
Roga	: Dourbalya
	Vibandha-arśa
	Kāsa-śvāsa-Rājyakṣmā
	Mūtrakṛcchra
	Vātapittajavikāra Ślaiṣmikara vikāra.

Therapeutic uses

The drug *Nāgādamana* is tonic (balya), diuretic (mūtrala), carminative (anulomana), expectorant (kaphaniḥsāraka), antipyretic (jvaraghna) and kaphaśodhana.

Roots are used in medicine. The drug is useful in debility, cough, asthma, dysuria, fever and ailments caused by provoked vātapitta humors (doṣa).

Parts used : Root.

Dose : Juice 10-20 ml.

NĀGADAMANA (नागदमन)

विज्ञेयो नागदमनो मधुरः शीतपिच्छिलः ।

वातपित्तापहो बल्यः ज्वरघ्नः कफशोधनः ॥

कासे श्वासे मूत्रकृच्छ्रे दौर्बल्ये च प्रशस्यते ।

Dravyaguna Vijñana, part II, p. 770.

NĀGAKĒŚĀRA

Botanical name

Mesua ferrea Linn.,

Syn. Mesua coromandeliana wight., M. pedunculata wight, M. speciosa chois.

Family : Guttiferae

Classical name : Nāgakeśāra

Sanskrit names : Nāgakeśāra, Nāgapuṣpa, Cāmpeya.

Regional names

Nagkeshar, Nagkesara, Pilanagkeshar (Hindi), Nageshwar (Beng.); Nagachampa (tree-Mar.); Nagkeshar (Mar.); Pilu nagkeshara (Guj.); Nangu (Tam.); Nagkeshar (Kann.); Nanga (Mal.); Nagchampkamu (Tel.); Miskurumman (Arabic); Naremushk (Persian); Mesua (English).

Description

A large or medium-sized, beautiful evergreen tree. Branches straight, round, tender and bark whitish. Heartwood dark red, extremely hard, madullary rays extremely fine. Young shoots at first brilliant red, then pink, gradually passing into dark green.

Leaves 5 cm.-15 cm. (2-6 inches) long and 2.5-3.75 cm. (1-1.5 inches) broad, coriaceous, lanceolate, upper side shining, underside covered with a white waxlike powder; secondary nerves very close but indistinct.

Flowers 3-4 in. diam., solitary, white, fragrant, nearly sessile, bisexual. Sepals 4 in 2 rows; petals 4, imbricate; stamens 00, anthers linear, basifixed. Ovary 2-celled, 2 ovules in each cell, style filiform, stigma peltate. Stamens are drug Nāgakeśara and flower is Nāgapuṣpa.

Fruits pointed, 2.5-3.125 cm. long, 2-valved, valves rough, supported by the enlarged sepals; seeds 1-4, testa hard, shining, embryo a fleshy homogeneous mass.

Flowering and fruiting time

Plant flowers in spring season and fruiting afterwards during autumn. Flowering and fruiting in February-April.

Distribution

Plant occurs in western Ghats and Assam, Khasi hills, Chittagong, Upper Burma, Tenassarim, Andaman Islands, western coast from North Kanara southward. It is generally found in evergreen forests, commonly cultivated. Ceylon and the Malay Peninsula. Eastern Himalaya in India and eastern Bengal, south Konkan and western ghats forests ascending to 1,523 meters (5,000 ft.). Plants are wild in Andaman Islands. It is planted in the gardens.

Chemical composition

The seeds kernels forming 53-73% of the weight of seeds (150-200 seeds weigh 1 lb.) yield 60-77% of a viscous, reddish or dark brown oil with a disagreeable odour and bitter taste.

The raw (unripe) fruit contains a resinous oil. Pericarp of fruit contains tannin.

Flower-stamens (kesara) contain two bitter substances and an yellow colouring matter. Seeds contain mesuol and mesuone.

Kinds and varieties

There are two drugs allied to Nāgakeśara i.e. Punnāga and Surapunnāga which are botanically identified as *Calophyllum inophyllum* Buch & Hook. f. and *Orchocarpus longifolius* Buch-Ham. respectively. Another plant drug is substitute or adulterant to Nāgakeśara as 'Lal

Nagkesar' which is botanically known as *Ochrocarpus longifolius* Benth. particularly in Southern India as a market drug.

Pharmacodynamics

Rasa	: Kaṣāya, tikta
Guṇa	: Laghu, rūkṣa
Vīrya	: Uṣṇa (īṣat)
Vipāka	: Kaṭu
Doṣakarma	: Kaphapittaśāmaka

Properties and action

Karma	: Raktastambhana (śoṇitasthāpana) Svedāpanyana-durgandhanāśana Vedanṅsthāpana Uttejaka Dīpana-pācana Grāhī Tṛṣṇānigrahaṇa Chardinigrahaṇa Arśoghna Krimighna Hṛdya Vājikaṛaṇa Mūtrājanana Kuṣṭhaghna Jvaraghna Balya Viśaghna Kaphaghna Mastiṣkabalya.
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Roga	: Raktapitta Raktasrāva Raktarśa Raktātisāra Raktapradara (asṛgdara) Agnimāndya-ajīrṇa Tṛṣṇā-chardi Pravāhikā Kṛmi
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Hṛddourbalya
 Kāsa-hikkā-śvāsa
 Klaibya
 Mūtrāghāta
 Kuṣṭha-visarpa
 Jvara
 Dourbalya
 Viṣa.

Therapeutic uses

The drug Nāgakeśara is useful in several diseases and it is specifically valued as stambhana, pācana and raktastambhana; it is viṣaghna, sveda dourgandhyahara, kuṣṭhaghna, kaṇḍūghna, chardinigrahaṇa, tṛṣṇaprasāmana, āmapācana and arśoghna. The drug is used in raktapradara, raktātisāra, raktārśa, somaroga, hikkā, kuṣṭha, tṛṣā, chardi, hṛllāsa, bastiroga, Kaṇṭhaśīrṣarujā, viṣa, visarpa, kaṇḍū, svedadourgandhya, śvetapradara and calita garbha-garbha srāva. This drug is an ingredient of Kanakāriṣṭa and some other formulations prescribed in management of various diseases.

Drug is chemically potent. Raw or unripe fruits contain an oleo-resin which yields a volatile oil. Seeds contain a fixed oil and fruit covering contains tannin. Flowers particularly stamens contain two bitter principles.

The powder of Nāgakeśara is taken with butter milk (takra) for three days keeping on diet of butter milk (takra) for checking leucorrhoea (pradara). Nāgakeśara powder is given and found useful in both kinds of pradara (rakta and śveta pradara).

The powder of drug is mixed with sugar (śarkarā) and honey (madhu), alongwith juice of sugarcane (īkṣurasa) and madhūka, in order to check hiccough (hikkā).

For treatment of diarrhoea with blood (raktātisāra), the powder of drug Nāgakeśara is an effectively excellent drug for checking blood in diarrhoea or haemorrhage.

The drug Nāgakeśara is recommended for protecting and stabilising conception (garbhashthāpana). The fine

powder of Nāgakeśara with cow's ghee (goghṛta) is given during the period or season by keeping on milk diet, for conception. Similarly the powder of Nāgakeśara with pūga powder (areca nut cūrṇa) is esteemed formulation for conception.

Powder of Nāgakeśara (stamens of flowers of *Mesua farrea* Linn.), butter (navanīta) and sugar (śarkarā) are mixed and orally given to patients of bleeding piles or haemorrhoids (raktārśa).

Nāgakeśara is astringent, bitter, aromatic, cooling, expectorant and sodorofic; it is indicated in blood dysentery, fevers, piles and leucorrhoea. Phenolic constituents of seeds oil show branchodilator effects.

Parts used : Stamens, flowers.

Formulations : Kanakāriṣṭa, Halawa supari pāk.

Dose : Powder 0.5-1 gm.; 1-3 gm.

Group (gaṇa)

Elādi, Priyaṅgvādi, Añjanādi (Suśruta Saṁhitā), Caturjāta (Bhāvaprakāśa).

NĀGAKĒŚARA (नागकेसर)

नागपुष्पं कषायोष्णं तीक्ष्णं लघ्वामपाचनम् ॥

रूक्षं पित्तकफच्छर्दिखुडकण्डूविसर्पजित् ।

हल्लासस्वेददौर्गन्ध्यकुष्ठतृष्णाविषापहम् ॥

Kaiyadeva Nighaṅṭu, Oṣadhi varga, 1346-47.

नागपुष्पं कषायोष्णं सूक्ष्मं लघ्वामपाचनम् ॥

ज्वरकण्डूतृष्णास्वेदच्छर्दिहल्लासनाशनम् ।

दौर्गन्ध्यकुष्ठवीसर्पकफपित्तविषापहम् ॥

Bhāvaprakāśa Nighaṅṭu, Karṣṇūrādi varga, 70-71.

नागकेशरमस्योष्णं केशरं तिक्तं कफापहम् ।

बस्तिवातामयघ्नं च कण्ठशीर्षरुजापहम् ॥

Rāja Nighaṅṭu, Pippalyādi varga, 178.

केसरं विषवीसर्पपरक्ताशीर्षमभिकुष्ठहत् ।

हल्लासवमिदौर्गन्ध्यतृष्णापित्तवलासजित् ॥

Gadanigraha.

‘उष्णरूक्षं नागपुष्पं कषायं तृष्णाच्छर्दिश्लेष्मवातप्रमाथि ।’

Siddha bhaisajyamañimālā.

असृग्दरे

‘तक्राशनरता सम्यक् सम्पिबेन्नागकेसरम् ।’

त्र्यहं तक्रेण सम्पीड्य श्वेतप्रदरशान्तये ॥

Soḍhala, Gadanigraha, Strīroga, 34.

Baṅgasena, Strīroga, 145.

रक्तातिसारे

.....सितया सह ।

नागकेसरचूर्णं वा रक्तसङ्ग्रहणं परम् ।’

Baṅgasena, Atisāra, 119.

‘श्लेष्मपित्तविषघ्नं तु नागम् ।’

Suśruta Saṁhitā, Sūtra, 46-187.

गर्भस्थापने

‘नागकेशरपूगास्थिचूर्णं वा गर्भदं परम् ।’

Baṅgasena, Strīroga, 145.

पुत्रप्रसवार्थम्

गोधृतेन सह नागकेसरं श्लेष्मचूर्णितमृतौ नितम्बिनी ।

गव्यदुग्धनिरता पिबेद्यदि स्यात्तदा नियतमेव वीरसूः ॥

Rājamārtanḍa, Gadanigraha, 6-5-21.

रक्ताशौ

केसरनवनीतशर्कराभ्यासात्..... ।

अशांसि अपयान्ति रक्तानि ॥

Caraka Saṁhitā, Cikitsā, 4.

हिक्कायाम्

क्षौद्रं सिता वारणकेसरं च ।

पिबेद्रसेनेक्षुमधूकेन ॥

Suśruta Saṁhitā, Uttara, 50-23.

सोमरोगे

तक्रौदनाहारस्य सम्पिबेन्नागकेशरम् ।

त्र्यहं तक्रेण सम्पिष्टं श्वेतप्रदरशान्तये ॥

Bhāvaprakāśa, Somarogāḍhikāra, 69-11.

पाददाहहर्षे नागकेशरलेपः ।
 नागकेशरचूर्णं वा शतधौतेन सर्पिषा ।
 पिष्ट्वा लेपो विधातव्यो दाहे हर्षेऽथ पादयोः ॥

Cakradatta, Kṣudraroga cikitsā, 5-140.

रक्ताशांसि

नवनीततिलाभ्यासात् केशरनवनीतशर्कराभ्यासात् ।
 दधिसरमथिताभ्यासादर्शास्यपयान्ति रक्तानि ॥

Caraka Samhitā, Cikitsā, 14-240.

कनकारिष्टः

Caraka Samhitā, Cikitsā, 14-158/168.

NALA

Botanical name : Arundo donax Linn.

Family : Poaceae (Gramineae)

Classical name : Nala

Sanskrit names : Nala, Poṭagala, Śunyamadhya, Dhamana.

Regional names

Narkat, Narakul, Bara nal (Hindi); Nala (Beng.); Nali (Guj.); Bansi (Punj.); Gaha nal (Bengla), Alo-kya (Burm.); Great Reed Spanish cane (Eng.).

Description

A. Nala : Arundo donax Linn.

A tall reed with hollow stems; perennial reed grass, usually 6-12 feet high. Leaves tapering from an amplexicaul base. Axis of spikelets (rachillium) elongate, glabrous; flowering glume silky-hairy. Panicle thyriform.

B. Mahānala : Phragmites Karka Trin. syn.

Phragmites roxburghii (Kunth.) Steud. and P. maxima Blatter & Mecann.

A tall reed, with thick creeping rhizome, found in marshy places and along banks of lakes and streams throughout India, ascending upto 1,300 meters in the Himalayas. Stems erect, upto 6 meters high, stout, hollow, close-grained; leaves linear-lanceolate, upto 62 cm. long

and 4 cm. broad, panicles upto 60 cm. long, brownish; grains oblong. The reeds in common in many parts of India from the plains to Himalayan region (restricted to lower heights or sub tropical areas).

Distribution

It occurs in throughout India in lower areas in Himalayas from Kashmir to Assam and Nepal, ascending to 8,000 ft. elevation, and also in Nilgiris in southern India.

Chemical composition

Plant contains total cellulose 42.8 and lignin 9.4 per cent and it yields 37% of unbleached pulp, and 34% bleached pulp. Chinese Reed has been found to contain total cellulose 50.3 (α-cellulose 36.2) and lignin 15.7 and to yield 44% to bleached pulp.

Two alkaloids gramine (donaxine) $C_{11}H_{14}N_2$, mp. 138-139°, donaxarine $C_{15}H_{16}O_2N_2$, mp. 127° have been isolated from the plant. The former in small doses raises blood pressure in dogs, but in larger does it causes a fall in blood pressure. Its action is similar to that of d-pseudo ephedrine.

Pharmacodynamics

Rasa	: Kaṭu, tikta
Guṇa	: Laghu, rūkṣa, tikṣṇa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphavātaśāma

Properties and action

Karma	: Stanyajanana Rocana-dīpana-pācana-anulomana Kṛmighna Hṛdayottejaka Raktaśodhaka Mūtrājanana Svedajanana Jvaraghna Vraṇaropaṇa.
Roga	: Stanyakṣaya

Mūtrāghāta
 Kāsa-śvāsa-pratiśyāya
 Aruci-agnimāndya-ajīrṇa
 Viśūcikā
 Śūla-udaraśūla
 Kṛmiroga
 Hrddourbalya
 Vātarakta
 Raktavikāra
 Tvagdoṣa
 Jvara
 Vraṇa.

Therapeutic uses

The drug Nala is chiefly galactagogue (stanya-janana) and diuretic (mūtrājanana) herbal agent and it is used widely as diuretic (mūtrala); It is styptic or haemostatic (raktarodhaka), blood-purifier (raktaśodhana) and antipyretic (jvaraghna). It allays and pacifies raktapitta, provocation of blood (rakta prakopa), eruptive condition (visphoṭa) and burning sensation (dāha).

The roots of plant forms the drug which is used in both modes externally as well as internally in various diseases. Root drug is also an important component of valuable group of medicinal utility which is frequently prescribed in the name of Pañcatṛṇamūla entering into different forms of pharmaceuticals (kalpa).

Nala is internally administered in bastiśoṭha, mūtrakṛcchra, mūtrāghāta and other similar mutra vikāra (ailments of urinary system). It is also used as cardiac stimulant (hṛdayottejaka) and semen propelling (śukrājanana).

Externally it is applied to erysepelas (visarpa), skin diseases (tvagvikāra), ulcerative (vraṇa) and burning sensation (dāha) conditions.

The reed is of economic utility since it is suitable for manufacturing various articles and for making musical pipes (seed being hollow); it is most suitable raw material for manufacture of high grade writing paper (reed being cellulose rich).

Parts used : Stem, leaves, flowers, oil.

Dose : Decoction 50-100., Oil 1.3 drops (minims).

Group (gāṇa) : Tṛṇapañcamūla.

NALA (नल)

क. नलः पोटगलः शून्यमध्यश्च धमनस्तथा ।

ख. नलस्तु मधुरस्तिक्तः कषायः कफरक्तजित् ।
उष्णो हृद्द्वस्तियोन्यर्त्तिदाहपित्तविसर्पहत् ॥
Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi varga, 156-157.

नलः

पोटा पिटो नटो रन्ध्रो मृत्युपुष्पो विभीषणः ।
शून्यमध्यः पोटगलो धमनो नर्त्तको नखः ॥

नलगुणाः

नलस्तु मधुरस्तिक्तः कषायोष्णः कफास्रजित् ।
हृद्द्वस्तियोनिमूत्रार्त्तिपित्तदाहविसर्पनुत् ॥

Kaiyadeva Nighaṇṭu, Oṣadhi varga, 131-132.

नलः

नाली नडी नलश्चैव कुक्षिरन्ध्रोऽथ कीचकः ।
वंशान्तरश्च धमनः शून्यमध्यो विभीषणः ॥
छिद्रान्तो मृदुपत्रश्च रन्ध्रपत्रो मृदुच्छदः ।
मालवंशः पोटगल इत्यस्याह्वास्त्रिपञ्चधा ॥

Rāja Nighaṇṭu, Śālmalyādi varga, 101-102.

नलगुणाः

नलः शीतकषायश्च मधुरो रुचिकारकः ।
रक्तपित्तप्रशमनो दीपनो वीर्यवृद्धिदः ॥

Rāja Nighaṇṭu, Śālmalyādi varga, 103.

महानल-नलभेदः

अन्यो महानलो वन्यो देवनलो नलोत्तमः ।
स्थूलनालः स्थूलदण्डः सुरवालः सुरद्रुमः ॥

महानलगुणाः

देवनालोऽतिमधुरा वृष्य ईषत्कषायकः ।

नलः स्यादधिको वीर्ये शस्यते रसकर्मणि ॥

Rāja Nighaṇṭu, Śālmalyādi varga, 103.

श्रुविषे

‘नलमूलं जले पिष्टे पानलेपनयोर्हितम् ।’

Aṣṭāṅga Saṅgraha, Uttara, 46-54.

विसर्पे

‘शैवालं नलमूलानि..... ।’

पृथगालेपनं कुर्याद् द्वन्द्वशः सर्वशोऽपि वा ।

प्रदेहाः सर्व एवैते देवाः स्वल्पघृतप्लुताः ॥

Caraka Saṁhitā, Cikitsā, 21-90/92.

मूत्राघाते नलादिशिफाप्रयोगः

नलकुशकाशेक्षुशिफां क्रथितां प्रातः सुशीतलां ससिताम् ।

पिबतः प्रयाति नियतं मूत्रग्रह इत्युवाच कचः ॥

Cakradatta, Mūtrāghāta cikitsā, 33-10.

Bhāvaprakāśa, Cikitsā, 36-27.

ज्वरे

नलवेतसयोर्मूले मूर्वायां देवदारुणि ।

कषायं विधिवत् कृत्वा पेयमेतज्ज्वरापहम् ॥

Suśruta Saṁhitā, Uttara, 39-204.

NĀRAṄGA

Botanical name

Citrus aurantium Linn., Citrus reticulate Blance.

Family : Rutaceae

Classical name : Nāraṅga

Sanskrit names

Nāraṅga, Nāgaraṅga, Vaktrasugandha, Mukha-priya, Yogasāra, Yogika, Sugandha, Madhurāmla, Yogaraṅga, Gandhāḍhya, Gandhapatra, Surāṅga.

Regional names

Narangi (Hindi); Santre, Naring (Mar.); Narangi (Guj.); Naranj (Arabic); Narang (Pers.); Orange (Eng.); Sour, Bettar, Seville, Bigarade Orange (Eng.).

Description

Nāraṅga : Citrus aurantium L. Small trees rarely shrubs young shoots glabrous, greenish-white. Leaves 1-foliolate; leaflets 8-15 cm., elliptic or ovate, acute, obtuse or acuminate, petiole naked or winged, wings often obovate and nearly as large leaf-blade. Flowers bisexual pure white. Stamens 20-30.

Fruit globose, oblate, not mamillate; orange in colour rind loose or adherent; pulp sweet; yellow, rarely red.

Flowering and fruiting time

It is in flowering and fruiting stages in July-March.

Distribution

It is cultivated in India for popular edible-fruits (high content of vitamin C). Plant is grown in various regions of India; Planted in Maharashtra, Madhya Pradesh, Tamilnadu; Andhra Pradesh, Bihar, Orissa, Punjab and other regions, as fruit-gardens.

Kinds and varieties

There are two kinds of fruits commonly known as bitter orange (Karhavi narangi) and sweet orange (mithi narangi) which are botanically named as *Citrus aurantium* Linn. and *Citrus sinensis* Linn. respectively. *Citrus aurantium* Linn. is popularly known as Santara.

The source plant for Nāraṅga is *Citrus aurantium* Linn. syn. *Citrus reticulata* Balanco (including *Citrus aurantium* var. *bigarandia* of watt.). Which is named with speciality of fruits such as Sour, Bitter, Seville, Bigarede orange. This plant species has several varieties, forms and hybrids related with different factors including area of cultivation and characteristics of fruits etc.

Another medicinal fruit Moṣāmbī is allied which is botanically named as *Citrus sinensis* (Linn.) Osbeck, the Sweet orange commonly known as Mousammi or Mosami. It is a popular fruit of this group. Fruits are named as sweet orange, Tight skinned orange, Batavian and Mozambique orange.

Chemical composition

The flowers, leaves and fruits, all yield volatile oil, much valued in the perfumery trade. The fresh flowers yield two valuable products viz. Oil of Neroli Bigarade and Orange Flower water. The oil of Pentigrain obtained from leaves and young shoots (through distillation) of the plant resembles nardi oil to some extent.

Pharmacodynamics

Rasa	: Amla, madhura
Guṇa	: Guru
Vīrya	: Śīta/Uṣṇa
Vipāka	: Amla/Madhura
Doṣakarma	: Vātaśāmaka

Properties and action

Karma	: Rocana-dīpana Hṛdya Sāraka Mukhadourgandhyahara- vaktrasugandhakara Vātaghna Durjara Kṛmighna Śūlaghna Bhramahara
Roga	: Aruci-agnimāndya Vātajanya vikāra Hṛdroga Vibandha Mukhadurgandhi Vibandha Kṛmiroga Śūla Bhrama.

Therapeutic uses

The fruit and flowers of Nāraṅga are chiefly used in medicine. Fruit is one of the common edible fruits which are esteemed for their tasty and juicy quality. Fruit juice is highly medicinal. Leaves are odorous as they have oil

glands on back surface. Rind of fruit is useful to promote lustre or complexion of skin (varṇya) and it is externally used in different forms; it is also utilised for cosmetic purpose.

The drug Nāraṅga allays or pacifies provoked vāta and pitta humor (vātapitta doṣe śāmaka); it is Cardiac, haemostatic, stomachic, pleasing to mind (soumanasya-janana) and promoting desire for food and relish (rocana rucikara), anti-emetic (chardinigrahana), tonic or strength-promoting (balya) and anthelmintic (krimighna).

Part used : Fruit, flowers and rind.

Dose : Juice 25-50 ml.

Formulation : Sharbat Narang (syrup orange).

NĀRĀṄGA (नारङ्ग)

- क. नारङ्गो नागरङ्गः स्यात्त्वक्सुगन्धो मुखप्रियः ॥
 ख. नारङ्गो मधुराम्लः स्याद्रोचनो वातनाशनः ।
 अपरं त्वम्लयत्युष्णं दुर्जरं वातहृत् सरम् ॥
Bhāvaprakāśa Nighaṅṭu, Āmrādiphala varga, 63-64.
- अ. नारङ्गको योगसारो नारङ्गो यौगिको मतः ।
 गोक्षुरस्त्वक् सुगन्धः स्यात् मधुराम्लो मुखप्रियः ॥
 ऐरावतो रुचिकरः सुधा तक्राधिवासनः ।
- ब. नारङ्गमुष्णमम्लञ्च गुरु वातहरं सरम् ॥
 कफपित्तास्रकृद्यतु स्वाद्वम्लं विशदं गुरु ।
 सुगन्धि दुर्जरं रच्यं हृद्यं मारुतनाशनम् ॥
Kaiyadeva Nighaṅṭu, Oṣadhi varga, 313-314.

नारङ्गः

नारङ्गः स्यान्नारङ्गः सुरङ्गस्वगन्धश्चैरावतो वक्तवासः ।
 योगीरङ्गो नागरो योगरङ्गः गन्धाढ्योऽयं गन्धपत्रो खीष्टः ॥

नारङ्गगुणाः

नारङ्गं मधुरं चाम्लं गुरूष्णञ्चैव रोचनम् ।

वातामक्रिमिशूलघ्नं श्रमहृद्बलरुच्यदम् ॥

Rāja Nighaṇṭu, Āmrādi varga, 171-172.

अम्लं समधुरं हृद्यं विशदं भक्तरोचनम् ।

वातघ्नं दुर्जरं प्रोक्तं नागरङ्गफलं गुरु ॥

Dhanvantari Nighaṇṭu.

अम्लं समधुरं हृद्यं विशदं भक्तरोचनम् ।

वातघ्नं दुर्जरं प्रोक्तं नारङ्गस्य फलं गुरु ॥

Suśruta Saṁhitā, Sūtra, 46-161.

‘दुर्जरं वातशमनं नागरङ्गफलं गुरु ।’

Caraka Saṁhitā, Sūtra, 47-150.

NĀRIKELA

Botanical name : *Cocus nucifera* Linn.

Family : Palmae

Classical name : Narikela

Sanskrit names

Nārikela, Nālikera, Dṛḍhaphala, Lāṅgalī, Kūrca-
śīrṣaka, Tuṅga, Skandhaphala, Tṛṇarāja, Sadāphala,
Dakṣiṇātyaka.

Regional names

Nariyal, Gari, Khopra, Gola (Hindi); Narikel
(Beng.); Narel (Punj.); Khopa, Mada (tree), Naral (fruit);
Nariyal (Guj.); Tennamaram (Tam.); Narikelamu (Tel.);
Tengu (Kann.); Tenga (Mal.); Narjil (Arab.); Nargil
(Pers.); Coconut palm (Eng.).

Description

Tall trees (almost looking like palm tree), about
24.36 meters (80 ft.). Trunk high, annulate, often curved,
trunk 30 cm. - 45 cm. (1-1.5 ft.) in diam., rarely branching,
base thickened with a mass of rootlets. Ringlike leaf scars
on trunk.

Leaves 6-13 ft. long; leaflets equidistant, pinnatisect
linear lanceolate, 2-3 ft. long, petiole stout.

Spadix stout, androgynous, divided into numerous

drooping spikes bearing at their base. Male flowers with a few female flowers, the upper portion being densely covered with female flowers. Male flowers sepals small, valvate, petals 1/4 in. long, stamens 6. Female flowers ovoid, supported by several broad bracteoles, perianth accrescent, sepals 1 in. diam., round, concave, petals similar to sepals, but smaller. Cut flowers stalks yield toddy.

Fruit 3-cornered, 10-15 in. long, pericarp thick, fibrous, endocarp bony with 3 basal pores, indicating the 3 cells of the ovary. Cavity of endosperm before maturity large, filled with the cocoa-nut mulk. Nut requires 9-10 months to ripen.

Flowering and fruiting time

Plant flowers in dry season; generally flowering and fruiting cycle continues round the year.

Distribution

It is cultivated throughout the tropics, chiefly in the vicinity of the sea, but also inland. Plant is abundant in southern India, Malabar coast, Coromandel coast, eastern Bengal, islands and coast of Bay of Bengal, Sri Lanka, Burma and eastern group of Islands. Commercial produce of fruits for kernel and oil, also fruits and different parts.

Chemical composition

The kernel of fruit contains nitrogenous substances, fat, glucose, sucrose and other similar substances. Kernel yields oil 60-70 per cent which contains lauric acid (44-51.3%), myristic acid (13-18%), Caprilic acid, palmitic acid, stearic acid glycyrides. Coconut milk contains protein, sucrose, chlorides and vitamin A and B. Alkalies contain potash in good quantity.

Pharmacodynamics

Rasa	: Madhura
Guṇa	: Guru, snigdha
Vīrya	: Śīta
Vipāka	: Madhura
Doṣakarma	: Vātapittaśāmaka

Properties and action

- Karma** : Keśya (watery fluid-jala, oil-taila)
 Varṇya
 Pittaśāmaka
 Dāhapraśamana (watery fluid-jala)
 Kuṣṭhaghna-kaṇḍūghna
 Vraṇaropaṇa
 Stambhana (puṣpa-flowers)
 Amlapittahara (kṣāra-alkali, phala
 navīna-raw fruit)
 Bhedana (kṣāra-alkali)
 Raktapittaśāmaka (watery fluid,
 flowers, green or raw fruit)
 Hikkānigrahaṇa (watery fluid)
 Bṛmhaṇa-balya (fresh fruit-apakva
 phala)
 Karśana (oil-taila)
 Jvaraghna
 Vraṇaropaṇa (oil-taila).
- Roga** : Keśavikāra-khālitya-pālitya
 Masūrikā
 Carmaroga-vraṇa
 Kuṣṭha
 Vraṇa
 Tṛṣṇā-dāha-paittikavikāra
 Amlapitta-āmāśayakṣobha
 Pariṇāmaśūla-annadravaśūla-
 paittikaśūla
 Gulma-ślaiṣmika śūla
 Atisāra-raktātisāra
 Raktapitta
 Hikkā
 Mūtrāghāta-mūtrakṛcchra-
 mutravikāra (mūtravaivarṇya)
 Kaṣṭhārtava
 Vājikaraṇa
 Jvara-viṣamajvara
 Adhmāna-udara vikāra

Dourbalya-kṛṣatā
Kṣayaroga.

Therapeutic uses

The drug Nārikela or Nālikera is aphrodisiac, carminative, cooling, diuretic, refrigerant and tonic. It is used in burning sensation in human body, consumption, diarrhoea, emaciation, heart diseases, spermatorrhea and urogenital diseases. The water produced by tender coconut provides source of glucose supply in acute dehydration.

Nārikela is a reputed Keśya (hair promoting or hair beneficiary) herbal agent as the oil of coconut (nārikela taila), obtained from endosperm of coconut (fruit), applied as single drug as well as an ingredient or oil-base of several oily formulations and hair oils largely used in medicine, cosmetic and traditions including household hair care of daily routine. The oil is wound healer and antileprotic besides other uses.

The oil is edible and also employed as a cooking media and for culinary and also other similar domestic dietary needs. The oil is used in pharmaceutical processes as an ointment base. Copra, flowers, water, root and keśāra are useful besides fruits and the exocarp's fibres also used. Nārikela is useful in a number of diseases and several recipes and formulations used in medicine.

Nārikela or coconut and its various parts and several products are of commercially important in industry.

Parts used : Fruit, flowers, oil, water, root, kṣāra.

Dose : Fruit 10-20 gm., Oil 10-20 drops., Alkali 1-2 gm.

Formulation (yoga)

Nārikela Khaṇḍa, Nārikela lavaṇa, Nārikelāmṛta.

NĀRIKELA (नारिकेल)

नारिकेलस्य तालस्य खर्जूरस्य शिरांसि तु ।

कषायस्त्रिगधमधुरबृंहणानि गुरुणि च ॥

नारिकेलः

क. नारिकेलो दृढफलो लाङ्गली कूर्चशीर्षकः ।

तुङ्गः स्कन्धफलश्चैव तृणराजः सदाफलः ॥

नारिकेलगुणाः

ख. नारिकेलफलं शीतं दुर्जरं बस्तिशोधनम् ।

विष्टम्भि बृंहणं बल्यं वातपित्तास्रदाहनुत् ॥

Bhāvaprakāśa Nighaṇṭu, Āmrāphalādi varga, 38-39.

कोमलजीर्णतत्फलयोगुणाः

विशेषतः कोमलनारिकेलं निहन्ति पित्तज्वरपित्तदोषान् ।

तदेव जीर्णं गुरु पित्तकारि विदाहि विष्टम्भि मतैर्भिषग्भिः ॥

Bhāvaprakāśa Nighaṇṭu, Āmrāphalādi varga, 40.

नारिकेलादीनां शिरोगुणाः

नारिकेलस्य तालस्य खर्जूरस्य शिरांसि तु ।

कषायस्निग्धमधुर बृंहणानि गुरुणि च ॥

Bhāvaprakāśa Nighaṇṭu, Āmrāphalādi varga, 42.

नारिकेलजलगुणाः

तस्याम्भः शीतलं हृद्यं दीपनं शुक्रलं लघु ।

पिपासापित्तजित्स्वादु बस्तिशुद्धिकरं परम् ॥

Bhāvaprakāśa Nighaṇṭu, Āmrāphalādi varga, 41.

नारिकेल-नालिकेरः

नालिकेरो लतावृक्षो दृढबीजो महाफलः ।

तुङ्गस्कन्धफलाश्चोचः तृणराजः सुतुङ्गकः ॥

दृढवृक्षो दृढफला लाङ्गली कूर्चकेशरः ।

दृढबीरस्त्र्यक्षफलो दाक्षिणात्यः सदाफलः ॥

नारिकेलफलम्

चोचमस्य फलं त्र्यक्षं तोयगर्भं पुटोदकम् ।

जलं केरजलं कोष्मकरं केरफलस्थिति ॥

नालिकेरं हिमं स्निग्धं स्वादुपाकरसं गुरु ।

तर्पणं पाचनं वृष्यं बृंहणं बलमांसकृत् ॥

विष्टम्भि दुर्जरं हृद्यं श्लेष्मलं बस्तिशोधनम् ।

दाहक्षतक्षयहरं वातपित्तास्रनाशनम् ॥

Kaiyadeva Nighaṇṭu, Oṣadhi varga, 26-7-269.

शूलचिकित्सायाम् अपरो नारिकेलखण्डः

Cakradatta, Śūla cikitsā, 26/35-40.

नारिकेलोदकम्

तस्योदकं हिमं स्निग्धं मधुरं बस्तिशोधनम् ।

दीपनं शुक्रलं हृद्यं लघु तृड्दाहपित्तनुत् ॥

Kaiyadeva Nighaṅṭu, Oṣadhi varga, 270.

नारिकेलक्षीरम्

वृष्यं स्निग्धं नारिकेलस्य दुग्धमीषत् कुर्यात् पित्तदाहो गुरु स्यात् ।

उष्णं हन्याद् वातगुल्मं बलासं बल्यं रुच्यं कासहत् स्वादुपाके ॥

Kaiyadeva Nighaṅṭu, Oṣadhi varga, 271.

नारिकेलघृतम्

नालिकेरोद्भवं सर्पिर्बृहणं बलवर्धनम् ।

केश्यं पित्तानिलहरं मधुरं रसपाकयोः ॥

हृद्यं रुच्यं नवं प्रोक्तं पुराणं गुरुवातनुत् ।

तिक्तमहृद्यं मधुरं कण्डूकोठहरं परम् ॥

Kaiyadeva Nighaṅṭu, Oṣadhi varga, 272-273.

नारिकेलतैलम्

नालिकेरोद्भवं तैलं बृहणं बलवर्द्धनम् ।

केश्यं पित्तानिलहरं दन्त्यं मधुरमेव च ॥

स्वादुपाकरसो रक्तपित्तघ्नः कफनाशनः ।

ग्रहणीदीपनानाहहितस्तद्वल्कजो रसः ॥

Kaiyadeva Nighaṅṭu, Oṣadhi varga, 274-275.

नारिकेलशर्करा

शर्करा नालिकेरस्य मधुरा वातपित्तजित् ।

नारिकेलपुष्पम्

नालिकेरप्रसूनं तु रक्तपित्तप्रमेहनुत् ॥

रक्तातिसारं हरति महालोहितनाशनम् ।

शीतलं सोमरोगघ्नं विबन्धं कुरुते भृशम् ॥

Kaiyadeva Nighaṅṭu, Oṣadhi varga, 276-277.

नारिकेलशिरोमज्जा

तद्द्रुमस्य शिरोमज्जा मधुरो रसपाकयोः ।

वातपित्तास्त्रशमनः शुक्रश्लेष्मविवर्धनः ॥

Kaiyadeva Nighaṅṭu, Oṣadhi varga, 278.

नारिकेलतरुतोयम् (मदम्)

नालिकेरतरुतोयमतीव स्निग्धमाशु मदकृद् गुरु वृष्यम् ।

साम्लभावमुपयात्यपराह्णश्लेष्मपित्तकरवातकृमिघ्नम् ॥

Kaiyadeva Nighantu, Osadhi varga, 279.

ज्वरे

तुङ्गद्रुमस्य तरुणानि फलानि चर्म चत्वारि किञ्चिदपनीय जलस्य कुम्भे ।

पक्त्वा गते तदुदके पीतमेकं संसाधयेज्ज्वरमतीव चिरन्तनं द्राक् ॥

Vaidya Manoramā, 1-17.

अम्लपित्ते नारिकेलखण्डम्

अ. कुडवं नारिकेलस्य जले मृद्वग्निनां पचेत् ।

नारिकेलजलाला गव्ये पयसि तत्पचेत् ॥

धान्यकं पिप्पली मुस्तं चातुर्जातं विचूर्णितम् ।

प्रत्येकं टङ्कणमात्रं तु शीते तस्मिन्विनिक्षिपेत् ॥

पलमात्रस्तद्धोऽपि भक्षितः प्रत्यहं नरैः ।

ब. नारिकेलस्य खण्डोऽयं पुंस्त्वनिद्राबलप्रदः ॥

अम्लपित्तं रक्तपित्तं शूलञ्च परिणामजम् ।

क्षयं क्षपयति क्षिप्रं शुष्कं दार्वनलो यथा ॥

स. पलमात्रगव्यघृतेन नारिकेलस्य भर्जनं कर्तव्यमिति सम्प्रदायः ।

Bhāvaprakāśa, Amlapittādhikāra, 10-23/28.

अम्लपित्ते बृहन्नारिकेलखण्डः

Bhāvaprakāśa, Amlapittādhikāra, 10-27/32.

Cakvadatta, 16-13/16.

परिणामशूले नारिकेलक्षारम्

नारिकेलं सतोयञ्च लवणेन सुपूरितम् ।

मृदाऽववेष्टितं शुष्कं पक्वं गोमयवह्निना ॥

पिप्पल्या भक्षितं हन्ति शूलं हि परिणामजम् ।

वातिकं पैत्तिकञ्चापि श्लेष्मिकं सान्निपातिकम् ॥

Bhāvaprakāśa, Madhyakhaṇḍe, Cikitsā

Prakarāṇa Śūlādhikarah, 30/66-67.

परिणामशूलचिकित्सायां नारिकेललवणम्

नारिकेलं सतोयञ्च लवणेन प्रपूरितम् ।

विपक्वमग्निना सम्यक् परिणामशूलनुत् ॥

वातिकं पैत्तिकञ्चैव श्लैष्मिकं सान्निपातिकम् ।

Cakradatta, Pariṇāmasūla cikitsā, 27/21-22.

परिणामशूलचिकित्सायां नारिकेलखण्डः

क. कुडवमितमिह स्यान्नारिकेलं सुपिष्टम्
पलपरिमितसर्पिः पाचितं खण्डतुल्यम् ।
विजपयसि तदेतत् प्रस्थमात्रे विपक्वं-
गुडवदथ सुशीते शाणभागान् क्षिपेच्च ॥

ख. धन्याकपिप्पलिपयोदतुगाद्विजीराच्छाणं
त्रिजातीमकेशरवद्विचूर्ण्य ।
हन्त्यम्लपित्तमरुचिं क्षयमस्रपित्तं शूलं
वमिं सकलपौरुषकारि हारि ॥

Cakradatta, 27/77-79.

नेत्ररोगे अनन्तवातेषु नारिकेलजलपानम्

‘पिबेत् सशर्करं क्षीरं नीरं वा नारिकेलजम् ।’

Cakradatta, Śīroroga cikitsā, 60-46.

अम्लपित्ते

पित्तहृत्कम्पतृणमूर्च्छाभ्रमादीन् घ्नन्ति दारुणाम् ।
नालिकेराम्बुना पीताः सक्तवः समशर्करा ॥

Vaidya Manoramā, 4-17.

परिणामशूले

नारिकेललवणम् ।

Cakradatta, 27-21/22.

छर्द्याम्

‘खर्जूरमांसान्यथ नारिकेलं द्राक्षामथो वा बदराणि लिह्यात् ।’

Caraka Saṁhitā, Cikitsā, 20-28.

विपादिकायाम्

नालिकेरोदरे न्यस्तस्तण्डुलः पूतितां मतः ।

लेपाद् विपादिकां हन्ति चिरकालुबन्धिनीम् ॥

Vrṇdamadhava, 51-37.

व्रणे

‘जीर्णञ्च नालिकेरस्य तैलं हन्याद् व्रणं द्रुतम् ।’

Vaidya Manorama, 16-109.

क्रिमिरोगे

‘नालिकेरस्य निर्यूहः क्रिमिहास्यात् सरामठः ।’

Vaidya Manorama, 11-65.

शर्करायाम्

‘.....दध्ना पीतं वा नारिकेलजं कुसुमम् ।

विण्मूत्र शर्करायाः भवति सुखी कतिपयैः दिवसैः ॥’

Bhavaprakasa, Cikitsa, 37-50.

सूर्यावर्त्ताधविभेदकयोः

पिबेत् सशर्करं क्षीरं नीरं वा नालिकेररजम् ।

सुशीतं चापि पानीयं सर्पिर्वा नस्ततस्तयोः ॥

Vrindamadhava, 62-43.

NATAPUṢPIKĀ- ADHAḤPUṢPĪ

Botanical name : *Trichodesma indicum* R. Br.

Family : Boraginaceae

Classical name : Adhaḥpuṣpī, Natapūṣpikā

Sanskrit names : Adhopuṣpī, Adhaḥpuṣpī, Natapūṣpikā.

Regional names

Andhahuli (Hindi); Jindhi, Gaboja (Mar.);
Undhahuli (Guj.); Chetarahuli (Bengla).

Description

An annual herb, rough with appressed hairs, bulbous-based stiff hairs. Stem erect, or diffuse, upto 18 in. long.

Leaves mostly sessile, 3-4 in. long, ovate-oblong or lanceolate, obtuse or subacute; base narrowed, cordate; upper surface clothed with stiff hairs, seated on flattened circular tubercles; lower surface less harshly hispid; more or less villous or quite glabrous except on the nerves and veins.

Flowers pale blue, changing to pink or white. Calyx about 1/2 in. long, clothed with long rather stiff hairs; seg-

ments lanceolate, acute, cordate or hastate at the base. Corolla 3/4-1/3 in. long; limb oblique, funnel-shaped; lobes ovate, abruptly acuminate.

Nutlets 1/3 in. long, smooth and polished on the back, regose, on inner face, sparsely margined, white or bluish when ripe.

Flowering and fruiting time

Plant flowers during cold season and fruiting stage begins afterward.

Distribution

Plant occurs throughout India and in Sri Lanka, ascending to 5,000 ft. on the Himalaya; extending to Afghanistan; Baluchistan, Persia and the Mauritius. It is commonly grows along road-sides and in waste places in various regions in country.

Pharmacodynamics

Rasa	: Kaṭu, tikta
Guṇa	: Laghu, rūkṣa
Vīrya	: Uṣṇa
Vipāka_	: Kaṭu
Doṣakarman	: Kaphavātaśāmaka

Properties and action

Karma	: Śothahara Vedanāsthāpana Raktaśodhaka-śothahara Viṣaghna-jaṅgamaviṣahara Mūtrala Garbhāśayasaṅkocaka Tvacya Jvaraghna Cakṣuṣya Dīpana-grāhī
Roga	: Śotharoga-raktavikāra Sandhivāta-āmvāta Vraṇaśoṭha Viṣa-sarpaviṣa Carmavikāra

Jvara
 Agnimāndya-pravāhikā-grahaṇī
 Mūtrakṛcchra
 Rajahkṛcchṛtā-ārtavavikāra
 Mūḍhagarbha
 Netrābhiṣyanda.

Therapeutic uses

The leaves and flowers of Adhaḥpuṣpī are eaten. The herb is credited with emollient and diuretic properties and is used for making emollient poultices. It is prescribed for the expulsion of dead foetus and abnormal posture of foetus (in uterus) during delivery. An infusion is considered depurative.

The root (adhaḥpuṣpī mūla) is pounded and made into a paste for application on the swellings, particularly of the joints. The root is also for the treatment of dysentery and fever.

The flowers (adhapuṣpī puṣpa) are considered to be employed as a sudorific and pectoral medicine.

In general, the drug Adhopuṣpī is anti-inflammatory (śothahara) medicine which is also analgesic (vedanāsthāpana). Whole plant is pounded and paste is applied externally on swollen joints, boil and other condition of pain and inflammation; it is also pasted in conjunctivitis.

The herb is used in loss of appetite, dysentery, blood impurity, rheumatism, arthritis, dysuria, dysmenorrhoea, skin affections, snake bite (root's external application) oedema, fever and other ailments.

Parts used : Root, whole plant.

Dose

Root (paste) 5-10 gm., Juice (whole plant) 10-20 ml.

ADHAḤPUṢPĪ (अधःपुष्पी)

अधःपुष्पी रसे तिक्ता कट्वी लघ्वी प्रशस्यते ।

वीर्योष्णा कफवातघ्नी ब्रणशोथहरा परम् ॥

Dravyaguna Vigyana, part II, p. 233.

NĪLĪ

Botanical name : *Indigofera tinctoria* Linn.

Family : Fabaceae (Papilionaceae)

Classical name : Nīlī

Sanskrit names

Nīlī, Nīlinī, Rañjanī, Grāmīnā, Nilapuṣpa, Śārādī.

Regional names

Nila (Hindi); Nila (Beng.); Nili (Mar.); Gali (Guj.); Lila (Mal.); Nilam, Avari (Tam.); Aviri, Nilachettu (Tel.), Nilaj (Arabic); Darakhte nil (Pers.); Indigo (Eng.).

Description

Much branched, appressed-hairy profuse shrubs 0.3-2.0 m. (2-3 ft. high) or 60-120 cm. high shrubs, with slightly angular-silvery pubescent branches.

Leaves imparipinnate 5-10 cm. long; petiole short; leaflets elliptic or oblong; appressed pubescent beneath; stipule minute setaceous. Petiole 12-15 mm. long; leaflets 7-13 obtuse or retuse; 10-25 x 5-12 mm., pubescent, beneath.

Racemes axillary, subsessile, 4-12 cm. long, many-flowered. Calyx 1-2 mm. long; pubescent. Corolla lilac red, 3-5 mm. long.

Pods 2-4 cm. long, turgid, straight or slightly curved 8-10 seeded, apiculate, glabrous.

Flowering and fruiting time

Generally herb begins blooming in rains and fruits in autumn.

Plant bears flowers and fruits in July-May. Greater part of the year. It flowers in September and fruits in December.

Distribution

Plant occurs in tropics. Plant occasionally grows on ridges, near ponds and ditches, along the roads or railway tracks and other places.

Agro-techniques for cultivation of drug plant *Indigofera tinctoria* Linn. (Nīlī) find that the seedlings are

raised from seed and transplanted in well prepared flat beds in February giving a spacing of 45 x 45 cm. The plot can be made, for the example, with an area of 400 cm. or more (for trial as well as general cultivation). Watering is given to the plants once in two days in the beginning, followed once a week from March onwards. As regards manuring, the cow dung application is made in the form of slurry with urea for inducing quick growth. Leaves of the plant become matured for harvest in two months period. First harvest of leaves is done after two months of planting and at two months intervals subsequently. Application of cow slurry is repeated. Finally the harvesting give produce of leaves of drug.

Chemical composition

Phytochemical studies find the presence of alkaloids in the alcoholic extract of leaves. It also showed steroids in chloroform, alcohol and water extractions. Presence of protein, carbohydrate and steroids were also noted in alcohol and water extractions. Tests for saponins were positive only in water extract. Analysis of the root powder shows the presence of protein in alcoholic extract. Carbohydrates are present in chloroform, alcohol and water extracts. Carbohydrate in chloroform may be an indication of the glycoside. Plant contains a glucoside Indican. Herb gives ash 4.5 per cent.

Pharmacodynamics

Rasa	: Tikta
Guṇa	: Laghu, rūkṣa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphavātaśāmaka

Properties and action

Karma	: Keśya-keśarañjana-keśavardhana Kuṣṭhaghna Vraṇaropaṇa Viṣaghna Kṛmighna Lekhana
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	Vedanāsthāpana
	Uttejaka
	Yakṛduttejaka
	Śūlapraśamana
	Hṛdya
	Raktaprasādana
	Śothahara
	Mūtrājanana
	Kaphaghna
	Viṣamajvara pratibandhaka
	Moha bhramahara
	Vātaghna
	Recana.
Roga	: Keśavikāra-pāḷitya-khāḷitya
	Tvagvikāra-kuṣṭha-dadru-kilāsa
	Viṣa-kukkuradamṣṭra-maṇḍalīviṣa
	sarpaviṣa
	Vraṇa
	Visarpa
	Āmavāta-sandhivāta
	Netraroga
	Aśmarī-mutrakṛcchra
	Kāsa-śvāsa-phupphusaśoṭha
	Viṣamajvara
	Raktavikāra
	Vātarakta-āmavāta
	Udāvarta-jalodara-vibandha-gulma
	Kṛmiroga
	Yakṛtplihodara
	Mastiṣkadourbalya-mada-mūrcchā-
	bhrma
	Dantakrimi
	Pakvāśayagataviṣa.

Therapeutic uses

The drug Nīlī or Nilinī is purgative in action, bitter and hot. It improves hair and cures prameha and giddiness and useful against abdominal enlargement of spleen, vātarakta, kapha, vāta, āmavāta, udāvarta, alcoholic intoxication and severe poison. The plant drug has bitter bad

taste and it lessens inflammation. The drug cures chronic bronchitis and asthma (especially of children), piles, leucoderma, bites of insects and reptiles, burns, scalds, ulcers and skin diseases.

The juice of the leaves has great repute as a cure for hydrophobia, being administered both internally and externally.

The seeds (tukhme nil), leaves (vasma, varkunnil) and whole plant are used in medicine and other similar purposes. Plant has historical and traditional importance as Indigo plant which is source of well known Indigo dye. It was under commercial cultivation and production at large scale for procurement of Indigo dye (blue colour substance) which has been later replaced by synthetic blue dye. The value of herb as source of colouring matter (Indigo dye) has been given applied importance in medicine as well as cosmetics with special reference to Āyurveda and other indigenous systems of medicine.

Parts used : Whole plant, Seeds, leaves, roots.

Dose : Decoction 50-100 ml., Root extract 125-250 mg.

Group (gana)

Virecana (Caraka Saṁhitā), Adhobhāgahara (Suśruta Saṁhitā).

NĪLĪ (नीली)

- क. नीली तु नीलिनी तूणी काला दोला च नीलिका ।
रञ्जनीश्रीफली तुच्छा ग्रामीणा मधुपर्णिका ॥
- ख. कर्लातका कालकेशी नीलपुष्पा च सा स्मृता ।
नीलिनी रेचनी तिक्ता केश्या मोहभ्रमापहा ॥
उष्णा हन्त्युदरप्लीहवातरक्तकफानिलान् ।
आमवातमुदावर्तं मदं च विषमुद्धतम् ॥

Bhāvaprakāśa Nighaṅṭu, Guḍūcyādi varga, 207-209.

नीली

नीली तु कटुतिक्तोष्णा केश्या कासकफामनुत् ।
मरुद्विषोदरव्याधिगुल्मजन्तुज्वरापहा ॥

महानीली

अन्या चैव महानीली अमला राजनीलिका ।
तुत्था श्रीफलिका मेला केशार्हा भृशपत्रिका ॥
महानीली गुणाढ्या स्याद्रङ्गश्रेष्ठा सुवीर्यदा ।
पूर्वोक्तनीलिकादेश्या सगुणा सर्वकर्यसु ॥

Rāja Nighaṇṭu, Śatāhvādi varga, 84-85.

नीलिनी

नीलिनी नीलिका नीली काली दोला विशोधनी ।
ग्राम्या तुच्छा नीलपुष्पी सारटी भारवाहिनी ॥

नीलीगुणाः

नीली तिक्ता रसे पाके सरोष्णा भ्रममोहकृत् ।
कफानिलहरा केश्या प्लीहोदरविषापहा ॥
वातरक्तमुदावर्त्तमामवातगदं हरेत् ।

Kaiyadeva Nighaṇṭu, Oṣadhi varga, 791-793.

नीलिका नीलपत्रा स्याच्छरपुङ्खदला च सा ।
बहुशिम्बा कालिका च रङ्गपत्री च रञ्जनी ॥

Śivadatta.

नीली तिक्ता रसे चोष्णा कटिवातकफापहा ।
केश्या विषोदरं हन्ति वातासृक्क्रिमिनाशनी ॥

Dhanvantari Nighaṇṭu.

मण्डलीविषे

‘तन्दुलजलेन पिष्टं नीलिन्या मूलमाशु नाशयति ।
पानेन मण्डलीविषम्..... ॥’

Rāja Mārtaṇḍa.

विसर्पे

प्रातः पयसा पीता लिप्ता च विसर्पकं जयेन्नीली ।
तत्क्षीरं च तथाऽस्याच्छुम्भनिशुम्भौ यथा दुर्गा ॥

Vaidya Manoramā.

मूत्रकृच्छ्रे

मूत्रकृच्छ्रं जयेत्पीता क्षीरेण शिखरीशिफा ।
अजाक्षीरेण सम्पिष्य पीता नीलीजटा तथा ॥

Vaidya Manoramā, 11-12.

क्षये

‘गोक्षीरमुस्तं प्रशमाय तस्य स्यात्रीलिनीमूलमथामयस्य ॥’

Śoḍhala, Gadanigraha, 2-9-80.

कृमिदन्ते

नीली धात्री स्नुही बिम्बी हेमक्षीरी च पञ्चमी ।

Śoḍhala, Gadanigraha, 3-5-170.

पक्काशयगते विषे

‘विरेचने ससर्पिष्कं तत्रोक्तं नीलिनीफलम् ।’

Suśruta Samhitā, Kalpa, 1-46.

जालगर्दभे शमनाय नीलीमूललेपः

नीलीपटोलमूलाभ्यां साज्याभ्यां लेपनं हितम् ।

जालगर्दभरोगे तु सद्यो हन्ति च वेदनाम् ॥

Cakradatta, Kṣudraroga cikitsā, 55-23.

पलिते (अन्यविकाराणां) महानीलतैलम्

Cakradatta, Kṣudraroga cikitsā, 55-126-133.

दन्तक्रिमिहरा योगाः (नीलिकादयाः एकोषधिप्रयोगाः)

‘नीलीवायसजङ्घास्त्रुगदुग्धीनान्तु मूलमेकैकम् ।’

Cakradatta, Mukha (Danta) roga cikitsā, 56-31.

उदरे

नीलिन्यादिचूर्णम् ।

Caraka Samhitā, Cikitsā, 13-147.

सर्पविषे

तण्डुलजलेन पिष्टं नीलिन्याः मूलमाशु नाशयति ।

पानेन मण्डलिविषं यदि वा लज्जावतीमूलम् ॥

Rāja Mārtaṇḍa, 29-8.

गुल्मे

नीलिन्याद्यं घृतम् ।

Caraka Samhitā, Cikitsā, 5-176/179.

नीलिनीत्रिवृतादन्ती पथ्या कम्पिल्लकैः सह ।

शोधनार्थं घृतं देयं सविडक्षारनागरम् ॥

Caraka Samhitā, Cikitsā, 5-175.

NIMBA

Botanical name : *Azadirachta indica* A. Juss.

Family : Meliaceae

Classical name : Nimba

Sanskrit names

Nimba, Picumarda, Hinguniryāsa, Picumanda, Ariṣṭa, Paribhadra, Tiktaka.

Regional names

Nima (Hindi); Nim (Beng.); Kadunimba (Mar.); Limarho (Guj.); Vembu, Vempu (Tam.); Nibarh (Punj.); Veppu (Mal.); Nimu (Si.); Azad darakhthe hindi (Pers.); Azad darakhtul hind (Aradic); Margosa tree (Eng.).

Description

Shady trees, upto 25 meters tall. Bark grey, crecked and rough on mature branches. Leaves up to 30 cm. long, leaflets 5-13 or 12-16, obliquely lanceolate, 3-7 x 1-3 cm. cuneate at base; dentate at margins, crenate-serrate, oblique, upto 6 x 2 cm.

Panicles upto 30 cm. long, long peduncled. Flowers white, Ca 10 mm. across; flowers 2 merous, often upto 8-merous. Calyx 5-fid, lobes ovate. Petals oblanceolate, Ca 5 mm. Staminal tuber dilated above, 10-fid at tip; anthers exerted. Ovary globose 3-locular; style elongate; stigma 3-lobed, with a basal rim.

Fruits baccate, 1-seeded, pulpy, green when young, yellow when ripe; drupe globose, pulpy white with a very large exarillate seed. Drupes (fruit) ovoid-oblong.

Flowering and fruiting time

Plant flowers during February to April and it bears fruits in April-June. Flowering and fruiting during spring to summer season.

Distribution

Plant is commonly found throughout India and specially in drier and warmer regions of north-western and central India. It is very common, planted in gardens, along,

roadside in house premises and it also occurs as self-grown. Trees are found in both states-cultivated or planted as well as wild or natural. It is popularly planted as shade tree purifying the atmosphere at various places. Plant is wild in dry and warm forest regions.

Chemical composition

Bark contains nimbine or margosine, a resinous principle, nimbidine, nimbine 0.03, nimbosterol, a volatile oil and tannin 6%. Flowers also yield a volatile oil. Leaves contain bitter substance in lesser quantity but is more soluble in water in comparison to solubility of bark bitter substance.

Taddy or sap contains bitter substance, glucosen, glucose, colouring matter, gum protedes and ash. Ash contains potassium, iron, aluminium, calcium and carbon dioxide.

Seeds yield fixed oil upto 40 per cent which is known as margosa oil.

Margosa oil contains bitter substance, oleic acid 49-61%, linoleic acid 2-1/5%, palmitic acid 12-15%, stearic acid 14-23% etc. and nimbosterol and other contents.

Pharmacodynamics

Rasa	: Tikta, Kaṣāya
Guṇa	: Laghu
Vīrya	: Śīta
Vipāka	: Kaṭu
Doṣakarma	: Kaphapittaśāmaka

Properties and action

Karma	: Kaṇḍūghna-kuṣṭhaghna Jantughna-saṅkramaṇanirodhaka- pūtiḥara Dāhapaśamana Vraṇapācana-vraṇaśodhana- vraṇaropaṇa Vedanāsthāpana Rocana-grāhī Yakṛduttejaka
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	Kṛmighna
	Raktaśodhaka
	Śoṭha
	Kaphaghna
	Garbhāśayottejaka
	Āmapācana
	Jvaraghna-viṣamajvaraghna
	Balya
	Cakṣuṣya
	Viṣaghna
	Śramahara
	Tṛṣṇānigrahaṇa
	Mehaghna
	Pittaśāmaka
	Keśya
	Dantya-mukhdourgandhyahara
	Jvaraghna
	Rasāyana.
Roga	: Kaṇḍū-kuṣṭha-tvagvikāra
	kṣudraroga
	Vraṇa-granthi-vidradhi-apaci-
	nāḍivraṇa-gaṇḍamālā
	Viṣphoṭa-visarpa
	Śītapitta-udarda-koṭha
	Keśa vikāra-khālitya-pālitya
	Aruci-hṛllāsa-vamana (chardi)-
	grahaṇī-vibandha
	Yakṛdvikāra
	Kṛmiroga
	Amlapitta-ūrdhvag amlapitta-
	kaphapaittika chardi
	Arsā-raktārśa
	Raktavikāra-raktaduṣṭijanita vikāra
	Upadaṁśa-phiraṅga
	Prameha-madhumeha-surāmeha
	Balya
	Jvara-viṣamajvara
	Netraroga-netrābhiṣyanda

Kaṣṭaprasava-sūtikāroga
 Kāsa-śvāsa
 Dantaroga
 Yoniroga.

Therapeutic uses

The drug Nimba (*Azadirachta indica* A. Juss.) is anthelmintic, antiseptic, bitter, deodorant, diuretic, emmenagogue and febrifuge. It is used in blood disorders (impurities), consumption and eye diseases. Drug is useful in intermittent fevers as well as persistent low fever, leprosy, scrofula, skin diseases, ulcers and wounds. The active principle Nibmidin from the bark and the oil was found useful in tropical eosinophilia.

Nimba is chiefly used in several skin affections (tavgdoṣa and kṣudra roga); the bath with water boiled with leaves (nimba patra snāna) is most common and effective measure for treating the skin diseases. Leaves paste is applied to boil, ulcers, abscess, glandular inflammation and other similar ailing conditions. In sinus (nāḍivraṇa) and scrofula (apaci), the Nimba varti is applied made with oil of Nimba. Oil is applied in rheumatic joint swelling and other diseases. Seeds are ground and applied to hairs head for destroying sira krmī (yūka-likṣa etc.). In greying of hairs (pālitya) and khālitya, a snuff of seed-oil is recommended. Leave juice or its foam is suggested to be applied over affected body part.

The seed-oil (nimba taila) is used in diabetes (madhu-meha). Nimba taila picu is suggested to be kept into vagina during coitus (sambhoga-maithuna) for avoiding conception which is a local contraceptive with promising results and effective administration carrying base of classical texts as well as pharmacological and biological, and experimented support with the trials on couple subjects, adopting contraceptive measure of Nimba tail application and showing encouraging reports of action as an antifertility drug.

The seeds powder is given in suerperal diseases (sūtikāroga) and also in painful or difficult delivery

(kaṣṭhāprasava). The bark juice or decoction is given in cough (kāsa). Bark is given in fevers especially malarial and periodic fevers. The diseases caused by blood impurity, syphilis and gonorrhoea are treated with Nimba.

Bark juice mixed with honey is given in vomiting, aruci, grahaṇī, worms and liver disorders, Nimba is recommended in amlapitta (hyper acidity and peptic ulcer) and kaphapittaja chardi. Seeds are given for eradicating pile or haemorrhoids (as arśoghna drug) as an effective remedy. Seeds are also given in constipation.

Almost all the parts of Nimba (tree) are medicinal and used as preventive as well as curative remedies for a large number of diseases through a wideranging recipes and formulations prepared and administered externally and internally with suitability and clinical requirement out of rich therapeutics employing Nimba in medical systems and traditions including tribal herbal practices. Nimba is common, dependable and convenient household medicine, health protector and useful plant remedy among folks and also urban peoples.

The wide ranging, multifarious and polyutility of Nimba makes it most popular and creditable plant source in environment, pollution, drugs, health care, cosmetics, insecticides, industry, pesticides, manures, plantation and various fields which practically support Nimba occupying leading place and separate identity nowadays.

Parts used

All parts : leaves, flowers, fruits (seeds), bark, stem, branches, etc. (pañcanibma-nimba pañcāṅgam, śalāka, nīrā etc.).

Dose

Juice 10-20 ml., Decoction 50-100 ml., Oil, 5-10 drops.

Formulations (yoga)

Nimbādi cūrṇa, Pañcanimba cūrṇa, Pañcatikta pānaka, Nimbāriṣṭa, Nimbaharidrākhaṇḍa, Arśoghni vaṭī, Nimbādi ghṛta.

Groups (gana)

Kaṇḍūghna, Tiktaskandha (Caraka Saṁhitā),
 Āragvadhādi, Guḍūcyādi, Lākṣādi (Suśruta Saṁhitā).

A. KAIDARYA**Botanical name**

Murraya koenigii Spreng. syn. *Bergera Koenigii*
 Linn.

Family : Rutaceae

Description

A small pubescent tree with a short trunk and a close shady crown; leafless during short time in the hot season, all parts with a powerful peculiar smell. Leaflets 11-25 from an oblique base ovate-lanceolate, 1 in. long. Flowers white, in terminal corymbose panicles. Ovary 2-celled, style short, cylindrical. Fruits 1/2 in. diam. black rugose.

Distribution

Plant occurs in outer Himalaya, from the Ravi eastward, ascending to 5,000 ft. Assam, Chittagong, Burma, Upper and lower. Evergreen and deciduous forests of the Peninsula often as underwood.

***Murraya exotica* Linn.**

A large shrub or small tree, evergreen youngest parts pubescent. Bark ash-grey, wood white, close-grained, resembling boxwood. Leaflets usually 5-7 quite glabrous, shining, 1-3 in long. Flowers campanulate, 1 in. long, white, fragrant, in short axillary and terminal corymbs. Ovary linear, 2-celled, style filiform, stigma capitate. Berries 1/2 in. long, red, acuminate at both ends, 2-seeded.

Flowering and fruiting time

Plant flowers during the period from March to September, and fruiting stage begins afterwards.

Distribution

Plant occurs in outer Himalaya from the Jumna eastward, ascending to 4,500 ft. Assam, Burma, Upper and lower Satpura range. Hills of the Peninsula.

Gendhla, Gandhela, Karhinim, Karhipatta, Kathnim (Hindi); Kariberu (Kan.); Kare paku (Tel.) are regional names of *Murraya Koenigii* Spreng. Curry Leaf Tree.

Karinim, Marchula (North-west); Bilyar (U.P. Doon valley); Otali (Kol.); Karcpaka (Tel.); Konji (Tam.); Thanatka (Burm.) are regional names of *Murraya exotica* Linn. syn. *Murraya paniculata* (Linn.) Jacq. Orange Jasmine Tree.

B. MAHĀNIMBA

Botanical name : *Melia azedarach* Linn.

Family : Meliaceae

Description

A medium-sized deciduous tree, young shoots and inflorescence sparsely clothed with deciduous stellate hairs; heartwood light-red; annual rings marked by of a large vessels.

Pinnac 3-4 pair, more or less opposite. Leaflets 3-12, ovate-lanceolate, more or less, deeply serrate, sometimes lobed.

Flowers lilac, with a strong honey-scent. Staminal tube purple, 1/3 in. long, teeth linear; anthers glabrous, shorter than or long as teeth. Stigma clavate 5-toothed.

Drupe yellow when ripe, 1/4 in. long.

Flowering and fruiting time

Plant flowers in March-May and fruiting in cold season. Leafless in December-March.

Distribution

It is cultivated and naturalised throughout India and Burma. It stands more cold than *Azadirachta indica* Linn. (Nimba).

Plant occurs in lower regions in Himalaya at 2,000-3,000 feet altitude (602-914.4 meters) normally and it may ascend to higher elevation. It is found in Kashmir, Southern India and various other regions in India. It also grows in Afghanistan, Persia and China.

Chemical composition

The active and potent principle of plant drug is a non-crystalline, yellowish, bitter and resinous substance. It contains sugar. Outer portion of bark contains tannin. Inner bark is potent part of the plant. Fruits contain a toxic constituent. Besides an antipyretic bitter principle margosin is yielded which is alike *Azadirachta indica* Linn. (Nimba). Fixed oil of fruit-kernel (seed) contains sulphur and seeds (kernel) oil is similar to *Margosa* oil or *Nimba taila* (oil of seeds of *Azadirachta indica* Linn.)

Pharmacodynamics

Rasa	: Tikta, kaṭu, kaṣāya
Guṇa	: Laghu, rūkṣa
Vīrya	: Anuṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphapittaśamaka Vātaśamana

Properties and action

Karma	: Arśoghna Kuṣṭhaghna Kṛmighna Raktaśodhana Kaṭupouṣṭika-balya (lower dose) Garbhāśaya saṅkocaka Pramehaghna
Roga	: Arśa Kuṣṭha-tvagvikāra Raktaduṣṭijanya vikāra Prameha Jvara

Therapeutic uses**A. Kaidarya**

The leaves of *Murraya paniculata* (Linn.) Jacq. are reported to possess antibacterial (antibiotic) activity against *Micrococcus poyogenes* and *Escherichia coli*.

The drug *Kaidarya* is also named as *miṣṭanimba* (or *mithaneem* or *karpineem*) which is obtained from the plant *Murraya koenigii* Spreng, especially leaves; its various

parts such as leaves, fruits, roots and bark are medicinally useful. The leaves are extensively employed as flavouring in curries and chutneys; the leaves are commonly mixed, fried and used in various food articles and dietary regimens in some regions of country in particular.

The leaves, root and bark of Kaiḍarya are, ingeneral, considered tonic, stomachic and carminative. Leaves are used orally in dysentery and diarrhoea, and also for checking vomiting. Leaves are topically applied on bruises and eruptions. The juice of the root is taken to relieve pain associated with kidney. The fruits are edible.

The leaves, rootbark and twigs are also medicinally useful of this plant.

B. Mahānimba

The drug Mahānimba is also named as ramyaka and dreka, (Bakain or mahaneem) which is obtained from *Melia azedarach* Linn., especially roots, fruit, leaves and bark having medicinal utility.

Mahānimba is anti-haemorrhoidal (arśoghna) herbal agent, with anthelmintic, analgesic, antidermatosis, wound healing, carminative, astringent, haemostatic, blood purifying, acbolic, febrifuge, bitter tonic and poison countering and germicidal properties.

The root bark is given in sciatica. It is used in piles, worms (round worms), cough, asthma, dysmenorrhoea, prameha, eye and skin affections, leprosy, periotic fevers, poison (ratbite), general debility, blood impurities, gulma and vāta vyādhi.

Parts used : Root-root bark (fresh), Inner bark, Leaves, Flowers, Fruits-seeds, Seeds kernel oil.

Dose

Seeds powder 1/2-1 gm., Bark 6 gm. - 12 gm., Bark decoction 30 gm. - 60 gm., Leaves juice 12 gm. - 24 gm., Leaves powder 2 gm. - 4 gm.

NIMBA (निम्ब)

निम्बस्तिक्तः कटु पाके लघुः शीतोऽग्निवातकृत् ॥

ग्राह्यहृद्यो जयेत् पित्तकफमेहज्वरकृमीन् ।

कुष्ठकासारुचिश्वासहृत्लासश्वयधुव्रणान् ॥

Kaiyadeva Nighaṅṭu, Oṣadhi varga, 879-880.

निम्बप्रवालम् (कोमलपत्रम्)

ग्राहि प्रवालं निम्बस्य रक्तपित्तकफकृमीन् ।

कुष्ठघ्नं वातजननं नेत्ररोगान् विनाशयेत् ॥

Kaiyadeva Nighaṅṭu, Oṣadhi varga, 881.

निम्बपत्रम्

‘तद्वत् पत्राणि निम्बस्य व्रणघ्नानि विशेषतः ।’

Kaiyadeva Nighaṅṭu, Oṣadhi varga, 881-882.

निम्बपत्रस्य शलाकाः

शलाका निम्बपत्रस्य कासश्वासविनाशिनी ।

कृमिघ्ना तु वरिष्ठाः स्यात् कुष्ठज्वरविनाशिनी ॥

Kaiyadeva Nighaṅṭu, Oṣadhi varga, 882-882.

निम्बपुष्पम्

चक्षुष्यं निम्बपुष्पञ्च कृमिपित्तविषप्रणुत् ।

वातलं कटुपाकं स्यात् सर्वारोचकनाशनम् ॥

Kaiyadeva Nighaṅṭu, Oṣadhi varga, 883-884.

निम्बफलम्

फलं तिक्तं रसे पाके कटुकं भेदनं लघु ॥

अरूक्षमुष्णं कुष्ठघ्नं गुल्मार्शःकृमिमेहनुत् ।

Kaiyadeva Nighaṅṭu, Oṣadhi varga, 884-885.

निम्बपक्वफलम्

निम्बस्य पक्वं मधुरं सतिक्तं स्निग्धं फलं शोणितपित्तरोगे ।

कफे प्रशस्तं नयनामयघ्नं क्षतक्षयघ्नं गुरु पिच्छिलञ्च ॥

Kaiyadeva Nighaṅṭu, Oṣadhi varga, 885.

निम्बदन्तधावनम्

‘निम्बश्च तिक्तके श्रेष्ठः कषाये खदिरस्तथा ।’

Suśruta Samhitā, Cikitsā, 24-6.

निम्बबीजमज्जा

‘निम्बबीजस्य मज्जा च कृमिकुष्ठविशोधनः ।’

Kaiyadeva Nighaṅṭu, Oṣadhi varga, 886.

निम्बगुणाः

निम्बः शीतो लघुर्ग्राही कटुपाकोऽग्निवातनुत् ।
अहृद्यः श्रमतृट्कासश्वासज्वरारुचिकृमिप्रणुत् ।
व्रणपित्तकफच्छर्दि कुष्ठहृल्लासमेहनुत् ॥

Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi varga, 93-94.

निम्बपञ्चाङ्गम्

निम्बवृक्षस्य पञ्चाङ्गं रक्तदोषहरं मतम् ।
पित्तं कण्डूं व्रणं दाहं कुष्ठं चैव विनाशयेत् ॥

So. Vi.

निम्बस्य पत्रफलयोगुणाः

- क. निम्बपत्रं स्मृतं नेत्र्यं कृमिपित्तविषप्रणुत् ।
वातलं कटुपाकञ्च सर्वारोचककुष्ठनुत् ॥
ख. निम्बफलं रसे तित्तं पाके तु कटुभेदनम् ।
स्निग्धं लघूष्णं कुष्ठघ्नं गुल्मार्शःकृमिमेहनुत् ॥

Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi varga, 95-96.

प्रभद्रकः प्रभवति शीततित्तकः
कफव्रणकृमिविशोफशान्तये ।
बलासभिद्बहुविषपित्तदोषजिद्
विशेषतो हृदयविदाहशान्तिकृत् ॥

Rāja Nighaṇṭu, Prabhadrādi varga, 10.

निम्बस्तिकरसः शीतो लघुः श्लेष्मास्रपित्तनुत् ।
कण्डूकुष्ठव्रणान् हन्ति लेपाहारादिशीलितः ॥
अपक्वं पाचयेच्छोथं व्रणं पक्वं विशोधयेत् ।

Dhanvantari Nighaṇṭu.

पलिते निम्बतैलनस्यप्रयोगः

निम्बस्य तैलं प्रकृतिस्थमेव नस्तो निषिक्तं विधिना यथावत् ।
मासेन गोक्षीरभुजो नरस्य यथाग्रभूतं पलितं निहन्ति ॥

Vṛndamādhava, 57, 93.

Bhaiṣajya Ratnāvalī, Cakradatta, 55-124.

तृषाचिकित्सायां निम्बप्रसवरसः

‘हितं भवेच्छर्दनमेव चात्र तप्तेन निम्बप्रसवोदकेन ।’

Cakradatta, Tṛṣṇā cikitsā, 16-10.

व्रणेषु कृमिनाशनार्थम्

‘लेपो हिङ्गुनिम्बकृतोऽथवा ।’

Bhāvaprakāśa, Cikitsā, 47-69.

वल्मीकरोगे निम्बतैलम्

Cakradatta, 55-10.

योनिदृढीकरणार्थम्

प्रक्षालितं तु बहुशः पिचुमन्दतोयैः निम्बत्वचा तदनुनिर्मितः धूपकार्यम् ।

स्त्रीणां नितम्बकुहरं प्रविमुक्तगन्धं पैच्छिल्यदोषरहितं च भवेत् प्रगाढम् ॥

Śoḍhala.

कुष्ठे

यः खादेदभयारिष्टे अरिष्टामलके तथा ।

स जयेत्सर्वं कुष्ठन्तु मासादूर्ध्वं न संशयः ॥

Śoḍhala, Gadani-graha, 2-36-87.

गण्डमालायाम्

‘.....तैलेन वारिष्टभवं.....नस्यम् ।’

Śoḍhala.

रसायने

निम्बस्य तैलं प्रकृतिस्थमेव नस्ये निषिक्तं मधुना यथावत् ।

मासेन गोक्षीरभुजो नरस्य जराग्रदूतं पलितं निहन्ति ॥

Śoḍhala.

कुष्ठे

यो निम्बपत्रशतमत्ति जलेन पिष्टम्

पिष्टान्नभुक् समयमेकमृतुत्रयं ना ।

कुष्ठानि तस्य विषमानि चिरोत्थितानि

सिंहोद्धते मृगगणाः इव यान्ति नाशम् ॥

Śoḍhala.

व्रणशोधनार्थम्

‘निम्बपत्राणि सम्पिष्य मधुना व्रणशोधनम् ।’

Harīta Saṁhitā, Cikitsā, 35.

दन्तरोगे

‘क्वाथश्च निम्बमूलस्य दन्तरोगनिवारणः ।’

Harīta Saṁhitā, 3-46-14.

विषप्रतिकारे

‘.....निम्बफलानि च ।

उष्णोदकेन पीतानि जयेयुः तत्क्षणाद्विषम् ।’

Harīta Saṁhitā, Cikitsā, 3-56-11.

वातरक्ते

पटोलनिम्बपत्राणि क्थित्वा मधुसंयुतम् ।

पाचनं वातरक्तानां तथा च शमनानि च ॥

काञ्जिकेन च सम्पिष्य पिचुमर्ददलानि च ।

पित्तकफजनितशूलसहिततीव्राम्लपित्ते पञ्चनिम्बशक्तुयोगः

एकोऽशः पञ्चनिम्बनां द्विगुणो वृद्धदारुकः ।

शक्तुर्दशगुणो देयः शर्करामधुरीकृतः ॥

शीतेन वारिणा पीतः शूलं पित्तकफोत्थितम् ।

निहन्ति चूर्णं सक्षौद्रमम्लपित्तं सुदारुणम् ॥

Cakradatta, Amlapitta cikitsā, 52/28-29.

लेपनं शस्यते तस्य वातरक्तप्रशान्तये ॥

Harīta Saṁhitā, Cikitsā, 25.

दूषितव्रणशोधनार्थं निम्बपत्रादि-शोधनकेसरीलेपः

निम्बपत्रं तिला दन्ती त्रिवृत्सैन्धवमाक्षिकम् ।

दुष्टव्रणप्रशमनो लेपः शोधनकेसरी ॥

Cakradatta, Vraṇaśoṭha cikitsā, 44-28.

पलिते निम्बतैलनस्यम्

निम्बस्य बीजानि हि भावितानि भृङ्गस्य तोयेन तथाऽशनस्य ।

तैलन्तु तेषां विनिहन्ति नस्याद्गुग्धान्नभोक्तुः पलितं समूलम् ॥

Vṛndamādhava, 57-92.

Cakradatta, Kṣudraroga cikitsā, 55-123.

सुखप्रसवार्थम्

कट्या बद्धं योषितां सत्प्रसूतिं

कूर्यान्मूलं निम्बवृक्षोद्भवं वा ॥

Rāja Mārtaṇḍa.

शिशोः ज्वरे

निम्बस्य पत्रं माक्षिकं सर्पियुक्तन्तु धूपनम् ।

ज्वरवेगं निहन्त्याशु बालानान्तु विशेषतः ॥

Baṅgasena.

पालित्ये

निम्बबीजतैलम्

Śārṅgadhara Saṁhitā, 2-9-152.

नेत्ररोगे

शुण्ठी निम्बदलैः पिण्डः सुखोष्णः स्वल्पसैन्धवः ।

धार्याश्चक्षुषि सङ्क्षेपाच्छोथकण्डूव्यथापहः ॥

*Śārṅgadhara Saṁhitā, 3-13-29.
Baṅgasena.*

कफजहद्रोगे

‘निम्बकोषातकीभ्यां वाम्यं हृदि कफोत्थिते ।’

Baṅgasena, Hṛdroga, 26.

मूत्रकृच्छ्रे

निम्बशरीः सङ्क्षुण्णा मृत्पात्रैः सायमप्सु विनिमग्नाः ।

प्रातस्ताः पुनरापः पित्तो प्रकृच्छ्रमपहन्युः ॥

Siddha Bhaiṣajya Maṇimāla, 4-5-38.

कामलायाम्

‘.....निम्बस्य वा रसः ।

प्रातर्माक्षिकसंयुक्तः शीलितः कामलापहः ॥’

Cakradatta.

उदरदकोठादौ

निम्बस्य पत्राणि सदा घृतेन ।

धात्रीविमिश्रान्यथवोपयुज्यात् ॥

विस्फोटकोठक्षतशीतपित्त-

कण्डूवस्त्रपित्तं सहसा च हन्यात् (जह्यात्) ।

*Vṛndamādhava, 52-8.**Cakradatta, Udardkoṭhaśītapitta cikitsā, 50-9.*

क्रिमिषु

‘निम्बपत्रसमुद्भूतं रसं क्षौद्रयुतं पिबेत् ।’

Bhāvaprakāśa, Cikitsā, 7-24.

पित्तज-रक्तजोपदंशचिकित्सायां निम्बादिचूर्णम्

Cakradatta, 47-6.

रक्तपित्ते

पटोलनिम्बवेत्राग्रप्लक्षवेतसपल्लवाः ।

शाकार्थं शाकसात्म्यानां....हिताः ॥

Bhāvaprakāśa, Cikitsā, 9-98.

कुष्ठरोगचिकित्सायां पञ्चनिम्बकावलेहम्

Bhāvaprakāśa, Kuṣṭharogādihikāra, 54/64-63.

कुष्ठे

‘....निम्बपटोलस्य..... ।

इति षट् कषायोष्णाः कुष्ठघ्नाः निर्दिष्टाः..... ।

.....स्नाने पाने च मताः ।’

Caraka Saṁhitā, Cikitsā, 7.

दाहज्वरे

मधुफाणितयुक्तेन निम्बपत्राम्भसाऽपि वा ।

दाहज्वरार्तं मतिमान् वामयेत् क्षिप्रमेव च ॥

Suśruta Saṁhitā, Uttara, 39-282.

कफजतृष्णायाम्

‘हितं भवेच्छर्दनमेव चात्र तसेन निम्बप्रसादोदकेन ।’

Suśruta Saṁhitā, Uttara, 48.

सुरामेहे

‘सुरामेहिनं निम्बकषायम् ।’

Suśruta Saṁhitā, Cikitsā, 11-9.

पद्मिनीकण्टके वमनार्थं निम्बोदकम्

निम्बोदकेन वमनं पद्मिनीकण्टके हितम् ।

निम्बोदककृतं सर्पिः सक्षौद्रं पानमिष्यते ॥

अरुंधिकायाम्

‘अरुंधिकाहते रक्ते सेचयन्निम्बवारिणा ।’

Suśruta Saṁhitā, Cikitsā, 20-27.

जातसत्त्वे कुष्ठे

‘निम्बकृाथं जातसत्त्वः पिबेद्वा ।’

Suśruta Saṁhitā, Cikitsā, 9.

पद्मिनीकण्टके

‘निम्बारग्वधयोः क्वाथो हित उत्सादने भवेत् ।’

Suśruta Saṁhitā, Cikitsā, 20.

खालित्ये पालित्ये च

‘मासं वा निम्बजं तैलं क्षीरभुक् नावयेद् यतिः ।’

Aṣṭāṅga Hṛdaya, Uttara, 24-34.

कुष्ठे निम्बकाथस्य बहुविधप्रयोगाः

‘.....निम्बखदिराश्च ।

स्नाने पाने लेपे क्रिमिकुष्ठनुत् सगोमूत्रः ।’

Caraka Samhitā, Cikitsā, 7-158.

कफजप्रदरे

‘मद्यैर्निम्बगुडूच्यौ वा कफजेऽसृग्दरे पिबेत् ।’

Caraka Samhitā, Cikitsā, 30-99.

नेत्रप्रकोपशमनाय निम्बपत्रगुटिकाप्रयोगः

पिष्टैर्निम्बस्य पत्रैरतिविमलतरैर्जातिसिन्धूत्थमिश्रा
अन्तर्गर्भं दधाना पटुतरगुटिका पिष्टलोध्रेन भृष्टा ।
तूलैः सौवीरसान्द्रैरतिशयमृदुभिर्वेष्टिता सा समन्ता-
च्यक्षुकोपप्रशान्तिं चिरमुपरि दृशोभ्राम्यमाणा करोति ॥

Cakradatta, Netraroga cikitsā, 59-35.

उन्मादे निम्बादिधूपः

Cakradatta, Unmāda cikitsā, 20-48.

उग्रगलितकुष्ठे

प्रपतन्तु लसीकाप्रस्रुतेषु गात्रेषु जन्तुजग्धेषु ।

मूत्रं निम्बविडङ्गे स्नानं पानं प्रदेहश्च ॥

Caraka Samhitā, Cikitsā, 7-157.

सर्वकुष्ठे पञ्चनिम्बचूर्णम्

Cakradatta, 50/74-83.

कुष्ठेषु निम्बघृतम्

‘.....निम्बघृतं..... ।

कुष्ठेषु रक्तपित्तप्रबलेषु भिषग्जितं सिद्धम् ॥’

कुष्ठादयाः चिकित्सार्थं तिक्तषट्पलकं घृतम् ।

Caraka Samhitā, Cikitsā, 1-135.

Cakradatta, Kuṣṭha cikitsā, 50/93-97.

रक्तार्शो प्रतिसारणम्

‘.....निम्बघृताभ्यां..... ।

दाहे क्लेदे च गुद्रभंशे गुदजाः प्रतिसारणीयाः स्युः ॥’

Caraka Samhitā, Cikitsā, 221.

कामलायां प्रातःकालिकयोगम्

‘....निम्बस्य वा रसम् ।

शीतं मधुयुतं प्रातः कामलार्तः पिबेन्नरः ॥’

Caraka Saṃhitā, Cikitsā, 16-63.

व्रणशोधनरोपणार्थं

लेपान्निम्बदलैः कल्को व्रणशोधनरोपणः ।

भक्षणाच्छर्दिमन्दाग्निपित्तश्लेष्मकृमीन्हरेत् (कृमीन् जयेत्) ॥

व्रणा निम्बदले वर्त्या सूक्ष्मान् हि सन्धिमर्मजान् ॥

Śārṅgadhara Saṃhitā, 2-5-5,

Bhāvaprakāśa, Vraṇaśoṭhādhikāra, 47-60.

व्रणे निबादिधूपनम्

निम्बपत्रवचाहिङ्गुसर्पिलवणसर्षपैः ।

धूपनं स्याद् व्रणे रूक्षकृमिकण्डूरुजाऽपहम् ॥

Bhāvaprakāśa, Madhyakhanda, 47-70.

पद्मिनीकण्टके निम्बादिघृतम्

चतुर्गुणेन निम्बोत्थपत्रकाथेन गोघृतम् ।

पचेत्तस्तु निम्बस्य कृतमालस्य पत्रजैः ॥

कल्कैर्भूयः पचेत्सिद्धं तत्पिबेत्पलसम्मितम् ।

पद्मिनीकण्टकाद्रोगान्मुक्तो भवति नान्यथा ॥

Bhāvaprakāśa, Kṣudrarogādhikāra, 141-142.

योनि (पूययुक्त) रोगे योनिशोधनार्थम्

योन्यां तु पूयस्त्राविण्यां शोधनद्रव्यनिर्मितैः ।

सगोमूत्रैः सलवणैः पिण्डैः सम्पूरणं हितम् ॥

Bhāvaprakāśa, Yonirogādhikāra, 70-42.

व्रणशोधनरोपणार्थं निम्बपत्रादिवर्तिः

निम्बपत्रघृतक्षौद्रदार्वीमधुकसंयुता ।

वर्तिस्तिलानां कल्को वा शोधयेद्रोपयेत् व्रणान् ॥

Cakradatta, 44-35.

कुष्ठोपचारार्थं निम्बपत्रासेवनम्

यः खादेदभयाऽरिष्टमरिष्टमालकानि वा ।

स जयेत् सर्वकुष्ठानि मासादूर्ध्वं न संशयः ॥

Cakradatta, 50-64; Śoḍhala, 2-36-37.

योनिविकारे

प्रक्षालितं तु बहुशः पिचुमन्दतोयैः निम्बत्वचा तदनुनिर्मितधूपकार्यम् ।
स्त्रीणां नितम्बकुहरं प्रविमुक्तगन्धं पैच्छिल्यदोषरहितञ्च भवेत् प्रगाढम् ॥

Gadanigraha, 6-9-14.

विषप्रतिषेधे

मयूरं निम्बपत्राभ्यां खादे मेषगते रवौ ।

अब्दमेकं न भीतिः स्याद् विषार्तस्य न संशयः ॥

Vṛndamādhava, 68-2.

स्तन्यशोधने

निम्बवेत्राग्रकुलकवार्ताकामलकैः शृतान् ।

सव्योषसैन्धवान् यूषान् दापयेत् स्तन्यशोधनम् ॥

Caraka Saṁhitā, Cikitsā, 30-259.

नेत्ररोगे निम्बः

लौहस्य पात्रे सङ्घृष्टो रसो निम्बफलोद्भवः ।

किञ्चिद् घनो बहिलेपात्रेत्रबाधां व्यपोहति ॥

Śārṅgadhara Saṁhitā, 3-13-35.

निम्बपत्रैः कृतं चूर्णं लोध्रचूर्णसमन्वितम् ।

वस्त्रबद्धं जले क्षिप्तं पूरणं नेत्ररोगनुत् ॥

Baṅgasena, Netraroga, 117.

व्रणे

‘निम्बकोलकपत्राणि कषायाः शोधना मताः ।’

Caraka Saṁhitā, Cikitsā, 25-84.

निम्बपत्रमधुभ्यां तु युक्तः संशोधनः स्मृतः ।

पूर्वाभ्यां सर्पिषा चापि युक्तश्चाप्युपरोपणः ॥

Suśruta Saṁhitā, Cikitsā, 1-68.

पूर्वाभ्यां सर्पिषा चापि युक्तश्चाप्युपरोपणः ।

निम्बपत्रतिलैः कल्को मधुना व्रणशोधनः ।

रोपणः सर्पिषा युक्तो यवकल्केऽप्ययं विधिः ॥

Vṛndamādhava, 44-28.

पद्मिनीकण्टके

‘निम्बोदककृतं सर्पिः सक्षौद्रं पानमिष्यते ।’

Vṛndamādhava, 57-20.

निम्बार्गवधयोः कल्को हित उत्सादने भवेत् ।

Suśruta Saṁhitā, Cikitsā, 20.
Aṣṭāṅga Saṅgraha, Uttara, 37-6.
Vṛndamādhava, 57-20.

त्वक्‌रोगे

धतूरनिम्बताम्बलीपत्राणां स्वरसैः पृथक् ।
अस्य प्रलेपमात्रेण पामाद्रद्रूविचर्चिकाः ॥
कण्डूश्च रकसश्चैव प्रशमं यान्ति वेगतः ॥

Śārṅgadhara Saṁhitā, 3-52-53.

दाहे

बदरीपल्लवोत्थश्च तथैवारिष्टकोद्भवः ।
फेनिलायाश्य यः फेनस्तैर्दाहलेपनं शुभम् ॥

Caraka Saṁhitā, Cikitsā, 14-160.

‘तृड्दाहमोहाः प्रशमं प्रयान्ति
निम्बप्रवालोत्थितफेनलेपात् ।’

Vaidya Jivanam, 1-28.

अम्लपित्ते

एकोऽशः पञ्चनिम्बानां द्विगुणो वृद्धदारुकः ।
सक्तुर्दशगुणो देयः शर्करामधुरीकृतः ॥
शीतेन वारिणा पीतं शूलं पित्तकफोदभवम् ।
निहन्ति चूर्णं सक्षौद्रमम्लपित्तं सुदुस्तरम् ॥

Vṛndamādhava, 53-18-19.

शोथे

निम्बाङ्कोटोरुबुकानां तकार्याः कुटजस्य च ।
नक्तमालस्य वैशम्यं पत्रकाथोऽवगाहनः ॥

Kāśyapa Saṁhitā, p. 344.

कुष्ठे

यो निम्बपत्रशतमत्ति जलेन पिष्टं पिष्टान्नभुक् समयमेकमृतुत्रयं वा ।

कुष्ठानि तस्य विषमानि सिंहोद्धते मृगगणा इव यान्ति नाशम् ॥

Gadanigraha, 2-36-99.

पञ्चनिम्बचूर्णम् ।

Vṛndamādhava, 51-60/68.

रक्ताशांसि

मूलकमुत्कीर्य महत्तत्र पिधाय पिचुमन्दमज्जानम् ।
पुटपाकरीतिपक्वं पिष्ट्वा गुटिकीकृतं निहन्त्यर्शः ॥

Siddha Bhaiṣajya Maṇimālā, 4-238.

ज्वरे

धृतं निम्बस्य पत्राणि मूलं पुष्पं फलं त्वचम् ।
अरिष्टो नाम धूपोऽयमरिष्टं कुरुते क्षणात् ॥

Kāśyapa Saṁhitā, p. 171.

A. KAIDARYA (क. कैडर्य)

कैडर्योऽन्यो महानिम्बो रामणो रमणस्तथा ।
गिरिनिम्बो महारिष्टः शुक्लशालः कफाह्वयः ॥

Rāja Nighaṅṭu, Prabhadrādi, 17.

‘कैटर्यः’

Caraka Saṁhitā, Sūtra, 4-10.

‘कैडर्यः’

Suśruta Saṁhitā, Cikitsā, 18-22.

B. MAHĀNIMBA (ख. महानिम्ब)

महानिम्बो मदोद्रेकः कार्मुकः केशमुष्टिकः ।
काकाण्डो रम्यकोऽक्षीरो महातिकोऽहिमद्रुमः ॥

Rāja Nighaṅṭu, Op. Cit., 11.

महानिम्बगुणाः

महानिम्बोहिमः रूक्षस्तिको ग्राही कषायकः ।
कफपित्तमस्रच्छर्दिकुष्ठहृल्लासरक्तजित् ॥
प्रमेहश्वासगुल्मार्शोमूषिकाविषनाशनः ।

Bhāvaprakāśa Nighaṅṭu.

महानिम्बस्त्वशिशिरः कषायः कटुतिक्तकैः ।
अस्रदाहबलासघ्नो विषमज्वरनाशनः ॥

Rāja Nighaṅṭu, Op. Cit., 12.

नेत्ररोगे

महानिम्बफलोद्भूता पिण्डी वा पित्तनाशिनी ।

Śārṅgadhara Saṁhitā, 3-13-26.

गृध्रसी

बृहन्निम्बतरोर्मूलं वारिणा परिपेषिता ।
तद् पीतं नाशयेत् क्षिप्रमसाध्यामपि गृध्रसीम् ॥

Gadanigraha.

वातव्याधौ

रम्यकघृतम् ।

Suśruta Saṁhitā, Cikitsā, 4-27.

‘महानिम्बजटाकल्को गृध्रसीनाशनः स्मृतः ।’

Śārṅgadhara Saṁhitā, 2-5-6.

बृहन्निम्बतरोः सारो वारिणा परिपेषितः ।
स पीतो नाशयेत् क्षिप्रमसाध्यामपि गृध्रसीम् ॥

Bhāvaprakāśa, Cikitsā, 24-1-41.

प्रमेहे

महानिम्बस्य बीजानि पिष्ट्वा षट्सम्मितानि च ।
पलतण्डुलतोयेन घृतनिष्कट्टयेन च ॥
एकीकृत्य पिबेच्चानु हन्ति मेहं चिरन्तनम् ॥

Śārṅgadhara Saṁhitā, 2-12, 205-206.

क्रिमिरोगे

महानिम्बस्य पत्राणां रसो हि पलमानतः ।
पानात् क्रिमिभवं दोषं सद्यो हन्ति च निश्चितम् ॥

Vaidya Vallabha, 5-14.

अर्शासि

‘लवणोत्तम....महापिचुमन्दयुतान् ।’

Aṣṭāṅga Hydaya, Cikitsā, 8-161.

NIMBŪKA

Botanical name

Citrus aurantifolia (christm.) Swingle.,

Syn. *Citrus medica* var. *acida* watt., *Limonia aurantifolia* Christon.

Family : Rutaceac

Classical name : Nimbūka

Sanskrit names

Nimbūka, Nimbū.

Regional names

Nibu, Nimbu, Kagaji nibu (Hindi); Kagazi lebu, Patinembu (Beng.); Limbu, Kagaji limbu (Mar.); Limu, Limun (Da.); Limu (Arabic); Limu, Lumu-e-kagaji (Pers.); Lime (Eng.).

Description

Small trees, 3-6 meters tall, with stout, stiff thorns. Leaves unifoliolate, pale green, oblong to elliptic, ovate. Flowers solitary or clustered in the axil, white or pinkish outside. Fruits globose with thin rind, yellow when ripe pulp pale, very sour not mamillate.

Flowering and fruiting time

It bears flowers and fruits during the period from July to June.

Distribution

It is planted almost throughout India. Grown in gardens for popularly edible fruits (lime).

Chemical composition

Fruit juice contains citric acid 7-10%, phosphoric acid, malic acid, sugar and other constituents. Pericarp (fruit rind) yield an volatile oil, a bitter glucoside, hesperidin (particularly in white portion of rind).

Lime fruit (juice) contains Vitamin C in high quantity.

Pharmacodynamics

Rasa	: Amla
Guṇa	: Tikṣṇa, laghu
Vīrya	: Uṣṇa-anuṣṇa
Vipāka	: Amla
Doṣakarma	: Kaphavātanāśana

Properties and action

Karma : Rocana-dīpana-pācana

Anulomana-pittasāraka
 Tr̥ṣṇānigrahaṇa
 Mukhaśodhana-sugandhi
 Chardinigrahaṇa-utkleṣahara
 Arśoghna
 Raktaśodhaka
 Mūtrala
 Svedajanana
 Jvaraghna
 Cakṣuṣya
 Hṛdya
 Viśaghna
 Kṛmighna
 Śoṣahara
 Varṇya
 Santarpaṇa

Roga

: Aruci-agnimāndya-bhaktadveṣa
 Ajirṇa-ānāha-ādhmāna-visūcikā
 Chardi-utkleṣa-hṛllāsa
 Udaravikāra-viṣṭambha-vibandha
 Arśa-baddha-gudodara
 Raktapitta
 Pittavikāra
 Dāha-tr̥ṣṇā
 Vātaghna
 Mūtravikāra-mūtrakṛcchra
 Pāṇḍu-kāmalā-yakṛdvikāra
 Jvara
 Raktadoṣa-Raktavikāra
 Viṣa-garaviṣa
 Kṛmiroga
 Śoṣa.

Therapeutic uses

The drug Nimbūka is anthelmintic, appetizer, astringent, refrigerant and tonic. It is used in anorexia, cough, rheumatism, vomiting and weak eye-sight. The juice is traditionally given as effective anti-dehydration agent in actions helpful in the ailing conditions and abnor-

malities in human body in accordance to pharmacological consideration in Indian medicine.

The fruit-juice has high content of vitamin C and it is anti-scorbutic properties. It is highly acidic, but it allays or pacifies pitta humor (pitta doṣa śāmaka). Nimbūka (kagaji nibu) has higher content of citric acid than Jambira (Jambiri nibu). Nimbūka is very popular fruit of sour or acidic taste which is most commonly used in food, diet and employed in a number of dishes and preparations of household utility (including achār, salād etc.) mainly its acid juice is of multipurpose used in cooking and eating variously. On the other hand, the fruit of lime (nimbūka phala) is highly medicinal and frequently used in medicine in various forms and recipes on account of its medicinal potentialities. Lime juice (nimbūka svarasa) has preventive as well as curative effects as its normal and constant use in different modes is health protective, prophylactic of certain seasonal and other ailments; and its administration in therapeutics is variously made as a single drug as well as an ingredient or adjutant of several traditional recipes and formulations of classical importance. In addition, the lime juice (nimbūka svarasa) is employed as bhāvanā dravya in preparation of some drug formulations and it is used in śodhana, māraṇa-bhaskāraṇa and some other pharmaceutical processes (under rasaśāstra and bhaiṣajya kalpanā). Besides wide ranging utility of lime (nimbūka) in health, diet and disease, it is utilised for cosmetic purposes.

Part used : Fruit, seeds, rind.

Dose

Juice 3-6 gm.; 6-12 gm., Seeds and Rind 0.5-1 gm.,
Fruit edible.

NIMBŪKA (निम्बूक)

निम्बूकं निम्बुकं चान्यद् राजशब्दादिपूर्वकम् ।

निम्बूकमम्लं वातघ्नं दीपनं रुचिवर्धनम् ॥

गररोगविषध्वंसि कफोत्क्लेशि च पित्तलम् ।

शर्कराचौरराजाख्यं निम्बूकं मधुरं गुरु ॥
 वातपित्तसपिच्छर्दितृष्णाशोषहरं परम् ।
 चौरं स्वादु कषायाम्लं रूक्षं गुर्वास्यशोधनम् ॥
 विशदं रोचनं हृद्यं शीतलं ग्राहि वातलम् ।
 छर्द्यस्रकफपित्तघ्नं विष्टम्भाशोविबन्धनुत् ॥

Kaiyadeva Nighaṇṭu, Oṣadhi varga, 327-330.

निम्बूकफलम्

निम्बूफलं प्रक्षितमम्लरसं कटूष्णं
 गुल्मामवातहरमग्निविवृद्धिकारि ।
 चक्षुष्यमेतदथ कासकफार्तिकण्ठ-
 विच्छर्दिहारि परिपक्वमतीव रुच्यम् ॥

Rāja Nighaṇṭu, Āmrādi varga, 174.

निम्बूः स्त्री निम्बुकं क्लीबे निम्बूकमपि कीर्तितम् ।

निम्बूकमम्लं वातलं दीपनं पाचनं लघु ॥

Bhāvaprakāśa Nighaṇṭu, Āmrādiphala varga, 136.

अन्यच्च

निम्बूकं कृमिसमूहनाशनं तीक्ष्णमम्लमुदरग्रहापहम् ।
 वातपित्तकफशूलिने हितं कष्टनष्टरुचिरोचनं परम् ॥
 त्रिदोषवह्निक्षयबालरोग-निपीडितानां विषविह्वलानाम् ।
 मन्दानले बद्धगुदे प्रदेयं विषूचिकायां मुनयो वदन्ति ॥

Bhāvaprakāśa Nighaṇṭu, Āmrādiphala varga, 137-138.

मिष्टनिम्बूफलम्

मिष्टनिम्बूफलं स्वादु गुरु मारुतपित्तनुत् ॥
 गलरोगविषध्वंसिकफोत्क्लेशि च रक्तहृत् ।
 शोषारुचितृषाच्छर्दिहरं बल्यञ्च बृंहणम् ॥
 मधुरो मधुजम्बीरः शिशिरो वातपित्तजित् ।
 शोषघ्नसन्तर्पणो वृष्यः श्रमघ्नः पुष्टिकारकः ॥

तृष्णाशूलकफोत्क्लेशिच्छर्दिश्वासनिवारणम् ।

वातश्लेष्मविबन्धघ्नं जम्बीरं गुरु पित्तलम् ॥

Dr. Gu. Vo.

Dhanvantari Nighaṇṭu.

रोचनो दीपनः तीक्ष्णः सुगन्धि मुखबोधनः ।
जम्बीरः कफवातघ्नः कृमिघ्नो भुक्तपाचनः ॥

Caraka Samhitā, Sūtra, 27-161.

अम्लपित्ते

‘जम्बीरस्वरसः पीतः सायं हन्त्यम्लपित्तकम् ।’

Cakradatta.

घृतस्य परिपाकाय

‘घृतस्य परिपाकाय जम्बीरस्य रसो हितः ॥’

Bhāvaprakāśa.

मसूरिकाप्रादुर्भावे

‘जम्बीरनीरपरिपीतगुडं नराणाम्
आरम्भकालसमग्रेषु मसूरिकार्त्तिकम् ।
सद्यः शमं नयति गोपयसा प्रभाते..... ॥’

Vaidya Manoramā.

कर्णशूले

जम्बीरनीरशृततैलमपि प्रशस्तम्
कर्णे सशूलिनि रहस्य पराङ्मुखे च ॥

Vaidya Manoramā.

NIRGUNḌĪ

Botanical name : Vitex negundo Linn.

Family : Verbenaceae

Classical name : Nirgunḍī

Sanskrit names : Nirgunḍī, Sinduvāra, Sinduka.

Regional names

Samhalu, Meurhi (Hindi); Sevai (Kumaon region, U.P.); Son-i (Jaunsar, U.P. hills); Shimalu, Samalu, Chhatimal, Nishinda (U.P. hills, Garhwal); Nigad, Nirgundi (Mar.); Nagad, Nagod (Guj.); Nishinda (Beng.); Tellavavili (Tel.); Nouchi (Tam.); Indrani (Mal.); Bailnekkī (Kann.); Aslak (Arab.); Pajamust (Pers.); Five-leaved-chaste (Eng.).

Description

A deciduous shrub with thin grey bark and spread-

ing branches. Leaves 3-5 foliolate (simple and more distinctly crenate on luxuriant young shoots), with a raised line across the stem at the base of the petioles. Leaflets lanceolate, 1-5 by 3-1.3 in., the lowest pair smallest, sessile or sub-sessile; the middle pair, if present, more or less distinctly petiolulate, the odd leaflet largest and with a petiole .3-.6 in. long; entire or distantly crenate above the middle, glabrescent above, grey-pubescent beneath.

Panicles upto 12 in. long. Calyx .1-.15 in., 5-toothed. Corolla .2-.5 in. bluish or purplish-white; limb spreading, 2-lipped, 5-lobed, middle lobe of the lower tip the largest. Stamens 4, didynamous, exerted. Ovary 2-4 celled, 4-ovuled; style filiform, shortly 3-lobed.

Fruit a succulent drupe supported by the more or less accrescent calyx .15-.25 in. diam., globose, black when ripe; endocarp normally 4-celled.

Flowering and fruiting time

Plant flowers in June-August and fruits in December-January. Generally flowering stage begins during summers and rains, and fruiting during cold season.

Distribution

Plant occurs throughout India in warm regions in wild state. It is also planted in hedge form or hedge-rows in villages and as garden hedge. It is found along Nallas, river beds and stony rivulets. Plant is found in the valleys and lower areas in Uttar Pradesh hilly region and specially in Siwaliks and Terai belts.

Kinds and varieties

Another kind of Nirguṇḍī is botanically known as *Vitex trifolia* Linn. Kartari Nirguṇḍī (Śaligram Nighaṇṭu, 3, p. 251) is also indicated as Nirguṇḍībhedā.

There are two varieties in classical texts viz. Nilapūṣpī and Śvetapūṣpī which are names as Nirguṇḍī and Śvetapūṣpī, considered blue and white varieties, respectively.

Pharmacodynamics

Rasa : Kaṭu, tikta

Guṇa	: Laghu, rūkṣa
Vīrya	: Uṣṇa
Vipāka	: Kaṭu
Doṣakarma	: Kaphavātaśāmaka

Properties and action

Karma	: Vedanāsthāpana Vātaghna Śothahara Vraṇaropaṇa-śodhana Kuṣṭhaghna Kaṇḍūghna Medhya Kaphaghna-kāśahara Mūtrājanana Ārtavajanana Balya Rasāyana Cakṣuṣya Āmapācana Keśya Jantughna Dīpana-pācana (āmapācana) Yakṛduttejaka Kṛmighna.
Roga	: Vātavyādhi-gṛdhrasī-āmavāta- sandhivāta Śiraśśūla-vedanāyukta vikāra Śoṭha (śopha)-sandhiśoṭha- abhighātaśoṭha-vṛṣaṇaśoṭha Garbhāśayaśoṭha-gudaśoṭha Pakvāśayaśoṭha Kaṇṭhaśoṭha-nāsāśoṭha-pratiśyāya Mukhapāka Karnaśūla-karnaśrāva-pūtikarna Viṣa-sarpaviṣa-mūṣikaviṣa Sarvavraṇa-nāḍivraṇa-duṣṭavraṇa Dantodbhedanavedanā Snāyukaroga Rājyakṣmā

Sūtikāroga-Rajaḥkṛcchra
 Granthi-apaci-gaṇḍamālā
 Apasmāra
 Aṅgamarda
 Keśaroga-pāliṭya
 Netraroga
 Kāsa-śvāsa-phuphphusa (āvaraṇa)
 śoṭha
 Mūtrāghāta
 Jvara-ṣaṃajvara

Therapeutic uses

The drug Nirguṇḍī is an effective analgesic and anti-inflammatory herbal agent. It is useful as alterative, antipyretic, anodyne and anti-periodic. Drug is used in rheumatism, nervous disorders, haemophilic disorders, alternate fevers, colic, dyspepsia, skin diseases, splenic and liver enlargement and worms. It is used in conditions stimulating malaria. Nirguṇḍī is used in medicine both externally as well as internally; and the different parts e.g. leaves, roots, flowers, seeds etc. are employed in medicine and mostly the leafy part, bark and roots are utilised in medicinal purposes (almost all the parts of Nirguṇḍī plant).

The leaves are ground and paste is prepared which is externally applied to wounds, ulcers, swollen joints, inflammation, painful organs, headache, testicular inflammation and various other ailments including skin affections. Decoction is used as gargle in stomatitis and Kaṅṭhasālūka. Fumigation of dried leaves is used in headache and catarrhal affection. Decoction is used for Kaṭisnāna (bath upto waist or tub-bath with nirguṇḍī jala).

The leaves are ground (kalka) and cooked in oil (preferably tila taila or sesame oil) for preparing Nirguṇḍī taila (by following process of taila pāka). It is locally applied to inflamed and painful conditions of organs, rheumatism, vātavyādhi, sprain, trauma, ulcers, wounds, sinus, abscess, foetid ear, bruises, otorrhoea, gaṇḍamālā, earache, headache, neuritis, sciatica, nervine complaints, painful and swollen joints and other various ailments. It is also useful as massage oil and in different modes of topical

administration which is a safely indicated recipe with multiutility as medicinal oil. Nirguṇḍī taila is very effective remedy supported with promising results based on large number of trials, cases and experiences in practice.

The drug Nirguṇḍī is useful in dysmenorrhoea, debility, weak vision, cough, dysuria, pleurisy, lungs complaints, puerperal disorders, consumption, epilepsy, fever, guinea worm, asthma, foetid ear, poison (viṣa), intrinsic haemorrhage (raktapitta) and plīhodara, agnimāndya, āmadoṣa, śoṭha and vātakapha vikāra. It is also a rasāyana and balya drug.

Parts used : Leaves, roots, seeds, flowers.

Dose

Leaves juice 10-20 ml., Root bark powder 3-6 gm., Seeds powder 3-6 gm.

Formulations (yoga) : Nirguṇḍī taila, Nirguṇḍī kalpa.

Groups (gaṇa)

Viṣaghna, Krimighna (Caraka Saṁhitā), Surasādi (Suśruta Saṁhitā).

NIRGUṆḌĪ (निर्गुण्डी)

शिशोः दन्तोद्धेदने

प्राचीगतं पाण्डुरसिन्दुवारमूलं शिशूनां गलके निबद्धम् ।

करोति दन्तोद्धववेदनायाः निःसंशयः नामकाण्डमेव ॥

Rāja Mārtaṇḍa.

सर्वत्रणे

समूलपत्रां निर्गुण्डीं पीडयित्वा रसेन तु ।

तेन सिद्धं समं तैलं नाडीदुष्टव्रणापहम् ॥

हितं पानापचीनान्तु पानाभ्यञ्जननावनैः ।

विविधेषु च स्फोटेषु तथा सर्वत्रणेषु च ॥

Cakradatta.

राजयक्ष्मणि निर्व्याधिकरणे

समूलफलपत्रायाः निर्गुण्ड्याः स्वरसैः घृतम् ।

सिद्धं पीत्वा क्षयक्षीणो निर्व्याधिः भाति देववत् ॥

Cakradatta, 10-82.

सिन्दुक-निर्गुण्डीगुणकर्माणि

सिन्दुकः स्मृतिदस्तिकः कषायः कटुको लघुः ।

केश्यो नेत्रहितो हन्ति शूलहत् काससिद्धिदः ॥

Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi varga, 115.

कटूष्णा नीलनिर्गुण्डी तिक्ता रूक्षा च कासजित् ।

श्लेष्मशोफसमीरार्तिप्रदराध्मानहारिणी ॥

Rāja Nighaṇṭu, Śatāhvādi varga.

निर्गुण्डी कटुतिकोष्णा कृमिकुष्ठरुजापहा ।

वातश्लेष्मप्रशमनी प्लीहगुल्मारुचीर्जयेत् ॥

Dhanwantari Nighaṇṭu.

सिन्दुवारपत्रम्

कृमिकुष्ठरुचिश्लेष्मव्रणाष्ठीला हि तद्विधा ।

सिन्दुवारदलं जन्तुवातश्लेष्महरं लघु ॥

Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi varga.

सिन्दुवारः

सिन्दुवारः कटुस्तिकः कफवातक्षयापहः ।

कुष्ठकण्डूतिशमनः शूलहत् काससिद्धिदः ॥

Rāja Nighaṇṭu, Śatāhvādi varga, 115.

अपस्मारे निर्गुण्डीवन्दाकम्

निर्गुण्डीभववन्दाकनावनस्य प्रयोगतः ।

उपैति सहसा नाशमपस्मारो महागदः ॥

Bhāvaprakāśa, Madhyakhaṇḍa, 23-14.

निर्गुण्डी

निर्गुण्डी तुवरा तिक्ता मेध्या शीतोष्णा सा लघुः ॥

चक्षुष्या दीपनी केश्या कफानिलविषापहा ।

हन्त्यरोचकशूलामगुल्मभेदोव्रणक्रिमीन् ॥

शोफ कुष्ठप्रतिश्यायश्वासकासांश्च सा द्विधा ।

शेफालिका तयोः पथ्या विषपित्तविनाशिनी ॥

Kaiyadeva Nighaṇṭu, Oṣadhi varga, 127-129.

निर्गुण्डीपत्रम्

‘श्लेष्मानिलघ्नं लघु दीपनीयं निर्गुण्डिकाया कृमिघातिपत्रम् ।’

Kaiyadeva Nighaṇṭu, Oṣadhi varga, 129.

निर्गुण्डीपुष्पम्

निर्गुण्डीपुष्पं तिक्तोष्णं कृमिवातकफापहम् ।

गुल्मप्लीहारुचीः कुष्ठं कण्डूं शोफं जयेत् कटु ॥

Kaiyadeva Nighaṇṭu, Oṣadhi varga, 130.

शेफालिका

.....सा द्विधा ।

शेफालिका तयोः पथ्या विषपित्तविनाशिनी ॥

Kaiyadeva Nighaṇṭu, Oṣadhi varga, 129.

सिन्दुवारपत्रम्

‘सिन्दुवारदलं जन्तुवातश्लेष्महरं लघु ।’

Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi varga, 115.

सिन्दुवारः

सिन्दुवारः श्वेतपुष्पः सिन्दुकः सिन्दुवारकः ।

नीलपुष्पी तु निर्गुण्डी शेफाली सुवहा च सा ॥

Bhāvaprakāśa Nighaṇṭu, Guḍūcyādi varga, 113.

नाडीव्रणादौ निर्गुण्डीतैलम्

निर्गुण्ड्या मूलपत्राभ्यां गृहीत्वा स्वरसं ततः ॥

तेन सिद्धं समं तैलं नाडीकुष्ठानिलार्तिषु ।

हितं पामापचीनां च पानाभ्यञ्जनपूरणम् ॥

Caraka Saṃhitā, Cikitsā, 28-134-135.

Vṛndamādhava, 47-19/20.

नीलनिर्गुण्डी

कटूष्णा नीलनिर्गुण्डी तिक्ता रूक्षा च कासजित् ।

श्लेष्मशोफसमीरार्तिप्रदराध्मानहारिणी ॥

Rāja Nighaṇṭu, Śatāhvādi varga, 154.

स्नायुकुरोगे निर्गुण्डीपत्रस्वरससघृतपानम्

Cakradatta, 53-41.

असाध्यगृध्रसीविकारे

शेफालिकादलैः क्वाथो मृद्वग्निपरिपाचितः ।

दुवारं गृध्रसीरोगं पीतमात्रं प्रणाशयेत् ॥

Bhāvaprakāśa, Madhyakhanda,

Cikitsāprakaraṇam, Vātavyādhyadhikāra, 24-142.

Cakradatta, Vātavyādhi cikitsā, 22-41.

स्नायुकरोगे

गव्यं सर्पिस्त्र्यहं पीत्वा निर्गुण्डीस्वरसं त्र्यहम् ।

पिबेत्स्नायुकमत्युग्रं हन्त्यवश्यं न संशयः ॥

Vṛndamādhava, 55-18.

Bhāvaprakāśa, Snāyukarogādhikāra, 57-7.

राजयक्ष्मारोगे निर्गुण्डीघृतम्

समूलफलपत्राया निर्गुण्ड्याः स्वरसैर्घृतम् ।

सिद्धं पीत्वा क्षतक्षीणो निर्व्याधिर्भाति देववत् ॥

Cakradatta, Rāja yakṣmādhikāra, 10-82.

गण्डमालारोगे निर्गुण्डीनस्यम्

गण्डमालाऽऽमयार्त्तानां नस्यकर्माणि योजयेत् ।

निर्गुण्ड्याश्च शिफां सम्यग् वारिणा परिपेषिताम् ॥

Cakradatta, Galagaṇḍādi cikitsā, 41-20.

दारुणगण्डमालायां निर्गुण्डीतैलम्

निर्गुण्डीस्वरसेनाथ लाङ्गलीमूलकत्कितम् ।

तैलं नस्यान्निहन्त्याशु गण्डमालां सुदारुणाम् ॥

Cakradatta, 41-27.

नाडीव्रणचिकित्सायां निर्गुण्डीतैलम्

समूलपत्रां निर्गुण्डीं पीडयित्वा रसेन तु ।

तेन सिद्धं समं तैलं नाडीदुष्टव्रणापहम् ॥

हितं पानाऽपचीनान्तु पानाभ्य(ङ्ग)ञ्जननावनैः ।

विविधेषु च स्फोटेषु तथा सर्वव्रणेषुय ॥

Cakradatta, Naḍivraṇa cikitsā, 44/20-21.

कासश्वासयोः

‘निर्गुण्डपत्रस्वरसे च पक्का सर्पिः कफोत्थं

विनिहन्ति कासम् ।’

Suśruta Saṁhitā, Uttara, 52-30.

निर्गुण्डीपत्रनिर्याससाधितं कासजिद् घृतम् ।

घृतं रसे विडङ्गानां व्योषगर्भञ्च साधितम् ॥

Aṣṭāṅga Hṛdaya, Cikitsā, 3-57.

निर्गुण्डीकुण्डलीपथ्यामरिचैः समभागिकैः ।
क्राथो लवणसंयुक्तः कासश्वासविकारनुत् ॥

Vaidya Manoramā, 3-11.

गण्डमालायाम्

गण्डमालामयार्त्तानां नस्यकर्माणि योजयेत् ।
निर्गुण्ड्यास्तु शिफां सम्यग्वारिणा परिपेषिताम् ॥

गण्डमालारोगे निर्गुण्डीयोगः

निर्गुण्डीतैलम्

Vṛndamādhava, 41-52.

Śārṅgadhara Saṁhitā, 2-1-95.

अपस्मारे

‘निर्गुण्डीमूलकं जग्ध्वा ह्यपस्मराद् विमुच्यते ।’

Rasaratna Samuccaya, 21-57.

पूतिकर्णे

निर्गुण्डीस्वरसे तैलं सिन्धुधूमरजोगुडः ।
पूरणं पूतिकर्णस्य शमनं मधुसंयुतम् ॥

Baṅgasena, Karṇaroga, 89.

वातव्याधौ

एरण्डतैलं निर्गुण्डीस्वरसञ्च पृथक्-पृथक्-
पीत्वा कटिप्रदेशस्थं वातं जित्वा सुखी भवेत् ॥

Vaidya Manoramā, 12-8.

निर्गुण्डीमूलचूर्णन्तु कर्षं तैलेन लेहयेत्
सन्धिवातः कटिवातः कम्पवातश्च शाम्यति ॥

Rasaratna Samuccaya, 21-164.

सूतिकारोगे

संयोजितो दलितया कणाया कवोष्णो निर्गुण्डिकालशुननागरजःकषायः ।
पीतो निहन्ति कफमारुतकोपजातं सूत्यामयं सकलमेव सुदुस्तरञ्च ॥

Yogarātnākara, p. 425.

विषप्रतिकारार्थम् सर्पविषे

सिन्धुवारस्य मूलं च श्वेता च गिरिकर्णिका ।
पानं दर्वीकरैर्दष्ट्रे नस्यं समधु पाकलम् ॥

Caraka Saṁhitā, Cikitsā, 23-195.

Aṣṭāṅga Hṛdaya, Uttara, 26-57.

मूषिकविषे

‘सहे ससिन्धुवारे च लिह्यात्तत्र समाक्षिके ।’

Suśruta Saṁhitā, Kalpa, 7-21.

सामान्यविषे

‘शीतं निह्यादचिरात् प्रदेहो विषं शिरीषस्तु ससिन्धुवारः ।’

Caraka Saṁhitā, Sūtra, 3-28.

श्लेष्मज्वरे

सिन्दुवारदलक्राथः सोषणः कफजे ज्वरे ।

जङ्घयोश्च बले क्षीणे कर्णे वा पिहिते पिबेत् ॥

Cakradatta, 1-105.

सिन्दुवारदलक्राथं कणाढ्यं कफजे ज्वरे ।

जङ्घयोश्च बले क्षीणे कर्णे च पिहिते पिबेत् ॥

Bhāvaprakāśa, Cikitsā, 1-382.

रक्तपित्ते

‘.....वटाक्षिमुक्ताङ्गरसिन्धुवारजः हितञ्च शाकं घृतसंस्कृतं सदा ।’

Suśruta Saṁhitā, Uttara, 45-16.

NIṢPĀVA-ŚIMBĪ

Botanical name

Lablab purpureus (L.) Sweet., Lablab purpurea (L.) Sweet.

Syn. Dolichos purpurea L., D. purpureus L., Dolichos lablab L.

Family : Fabaceae (Papilionaceae)

Classical name : Niṣpāva-Śimbī

Sanskrit names

Niṣpāva, Śimbī, Mādhvikā, Rājaśimbī, Vallaka, Niṣpāvī, Śvetaśimbī, Vallīśimbī, Latāśimbī, Palañkaśā, Vṛttā, Maduśarkāra.

Regional names : Sem (Hindi).

Description

Annual or perennial climbing herbs. Twinning plant cultivated mostly as an annual. Leaves pinnately 3-

foliolate, stipulate; petioles 1-18 cm. long; leaflets broadly ovate, acuminate, 5-12 x 4-10 cm., glabrous or pubescent.

Flowers axillary, peduncled; peduncles and racemes 15-22 cm. long pedicels fascicled. Calyx 3-6 mm. long teeth deltoid. Corolla much exerted purple or white; standard 12-15 mm. long, auriculate with appendages; Keel incurved, rostrate. Stamens diadelphous, 9-1. Ovary nearly sessile; style bearded along inner edge; stigma terminal.

Pods flat, strap shaped, upto 10x4 cm., 2-5-seeded.

Flowering and fruiting time

Plant flowers and fruits during the period from November to April. Farming seasons.

Distribution

It is cultivated commonly for its pod-vegetable. Various forms are under horticultural practice (vegetable farming) in India.

Kinds and varieties

There are various types and kinds of source plant producing sem or bean (Niṣpāva or Śimbī) such as *Dolichos lablab* Linn. Var. *typicus* Prain (Lablab Bean, Bonavist Bean, Hyacinth Bean, Indian Butter Bean) and *D. lablab* var. *lignosus* Prain (Australian Pea, Field Bean).

Classically, some varieties and kinds of Niṣpāva (śimbī) are mentioned in texts of materia medica and medicine such as Niṣpāva, Vṛtta niṣpāvi, Niṣpāvidvaya, Valliśimba-latā śimbī, Kaṭu-madhura niṣpāva and Rāja śimbi incorporated in Śākavarga of Indian medical system.

Chemical composition

Analysis of pods gives following values : moisture 82.4, protein 4.5, fat 0.1, mineral matter 1.0, fibre 2.0, carbohydrates 10.0 per cent; it contains calcium 0.05, phosphorous 0.06%, iron 1.67 mg./100 g. and nicotinic acid 0.8 mg./100 g. The vitamin C content varies from 7.33 to 10.26 mg./100 g. for cooked samples and 0.77-1.12 mg./100 g. uncooked samples; the increase in vitamin C content on cooking is attributed to the softening of the pulp which facilitates extraction.

Difference in properties in view of different factors related to kinds, stages, parts use and forms of Niṣpāva (śimbī).

Pharmacodynamics

Rasa	: Madhura, Kaṣāya
Guṇa	: Rūkṣa, guru
Vīrya	: Uṣṇa
Vipāka	: Madhura
Doṣakarma	: Śleṣmahara-vātapittakara

Properties and action

Karma	: Rocana-dīpana Viṣṭambhi Medhya Saṅgrāhi Balya-puṣṭidā Viṣaghna Kṛmighna Kaṇḍūghna Stanyaajanana Vidāhi Kaṇṭhaśodhana.
Roga	: Agnimāndya Viṣa Dourbalya Kṛmi Kuṣṭha Tvagvikāra-pāmā Śoṭha Mūtrala Kaṇṭharoga.

Therapeutic uses

The seeds of Niṣpāva or Śimbī are considered febrifuge, stomachic, anti-spasmodic and aphrodisiac.

Lablab bean is popular as a vegetable all over the country. The pods in most types, retain their tenderness until they attain full size; therefore the seeds alone can be utilised afterwards. Favoured types are those which have good flavour and thick, fleshy skin with particularly and

practically no fibre. Young pods may be salted or steamed and sun dried for preservation. Pods and seeds are used also as cattle feed. The plant is used as fodder for cattle. Pods are most dietary article as vegetable (śimbīśaka) prepared and consumed in domestic food practices.

Besides various types (of source plant), kinds and varieties, the mode and form of usage, stages, parts and recipes (in medicine as well as diet) are supposed to make difference in regard to medicinal properties and effect of Niṣpāva in human body depending on therapeutic administration as well as dietary consumption keeping the medicinal efficacy, food value and nutritive potentiality. Certain disqualities of Niṣpāva, particularly when used in excess or constantly, are also indicated which has duly been considered in indigenous medicine while suggesting Śimbī (niṣpāva) as wholesome (pathya-hita) and unwholesome (apathya-ahita) food vegetable article to patients of various diseases.

Part used : Pod, seed.

Dose : 1-3 gm., 3-6 gm., Edible (vegetable).

NIṢPĀVA (निष्पाव)

निष्पावः (राजशिम्बीबीजम्)

- क. निष्पावो राजशिम्बिः स्याद्वल्लकः श्वेतशिम्बिकः ।
 ख. निष्पावो मधुरो रूक्षो विपाकेऽम्लो गुरुः सरः ॥
 कषायः स्तन्यपित्तास्रमूत्रवातविबन्धकृत् ।
 विदाह्युष्णो विषश्लेष्मशोथहृच्छुक्रनाशनः ॥

Bhāvaprakāśa Nighaṇṭu, Dhānya varga, 46-47.

वल्लीशिम्बः लताशिम्बीफलम्

- फलं तु वल्लीशिम्बस्य मूत्रदोषकरं गुरु ।
 पित्तलं स्वादु तिक्तं च कुष्ठपामाहरं परम् ॥
 विषघ्नं दीपनं चोष्णं कृमिघ्नमनिलापहम् ।

Kaiyadeva Nighaṇṭu, Dhānya varga, 64-65.

निष्पावी

निष्पावी ग्रामजादिः स्यात् फलिनी नखपूर्विका ।

मण्डपी फलिका शिम्बी ज्ञेया गुच्छफला च सा ॥
विशालफलिका चैव निष्पाविश्चपिटा तथा ।

Rāja Nighaṇṭu, Mūlakādi varga, 191.

वृत्तनिष्पावी

अन्याऽङ्गुलीफला चैव नखनिष्पाविका स्मृता ।
वृत्तनिष्पाविका ग्राम्या नखपुच्छफला शराः ॥

Rāja Nighaṇṭu, Mūlakādi varga, 192-192.

निष्पावीद्वयम्

निष्पावी द्वौ हरिच्छुभ्रौ कषायौ मधुरौ रसौ ।
कण्ठशुद्धिकरौ मेध्यौ दीपनीरुचिकारकौ ।
सङ्ग्राहि समवीर्यं स्यादोषच्छ्रेष्ठं द्वितीयकम् ॥

Rāja Nighaṇṭu, Mūlakādi varga, 193.

निष्पावः

मधुरः श्वेतनिष्पावो माध्वीका मधुशर्करा ।
पलङ्कषा स्थूल शिम्बी वृत्ता मधुसिता सिता ॥
मधुशर्करा सुरुच्या मधुराल्पकषायका ।
शिशिरा वातुला बल्याऽप्याध्मानगुरुपुष्टिदा ॥

Rāja Nighaṇṭu, Śālyādi varga, 107-108.

कटुनिष्पावः

सोऽन्यश्च कटुनिष्पावः कटुकोऽस्रप्रदो गुरुः ।
वातलः कफदो रुक्षः कषायो विषदोषनुत् ॥

Rāja Nighaṇṭu, Śālyādi varga, 109-110.



THERAPEUTIC INDICATION OF DRUGS

Abordifacient

Indravāruṇī

Guñjā

Lāngali

Abscess

Atasī

Citraka

Daśamūla

Guggulu

Karañja

Kumārī

Agnimāndya-Deficient- digestion

Ajamodā

Āmalakī

Ārdraka

Arka

Haritakī

Jambū

Karañja (Kaṅṭakī)

Kupīlu

Marica

Alcoholism

Amlavetasa

Bhārngī

Dāḍima

Drākṣā

Hingu

Hribera

Alopecia (Baldness)

Bhallātaka

Bṛhatī

Dhattūra

Gokṣura

Guñjā

Indravāruṇī

Kākādanī

Karañja

Lāngali

Āmavāta-Rheumatic Arthritis

Ajamodā

Āragvadha

Daśamūla

Dhānyaka

Eraṇḍa

Gokṣura

Guggulu

Guḍucī

Haritakī

Kulattha

Lakuca

Mūlaka

Muṇḍī

Amlapitta-Acid gastritis (hyperacidity)

Bhṛngarāja

Guḍucī

Guggulu

Haritakī

Jambīra

Jīraka

Kaṭukī

Nārikela

Nimba

Anaemia

Āmalakī

Asana	Māṣaparnī
Citraka	Mudgaparnī
Dāḍima	Munjātaka
Dantī	Muśalī
Dāruharidrā	Arthritis
Daśamūla	Indravāruṇī
Drākṣā	Guggulu
Haridrā	Ketakī
Harītakī	Asthma-Śvāsa
Īkṣu	Aguru
Kākādanī	Ankoṭa
Pancamūla (laghu)	Ārdraka
Madhūka	Arka
Mātuluṅga	Aśvagandhā
Mūlaka	Bibhītaka
Anorexia	Bhārṅgī
Āmlīkā	Bhṅgarāja
Āmra	Bṛhatī
Ārdraka	Coraka
Bṛhatī	Daśamūla
Apaci-scrofula	Devadāru
Bhallātaka	Guggulu
Bhṅgarāja	Haridrā
Girikarṇikā	Māmsī
Lāṅgalī	Marica
Madhūka	Mātuluṅga
Muṇḍī	Mūlaka
Aphrodisiac	Nirguṇḍī
Āmalakī	Harītakī
Aṅkoṭa	Kadalī
Aśvattha	Kākodumbara
Bhallātaka	Kaṅṭakārī
Godhūma	Karkaṭaśṅgī
Gokṣura	Karpūra
Kapikacchu	Kāsamarda
Karkaṭaśṅgī	Kūsmāṇḍa
Kokilākṣa	Kulattha
Madhūka	Bhasmaka-Excessive Digestion
Māṣa	Apāmārga

Kola-Badara

Burn

Aśvattha

Nārikela

Madhuka

Dhātakī

Kumārī

Burning sensation

Āmalakī

Badarī

Caṇaka

Karkandhu-Badara

Mallikā

Nimba

Calculus-Aśmarī

Amlavetasa

Apāmārga

Bibhītaka

Darbha

Ervāru

Gokṣura

Harīdrā

Harītakī

Jāti

Kalamba

Kaṇṭakāri

Karkoṭa

Kataka

Kaṭukālābu

Kṣirī vṛkṣa

Kulattha

Kundurū

Kuśa

Kusumbha

Māmsī

Mātuluṅga

Mayūrasīkhā

Moraṭa

Gravels-Śarkarā

Ajamodā

Apāmārga

Darbha

Kadamba

Karavīra

Nārikela

Chest-pain

Balā

Eraṇḍa

Jivantī

Colic-śūla

Agastya Ajamodā

Āmalakī

Amlavetasa

Apāmārga

Aśvattha

Babbūla

Dhanvana

Eraṇḍa

Godhūma

Harīdrā

Harītakī

Hiṅgu

Kaṇṭakīkaraṅja

Kulattha

Laghu-pañcumūla

Lavaṅga

Consumption-Śoṣa

Arjuna

Aśvagandhā

Aśvattha

Balā

Daśamūla

Drākṣā

Gokṣura

Kākajaṅghā

Kharjūra

Kūṣmāṇḍa

Laghupañcamūla	Āmalakī
Madayantī	Amlikā
Madhūka	Ādraka
Maṇḍūkapaṇṇī	Arka
Mūlaka	Badarī
Nāgabalā	Bhārngī
Nirguṇḍī	Bhṛngarāja
Coryza-Pratiśyāya	Bibhitaka
Amlikā	Bṛhatī
Ādraka	Citraka
Citraka	Daśamūla
Coraka	Devadāru
Dāruharidrā	Drākṣā
Dhattūra	Eraṇḍa
Harītakī	Godhūma
Jayā	Guḍūcī
Kaṇṭakarī	Hapuṣā
Madhūlikā	Hareṇukā
Maṇḍūkapaṇṇī	Haridrā
Marica	Harītakī
Mūlaka	Jīvantī
Cosmetic	Ikṣu
Jātī	Kākādani
Harīdrā	Kākamācī
Japā	Kakodumbara
Kumārī	Kamala
Āmalakī	Kaṇṭakārī
Bhṛngarāja	Karkaṭaśrngī
Madayantī	Kārpāsa
Mallikā	Kāsamarda
Ketaki	Khadira
Nārikela	Kharjūra
Nimbūka	Kulattha
Cough	Kūṣmāṇḍa
Abhiṣuka	Kuṭaja
Agastya	Madhūlikā
Aguru	Bṛhat pañcamūla
Ahiphena	Māmsī
Ajagandhā	Maṇḍūkapaṇṇī

Marica	Gajapippalī
Māṣaparnī	Hapuṣā
Mudga	Harītakī
Mudgaparnī	Hrīvera
Mūlaka	Jambū
Mustaka	Jātiphala
Nirguṇḍī	Jīvantī
Cyst-Tumour	Kaṅcaṭa
Dantī	Kapittha
Drākṣā	Kārpasa
Madhūka	Kāsmārya
Mūlaka	Kaṭphala
Depilatory	Keśarāja
Bhallātaka	Kuṭaja
Kośātakī	Laghu-Pañcamūla
Kusumbha	Lājā
Madhūka	Loṇikā
Mūlaka	Mallikā
Diarrhoea	Masūra
Ahiphena	Mocarasa
Ajamodā	Mūlaka
Amlikā	Mustaka
Āmra	Nicula
Arka	Diseases of Mouth
Arjuna	Arimeda
Ativiṣā	Dāruharidrā
Babbūla	Drākṣā
Badarī	Jīvantī
Bibhītaka	Bakula
Bilva	Khadira
Cāṅgerī	Lavaṅga
Cavya	Māmsī
Citraka	Inflammation of Lip
Dāḍīma	Rohiṇī
Daśamūla	Eraṇḍakarkaṭī
Dhānyaka	Stomatitis
Dhātakī	Āmāra
Durālabhā	Aśvattha
Eraṇḍa	Jāti

Stiffness of Tongue

Marica

Diseases of Nose

Devadāru

Nasal Polypus

Kaṅṭakālabū

Diseases of Teeth

Babbūla

Bakula

Dugdḥikā

Kṣirīvr̥kṣa

Mallikā

Nimba

Dental Caries

Arka

Bākucī

Guñjā

Hiṅgu

Kākajaṅghā

Kamala

Kaṭutumbī

Mātuluṅga

Loose Mouth

Daśamūla

Mustaka

Dentition

Pippalī

Toothache

Girikarṇika

Bakula

Haritamañjarī

Distaste/Abnormal taste in mouth

Ikṣu

Kharjūra

Diseases of Throat

Arka

Eraṇḍakarkaṭī

Badarī

Harītakī

Tonsillitis

Jātī

Upajihvikā

Jātī

Diseases of Women

Daśamūla

Muṇḍī

Pippalī

Amenorrhoea

Indravāruṇī

Japā

Kulattha

Kumārī

Leucorrhoea

Dāruharidrā

Dhātakī

Lodhra

Aśoka

Mastitis

Dhattūra

Kumārī

Menorrhagia-Asṛgdara

Alābū

Āmalakī

Apāmārga

Āruka

Aśoka

Atibalā

Badarī

Balā

Bhūmyāmalakī

Candana

Dāruharidrā

Guḍūcī

Japā

Kadalī

Kākodumbara

Ketekī

Kuśa	Disorders of Vaginal-Organic
Lākṣā	Change or Displacement
Madhūka	Ādraka
Nāgkeśara	Haritakī
Puerperal Disorders	Disorders of Semen
Sūtikā Roga	Haritakī
Daśamūla	Drowsiness
Nirguṇḍī	Jyotiṣmatī
Somaroga	Dysentery
Āmalakī	Ajamodā
Amlikā	Bākucī
Kadalī	Bhṛṅgarāja
Kumuda	Dāruharidrā
Sterility	Dugdhikā
Asthisaṃhāra	Kaṅtaki-karañja
Aśvagandhā	Dugdhikā
Bākucī	Lakuca
Bṛhatī (śveta)	Lodhra
Dhātakī	Loṇikā
Eraṇḍa	Marica
Kaṅtakāri śveta	Dysuria
Māṣapaṇḍī	Atibalā
Nāgakeśara	Apāmārga
Disorders of Vagina-genital	Darbha
tract (Yonivyāpad)	Elā
Arka	Ervāru
Himśrā	Gokṣura
Kaṭutumbī	Hapuṣā
Kṣīrivr̥kṣa	Jāti
Mūṣikaparnī	Kadalī
Nimba	Kadamba
Slimy and Lax Vagina	Kamala
Āmra	Kārpāsa
Bhaṅgā	Kāsa
Vaginal pain	Ketakī
Apāmārga	Kumārī
Bhṛṅgarāja	Kumuda
Eraṇḍa	Kuśa
	Kusumbha

Laghu-pañcamūla
 Mūlaka
 Nimba
Ear Diseases
 Amlikā
 Apāmārga
 Arka
 Bhūrja
 Bṛhatī
 Kaṇṭakārī
 Karpūra
 Kaṭutumbī
 Lakuca
 Lāngalī
 Madhūka
 Pañca-vaikāla
Deafness
 Apāmārga
 Bākucī
 Bilva
 Daśamūla
Earache
 Amlikā
 Apāmārga
 Arka
 Bhūrja
 Bilva
 Bṛhatī
 Ārdraka
 Aśvattha
 Devadāru
 Drākṣā
 Eraṇḍa
 Hiṅgu
 Jambīra
 Jhaṇḍū
 Mātuluṅga
 Mahat-pañcamūla

Foetid Ear
 Guggulu
 Jāti
 Nirguṇḍī
Krimikarṇa
 Jambū
Otorrhoea
 Dhava
 Apāmārga
 Bilva
 Kārpāsa
Emaciation
 Aśvagandhā
 Ikṣu
Emetic
 Jīmūta
 Ariṣṭaka
 Madana
 Madhūlaka
Epilepsy
 Agastya
 Brāhmī
 Coraka
 Daśamūla
 Ketakī
 Kumārī
 Madana
 Māmsī
 Kaṇṭakārī
 Karavīra
 Kāsa
 Kataka
Eruptive Boils-Visphotaka
 Dugdḥikā
 Guḍuci
 Kirāta
 Karañja
 Khadira

Erysepalas-Visarpa

Agnimantha
 Āmalakī
 Āragvadha
 Ārtagala
 Aśvagandhā
 Balā
 Bhūrja
 Candana
 Dādima
 Dāruharidrā
 Dhava
 Dūrvā
 Guñjā
 Hrīdrā
 Hrībera
 Ikṣu
 Kaṇṭaka-Pañcamūla
 Karañja
 Kṣīrīvrkṣa
 Madhūka
 Madhuka
 Mātuluṅga
 Mudga
 Mūlaka
 Muñjātaka
 Mustaka
 Nala

Granthi-Visarpa

Bibhītaka
 Daśamūla

Excessive perspiration

Kulattha

Excessive sleep

Kulattha

Eye Diseases

Ārtagala
 Āmalakī
 Amlikā

Apāmārga
 Arka
 Babbūla
 Bhṛṅgarāja
 Bibhītaka
 Bilva
 Cakṣuṣyā
 Candana
 Dāruharidrā
 Darbha
 Devadāru
 Droṇapuṣpī
 Eraṇḍa
 Girikarṇikā
 Guḍūcī
 Hareṇukā
 Harītakī
 Bibhītaka
 Āmalakī
 Jivantī
 Kadali
 Kākamācī
 Kamala
 Karañja
 Karavellaka
 Karavīra
 Kaṣeru
 Kataka
 Lakuca
 Lodhra
 Madhuka
 Madhūka
 Mahānimba
 Mallikā
 Māmsī
 Marica
 Meśāśṅga
 Mudga
 Mustaka

Nimba	Āmra
Conjunctivitis	Āragvadha
Dantī	Ādraka
Dhātakī	Bilva
Eraṇḍa	Bṛhatī
Kaṇṭakari	Dāḍima
Kaṭuka	Darbha
Visionary defects-Timira	Daśamūla
Daśamūla	Devadāru
Elā	Dhanvana
Eraṇḍa	Dhānyaka
Guñjā	Dhattūra
Haritakī	Drākṣā
Jīvantī	Eraṇḍa
Asana	Guḍūcī
Cakṣusyā	Hareṇukā
Marica	Haritakī
Night-Blindness	Hribera
Agastya	Jimūta
Bhṛṅgarāja	Jiraka
Eraṇḍa	Jīvantī
Jīvantī	Kaṇṭakārī
Marica	Kaṇṭaki-karañja
Eye Pain	Kāravellaka
Bhūmyāmalakī	Karkoṭaka
Eye-sight Improvement	Kāśmarya
Asana	Kaṭphala
Karīra	Kaṭukā
Eyelids affection-Pakṣmakopa	Kirātatikta
Haritakī	Kulattha
Piṣṭaka-Netravikāra	Kupilu
Bṛhatī	Kuṭaja
Fainting	Pañcamūla (laghu)
Āmalakī	Lāja
Ādraka	Madana
Haritakī	Pañcamūla (mahat)
Fever	Mūrvā
Agastya	Mustaka
Āmalakī	Nala

Nāri-kala

Nimba

Chronic Fever

Guḍūcī

Daśamūla

Candana (rakta)

Malarial Fever

Ajagandhā

Bhallātāka

Bhāṅgī

Bhūstṛṇa

Coraka

Droṇapuspī

Guḍūcī

Harītakī

Hingu

Jiraka-śveta

Jiraka-kṛṣṇa

Filaria

Arka

Asana

Bākucī

Balā

Citraka

Devadāru

Dhattūra

Eraṇḍa

Guḍūcī

Haridrā

Harītakī

Jingīṇī

Kāsamarda

Kebuka

Khadira

Fistula-in-ano

Guggulu

Haridrā

Jāti

Khadira

Madhūka

Nyagrodha

Flatulence

Ajamodā

Harītakī

Hiṅgu

Jiraka

Foul smell in Body

Campaka

Candana

Hilamocikā

Jāti

Mātuluṅga

Pūtika

Fracture

Amlikā

Arjuna

Asthisamhāra

Aśvattha

Dhātakī

Godhūma

Nyagrodhādi gaṇa

Lākṣā

Madhūka

Māmsī

Mañjiṣṭhā

Fumigation

Coraka

Jaṭāmāmsī

Nimba

Galacto-depurant**(Stanyaśodhana)**

Ajamodā

Daśamūla

Guḍūcī

Harītakī

Jivakādyagaṇa

Katukā

Kirātatikta

Nimba	Jhaṇḍū
Galactogogue	Grahaṇi-roga
(Stanyajanana)	Aṅkoṭa
Darbha	Arjuna
Madhuka	Ativiṣā
Gaṇḍamāla (Cervical adenitis)	Bhārṅgī
Āragvadha	Bilva
Arka	Bṛhatī
Girikarṇikā	Candana
Arka	Cāṅgerī
Godhūma	Coraka
Guñjā	Daśamūla
Indravāruṇī	Drākṣā
Kāncanāra	Duralabhā
Kośātakī	Hariakī
Kulattha	Ikṣū
Muṇḍī	Kadalī
Nirguṇḍī	Kharjūra
Giddiness	Kirātatikta
Durālabhā	Madhūka
Drākṣā	Mahat Pañcamūla
Goitre	Marica
Ajagandhā	Masūra
Balā	Mūrvā
Bhārṅgī	Hair Greying (Pālitya)
Devadāru	Āmalakī
Girikarṇikā	Bhṛṅgarāja
Hamsapadi	Dugdhikā
Hastikarṇa	Indravāruṇī
Jalakumbhī	Japā
Kāñcanāra	Kāsmarī
Karkāru	Kumuda
Kaṭukālābu	Madhuka
Nicula	Mallikā
Gonorrhoea	Nimba
Āmra	Gulma
Arjūna	Ajagandhā
Dāḍīma	Amlavetasa
Japā	Amlikā

Arka	Madhuka
Bhallātaka	Mucakunda
Dhānyaka	Suryāvarta
Drākṣā	Bhṛngarāja
Eraṇḍa	Head-evacuation
Hapuṣā	Kaṭphala
Harītakī	Heart-diseases
Hingu	Āmalakī
Kampillaka	Arjuna
Kaṇṭaki karañja	Āruka
Ketakī	Aśvagandhā
Kulattha	Bibhītaka
Kumārī	Daśamūla
Kuṣṭha	Dāḍima
Mahat-pañcamūla	Godhūma
Mātuluṅga	Drākṣā
Nīlinī	Elā
Haematuria	Candana
Gokṣura	Kaṭukā
Haemorrhage	Kulattha
Arimeda	Laghu-pañcamūla
Bhūmyāmalakī	Nāgabalā
Dhanvana	Nimba
Dūrvā	Headache
Lajjālu	Badarī
Lodhra	Coraka
Head-diseases	Kuṅkuma
Abhiṣūka	Kumārī
Akṣoṭa	Kuṣṭha
Apāmārga	Mucakunda
Kaṭukā	Hernia
Madhūkā	Bhārngī
Māṣa	Godhūma
Headache	Harītakī
Badarī	Hiccough
Coraka	Aguru
Kaṅkuma	Āmalakī
Kumārī	Amlavetasa
Kuṣṭha	Arka

Candana
Candraśūra
Coraka
Devadāru
Haritakī
Ikṣu

Hoarseness of Voice

Ajamodā
Āmalakī
Ārtagala
Balā
Citrika
Badarī
Haṁsapadi
Haridrā
Khadira
Ksīrivṛkṣa
Madhuka
Malayavacā
Maṇḍukaparṇī

Incontinence of Urine

Campaka

Indigestion

Ajamodā
Āmra
Dhānyaka
Jambīra
Haritakī
Lavaṅga

Inflammation

Agnimantha
Atasī
Aśvattha

Insanity

Brāhmī
Cāngerī
Coraka
Daśamūla
Dhattūra

Hareṇukā
Hingu
Indravāruṇī
Jaṭāmāmsī
Jyotiṣmatī
Maṁsī
Maṇḍuka-parṇī

Insomnia

Apāmārga
Aśvagandhā
Bhārngī
Kokilākṣa

Jaundice

Āmalakī
Aṅkoṭa
Apāmārga
Āragvadha
Arka
Bhūmyamalakī
Bilva
Dantī
Dāruharidrā
Droṇapuṣpī
Guḍūcī
Haridrā
Haritakī
Indravāruṇī
Jimūtaka
Kākadanī
Karkoṭaka
Kaṭuka
Kaṭukālābū
Kumārī
Mūlaka
Muṇḍī
Nimba
Maṇḍukaparṇī
Mātuluṅga

Halimaka

Guḍūcī
Mustaka

Kṣataksīna**(Wasting with chest-wound)**

Abhiṣūka
Akṣotaka
Balā
Jivakādyagaṇa
Lākṣā
Nāgabalā

Kṣudraroga (minor diseases)

Bākucī
Bhaṅgā
Haridrā
Haritakī
Karañja
Karavīra

Alasa

Kaṅṭakārī

Cracks in Feet (sole)

Dhattūra
Jātī
Kaṭutumbī
Nārikela

Dandruff

Ahiphena
Āmra
Guñjā
Haritakī
Kodrava
Madhuka

Head-boils

Arka
Kuṣṭha
Nimba

Jālakagardabha

Āmalakī

Mole

Eraṇḍa

Psoriasis

Hamsapadi

Ringworm

Amlikā
Dugdrikā

Vārāhadanṣṭra

Bhṛṅgarāja

Vyaṅga**(Freckles and Shade-Face)**

Agnimantha
Āmalakī
Amlikā
Dāḍima
Haridrā
Ingudī
Jambū
Jātī
Kapittha
Mañjiṣṭhā
Masūra
Muśālī

Wart

Indravāruṇī

Whitlow

Haridrā
Haritakī
Kāśmarī

Kuṣṭha

Adhopuṣpī
Āmalakī
Amlavetasa
Āragvadha
Arka
Arjuna
Asana
Bākucī
Bhallātaka

Bhārngī	Kākajaṅghā
Bhūrja	Liver Enlargements
Cakramarda	Harītakī
Citraka	Kālamegha
Dantī	Kākamācī
Dāruharidrā	Kaṭuka
Devadāru	Kumārī
Dhātakī	Mental disorders
Dhava	Girikarṇikā
Godhūma	Brāhmī
Guḍūcī	Maṇḍūkaparṇī
Guñjā	Kuṣṭha
Haridrā	Jyotiṣmatī
Harītakī	Devadāru
Ingudī	Kūṣmāṇḍa
Jalakumbhī	Jaṭāmāmsī
Jīmūta	Nacrosis
Kākamācī	Harītakī
Karañja	Kuṣṭha
Karavīra	Obesity
Kārpāsa	Agnimantha
Kaṭukā	Asana
Khadira	Atimuktaka
Kośātakī	Babbūla
Kṛṣṇa vetra	Badarī
Kuṭaja	Bilva
Lakuca	Citraka
Lodhra	Eraṇḍa
Mamsī	Gavedhukā
Manjiṣṭha	Guggulu
Mūlaka	Harītakī
Mūrvā	Mahatpañcamūla
Muṣkaka	Marica
Nimba	Muṇḍī
Mudgaparṇī	Obstetric disorders
Sidhma	Abortion
Apāmārga	Kamala
Jyotiṣmatī	Kaśeru
Bāṇa	Nyagrodhādigaṇa

Difficult labour

Apāmārga
Atibalā
Balā
Bhūrja
Lāṅgali

Hastening Delivery

Godhūma
Jīmūtaka
Lāṅgali

Placenta Expulsion

Kaṭukālābū
Lāṅgali

Kikkisa

Āragvadha
Karavīra

Pregnancy pain

Balā
Drākṣā
Ervāru

Puerperal disorders

Methikā

Pūmsavana

Kaṅṭhakāri-śveta
Lakṣmaṇā

Stabilising Foetus

Bhṛṅgarāja
Dūrvā
Kaśeruka

Oedema

Agurū
Agnimantha
Alābū
Amlikā
Āmra
Ārdraka
Bibhītaka
Bilva
Caṇḍā

Citraka
Daśamūla
Devadāru
Eraṇḍa
Girikarṇikā
Guggulu
Haritakī
Kākamācī
Karīra
Kārpāsa
Kaṭutumbī
Kiratatikta
Kuṣṭha
Māmsī
Māṇaka
Mūlaka
Nimba

Pain

Lavaṅga

Paediatric Disorders

Āmalakī
Ativiṣā
Ārdraka
Bhūrja
Bilva
Brāhmī
Bṛhatī
Coraka
Hribera
Kamala
Kuṣṭha
Madhūlikā
Muṇḍī

Ahipūtanā

Badarī
Karañja

Asthmā

Dhānyaka

Bālagraha	Arjuna
Ajagandhā	Arka
Aralu	Āsphotā
Āsphotā	Bhallātaka
Bālaśoṣa-Marasmus	Bhārṅgī
Aśvagandhā	Bilva
Neo-natal conjunctivitis	Bṛhati
Jambū	Cāṅgerī
Cough	Citraka
Dhānyaka	Dantī
Grahaṇiroga	Dhānyaka
Jambū	Eraṇḍa
Umbilical Inflammation	Guḍūcī
Candana	Hapuṣā
Oedema	Haridrā
Marica	Haritakī
Earlobes Piercing-	Hribera
(Karnavedhana)	Jalakumbhī
Pancavalkala	Kaṇṭakārī
Promoting Earlobes Growth	Kapittha
(Karnapāli samvardhana)	Kola
Guñjā	Kovidāra
Proctitis	Kulattha
Dāruharidrā	Kuśa
Rasāyana	Lāṅgali
Madhuka	Loṇikā
Māmsī	Madhuka
Medhya	Mahānimba
Kuṣṭha	Māmsī
Brāhmī	Manjiṣṭhā
Maṇḍūkaparṇī	Mūlaka
Piles-Haemorrhoids	Bleeding Piles-Raktarsa
Adhaḥpuṣpī	Amlikā
Agnimantha	Balā
Alābū	Candan
Āmalakī	Cukrikā
Amlavetasa	Dādima
Apāmārga	Dugdghikā
Ārdraka	Dūrvā

Jhaṇḍu

Rabies

Dhattūra

Jalavetasa

Kākodumbora

Nala

Rat-poisoning

Āsphotā

Ingudī

Kākādani

Kakamācī

Kośātakī

Scorpion-sting

Apāmārga

Jayantī

Kārpāsa

Kāsamarda

Snake-poison

Amlikā

Dravantī

Girikarṇikā

Hareṇukā

Kākajaṅghā

Kovidāra

Kuṣṭha

Lajjālu

Mañjiṣṭhā

Mayura-sīkhā

Nākuli

Spider-poisoning

Arkaparṇī

Hribera

Kārpāsa

Pox

Āmalakī

Amlikā

Badarī

Candana

Dāḍima

Gavedhukā

Haridrā

Hilamocikā

Jambīra

Jayā

Kāñcanāra

Khadira

Karavellaka

Mātuluṅga

Prameha

Aguru

Agnimantha

Āmalakī

Āragvadha

Asana

Aśvattha

Atasī

Bhūmyāmalakī

Candana

Citraka

Dāruharidrā

Dhanvana

Godhūma

Guḍūcī

Haridrā

Harītakī

Kampillaka

Kataka

Khadira

Kṣīrīvrkṣa

Kusumbha

Kuṭaja

Madayantī

Mahānimba

Mañjiṣṭhā

Mocarasa

Mustaka

Nimba

Ikṣumeha

Jayā

Madhumeha-Kṣoudrameha

(Diabetes)

Kadara

Jambū

Bilva

Bimbī

Meṣāśṛṅgī

Methikā

Kāravellaka

Śukrameha

Arjuna

Prolapse of Rectum

Amlikā

Cāṅgerī

Kamala

Kāravellaka

Purgative

Arka

Dantī

Kāravellaka

Kṛṣṇabija

Raktapitta

(Intrinsic haemorrhage)

Āmalakī

Āmra

Añjīra

Arjuna

Asana

Atimuktaka

Balā

Candana

Dāḍīma

Drākṣā

Duralabhā

Dūrvā

Gokṣura

Harītakī

Hribera

Ikṣu

Iṅgudī

Jambū

Lājā

Kākodumbara

Kamala

Karañja

Kāsmārya

Khadira

Kharjura

Kiratatikta

Kovidāra

Kumuda

Kāsmārya

Khadira

Lodhra

Madayantī

Madhuka

Madhūka

Mallikā

Mocarasa

Mudga

Nimba

Rasayana

Aguru

Āmalakī

Añkoṭa

Asana

Aśvagandhādi gaṇa

Atibalā

Bākucī

Balā

Bhallātaka

Bhaṅgā

Bhṛṅgaṛāja

Bilva

Brāhmī

Citraka

Copacīnī-dvīpāntaravacā	Sinus
Darbha	Apāmārga
Dhava	Bhṛṅgarāja
Gokṣura	Cañcu
Haimavatī vacā	Karañja
Harītakī	Karcūra
Hapuṣā	Kodrava
Hastikarṇa	Kumbhika
Medhya-rasāyana	Mocarasa
(Intellect Promoting)	Nirgaṇḍī
Āmalakī	Jāti
Brāhmī	Skin diseases
Guḍūcī	Aguru
Jyotiṣmatī	Āmra
Madhuka	Ārgvadha
Maṇḍūkaparṇī	Arjuna
Mātsyākṣī	Arka
Re-pigmentation	Dhattura
Bākucī	Dūsraṅgā
Bhallātaka	Cakramarda
Retention of Urine	Bākucī
Darbha	Khadira
Drākṣā	Kuṭaja
Durālabhā	Nimba
Harītakī	Splenomegaly
Scrotal Enlargement	Amlavetasa
Arka	Āmra
Balā	Arka
Dāruharidrā	Badarī
Eraṇḍa	Guḍūcī
Guggulu	Karañja
Harītakī	Kumārī
Indravaruṇī	Sun-stroke
Jayā	Ādhakī
Kākādanī	Āmalakī
Kośāmra	Āmra
Lajjālu	Cincā
Madhuka	Suppression of Urine
Nakulī	Āmalakī

Āragvadha

Elā

Kaṇṭakārī

Kuṅkuma

Syphilis

Copacīnī

Ākarakarabha

Poisoning-Viṣa

Ajagandhā

Aṅkoṭa

Aralu

Arimeda

Arka

Aśvattha

Ativiṣā

Bākucī

Bandhūka

Bhallātaka

Bhāṅgī

Bhūrja

Candana

Carmakaṣā

Coraka

Dāruharidrā

Haṁsapadi

Haridrā

Jātī

Jīmūtaka

Jīvanū

Kapittha

Khadira

Kṛṣṇavetra

Madhuka

Mallikā

Maṁsī

Mudgaparṇī

Mustaka

Nimba

Thirst (Tṛṣṇā)

Āmalakī

Āmra

Aśvattha

Balā

Daḍima

Dhānyaka

Drākṣā

Guḍūci

Harītakī

Haridrā

Ikṣu

Kaṇṭakārī

Kārpāsa

Karpūra

Kāśmārya

Kola

Laghu-pañcamūla

Madhuka

Mudga

Mudgaparṇī

Muñjātaka

Mustaka

Nimba

Udararoga (Abdominal Disorders)

Ajagandhā

Āragvadha

Āḍraka

Aśvagandhā

Babbūla

Bilva

Caṇaka

Cavicā

Citraka

Dantī

Devadāru

Dravantī

Eraṇḍa

Guggulu	Agastya
Hapuṣā	Akṣoṭa
Harītakī	Āmalakī
Jyotiṣmatī	Aśvattha
Kaṇṭakārī	Atasī
Kakādanī	Balā
Kodrava	Candana
Mahat-pañcamūla	Daśamūla
Māṇaka	Dhānyaka
Maṇḍūkapaṇṇī	Eraṇḍa
Nilinī	Godhūma
Urticaria (śītapitta)	Guḍūci
Agnimantha	Guggulu
Āmalakī	Haṁsapadī
Ārdraka	Haridrā
Candana	Harītakī
Kaṇṭakārī	Jīvakādyagaṇa
Kāśmarī	Karavellaka
Kulattha	Karīra
Madhūka	Kāśmarī
Mūlaka	Kokilākṣa
Nimba	Lāṅgalī
Urustambha	Madhuka
Agnimantha	Modhuśigru
Ajagandhā	Māṁsī
Āragvadha	Maṣapaṇṇī
Arka	Muṇḍī
Aśvagandhā	Muñjātaka
Bhallātaka	Mustaka
Guggulu	Nikocaka
Haritakī	Nimba
Kākamācī	Vātavyādhi
Karañja	Ajagandhā
Uṣṇavāta	Amlikā
Candana	Ārdraka
Vātarakta (Gout etc.)	Aśoka
Abhiṣuka	Asthisamhāra
Adhaḥpuṣpī	Aśvagandhā
Ādhakī	Balā

Bhallātaka
 Daśamūla
 Devadāru
 Eraṇḍa
 Godhūma
 Hapuṣā
 Haridrā
 Harītakī
 Hingu
 Kapikacchu
 Kārpāsa
 Kunduru
 Kuṅkuma
 Māmsī
 Māṇa
 Methikā
 Mūlaka
 Muṣṭaka
 Mahānimba
 Mahat-pañcamūla
 Nirguṇḍī
Apastambha
 Amlavetasa
Avabāhuka
 Balā
 Guṅjā
 Inḡudi
 Kākodumbara
 Lakuca
Ḡrdhrasī (Sciatica)
 Guggulu
Khallī (Cramps)
 Kuṣṭha
Kroṣṭuśirṣa
(Chronic arthritis)
 Guggulu
Hanugraha (Lock-Jaw)
 Bimbī

Veneral Diseases-Ratija roga
(S. T. D.)

Upadamśa (Soft-Chancere)

Āragvadha
 Bābbūla
 Bhṛṅgarāja
 Dāḍima
 Dāruharidrā
 Harītakī
 Karavīra
 Kṣīrivr̥kṣa

Viṣucikā

(Gastro-enteritis)

Apāmārga
 Arka
 Elā
 Jīraka
 Kāravellaka
 Kupīlu
 Lavaṅga
 Muśalī

Vitiligo-leucoderma

(Śvitra)

Asana
 Bākucī
 Bhallātaka
 Bhṛṅgarāja
 Bibhītaka
 Citraka
 Girikarṇikā
 Hribera
 Kākodumbara
 Khadira

Vomiting (Chardi)

Āmra
 Āmalakī
 Badarī
 Bhustrṅa
 Bilva

Candana	Māhānimba
Dhānyaka	Mūṣikaparnī
Drākṣā	Nārikela
Durālabhā	Kadamba
Dūrvā	Kampillaka
Elā	Kandalī
Gavedhukā	Kapikacchu
Guḍūcī	Karañja
Harītakī	Kebuka
Hribera	Kulatttha
Jambīra	Gunieaworm
Jambū	Babbūla
Jāti	Bhallātaka
Jiraka	Wound (Vraṇa)
Kaṇṭhakikarañja	Aguru
Kapiṭṭha	Ajagandhā
Karañja	Amlikā
Karkaṭaśṛṅgī	Āpāmārga
Kharijūra.	Āragvadha
Kiratatikta	Arjuna
Lājā	Arka
Madhuka	Āsphoṭa
Māmsī	Aśvagandhā
Masūra	Aśvattha
Mātuluṅga	Atasī
Mudga	Bākucī
Mūrvā	Balā
Mustaka	Bhārṅgī
Nārikela	Bhṛṅgarāja
Wasting (Kārśya)	Bhūrja
Agastya	Dantī
Balā	Daruharidrā
Madhuka	Devadāru
Warmes (Helminthiasis)	Dhāttūra
Āmalakī	Dravantī
Bhallātaka	Dūrvā
Bhūstrṇa	Eraṇḍa
Bimbī	Gāṅgerukī
Devadāru	Godhūma

Guggulu
 Indravāruṇī
 Inḡudī
 Jambū
 Jāti
 Jīvantī
 Jyotiṣmatī
 Kadali
 Kadamba
 Kampillaka
 Kaṅguka
 Karaṅja
 Kāravellaka

Karavīra
 Khadira
 Kośāmra
 Kṣīrīvṛkṣa
 Kuśa
 Kuṭaja
 Lakuca
 Lodhra
 Madhuka
 Mahat pañcamūla
 Meṣaśṛṅga
 Nārikela
 Nimba



TECHNICAL-MEDICAL TERMINOLOGY

- Abhiṣyanda** : Conjunctivitis, a kind of eye-diseases.
- Ādhmānakara(ī)** : Causing flatulence, abdominal abnormal condition.
- Ādhmāna** : A disorder in which there is an excessive collection of gas in the stomach; gas in the digestive tract due to fermentation or decomposition, vitiation-aggravation of Vāta.
- Ānāha, Ātopa** : Different stages or ailing conditions of Ādhmāna and related disorders of gastro-intestinal tract. Condition characterized in hardness in abdomen caused by wind in excess in bowels.
- Adhimāmsa** : Swelling, big and painful, in molar teeth causing salivation.
- Ahipūtanaka** : Scabies in anus.
- Ajakājata** : Staphyloma, a kind of eye-diseases.
- Āmavāta** : Rheumatic arthritis.
- Amla** : Sour, acidic
- Amlapitta** : Acid gastritis, or known as Hyper acidity characterized by hyperacidity, burning sensation, abnormal feeling of stomach, abdominal pain, biliary nausea and other symptoms.
- Anyatovāta** : A disease of eye having intense pain in eye-brows or eye-ball due to aggravated Vāta.
- Apacī** : Scrofula; glandular enlargement.
- Apatantraka** : A vātic-disorder characterized by fits of convulsions with loss of consciousness.
- Ardhāṅgavāta** : Hemiplegia.
- Ardita** : Facial paralysis.

Arjuna	: Subconjunctival haemorrhage, a kind of eye-diseases.
Arma	: Pterygium; a kind of eye-diseases.
Avabāhuka	: Pain in arms caused by aggravation of Vāta in shoulder joint.
Ākhuviṣa	: Rat-poisoning
Āmadoṣa	: It broadly refers to food intoxication usually associated with faulty digestion (and impaired metabolism).
Atisāra	: Diarrhoea; diarrhoeal complains.
Āyushkara	: Promotion of life.
Agnidīpana	: Stimulating the factor of gastrointestinal digestion.
Agnidagdha	: Burn
Aguru	: Light (not heavy).
Anuṣṇa	: Not hot or less (little) hot.
Ajirṇa	: Indigestion
Annadravaśūla	: Gastric ulcer, Acute gastritis
Anulomana	: Regulating the bowel movement or function, intestinal function (e.g. Vātānulomana as carminative), helping in putting or sending in right direction.
Apasmāra	: Epilepsy, Epileptic.
Arśa	: Piles; haemorrhoids or haemorrhoidal.
Āyurvedhana	: Promoting Life, longevity.
Aruci	: Anorexia, anorectic.
Asthibhagna	: Bone fracture.
Asthisandhānīya	: Promoting healing of bone fractures.
Aparāpātana (niṣkramaṇa)	: Expulsion of placenta (delivery of foetus; obstetries).
Alarka, śvāna-kukkura daṁṣṭra-	
Viṣa	: Dog-bite, rabies.
Asra-rakta	: Blood.
Aśmarī	: Calculus, stone; various kinds of Mūtrāśmarī-urinary organs and Pittāśmarī-gall bladder.

- Atisāra-Āmātisāra** : Diarrhoea, dysentery; gastro-enteritis.
- Āsyavairasya-
muskhavirasatā** : Tastelessness of mouth; Tasteless state of Vocal Cavity (mouth orific-tongge taste sense).
- Agnimāndya** : Achylla, Dyspepsia (Mandāgni).
- Āntrasula** : Intestinal colic.
- Āntrasōtha** : Enteritis (Grahami).
- Arbuda** : Tumour
- Anśughāta** : Sun-stroke.
- Atyagni, Tivrāgni** : Excessive hunger.
- Adhimantha** : Glucoma
- Apāthya** : Unwholesome, Unsuitable, Unfavourable (harmful).
- Bālagraha** : Seizures in children causing various syndromes (grahavādhā, Bhūtavādhā).
- Bhaṣmaka** : Excessive hunger and digestion causing loss of dhātus, imaciation and debility.
- Bālaroga, Bālāmaya,**
- Bālavikāra** : Children diseases; Paediatrics.
- Baddhamūtra** : Anurea.
- Balya** : Promoting, body strength, muscular strength, resistance to diseases tonic, decay and degeneration; combating the virulence of the disease and capacity to inhibit or neutralise the cause of the diseases.
- Bandhyātva** : Sterility.
- Bhagandara** : Fistula-in-ano.
- Bhedana** : Purgation, purgative.
- Bhrama** : Giddiness, mental confusion and delusion.
- Bṛñhana** : Promoting body buck.
- Bodhana** : Awakening or arousing.
- Buddhiprada** : Promoting intellectual faculties.
- Bhūtavādhā** : Demnological effects to cause ailing condition.
- Bhagaśotha** : Vulvitis.

Carmadala	: Psoriasis; the skin disease.
Cakṣusya	: Beneficial to the eyes.
Chardi	: Vomiting
Carmoroga	: Skin diseases.
Chedana	: Expectorant
Cirapāki	: Taking a long time to get digested.
Caturthika/	
Viṣama jvara	: Malarial periodic/quartan fever.
Caladanta	: Loose teeth.
Dhūpana	: Fumigation.
Duṣṭavrāna	: Indolent, foul and sloughy ulcers.
Dāhahara,	
Dāhaprasāmana	: Refrigerant, relieving burning sensation.
Dadru	: Ringworm; scaly and exudative affections of the skin.
Dantaroga	: Dental diseases.
Dantya	: Dentrifice, promoting teeth or dental health, curing dental ailments.
Dīpāna-pācana	: Gastro-stimulant and digestive.
Dīpana, Dīpaniya	: Gastro-stimulant, improving digestion.
Dhātupuṣṭikara	
Dhātuvardhaka	: Nourishing improving and promoting body tissues; nutrient tissue homologues nourishing the tissue.
Dr̥ṣṭiprasādana	: Capable or potent for improving and protecting vision.
Carmadala	: Psoriasis, the tedious skin diseases; common chronic inflammation of the skin, marked by rounded reddened patches which are covered with dry silvery scales.
Galaganda	: Goitre; a disease of thyroid gland.
Gaṇḍamāla	: Cervical adenitis causing a chain of swollen gland in neck.
Grahaṇīroga	: A kind of disorders of intestineal or digestive tract particularly Grahaṇī (organ), the seat of agni, causing loss of appetite, indigestion, constipation

attenuating with diarrhoea and malabsorption. Malabsorption, syndrome/chronic, amoebiasis/cotitis.

- Granthi visarpa** : A type of erysepalas causing inflammation of gland with high fever, pain and other associated signs and symptomes.
- Gulma** : Abdominal lump caused by accumulation of wind and other causes.
- Garbhāśayaśodhana,**
Garbhāśayaśamso-
dhana : Indicated to clense the uterus.
- Garbhāśayaśaithily**
(śithilitā) : Uterine Inertia.
- Garbhapātana** : Inducing abortion.
- Garbhapātakara** : Abortifacient.
- Garbhasthāpana** : Promoting conception (pregnancy).
- Grahavādha** : Psychiatric involvement and its bad effects behind anomalies of abnormalcy (bodilty, psychosmatic or psychic).
- Granthiroga** : Glandular enlargement, swelling and other symptomes.
- Grāhī** : Astringent property.
- Galaroga-śoṭha** : Throat affections (also tonsilitis, pharyngitis.)
- Gudaroga** : Rectal ailments; proctological disorders.
- Ḡdhrasī** : Sciaticā.
- Guṇa** : Properties, physical qualities of substances.
- Hikkā** : Hiccough
- Hṛdroga** : Heart-diseases; heart trouble.
- Hṛdrujā** : Heart pain; angina-pectoris.
- Hṛdya** : Cardial, Cardiac or Cardiac Tonic.
- Hṛdyāvasādaka** : Cardiac depressant.
- Hṛllāsa** : Nausea (Utkleśa).
- Halīmaka** : Advanced stage or case of Jaundice.
- Ikṣumeha** : Glycosuria

Indralupta	: Baldness
Jālakagardabha	: A syndrome like crysepalas causing fever and swelling.
Jalodara	: Ascites (Dakodara).
Jantughna, jantunāśana	: Anthelmintic, vermifuge, also referring anti-microbial, antiprotozoal, anti-bacterial, antiparasitic, disinfectant etc. and other similar actions (krmighna).
Jaraṇa	: Digestive
Jirṇajvara	: Chronic fever
Jvaraghna	: Antipyretic, antiperiodic or febrifuge
Jihvājādyā	: Stiffness (palsy) of tongue.
Jīvanīya	: Promoting life.
Kikkisa	: Stria gravidarum.
Kitibha	: A skin disease causing darkness, roughening and hardness of skin.
Kṣataksīṇa	: Wasting condition of body in general due to chest-wound.
Kukkurakāsa	: Whooping cough.
Kukūṇaka	: Ophthalmia neonatorum, a kind of eye diseases, characterized by inflammation of eye in new born child.
Kunakha	: Onychia (Cippa)
Kuṣṭha	: Generally disease of skin and particularly leprosy (the former known as kṣudrakuṣṭha) and the latter as mahākuṣṭha.
Kuṣṭhaghna	: Anti-leprotic.
Kāmalā	: Jaundice, also related to hepatitis.
Kadara	: Corns.
Kaṇḍū	: Skin condition(s) associated with itching; scabies.
Kaṇḍūghna	: Anti-pruritic; indicated in skin affections e.g. scabies, itchy troubles and other similar complaints.
Kaṇṭhya, kaṇṭhaviśodhana (śodhana)	: Curing, cleaning and improving throat

disorders for function. Soothing to the throat (Svarya-soothing to in the throat and voice).

- Kāsa** : Cough, bronchitis.
Kṣāra : Alkaline, alkalies, ash.
Kīṭaviṣa : Insect poison.
Kapha : Primal constituent of living body; generally known as phlegm; a component of Tridoṣa, tri-humours of (Vāta, Pitta and Kapha).
Karṇanāda : Tinnitus; a kind of ear diseases.
Karṇasūla,
Karṇapīḍā
(Karṇārti) : Earached, a symptom or type of ear disorders.
Karṇapiḍi(a)kā : Furuncles in the ear.
Karṇabādhirya : Deafness; Ear disease.
Karṇapūya,
Karṇasrāva : Otorrhoea; bleeding, pus formation an the ear; a kind of ear diseases.
Kaṣāya : Astringent.
Klaibya, Klibatā : Impotence.
Karṣaśna : Promoting slimming of the body.
Karkaṭārbuda : Cancer.
Kaṭu : Pungent, in taste.
Kaṣṭārtava : Dysmenorrhoea.
Kīṭamāraka : Insecticidal, anthelmintic, vermifuge. (Kṛmighna and jantughna).
Kṣaya, Yakṣmā-
rājayakṣmā : Pthisis, consumption (Tuberculosis, pulmonary tuberculosis).
Kṛmighna,
Krimghna : Anthelmintic.
Keśya : Promoting the growth of hairs.
Kuṣṣisūla : Abdominal colic.
Kṣudaśamanī : Hunger.
Mukhaśodhana : Indicated or useful to cleanse the mouth.
Mukhapāka : Stomatitis, Aphthas.

Makkala	: Post-partuni pain.
Marutaparyaya	: A disease of eye causing pain in eye-lids, brow and-eye ball alternately.
Maṣaka	: Mole
Madakārī, Mādinī,	
Mādaka	: An intoxicating effect; Intoxication, toxicating exhilarating.
Madhura	: Sweet.
Madhumeha	: Diabetes; diabetes mellitus. Hypoglycaemia.
Madātyaya	: Alcoholism; effect of excessive use of alcohol.
Madhumehaghna,	
Madhumehahara	: Hypoglycaemic action.
Mada	: Necrosis.
Medhya, Medhājana,	
Medhyakara,	
Medhākara	: Promoting memory and intellect.
Mādaka	: Narcotic.
Maṣṭiṣkabalya	: Brain tonic; promoting, strengthening faculties, function and organ (brain in general).
Masūrikā	: Variola; Measles, Pox.
Mūtrakṛchrahara	: Indicated in dysurea.
Mūḍhagarbha	: Difficult and delayed labour. Abnormal posture of foetus.
Mukhaśodhana	: Indicated or useful to cleanse the mouth
Mūrchā	: Spells of fainting.
Mūtradoṣahara	: Indicated to cleanse the urine.
Mūtravirecanīya	: Promoting increased micturition.
Mṛduvirecaka,	
Mṛdurecaka	: Latative, mild-purgative.
Mukharoga	: Diseases of the oral cavity; ailments of (under E.N.T. diseases) mouth.
Laghu	: Light; easy to digest.
Lūtahara	: Indicated, useful in and countering spider-bite poisoning effect.
Lavaṇa	: Salt, salty; saline.

- Lekhana** : Aids in reducing corpulency; act of scaping, reduction of body eight.
- Netra roga,**
Cakṣuroga,
Nayanaroga,
Locanavikāra : Diseases of the eye; ophthalmic diseases (ophthalmology).
- Netrya** : Beneficial to the structure, function and preventive, (also hygiene) of eyes and their ailments (also curative).
- Naktāndhya** : Night blindness.
- Nidranāśana,**
Nidrājanana : Causing insomnia.
- Nāsāroga** : Nasal diseases (E.N.T.)
- Nāḍivraṇa** : Sinus or Fistula.
- Naṣṭārtava** : Amenorrhoea.
- Phakkaroga** : Rickets (Bālaroga).
- Pothakī** : Trachoma.
- Pitta** : Primal constituent of the living body, a component of Tridoṣa, tri-humours (vāta-pitta-kapha); generally known as bite.
- Phiraṅga** : Syphilis; the venereal disease (S.T.D.).
- Plīhodara** : Splenomegaly.
- Pravāhikā** : Sprue (Grahaṇī).
- Padminīkaṇṭaka** : Pale spots in skin surrounded by thorny structures.
- Pakṣmakopa** : Entropion.
- Parīnāmasūla** : Abdominal pain during digestion or on empty stomach.
- Pilla** : Chronic eye diseases resulting in watering and itching of eye and blurred vision.
- Piṣṭaka** : A disease of the characterized by elevated white spot in conjunctiva.
- Pūyameha** : Gonorrhoea.
- Pradara** : Excessive discharge of menstrual blood menorrhagia.
- Prameha** : A group of diseases kinds or

- syndromes of anomalies of urine mainly or commonly with increased frequency and turbidity of urine; characterised by specific symptoms (in different types of Prameha).
- Punsavana** : Measures prescribed for reversal of sex in foetus during the pregnancy period.
- Pācana** : Digestive
- Pāmā** : Scabies
- Pañcamahābhuta** : Five-elemental theory of structural and functional (basic constituents composing all the substances-universe)
- Pāṇḍuroga** : Anaemia
- Pathya** : Wholesome, suitable.
- Pāṇḍuhara,**
Pāṇḍughna : Anti-anaemic; indicated in treatment of anaemia (Pāṇḍuroga).
- Paramavr̥ṣya** : Promoting optimum virility.
- Pinasa** : Chronic rhinitis.
- Pināsahara,**
Pinasaghna,
Pinasanāśinī : Indicated in the treatment of chronic rhinitis.
- Picchila** : Sticky, gummy.
- Pārśvaśūla** : Chestpain.
- Pipāsāsāmana** : Relieving polydypsia.
- Piḍikā** : Boil.
- Pittaśāmaka** : Anti-bilious.
- Pittavirecana** : Cholagogue (Pittasāraka)
- Pradara,**
śvetapradara : Leucorrhoea.
- Plīharogahara,**
Plīhodara : Indicated in splenomegaly.
- Prasekaśamana** : Palliative of excessive salivation.
- Prativiṣa** : Antidote to poison.
- Prabhāva** : Specific and characteristic action.
- Raktagulma** : A lump formed in uterus due to accumulation of menstrual blood in females (other types of gulma)

- Rasāyana** : Alterative, restorative, rejuvenation.
- Raktapitta** : Intrinsic haemorrhage due to vitiation of rakta (blood) and pitta (bile).
- Raktameha** : Bilharzia.
- Raktapradara** : Metrorrhagia
- Rasa** : Taste.
- Rohiṇī** : Diphtheria; a disease (infections), diseases of the throat and the air passage which becomes inflammed and swollen and are coated with a fibrinous exudate.
- Rucya, Rucikara, Rocana** : Appetizer, increasing appetite.
- Śaiśaviya vāta** : Poliomyelitis
- Śankhaka** : Severe encephalitis causing intense headache particularly in temples (often fatal).
- Sidhma** : A type of Kuṣṭha characterized by white or coppery circular spots like flowers of bottle-gourd often in chest leaving dust or rubbing.
- Snehana** : unctation.
- Sirāharṣa** : Advanced stage of śirotpāta (paninus).
- Śitapitta** : Urticaria, an allergic disease of systemic origin marked by rashes, redness painful and itching elevations of the skin.
- Stanotthāpana** : Elevation of breasts.
- Somaroga** : A womans disease causing increased flow of urine with incontinence and consequent dehydration and debility. (variously interpreted as gynaecological, hormonal and/or metabolic disease).
- Śukra** : Corneal opacity (avraṇa śukra) and corneal ulcer (savraṇa śukra); the eye-diseases (of cornea).
- Śūla** : Colic, ache, pain; disease or symptom.
- Sūryāvartta** : A type of headache beginning with sun-

rise and increasing gradually with the movements of the sun and subsiding at sunset.

- Śuṣkākṣipāka** : Blepharospasm.
Śrama : Exertion (Klānta).
Stambhaka (rakta) : Haemostatic, styptic; anti-haemorrhagic.
Soumya, saumya : Promoting steady state equilibrium (of doṣās-sārīra and mānasa).
Sandhiviślesa : Dislocation of joint(s).
Sarpaviṣa,
sarpadaṁśa : Snake-bite poison; venom.
Sarvakaṇḍū : Pruritis of multiple etiology.
Śarkarāniśūdana : Hypoglycaemic (madhuraka-śamana).
Sarkarāsmarī : Urinary gravel.
Śīroroga : Cranial diseases; ailments of headache.
Śuklameha : Albuminuria.
Śiraḥśūla : Headache.
Śodhana : Purification, radical elimination of morbid substances.
Śvayathu-śopha : Inflammation (śoṭha).
Śvitra : Leucoderma (vitiligo).
Śvāsa : Asthma; dyspnoea, bronchial asthma.
Stanārbuda : Breast tumour.
Śukrakṛta : Spermatogenetic
Śvāsahara : Anti-tussive, anti-asthmatic.
Stanaśoṭha : Inflammation of breast.
Stanyajanana : Galactogogue
Svedajanana : Diaphoretic; promoting perspiration or diaphoresis.
Śukra-retas-vīrya : Semen
Śukravikāra : Seminal diseases.
Śoṭha : Oedema; General Ansarca
Sarvāṅga-śoṭha : Ekāṅgaśoṭha-Localised inflammation, oedema swelling.
Timira : Defects of vision. Cataract.
Tikta : Bitter.
Trṣṇānigrahaṇa : Relieving thirst.

- Tūnī** : Colicy pain occurring in the iliac or pelvic region of the abdomen.
- Tvagvikāra** : Cutaneous affections; skin diseases.
- Tvacya** : Promoting the skin health; palliative for skin diseases, preventive and curative.
- Tridoṣa** : Doctorine of Tridoṣa consisting Vāta, Pitta and Kapha; the tri-humoral theory of Āyurveda. Three basic factors in the living body responsible for health and disease (equilibrium or balance maintaining health and disturbance in equilibrium or imbalance causes disease in body).
- Tr̥t(d)** : Thirst.
- Udara** : Abdominal enlargement.
- Udāvartta** : Upaward movement of vāyu.
- Unmantha** : Swelling with itching in earpinnae.
- Upadamśa** : Soft-chancres; a venereal disease.
- Upakuśa** : Inflamed gums with haemorrhage and foul smell.
- Urustambha** : Paraplegia.
- Uṣnavāta** : Dysuria associated with burning sensation yellow urine or haematuria.
- Unmatta** : Inducing psychotropic effects (i.e.) (stimulating the central nervous system.)
- Udaraśūla** : Abdominal colic.
- Udarda** : Śītapitta, Koṭha-Udarda; allied to urticaria and advanced or severe stage patches on skin.
- Uṣṇa** : Hot, heat.
- Unmāda** : Insanity, mental disease.
- Utkleśa** : Nausea, retching (Hṛllāsa).
- Ubhayatobhāgahara** : Purification-Saṃśodhana (Adhobhāgahara-Urdhvabhāgahara : Purgation-Emesis).
- Udgāra** : Eructation.

Vātaghna	: Anti-vāta; indicated in diseases of nervous system.
Varāhadamṣṭra	: A syndrome causing inflammation in skin with burning : redness, intense pain, itching and fever.
Vātarakta	: A disease caused by vitiation of vāta and rakta, and characterized by rashes, anaesthetic patches and pain in joint, Gout.
Vātavyādhi	: A group of diseases caused specifically by aggravated vāta such as pain, convulsion, paralysis and other several symptoms.
Vertigo	: Bhrama.
Vidārikā	: Inflammation of lymphatic glands in axilla and groin.
Vṛddhi	: Scrotal enlargement.
Viśūcikā	: Gastro-enteritis with piercing pain.
Viśalya	: Extracting foreign body.
Vyaṅga	: Dark shade on face caused by stress and excessive exercise.
Vīrya	: Potency, energy, power.
Vājikaraṇa	: Aphrodisiac; sexual tonic.
Vāta	: A principal, prime and dominant component of Tridoṣa, tri-humours (the causative factors of normalcy as well as abnormalcy of body). general known as wind or gas.
Vamanopaga	: emetic, aid to emetics or emesis.
Varṇya	: Useful in promoting complexion of the skin. (pigmentation).
Vastiroga	: Diseases of urinary system, particularly urinary bladder.
Vaṅkṣaṇagranthi	: Inguinal glands.
Vayasthāpana	: Promoting longevity.
Vedanāsthāpana	: analgesic, anodyne, local anaesthetic.
Vipāka	: Digestion and metabolism.
Vibandha	: Constipation
Vidāhi	: Causing burning sensation.

Vikāsi	: Spreading rapidly in body.
Virecana	: Purgative, cathartic, purging, purgation.
Vraṇaropana	: Wounds-healer.
Viṣa	: Poison
Viṣaghna	: Anti-dote.
Yakṛdroga	: Liver disorders
Yonivyāpat	: Disorders of female genital tract.
Yoniviśodhana	: Useful to cleanse the uterus.
Yośidvikāra	: Gynaecological disorders.
Yonidoṣa	: Vaginal/uterine disorders.
Yoniśoṭha	: Vaginitis.
Yonidrāvaṇa (dravanārtham)	: Inducing vaginal secretion (relevant to sexual intercourse-hastening vaginal discharge); Vājikaraṇa.
Yonigādhikaraṇa (gadhyārtham)	: Useful to check slackness of vagina.



General Suffix pattern

(Pharmacological, pathological, clinical and therapeutical terminology in the texts of Indian medical science)

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|--|---|
| <p>A. Śama, śamana, śāmaka
hara, hāraka, hṛt
Nāśaka, nāśana, vināśana
ghna, Nut, praṇut, etc.
Jit, Apha Arī.</p> | <p>Curing, anti, eradicating,
pacifying alleviation,
reducing, allaying
destroying, palliative
indicated, useful,
countering etc.</p> |
| <p>B. Janana, janaka, ja
kara, kāri(i)
prada, etc.</p> | <p>Promoting; helping,
enhancing producing,
inducing, increasing,
prompting, stimulating
etc.</p> |



Pharmacological Glossary [A-N : अ-न]

- Akaṅṭhya : Unwholesome to throat; disfavour, unhealthy or not benefecial for throat (gala, kaṅṭha) Kaṅṭhaghna.
- Akleḍi : Free from humidity and moisture; without kleḍa (moisture, humidity or wetness).
- Akṣisamilana : Eye blinking.
- Akṣyupaghātakara : Destroying, harming to eye or eye-vision.
- Agada : Anti-poison, antidote to poison, countering or checking poison; drug.
- Agni, Agnikara, Agnikṛt, Agnijanana, Agnidīpana, Agnisandīpana, Agnivṛddhikara, Agni prasādhaka : digestive fire or power, appetite; stimulating digestion; digestive and metabolic agents. Increasing or generating agni to optimum level (normal).
- Agnījit : Depressing agni (digestive or digestive fire etc.)
- Agnibalaprada, Agnibalavṛddhi, Agnibalavṛddhikara, Agnivivardhana : Strengthening and promoting agni (digestive, digestion fire or digestive power etc.). Specifically promoting agni.
- Agnivaiṣamyakara : Making agni irregular
- Anisandhukṣaṇa : Stimulating agni (as if by fanning sandhukṣaṇa)
- Agnisama : Fire-like, hot and sharp, analogous to agni.
- Agnisādana : Depressing agni.
- Agnimāndyakara, Agnimandatvakara : Most benefecial or wholesome for agni.
- Agnihitama : Pacifying bodyache.
- Aṅgamardaprasāmana : Promoting body-growth, promoting or helping growth or development of body as a whole and (or) body-organs or parts.

Aṅgasthirīkaraṇa	: Stabilising the body parts
Acakṣuṣya	: Unwholesome to eye, harmful or disfavoured (unsuitable) to eyes and their physiological function. Not Cakṣuṣya (antonym)
Accham	: Clear, not-turbid, Svaccha.
Atibalaghna	: Excessively destroying strength.
Atikaṭu	: Excessively pungent.
Atimadhura	: Excessively sweet.
Atimūtrala	: Excessively diuretic (highly mutrala).
Atimṛdu	: Too mild or soft.
Atitikta	: Excessively bitter.
Atirūkṣa	: Too rough.
Atirocana	: Excessively relishing.
Atisāra nirbahaṇa	: Checking atisāra (diarrhoea).
Atṛptikara	: Not causing contentment. Not ṛptikara (antonym).
Atyagnināśana	: Checking, pacifying or countering intense agni.
Atyabhiṣyandi	: Excessive abhiṣyandi.
Atyamla	: Very sour, too sour (most acidic).
Adāhina, Adāhi,	: Causing slight burning sensation; not
Adāhakra	causing burning sensation.
Adyahkaphānulomanam	: Expelling by downward passage.
Adhaḥśodhana,	: Purifying or evacuating by downward
Adhasamśodhana	passage such as purgation and enema (virecana tathā basti) Virecanāsthāpana.
Adhaḥsraṇṣī,	: Moving down on absorbing moisture;
Adhogāmi (ī)	moving downwards.
Adhobhāga,	: Eliminating impurities from downward
Adhobhāgadoṣahara,	passage (purgative).
Adhobhāgahara	
Adhomārgapravartana,	: Purgative.
Adhohara, Anulomana	
Adhovātānulomana,	: Expelling flatus; carminative.
Adhovātānulomyakara	
Anulomana	: Pushing the impurities to its natural course.
Anatiguru	: Slightly heavy.
Anatisnigdha	: Slightly unctous.
Anabhiṣyandi	: Slightly abhiṣyandi.
Analadārḍhyam	: Stabilising agni.

Analottejana	: Stimulant of agni, stimulating agni.
Anāmaya,	
Anāmayatvakara	: Disease-free state (health); providing freedom from diseases, without diseases, disease-less state (stage) of body-health.
Anāyūṣya,	
Anāuśyakara	: Decreasing life-span; reducing life-span
Anārogyakara	: Destroying, disturbing, affecting immunity (anti-disease resistance powers loss to vitality, loss of immunity). Disturbing or adversely affecting to immune system of body (antonym-Ārogyakara). Not proving disease-free state of health.
Anilakarṣī	: Drawing out to its own course.
Anilakopinī,	
Anilaprakopaṇī	: Aggravating vāta.
Anilasūdāna,	
Anilāpaham	: Eliminating vāta.
Anilarogajit,	
Anilārtinut	: Eliminating vātika disorders.
Anurasa, Avyaktarasa	: Unimanifest taste.
Anulomana	: Pushing the impurities to its natural course.
Anuvāsana	: Unctuous enema.
Anuvāsānopoga	: Supporting unctuous enema.
Anuṣṇa, Kiñciduṣṇa	: Slightly hot, not hot.
Anekatā,	: Variation, diversity (differences).
Anakatvarupa (Pṛthakatva)	
Anekaavidhakaḷpanā	: Various pharmaceutical forms.
Anojasya	: Depleting ojas.
Antaragni sandhuḷṣaṇa	: Fanning (stimulating) internal agni (fire).
Antivraṇa śodhana	: Purifier of internal wound (cleanse wound).
Annadravyarucikara	: Promoting relish.
Annadveṣa,	: Aversion to food. Aruci.
Bhaktadveṣa Annāruci Annapāna prakāṅkṣakara, Ruci,	

- Rucida, Rucipradame,
Rucikara, Rucikāraka,
Rucya, Rucyiṣya : Desire of food, relish; causing desire of food (food and drinks).
- Annasanghātabhedana : Disintegrating the mass of food.
- Apakarṣaṇa : Reducing body weight. Lekhana.
- Apatarṣaṇa : Desaturation.
- Apatyajanana : Providing fertility (apatya-progeny).
- Apatyasanlanakara : Promoting generation of progeny.
- Apathya : Unwholesome to body and mind (anonym-pathya).
- Aparatva : Relatively inferior.
- Aparāprapātana : Expelling placenta.
- Amasmāranāśana-nut-
vīmokṣa-hara-hṛt-apah : Anti-epilepsy, eradicating epilepsy (curing or relieving from epilepsy).
- Apicchilam : Non-slimy (antonym-picchila).
- Apratighāta : Non-resistance.
- Abalam, Dourbalya : Debility.
- Abdoṣahara (apa-dosa) : Eliminating morbidity of body fluid.
- Abhinava, nava : Fresh
- Abhiṣyandi,
Abhiṣyanda : Obstruction in channels due to increased mucus secretion.
- Abhiṣyandakara : Causing abhiṣyanda
- Abhiṣyandāpaha,
Abhiṣyandajaraṇa : Digesting abhiṣyanda, anti-diuretic.
- Abhyāsa : Repetition, practice, constant or regular use.
- Amla : Sour.
- Amlapittajanana,
Amlibhūta,
Amlapittakara,
Amlavidāhi : Causing amlapitta (acid gastritis or hyper acidity; causing to burning sensation in gastric region).
- Arucighna,
Arucināśana,
Arucipraśamana,
Aruciprativādhaka,
Arucihara,
Arocakahara : Alleviating, pacifying or eradicating anorexia.

Arūkṣa	: Not rough or unctuous (antonym : rūkṣa).
Artighna, Artivismaraṇīya, Artiśamana	: Analgesic; relieving or blocking pain.
Arditanāśana, Arditāpaha	: Anti-paralytic, alleviating facial paralysis.
Arśoghna, Arśonut, Arśohara, Arśa praśamana, Arśaśātana, Arśasamana	: Anti-haemorrhoid; pacifying, alleviating destroying and (or) eradicating piles.
Alakṣmighna	: Removing ugliness.
Alakṣmyāvaham, Alakṣmikara	: Causing ugliness (antonym : Lakṣmikara).
Alpamāruta	: Producing little vāta (wind).
Alpavarcasa	: Producing little varcasa (stool).
Alpavīryā	: Possessing (having) little potency (vīrya).
Avakaśakara	: Srotośodhana; making space by clearing channels.
Avadhamanam	: Vilekhanam; slimming.
Avabodhanam	: Sajñāprovodhana; resuscitation.
Avaṣṭambhanam	: Supporting, strengthening; sandhārakam, balaprada.
Avasādana	: Depressing (elevated wound)
Avikāri	: Harmless, not causing harm, side-effects, non-toxic, safe. Aviśādakara (antonym : vikāri)
Avidāhi	: Not causing burning sensation (antonym : vidāhi).
Aviśādakara	: Not-toxic, or free from without toxins, not causing toxic substance. (Antonym : viśādakara)
Aviṣyandī	: Non-spreading. (antonym : viṣyandī).
Aviṣya	: Non-aphrodisiac. (antonym : viṣya).
Avyaktarasa	: Anurasa; unmanifest taste (rasa).
Aśmanāśana, Aśmabhit, Aśmabhedana	: Destroying, disintegrating or alleviai-

ting calculus (stone, e.g. urinary calculus or mūtrāśmari etc.). Aśmarī bhedana.

- Aśmari pātana,
Aśmarībhedana,
Aśmarināśana,
Aśmarīhara : Breaking, disintegrating, expelling or eradicating calculus. Aśmanāśana etc.
- Aśrunivāraṇa : Checking excessive lochrymal secretion.
- Aṣṭhīlanut : Removing enlarged prostate (aṣṭhīlā-mūtrāṣṭhīlā).
- Asanyoga : Non-conjunction or spatial separation (antonym : sanyoga).
- Āsara : Non-moving, not sara (antonym : sara).
- Asukha : Unhappily or not happy (antonym : sukha).
- Asoukhya,
Aśṛkdoṣaghna,
Aśṛgadoṣanāśana,
Aśṛgadoṣāpaha,
Aśṛgvikārahara : Eliminating blood disorders (rakta vikāra). Raktadoṣaghna-praśamāhara-paha-śāmaka. (antonym : aśṛgadoṣakara).
- Aśṛkprasādana : Blood-purifier. Raktaprasādana, rakta-śodhana.
- Asthibalakṛta : Strengthening bones. Asthībala vardhana.
- Asthyabhi vardhana : Promoting growth of bones. Asthi-dhātu vivardhana.
- Asrakṛta, Asrakara : Causing haemorrhage. Raktasrāvakara.
- Asraghna : Checking stopping or countering haemorrhage; haemostatic. Raktarudhira-asra (blood) srāvahara. Raktas-tambhana, Raktastāpana, Soṇitasthāpana (also raktaskandana), Raktasaṅgrahaṇam, Raktasān-grāhikam, Raktasthāpana, Raktāpaham, Raktopaśānti etc.
- Asrapittajit : Pacifying raktapitta, Raktapitta.
- Asvannanāśana : Eliminating loss of sleep (hypnotic).

- Ahitam : Unwholesome. Anāuṣyu.
(antonym : hitam, pathyam).
- Ahr̥dyam : Non-cardial, unpleasant. Apriyam.
(antonym : hr̥dyam).
- Ākhunut : Roat-killer or rat-repellant. Mūṣikā-
paha.
- Ākhuviṣaghna,
Ākhuviṣahara,
Ākhudaṁśa viṣa nāśana
Ākhuviṣanirvaṇa : Countering rat-bite-poison (ākhu viṣa-
mūṣikaviṣa), eradicating rat-poison.
- Āgneya : Having predominance of agni. Agni-
guṇapradhānam. (antonym : soum-
yam).
- Ātmagunāḥ : Qualities of soul (buddhi prayatnāta).
- Ādhmānakara,
Ādhmānakāraka : Causing flatulence or ādhmāna.
(antonym : ādhmānahara, anti-flatu-
lence).
- Ānanasutva vaktvakara : Making the face skin beautiful;
Mukhakāntikara, mukhamaṇḍal
prabhā vardhana.
- Ānāhaghna : Alleviating hardness of bowels. Ānaha-
hara.
- Ānāhanāśana,
Ānāhapraśamana,
Ānāhabhedana,
Ānāhabhedī,
Ānāhavimokṣaṇa : Alleviating, pacifying, removing or dis-
integrating ānāha or hardness of
bowel. (antonym : ānāhakarā).
- Ānulomika : Adhobhāgahara, virecana. Purgative.
- Āpātabhadra : Initially useful but harmful conse-
quently and on constant or regular use.
Āpāta sukhakara-pariṇāma duḥkha-
kara.
- Āpurṇarasa vīryāṇī,
Āpūrṇarasa
pramāṇavīryam : Fully mature; fully mature with taste
(rasa) and potency (vīrya).
- Āpyāyana : Replenishing deficient dhātus.
- Āmam-āma, Āmadoṣa
(viṣasadṛsa) : Immature rasa or āmadoṣa; Apakva

rasa. Poison-like āmadoṣa e.g. food-poison etc. Products of hypofunctioning of agni (toxins, food toxins, auto-toxins, allergic metabolites etc.).

- Āmapācana,
Āmajaraṇa,
Āmapraśamana, : Digesting, pacifying or alleviating āma.
Āmayaghna : Alleviating, eradicating or destroying diseases.
- Āmavipācana,
Āmahara, Āmaśoṣaṇa : Specific digestive of āma; absorption of liquid in āma.
- Āmaviśodiraṇa : Aggravating āma poison.
Āmātisāraghna,
Āmātisāranāśana,
Āmātisārahara : Checking or alleviating diarrhoea caused by āma.
- Āmāśayaśodhana,
Āmāśayaśodhana : Cleansing stomach or purifying stomach.
- Āyuprakarṣakṛt,
Āyuhpraḍa, Āyuṣya,
Āyuṣya kara (Karī) : Providing longevity (Antonym : Anāyuṣya)
- Āyurvṛddhikṛt,
Āyurhitatam : Promoting life-span, most beneficial for life-span.
- Ārogyam, Ārogyakāra,
Ārogyadam : Absence of disease, (free from disease, without disease (health). Rogakṣamatva (Immunity). Rogābhava. Health-providing.
- Ārdra : Fresh, rasapūrṇa. (antonym : anārḍra, śuṣka, rasa virahita etc.)
- Ālasyāpahara : Sphūrtijanana; providing energy by removing idleness.
- Āśyalaghava : Lightness in viscera.
Āśukārī : Immediately acting.
Āśudośaharaṇa : Immediately purification of doṣa; eliminating impurity immediately.
- Āśubalālābhivardhana : Promoting strength instantaneously.
Āśurohaṇa : Immediately promptly or fastly wound-healing (active wound-healer).

- Āśuvyavāyitākara,
 Āśuvyavāyi : Helping absorption and circulation of drug (possessing and performing vyavāyi action fastly or promptly); Fast acting vyavāyi (vyavāyi action itself indicating easy and fast or quick assimilation after ingestion or application of any substance; more over 'āśu' enhances further to extent and kind of its action as 'āśuvyavāyi' or 'āśuvyavāyitākara').
- Āśvaṅgābhivardhana : Promoting growth of organs (immediately) or accelerating growth of organs (e.g. śīśuvṛddhi or child growth in paediatrics or kaumārabhṛtya); speedy or fast growth of body organs.
- Āśvāsakara : Assuring.
- Āsthāpana : Nirūha basti. Non-unctuous enema (a method or mode of administration of medicine through rectum or guda-mārga-anus).
- Āsthāpanopaga : Supporting or helping āsthāpana (non-unctuous enema).
- Āsyadourgandhyanāśana
 Āsyadourgandhyahara: Removing foul smell of mouth, mukhadourgandhyahara. (antonym : mukhasugandhakara, asyasugandhitakara).
- Āsyaroganut,
 Āsyarogahara : Alleviating diseases of mouth.
- Āsyāviśodhana : Mouth-cleansing.
- Āsyāsrāvaṇa : Stimulating salivary secretion
- Āsyavairasyahara,
 Āsyavirasatāhara : Removing abnormal taste of mouth or mukhavairaśya. (antonym : āsyasurasatvakara, mukha surasatvakaratva).
- Icchā : Desire (ātmaguna).
- Indriyadṛḍhīkaraṇa,
 Indriyadāṛḍhyakara
 Indriyasthairyakara : Producing stability in organs (body-organs or parts) or sense-organs also.
- Indriyadourbalya : Weakness or debility in sense-organs or

sensory organs (Indriyādhiṣṭhāna śakti-
kṣiṇatva).

- Indriyaprasāda,
Indriyasamprasāda : Normal functioning of sense-organs
(healthy state of sensory organs and
their physiological function Indriya
vyāpāra svābhāvika pravṛtti). Normal
state of (health) sense organs.
- Indriyaprasādakara : Promoting normal functioning of sen-
sory and motor organs.
- Indriyabalakara,
Indriyabalaprada,
Indriyabalya : Strengthening organs both sensory and
motor.
- Indriyabodhana : Stimulating sense organs.
- Indriyasantarpaṇa : Saturating sense organs.
- Indriyasphuṭikaraṇa : Producing clarity in sense-organs.
- Indriyācchaya : Clarity of sense organs. Indriyaprasāda.
- Indriyopaghātakara : Causing loss of function of sense or-
gans.
- Indriyoparodhana : Causing obstructing in function of
sense-organs.
- Utkledi : Causing excessive humidity or aggra-
vating Kapha, pitta etc.
- Utkleśajanana,
Utkleśakara,
Utkleśana : Causing nausea. Hṛllāsa (nausea)
janaka (causing or inducing).
(Antonym : Ahṛllāsakara, Utkleśaro-
dhi, Anutkleśaka)
- Uttamāṅgaśodhana : Head-evacuation
- Uttaravātikāni : Useful in predominance of vāta.
- Utthāpana : Elevating (developing) the body.
Puṣṭijanana.
- Utsāmodakāraka,
Usavāmodakara : Stimulating and exhilarating.
- Utsādana : Elevating depressed wound (nimna
vraṇothāpana).
- Utsāhajanana,
Utsāhakara : Energy providing (stimulating encour-
aging instinct).
- Udarnut,
Udararogapaha : Alleviating abdominal enlargements

- (allaying abdominal anomalies or abnormalities).
- Udarbhedi : Eliminating abdominal enlargements or consolidations (e.g. lumps) by breaking or disintegrating accumulated faecal mass.
- Udarādhmānakara : Causing tympanitis (Koṣṭhagatavāta pariṇāma).
- Udardapraśamana,
Udardaśamaka,
Udardahara,
Udardajit : Pacifying or allaying udarda (allergic rashes) (antonym : Koṭhajanana).
- Udaryāgnudīraṇa : Jaṭharāgni dīpana, stimulating digestive fire (udaragata agni).
- Udāvartajanana,
Udāvartakara : Causing udāvarta (upward movement of vāta).
- Udāvartanut,
Udāvartahara,
Udāvartanāśana : Alleviating udāvarta.
- Udgāraśodhi,
Udgāraśodhaka : Normalising eructations by carmination.
- Udvepana praśamana : Kampana śāmaka, checking rigour.
- Udveṣṭana : Cramps in body parts; aṅgamoṭanam.
- Unmādanāśana,
Unmādanut,
Unmādāpaha : Alleviating insanity (unmāda).
- Upakledana,
Upkledakara,
Upakledi : Moistening; Kledana, ārdrikaraṇa.
- Upacaya,
Upacayakara : Development; increase in or increasing body weight.
- Upacayaśayakara : Diminishing body development.
- Upacayavardhana : Promoting body development.
- Upacyāpaha : Checking body development.
- Uparopaṇa : Supporting wound-healing.
- Upalepanut : Removing stickiness; upalepanāśaka.
- Upaśamaniya : Pacifying; śāmaka.
- Upaśoṣaṇa : Moisture-absorbing; absorbent.
- Upastambha : Supporting body.

- Upastambhana : Checking (vomiting or flatus).
 Ubhayatobhāgahara,
 Ubhayatobhāgadoṣahara,
 Ubhayabhāga,
 Ubhayaśodhana : Vamana-virecana dvyaya (ubhaya);
 Emetic-purgative both; Eliminating im-
 purities both upwards and downwards.
- Uraganut : Destroying snakes; sarpa nāśaka or
 sarpaghna.
- Urolāghava : Lighness in throat.
 Uroviśuddhi : Purification of chest; vakṣa viśodhana.
 Urahparidahana : Burning in chest.
 Ullekhana : Vomiting (vamana); lightening (lañ-
 ghna) or fasting.
- Uṣṇa : Hot property (uṣṇa guṇa) or hot po-
 tency (uṣṇa vīrya).
 Uṣṇavīrya : Hot in potency. hot in touch or hot in
 property.
 Uṣṇasaṅsarpa : Hot in touch.
 Uṣṇasugandhi : Hot as well as aromatic.
- Ūrugrahāpaha,
 Ūrustambhanivāraṇa,
 Ūrustambhavināśana : Alleviating ūrustambha; anti-
 ūrustambha.
- Ūrjaskara : Rasāyana; ūrjaḥ praśasta śaktikara.
 Ūrdhvakaphānulomana : Pushing kapha by upward passage.
 Ūrdhva gadāpaha : Alleviating supraclavicular diseases.
 Ūrdhvagam : Emetic
 Ūrdhvabhāgahara
 Ūrdhvaśodhana,
 Ūrdhvahara,
 Ūrdhvajatrugadāpaha,
 Ūrdhvajatru roga-
 vikārahara : Ūrdhvagadāpaha (diseases under
 śālākya tantra i.e. Eye and E.N.T. dis-
 eases).
- Ūrdhvavātahara : Alleviating ūrdhvavāta or excessive
 belching.
- Ūrdhvavātanulomana,
 Ūrdhvavātanulomyakara : Carminative, vātanulomana.
 Ūrdhvouṣadha : Emetics or emetic drugs; vama-
 na dravya.
- Ūṣaṇa : Kaṭu; pungent.

- Okasātmya : Suitable by practice (wholesome or favourable to any individual in particular rather exception, normally not sātmya in general as a rule or to suitable to all).
- Ojaṣkara, Ojaskari : Promoting ojas or energy providing. Ojovardhana and utsāhakara-śaktivardhana.
- Ojasyam : Wholesome for oja (by preserving and promoting dīptikara or kāntivardhana-promoting lustre).
- Ojovardhana,
Ojovivardhana,
Ojo-abhivardhana : Promoting ojas, energy-providing and specifically promoting ojas.
- Ouṣṇyam : Hotness; uṣṇatva.
- Kacāntakṛt : Depilatory; Keśāntakara, Keśvināśakāri or keśanāsaka.
- Kaṭu, Kaṭuka : Pungent.
- Kaṭhina : Hard guṇa (antonym : mṛdu guṇa).
- Kaṇṭhya : Beneficial for throat; also located in throat.
- Kaṇṭhaparidahana : Causing burning in throat.
- Kaṇṭh baghnāiva : Causing obstruction in throat (as if constricted).
- Kaṇḍūghna,
Kaṇḍūhara,
Kaṇḍūśamana : Anti-pruritic, pacifying itching.
- Kaphakṣapaṇa : Eradicating kapha.
- Kaphavicchedi,
Kaphakara,
Kaphala, Kaphaja : Increasing or causing kapha.
- Kaphavicchedi : Eliminating thick sputum.
- Kaphavilāpana : Liquifying (thick) sputum.
- Kaphaviśoṣi : Drying kapha; kaphaśoṣaka.
- Kaphahara, Kaphaghna,
Kaphaśāmaka : Eliminating, alleviating or pacifying kapha (provoked or increased state of kapha in abnormal state).
- Kaphavṛddhikara,
Kaphavivardhana
Kaphavardhana : Aggravation or increase of kapha (in

	provocation state of kapha in abnormal (state).
Karaṇa	: Instrument, means, processing. Saṅskāra, sādhana or upakaraṇa.
Karaṇalaghūni	: Lightness acquired due to processing (through saṅskāra).
Karkaśa	: Rough; khara.
Karṇaśūlaghna,	
Karṇaśūlanut-praśamana-	
nivāraṇa	: Alleviating or pacifying earache.
Karṇikāpātana	: Expelling the stings.
Karśana, Karśanīya	: Emaciating; useful for emaciating.
Kaśāya (rasa)	: Astringent (taste)
Kaśāya (Kalpanā)	: A particular pharmaceutical process (bhaiṣaja-kalpanā).
Kaṣṭavibhramā	: Having difficult complications.
Kācayāpana	: Maintaining the case of cataract.
Kāṭhinyakara	: Producing hardness.
Kāmalāhara-paha-	
nāśana	: Alleviating jaundice (Kāmalā).
Kāyavirecana-śodhana	: Purgative.
Kāyaśīthilikaraṇa	: Causing slackness in body.
Kārśyam, Kārśyakṛt	: Emaciation; causing emaciation.
Kāsanirvahirṇi-	
vināśana-vivarnam-	
hantā-hara-paha	: Anti-tussive; alleviating cough.
Kilāsaghna-hanta,	
Śvitranāśana	: Alleviating vitiligo, anti-leucoderma.
Kīṭahara-nut-nāśana	: Insecticide, counteracting insect-poisoning.
Kīṭavranāpaha	: Alleviating wound caused by insect-sting.
Kukṣitopramardanī	: Anti-colic.
Kuṣṭhaghna-nāśinī-	
nibarhaṇa-nut-	
vinihantā-sūdana-	
hā-apah-uddālana	: Anti-leprotic; Alleviating; pacifying or eradicating Kuṣṭha (leprosy).
Kuṣṭhapragālana	: Causing necrosis in leprotic part (organ).
Kuṣṭhaprabādhana	: Checking advance of leprosy.
Kṛcchraruṅjāpaha	
(mūtrakṛcchrajanya)	: Alleviating pain of dysuria.

Kṛmighna-ghnī-nāśana-
nut-sūdana

(krimighna etc.)

: Anthelmintic

Kṛṣṇakarma

: Blackening agent; Kṛṣṇī karaṇa.

Keśanāśana, Keśaghna

Keśopaghātakara

: Depilatory; destroying or causing falling of hairs.

Keśakṛṣṇatākara

: Blackening hairs.

Keśarañjana

: Colouring hairs; dyeing (blackening) hairs.

Keśadairdhyakara

: Lengthening hairs.

Keśabahutvakara

: Making hairs profuse.

Keśabṛnhaṇa

: Promoting growth of hairs.

Keśamārdavakara

: Smoothing hairs.

Keśasnigdhatākara

: Making hairs unctuous.

Keśopaghātakara

: Causing falling of hairs.

Keśya

: Beneficial for hairs.

Koṭhāpaha-vināśana

: Alleviating koṭha; urticaria allergy and its severe stage; mandal.

Kopana, prakasa

: Aggravating factor.

Koṣṭha vāta prakopiṇi

: Wind-forming

Kuṣṭhavātahā-vātaghna-

nāśana-śāmaka

: Checking wind-forming in abdomen.

Koṣṭha vidāhī

: Causing burning in abdomen.

Koṣṭha viśuddhi

: Evacuation (purgative).

Koṣṭha

: Warm; Alpoṣṭha or Īśadoṣṭha.

Kriyāsamarthatam

: Most effective; kriyāmadhikatama sāmārthya.

Kriyaasāmarthya

: Effectivity, efficacy, capability for activity or drug action.

Klamahara,

Klamāpaham

: Removing or eliminating malaise.

Klinna

: Moist, ārdra.

Klībatahara,

Klībatvanāśana

: Removing impotency; aphrodisiac (vājīkaraṇa).

Klībatvakara,

Klībatvajanana

: Causing impotency or making impotent (antonym : aphrodisiac, vājīkaraṇa).

Kledanam, Kledī

: Moistening.

Kledahara-ājuṣaṇa,

- Kledāpaha : Removing or absorbing moisture (kleda).
- Kṣaṇam : Injuring; kṣārakarma, kṣatakāraka.
- Kṣatādīpācana : Suppurating wounds etc.
- Kṣatoṣma nigṛha : Preservation (to control or maintain) wound-heat; vṛaṇoṣmā.
- Kṣayāpaha-nāśana-hara : Alleviating consumption.
- Kṣaraṇa : Necrosis of tissues or aggravation of doṣas.
- Kṣīṇa kṣata
sandhānakara : Healing, unifying; sandhānīya.
- Kṣīrajanana,
Kṣīrasanjanana : Galactogogue; stanyajanana.
- Kṣīraviśodhana : Galacto-depurant; stanyaśodhana.
- Kṣīradourgandhya-
nāśana (ni) : Removing foul smell of breast-milk.
- Kṣīravaivarṇyanāśana : Removing discolouration of breast-milk.
- Khamārdavakara : Smoothing channels; srotomārdavakara.
- Khavaiguṇya,
Khavaiguṇyakara : Abnormality or anomaly in channels; srotovaiguṇya. Causing srotovaiguṇya.
- Khara, Kharatva : Rough; karkaśa; roughness. (antonym : ślakṣaṇa).
- Khālitīyāpaham : Alleviating baldness; khālitīyanāśana.
- Khālitīyāpādana : Causing baldness; khalitīyajanana.
- Gaṇḍanut,
Gaṇḍanāśana,
Gaṇḍavilāpana : Alleviating enlarged glands.
- Gandha : Smell.
- Gandhādhyā-yan : Aromatic, odorous; sugandhita.
- Garahara-jit-hara-hari : Counteracting garaviṣa (artificial poison).
- Garbhakoṣṭhaśodhana : Cleansing uterus; garbhāśaya śodhana-
viśodhana.
- Garbhadam,
Garbhadā : Promoting conception (garbha).
- Garbhadhāraṇa
Garbhashthāpana : Stabilising foetus or foetus-stabilising; garbhashthāpana, prajāsthāpana.
- Garbharodhaka : Contraceptive.

- Garbhaśātana,
 Garbhapātana : Abortion, abortive, abortifacient.
 Garbhāśaya viśuddhi,
 Garbhāśaya śodhana : Cleansing of uterus.
 Garbhāśaya-garbhas-
 thanamārga snehana : Lubricating uterus and vaginal passage.
 Garbhopaghātakara : Causing teratological disorders;
 garbhavikṛtikara.
- Galaroganut,
 Galāmayaghna (i),
 Galāmaya vināśana : Alleviating throat disorders (diseases
 or ailments).
 Galaśoṣanut : Eliminating dryness of throat.
 Gudakīlahā : Arśoghna, alleviating gulakīlamarśa.
 Gudakaṇḍūnāśana : Alleviating anal itching (pruritis ani).
 Gudapraguṇīkaraṇa : Making rectum firm.
 Gudabhraṅśāpaha-
 nāśana : Removing rectal prolapse.
 Gudarujāpaham,
 Gudaśulahara,
 Gudārtināśana : Alleviating pain in anus (rectal pain).
 Guru, Gurutā,
 Gurupakam : Heavy in property (guru guṇa); heavy
 in digestion (gurupāki-guruvīrya).
 Gurvādaya : Gurvādi guṇas; gurvādi vinśati guṇāḥ
 (physical properties, twenty in num-
 ber).
- Gulmaghnam-nāśana-
 nibarhaṇa-nut-
 prabhedana-bhedana-
 paham-śaithilya-
 janāni (anana) : Destroying, abdominal lump; breaking
 and slackening — alleviating gulma
 (lump in udara or abdomen).
- Gṛdhrasīrogāpaham-
 hara-nāśana : Alleviating sciatica (gṛdhrasī).
 Gaurava,
 Gauravakarāṇi : Heaviness in body by increase of
 weight; heaviness in digestion or
 feeling of heaviness; causing heaviness.
 Granthi vilāpana : Removing cyst (granthi-gaṇḍa) or glan-
 dular swelling.

- Graharogagham,
 Graharogohara,
 Grahanāśana,
 Grahāmayanāśana : Alleviating disorders caused by grahas (seizures). Destroyer of grahas (seizures).
- Grahaṇīdoṣa nut-
 praśamana,
 Grahaṇīduṣaṇam,
 Grahaṇīnut,
 Grahaṇībalavardhana : Affecting grahaṇī; Pacifying, alleviating or removing disorders of grahaṇī; potentiating the functions of grahaṇī.
- Glāpana, Glānikara,
 Glānyabhiniṣṭtikaram : Causing malaise.
- Ghana : Solid, compact; sāndra (antonym : śuṣira)
- Ghṛtavyāpatpraśamana-
 nāśinī-nāśana : Pacifying adverse effects of ghee (consumption).
- Ghrāṇāsrāvaṇa : Increasing nasal secretion.
- Ghrāṇādiprahlādana : Exhilarating to nasal and other sense organs.
- Caḥsuprasādana : Pleasing to eyes; netraprasādana.
- Caḥsurvirecava : Stimulating lachrymal secretion.
- Caḥsuṣya : Beneficial (wholesome and good) for eyes (protecting or preserving eye-health as a whole and also preventive as well as curative effects of drugs and food etc.-auśadhāna including āhāravihāra-possessing caḥsuṣya action).
- Calah : Moving; gatiśīla (vāyoḥ guṇah).
- Cāturthika-vināśana-
 nivāraṇa-hara : Alleviating or removing quartan fever.
- Cetanā : Consciousness
- Cetovikārakarm : Causing mental disorders
- Cetovikāranut,
 Cetovikāraghna : Alleviating mental disorders, psychiatric measures; manovikāranāśana.
- Cyāvana : Decreasing dhātus; dhātukṣayakara.
- Cherdana : Emesis; vamaṇa. Emetic(s); vamaṇa dravyam (dravyāṇi).

Chardinigrahaṇa	: Anti-emetic; chardihara, vamanahara, vamighnam. (antonym : emetic, vamanakāri, vāmaka, chardijanana).
Chardātiyoga praśamana	: Checking frequent vomiting; atīśaya chardi sāmāna.
Chettā	: Cutting, separating.
Chedana	: Expectoant etc.;śleṣmaniḥsāraka e t c . Excision; śastrakarma.
Chedanīya	: Desaturating; apatarpaṇakaraka. Chan- nel-cleansing; srotaḥśodhana (srotovi- śodhana).
Jaṭharāghnāni	: Alleviating udararoga (abdominal en- largements); Udararogaharāṇi, udara- rogoharam.
Jaṭharāgnivṛddhi	: Stimulation of digestive fire.
Jaṭharāpaham	: Alleviating udararoga; udarrogaharam.
Jaḍatākaram	: Causing stiffness in limbs.
Jaraṇaḥ, Jaraṇīyaḥ	: Digestant; pācana.
Jarakṛt	: Causing premature senility; śīghra jarā vārdhakyakara.
Jarāvīyādhi praśamana	: Alleviating senility and diseases.
Jarjarikaraṇam	: Making the body shattered.
Jādyakara	: Causing stiffness.
Jihvāviśodhana	: Tongue-cleaning; jihvendriyavi- śodhana.
Jirṇajvarahara, Jirṇajvarāpaha	: Alleviating chronic fever.
Jivana, Jivanīya	: Vitaliser; prāṇaśaktivardhana.
Jvaraghna-nāśana-hara- nut-sāmāna-apaha	: Antipyretic, febrifuge; pacifying or alle- viating fever.
Jvaravardhana	: Aggravating fever.
Tatra yogyatvam	: Effectivity.
Tanu	: Thin (avahalam); lean (kṛśam), Lean- ness (Tanutām).
Tandrākara	: Causing drowsiness.
Tandrāpaham, Tandropaśamaniya	: Removing drowsiness; pacifying drow- siness.
Tamakaśamana	: Relieving bronchial asthma (tamaka śvāsa); pacifying feeling of darkness (tamaka).

Taruṇaprāyam	: Almost fresh.
Tareṇyah	: Young; abhinava.
Tarpaṇa	: Satiating; tṛptikara. Causing thirst; tṛṣṇājanaka.
Tarpaṇam	: A specific dietary preparation (tarpaṇa lājasaktavaḥ).
Tāpanakaram,	
Tāpanaḥ	: Producing heat.
Tāluśoṣaghna-hara-	
śāmaka	: Removing dryness of palate.
Tiktaḥ	: Bitter (taste-rasa).
Timirghna	: Alleviating defects of vision.
Tikṣṇa	: Irritant, sharp, intense (tikṣṇa : guṇa) (antonym : manda guṇa)
Tikṣṇavirecana	: Drastic purgative.
Tivrarūkṣāh	: Fast and rough.
Tūlyaguṇah	: Having similar property.
Tuvara	: Astringent; kaṣāya.
Tuṣṭidam, pradam	: Providing contentment, satisfying.
Tṛptikara	: Satiating
Tṛptighna	: Alleviating feeling of satiety.
Tejorūpāvaham	: Providing glow and complexion.
Tṛṣāpaham,	
Tṛṣṇāghnam-nigrahaṇa-	
praśamana-praśānti-	
haram-atiyoga	
praśamana	: Allaying or pacifying thirst; pacifying excessive thirst or over thirst.
Tṛṣṇājanana	: Causing thirst.
Tridoṣaśamana-hara-	
nāśaka-ghna-apaḥ-	
śāmani	: Pacifying or allaying tri-humors or three doṣa - vāta, pitta and kapha-in abnormal state (viśama-vṛddha).
Tvakpradūṣaṇa	: Affecting skin and causing skin diseases.
Tvakprasādakara	: Making skin pleasant.
Tvaksthīkaraṇa	: Providing firmness to skin.
Tvagāgnityanam	: Stimulating heat of the skin.
Tvaggrahaṇam	: Attaining (covering of) skin.
Tvagdoṣaprabādhana	: Checking skin diseases.
Tvagviśuddhikara	: Purifying skin.
Tvagdoṣāpanayanam	: Alleviating skin diseases.

- Tvacya : Beneficial to skin (proventive, protective and curative for skin).
- Dantakriminut-haraghna-nāśana : Removing or eradicating dental caries.
- Dentacalanut : Removing looseness of teeth (caladanta sthirikaraṇa).
- Dantacyāvana : Making the teeth weak and fall (dantapātanam).
- Dantadārdhyakaram : Providing firmness to teeth; dantasthairyakara.
- Dantabalakara : Making teeth strong.
- Dantaroganut-haranāśaka-nivāraṇa : Alleviating dental diseases (teeth ailments).
- Dantaviśodhanam
Dantaśodhana : Cleaning of teeth, tooth brush, tooth powder.
- Dantaśouṣṭryanut : Removing tooth (teeth) cavity (danta sarandhra koṭara).
- Dantahaṛṣa,
Dantaviśāpaha : Destroying teeth-poison (dantaja viśāpaha).
- Dantahaṛṣaṇa : Excessive sensitiveness of teeth (often resultant to excessive sour taste).
- Dantaharsapramardana : Relieving excessive sensitiveness of teeth.
- Dantabhāṣanūt : Checking fall of teeth.
- Dahana : Burning; dahanakaram.
- Daraṇah, Dāraṇam : Tearing, breaking, opening.
- Dāruṇa : Hard, Kaṭhina.
- Dārḍhyakara : Providing firmness.
- Dārḍhyajanana,
Dārḍhyāvaha : Providing firmness.
- Dāhakarā, Dāhana,
Dāhakarāṇi, Dāhakārī,
Dāhajanana : Causing or producing heat (burning sensation).
- Dāhajvarahara
praśamana : Pacifying fever with burning sensation.
- Dāhapaśamana-
nivāraṇa-nirvāpaṇa-
praṇāśana-praśānti-

- hara-apanayana : Pacifying burning sensation.
- Dīpanaḥ, Dīpanam : Stimulating digestive fire; appetizer, agni-dīpana-sandīpana etc.
- Dīpanagrāhī : Anti-diarrhoeal also being appetizer.
- Dīpanapācana : Both appetizer and digestant.
- Dīpaniyāḥ : Useful for dīpana-karma.
- Dīrgha : Long (time); kāla, (dīrgha), dīrgha-jīvana.
- Duḥkha : Pain (ātmaguṇa); painful-dukhī (dukhāyu-sukhāyu).
- Daḥkhābdhanam : Blocking of feeling of pain (anaesthetic).
- Durgandha : Foul smell; dukhada gandha
- Durgandhahara : Removing foul smell or unpleasant odour.
- Durnamahṛt : Arśoghna (anti-piles).
- Durvīpākakaraḥ : Uneasily digestable (with delay).
- Duṣṭavraṇaśodhana-
viśodhana : Cleansing dirty wounds.
- Dūṣiṣāpahā : Counteracting latent-poison.
- Dṛknāśana : Destroying vision.
- Dṛkprasādani : Clearing vision.
- Dṛgghnam : Dṛṣṭināśana.
- Dṛḍha : Firm, steady (dṛḍha śarīrāṅga, sthira).
- Dṛṣṭi kaṇḍū-kleda-
dāha-mala-rajā hara : Relieving, alleviating and pacifying itching, watering, burning, dirt and pain of eyes.
- Dṛṣṭikṣayakara : Diminishing vision
- Dṛṣṭidūṣaṇam : Affecting vision
- Dṛṣṭyāpaham : Causing loss of vision.
- Dṛṣṭi prasādana : Clearing vision.
- Dṛṣṭibalakṛt-vivṛddhi : Promoting power of vision
- Dehamṛdūkaraṇa : Softening body parts.
- Deha laghutā : Lightness in body.
- Dehavṛddhikaram : Promoting growth of body.
- Dehasandhuṣaṇam : Stimulating development of body.
- Dehasamvejanam : Producing shocks in body parts.
- Doṣadhāti : Alleviating doṣas; doṣahara.
- Doṣaghna-nirharaṇa : Pacifying or allaying doṣas (three), Eliminating excreta.
- Doṣapācana : Digestant of doṣas associated with āma; doṣavipācana.

- Doṣapracāyāvana : Elimination of doṣas; doṣanirharāṇa (malośodhana).
- Doṣaprasamana : Pacifying doṣas.
- Doṣāla, Doṣasanjanana : Pathogenic; vikārajanaka (vaikṛtika-vikārakāri).
- Doṣavilāyanam : Expelling doṣas (kapha-pitta) after increasing their liquidity.
- Doṣaviśyandanam : Liquification of doṣas, doṣa vilayanam.
- Doṣāśāmana : Pacifying doṣas; doṣāśāmaka.
- Doṣahara-haraṇam : Expelling or allaying doṣas; expelling impurities.
- Doṣāsampravartanī,
Doṣānulomana : Pushing excreta out (also through their normal passages).
- Doṣasancayānubandhāḥ : Accumulation of doṣas by prolonged through use.
- Doṣānubandharakṣaṇam : Protection against association of doṣas.
- Doṣāndhya : Removing night-blindness; naktāndhya.
- Doṣotkleśakaram : Displacing doṣas after aggravating (doṣas).
- Dourgandhya,
Dourgandhyānāśana : Foul smell; removal of foul smell.
- Dourbalyakara-kṛt : Debilitating; dourbalyajanaka; dourbalyabhiniṣṛtikaram.
- Dourbalyāpaharam : Alleviating debility.
- Dravaḥ : Liquid (anonym : sāndra, solid).
- Dravyaguru : Heavy by nature (dravyaprakṛti).
- Dhātupuṣṭijanana : Nourishing dhātus; dhātupuṣṭikara.
- Dhātupraduṣaṇam : Vitiating dhātus (and also normal doṣas and malas); dhātuprodūṣaka.
- Dhātuvardhanam : Promoting dhātus; dhātu vṛddhikara.
- Dhṛti : Self-control on mind and body; ātmanīyantraṇa.
- Dhātusāneyakṛt-kara : Causing homeostasis; dhātusāmya (balance, equilibrium-'dhātusāmyamārogyatā').
- Dhāraṇa : Causing to hold back the seed (semen, embryo); bījadhāra.
- Dhīsmṛtihara : Causing loss of intellect; prajñānāśana.
- Dhīdhṛtismṛtihara : Causing loss of intellect, memory, powers of retention, recollection.

- Dhidhṛtismṛtikara : Promoting intellect.
- Dhīpradam : Intellect-promoting; buddhivardhana
- Nakhaviṣāpaḥ : Counteracting nail-poison; nakhajaviṣaghna (nakhakṣatya viṣa).
- Nayanāmayaghna : Alleviating diseases of eye.
- Nastaḥ pracchardam : Head-evacuation (by snuffing); śirovirecana (nasya).
- Nava : Fresh
- Nāḍī vranāpaḥ : Alleviating sinus (nāḍī vranā).
- Nātighanam : Slightly thick; iṣat sāndra.
- Nātyuṣṇaśītam : Slightly hot and cold.
- Nāmanah : Bending the body
- Nihsārāḥ : Devoid of essence (potency); sārāhīna (nirvīrya-vīryahīna)—Hīnavīrya.
- Nidrāpaharam : Removing excessive sleep.
- Nidrāvardhana : Potently hypnotic.
- Nidrāhara : Anti-hypnotic.
- Ninditavyādhikara : Causing leprosy; kuṣṭhajanana.
- Nirūhaṇāni : Exerting actions of non-unctuous enema; nirūhakarmakara.
- Nirgandham : Devoid of smell; gandharahita, gandha-hīna.
- Nirvapaṇam : Dāhaśāmaka; nirvāpaṇam.
- Netrakṛnimighnam : Destroying organisms (also microorganisms-pathogenic) in eyes
- Netra-daha-mala-rāgarujā-śopha-upadehahara (nivāraṇanāśana-śāmaka-nut) : Removing, pacifying or allaying burning sensation, dirt, redness, pain, swelling and dirt in eyes (nayana-dṛsticakṣu).
- Netramala viśodhana : Eliminating, eye-dirt; netraśodhana.



PHARMACOLOGICAL ACTION OF DRUGS

Medhya

Brāhmī-Aindrī
Jyotiṣmatī
Kūṣmāṇḍa
Maṇḍūkapaṇī

Madakāri

Ahiphena
Dhattūra
Bhaṅgā

Sajñāsthāpana

Jaṭāmāṁsī
Kaṭphala
Hiṅgu
Coraka

Nidrājanana

Alābū

Vedanāsthāpana

Kadamba
Jalavetasa
Pārasika yavānī
Guggulu
Eraṇḍa
Aṅkola
Devadāru
Gandhaprasāriṇī
Medasaka
Mucakunda
Gorakṣa
Nirguṇḍī

Ākṣepajanana

Kupīlu

Ākṣepāsamana

Kupīlu

Cakṣuṣya

Cakṣuṣyā
Kataka
Dāruharidrā

Karṇya

Bilva
Apāmarga

Nasya

Kṣavaka

Rasya

Meṣaśṅgī

Svedajanana

Kirāta

Svedopaga

Svedapanayana

Keśya

Nārikela
Bhṛṅgarāja
Nīlinī

Vidāhī

Snehopaga

Drākṣā

Varṇya

Kuṅkuma
Ketakī
Madayantikā

Kandughna

Karaṅja
Kośāmra
Nimba
Jayanti

- Aranyajiraka
Kuṣṭhaghna
 Khadira
 Haridrā
 Bhallātaka
 Ārgavadha
 Bākuci
 Jātī
 Kākodumbara
 Cakramarda
Hṛdya
 Arjuna
 Kapūra
 Hṛtpatī
 Karavīra
Hṛdayottejaka
 Kāphīka
Raktabhārasāmaka
 Jaṭāmānsī
 Jyotiṣmātī
 Brāhmī
Śoṭhahara
 Agnimantha
 Gambhārī
 Mānakanda
 Himśrā
 Adhaḥpuṣpī
Gaṇḍamālāhara
 Kāñcanāra
 Kāñḍīra
Chedana-śleṣmahara
 Bibhītaka
 Lavaṅga
 Dārusitā
 Madhuyaṣṭī
 Mastaki
 Bola
 Lohavaṅga
 Kalā
- Khatmi
 Kāsamarda
Kāsāhara
 Kāsamarda
 Kaṇṭakārī
 Bṛhatī
 Karkataśṛṅgī
 Agastya
Śvāsahara
 Karcūra
 Bhārṅgī
 Dugdḥikā
Kaṇṭhya
 Madayavacā
 Haṁsapadī
Lālāprasekajanana
 Kaṭuvīra
 Ākarakarabha
Tr̥ṣṇānigrahaṇa
 Dhanvayāsa
 Dhānyaka
Mukhavaisadyakara
Dantasodhana
Dantyādardhyakara
 Bakula
Tr̥ptighna
 Cavya
 Ādraka
 Śuṅṭhī
Rocana
 Amlavetasa
 Dāḍima
 Bijapūra
 Jambīra
 Cāṅgerī
 Karmaraṅga
 Karamarda
Dīpana
 Ativiṣā

Kalambaka	Kumārī
Citraka	Samśodhana
Marica	(ubhayatobhāgahara)
Jiraka	Devadālī
Kṛṣṇa jīraka	Grāhī
Pācana	Bilva
Mustaka	Jātiphala
Eraṇḍakarkaṭī	Āmahara (upaśoṣaṇa)
Vamana	Kuṭaja
Ikṣvāku	Aralu
Dhāmārgava	Stambhana
Kṛtavedhana	Dhātakī
Ariṣṭaka	Bakula
Madanaphala	Āvartanī
Vamanopaga	Dhanvana
Hijjala	Māyāphala
Purīṣajanana	Mayūraśikhā
Māṣa	Akaśavallī
Vātānulomana	Sūlapraśamana
Marubaka	Ajamodā
Damanaka	Candraśūra
Miśreyā	Dhattūra
Nādihiṅgu	Kṛmighna
Viṣṭambhi	Viḍanga
Lakuca	Palāśa
Recana	Couhāra
Sukha-mṛdivirecana	Iṅgudī
Atasī	Barvarī
Aśvagola	Tiktapatri-Afsantin
Mārkaṇḍikā	Kīṭamārī
Kṛṣṇabīja	Kampillaka
Tikṣnavirecana	Bhāṇḍira
Dantī	Ākhukarṇī
Dravantī	Arśoghna
Arka	Mahānimba
Indravāruṇī	Karīra
Kaṅkuṣṭha	Yakṛta-plīhahita
Kaṭukā	Dāruharidrā
Amlaparnī	Kākamācī

Apāmārga	Mallikā
Bhunimba-kālamegha	Stanyaśodhana
Dugdhapheni	Pāṭhā
Kāsanī	Mūtravirecanīya
Sukajanana	Gokṣura
Muśali	Kuśa
Makhāna	Kaśa
Kokilākṣa	Darbha
Munjātaka	Ikṣu
Kapikacchu	Bhūmyamalakī
Śukaśodhana	Kaṅkola
Kuṣṭha	Hapuṣā
Kaṭphala	Anānāsa
Prajāsthāpana	Bandaka
Dūrva	Aśmaribhedana
Kamala	Kulattha
Kumuda	Mūtrarasāṅgrahaṇīya
Kaśeruka	Amra
Garbharodhaka	Jambu
Japā	Udumbara
Garbhāśayasāṅkocaka	Aśvattha
Ísvari	Dhava
Annāmaya	Aśmantaka
Kālājāī	Madhumehahara
Kārpāsa	Bijaka
Lāṅgalī	Kāravellaka
Keb(v)uka	Bimbī
Harmala	Jvaraghna
Ārtavajanana	Haridru
Ārtavasāṅgrahaṇīya	Kirātatikta
Aśoka	Mūrvā
Lodhra	Kāṣṭhadāru
Udumbara	Viśamajvaraghna
Aśvattha	Kaṭunāhī
Dhava	Kaṅṭakī karaṅja
Aśmantaka	Kutikta-kunayana
Stanyajanana	Droṇapuṣpī
Nala	Dāhapraśamana
Stanyasāṅgrahaṇīya	Candana-śveta

Candana-rakta	Nāgadamana
Elā	Upaviṣa
Campaka	Guñjā
Śitaprasamana	Viṣaghna
Aguru	Nirviṣā
Bṛhadelā	Chilahiṅṭa
Kothaprasamana	Aṅkoṭa
Aśvakaṛṇa	Raktastambhana
Vraṇasodhana	Nāgakeśara
Gāṅgarukī	Ajāparṇa-āyapana
Balya	Jhaṅḍu
Balā	Kukundara
Atibalā	Jalakumbhi
Mahābalā	Raktaprasādana
Jivaniya	Manjiṣṭhā
Jivantī	Dvīpantaravacā
Mudgaparṇī	Muṅḍī
Māṣaparṇī	Bṛhṇaṇa
Sandhāniya	Kharjūra
Lajjālu	Madhūka
Asthīśṛṅkhalā	Chatraka
Rasāyana	Lekhana-karśana
Āmalakī	Cirabilva
Harītakī	Angamarda-prasamana
Guḍūci	Methikā
Aśvagandhā	Vraṇaropaṇa
Nāgabalā	Māmsarohiṇī



DRUGS WITH SIDDHA MEDICINE TERMS

Ayurveda

Ākarakarabha
Akṣoṭa
Aguru
Agastya
Agnimantha
Aṅkola
Ajagandhā
Atasi
Atibalā
Ativiṣā
Adhaḥpuṣpī
Ananāsa
Annāmaya
Aparājitā
Apāmārga
Āmrātaka
Amplaparnī
Amlavetasa
Amlikā
Aranyajīraka
Aralu
Arimeda
Ariṣṭaka
Arka
Arjuna
Alarka-rājārka
Aśoka
Aśvakarṇa
Aśvagandhā
Aśvattha
Asana-Bījaka
Asthisamhāra

Siddha

Akkirakaram
Akrottu
Agil
Agathi
Thamthalai
Azhinjil

Alisidirai
Patatir
Athividayam
Kalnudaitumbai
Annasi
Ergot
Kakkanam
Nayuruvi
Mambulici
Nattirevaichini

Adavi jilakara
Peruppi
Valval
Ponnamgottai
Erukku
Maruthu, Marutai
Pallerukku
Asoku
Sara
Amukkara
Arasu
Pirasaram
Pirandai

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Ahiphena	Abini
Ādhakī	Thovany
Āmalakī	Nellikkaina
Āmra	Mangamaram, Mamaram
Āmragandhiharidrā	Mangaiinji
Āragavadha	
Ārdraka	Ingi
Āvartakī	Avaram
Bṛhadelā	Periyadan
Śaṭī	Seemaikichikkighaga
Śatapatrī	Iroja
Śatapušpā	Sadakuppai
Śatāvari	Seemeithannervittan
Śarapunkhā	Mullukaivelai
Śallakī	Parangisambirani
Śāka	Tekku
Śakhoṭaka	Pirai
Śāla	Kungilyam
Śāliparṇī	Pulladi
Śāli	Neb
Śālmali	Purani
Śigru	Murungi
Śirīṣa	Vagai
Śuṅṭhī	Chukku
Śṛṅgāṭaka	Singara
Śaileya	Karpasi
Śleṣmātaka	Naruvilli
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Saptaparṇa	Pala
Samudranārikela	Kadathenagi
Sarja	Kundurukam
Sarala	Seemaidevadaru
Sarpagandhā	Amalpori
Sahadevi	Sahadevi
Sārivā	Nanniari
Śinśipā	Sisu
Sudarśana	Vishamoongi
Sūraṇa	Karnsa

Saireyaka	Chemnulli
Somavalli	Somagam
Śunṭhī	Uhaikkali
Svarṇakṣirī	Bramadandu
Svarṇapatrī	Nilavarai
Haridrā	Munjal
Haridru	Majakadambu
Harītakī	Kadukkai
Himsrā	Karunsurai
Hiṅgu	Perurkayam
Avartani	Valamburi
Ikṣu	
Ikṣvāku	
Īṅgudī	
Indravaruṇī	
Īsvarī	
Iṣadgola	Isappa
Udumbura	Athi
Upakuñcikā	Karum seeragm
Upodikā	
Uśīra	Vetiver
Ṛddhi	
Ṛṣabhaka	
Eraṇḍa	Ammanakka
Eraṇḍakarkaṭī	
Ervāru-karkaṭī	Mulampazham
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Elā	Ilam
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Kaṭphala	Maruthu
Kaṭuka	Kaduguragini
Kaṭuparṇī	
Kaṇṭakikaraṅja	Kazharchi
Kaṇṭakāri	Kandamkathiri
Khadira	
Kataka	Thettran
Kadamba	Venkadambu
Kadalī	Vazhai

Kapikacchu	Poonaikkali
Kamala	Ambel
Kampillaka	Kamel
Karañja	Pungu
Karamarda	Nathuthagarai
Karavīra	Alari
Karīra	Chengan
Karkaṭaśrṅgi	Karkatagasingi
Karcūra	Kichili Kizhangu
Karpura	Indu
Kalambaka	Maramanjai
Kaseru	Karudan
Kakajanghā	
Karṇasphoṭā	Mudukottam
Kākanāsā	Uppilankodi
Kākamāci	Manattakkali
Kakoli	
Kāñcanāra	Sivappumanchori
Kārpāsa	Paruthi
Kalambaka	Maramanjai
Kāseru	Karudan
Kākamāci	Manattakkali
Kakodumbara	Peyathi
Kāñcanāra	Sivappumanchori
Karpāsa	Paruthi
Karavellaka	Pagal
Kāsamarda	Nahuthagarai
Kāsani	Kasinikeerai
Kiratatikta	Nilavembu
Kiṭamāri	Kattusuragam
Kukundara	Narakka
Kunkuma	
Kuṭaja	Kudasappalai
Kupīlu	Etti
Kumāri	Kattrazahi
Kumuda bheda (nilotpala)	Neelotpalam
Kumbhi	
Kulanjana	Kanda
Kulattha	Kollu

Kuśa	Tharubai
Kuṣṭha	Kottam
Kusumbha	Chendurakam
Kūṣmāṇḍa	Poosani
Kṛṣṇajīraka	Semai Seearagam
Kṛṣṇa sārivā	Kattupala
Ketakī	Tali
Kebukā	Krravam
Kokilākṣa	Neelothpalam(?)
Kodrava	Varegu
Kośātaki	Pikunkai
Kośāmra	Kolama
Kozuppa	Pulitarai
Khadira	Kalippaku
Kharjūra	Periya itcham
Gangerukī	Achu
Gaṇdhaprasāriṇī	Talanili
Gambhārī	Kattanam
Guggulu	Kungilyam
Gunjā	Kundrimati
Guḍūci	Seenthil
Gundrā (Eraka)	Jambo
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Gokṣura	Sirunenunji
Gojihvā	Unujni
Gorakṣa	
Cakramarda	Thagarai
Caṇaka	Kodalai
Candana	Chandhanam
Candraśūra	Ahvirai
Campaka	Sambangi
Cakṣuṣyā	Mulaippal virai
Cāṅgerī	Pulai kiri
Citraka	Venkodiveli
Cirabilva	Jya
Canda	Chengan
Chatraka	Venkodiveli
Chilahiṇṭa	Kattukkodi
Jaṭāmānsī	Sadamanjil

Japā	Sambarathai
Jambīra	Elumishchai
Jambū	Naval
Jayantī	Sembai
Jalakumbhī	Agasatamarai
Jalapippalī	Paduthalai
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Jātiphala	Masikkai
Jātī	Pichippu
Jayapāla	Neervalam
Jīraka	Seeragam
Jivantī	Palakudai
Tavakṣīra	Kua
Tambūla	Nagavalli
Tarkārī	Thaluthalai
Tāla	Panai
Tālamūli	Nilappankkizhangu
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Tiniśa	Narivenguyam
Tila	El
Tilaparṇī (śveta)	Kadugu
Tumburu	
Tulasī	Thulasi
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Trapuṣa	Vellarikkai
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Dāḍima	Mathulai
Daruharidrā	Maramanjai
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Dūrva	Arugan
Devadaru	Devadhari
Dravantī	Neervalam
Droṇapūṣpī	Thumbai
Dhattūra	Ervakku
Dhātakī	Velakkai
Dhānyaka	Kothamalli

Dhāmārgava	Peerkku
Nala	Moongil
Nandivṛkṣa	Kagoti
Nādīhiṅgu	Tikkamalli
Narikela	Thennai
Nicula (hijjala)	Kadappasi
Nimba	Vembu
Nirguṇḍī	Noohi
Nīlini	Neeli
Paṭola	Kombupudalai
Patrāṅga	Patungana
Paruṣaka	Palisa
Paṇḍabīja	Ranakkali
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Parpaṭa	Tusa
Palaṇḍu	Vellai vengayam
Palāśa	Parasa
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Pāṭalā	Pathiri
Pāṭhā	Appatta
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Pārijāta	Pavajha mattigai
Pāribhadra	Kalyanamurunga
Pāṣāṇabheda	Padanbethi
Pippali	Tippili
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Pīlu	Parngoli
Putrajīvaka	Karupali
Punarnava	Mukkarattai
Punnāga	Punnagam
Pūga	Kamugu
Prśṇiparṇī	Sithiropala
Priyāla	Mudaima
Plakṣa	Kurugu
Phalgu (anjīra)	Semaiattai
Bakula	Magilam
Badari	Ilandi
Babbūla	Karuval

Barbarī	Karunthu
Balā	Nilathuththi
Bākucī	Karpoogaarisi
Bibhītaka	Thandri
Bimbi	Koovai
Bilva	Vilvam
Bijapūra (mātuluṅga)	Kadaranathai
Bṛhatī	Papparanulli
Bola	Vellaibolam
Brāhmī (aindrī)	Neer Brami
Bhaṅgā	Kanja
Bhāṅḍira	
Bhūnimba (Kālamegha)	Angara valli
Bhūrja	
Bhṛṅgarāja	Karrisalai
Manjiṣṭhā	Manjitti
Maṅḍūkarnī	Vauarai
Matsyākṣaka	Ponnankai
Madayantikā	Maruthondri
Madhūka	Kattuiluppu
Marica	Milagu
Mallikā	Malligi
Masūra	Masurpurpu
Mahābalā	Tannacham
Mānsarohiṇi	Somadanam
Mādhavī	Adigam
Māyaphala	Maiskkay
Māṣa	Patchaipayaru
Mīsreya	Sogikeenai
Mucakunda	Vennanga
Munjātaka	Silamishri
Muṅḍī	Kottaikaranthai
Mudga	Panipayaru
Mudgaparnī	
Muśālī	Koraikkizhangu
Mūlaka	Mullangi
Methikā	Vendhayam
Meṣāśṛṅgī	Sirukurinjan
Yava	Baillarisi

Yavānī	Omam
Yaṣṭimadhu	Athimathuram
Yuthiparnī	Nagamalli
Raktacandana	Chanchandan
Rasona (laśuna)	Poondu
Rājabalā	Pazhampasi
Rāsnā	
Lakuca	Illangu
Lankā	Milakkay
Lajjālu	Thottal, chinungi
Latākastūrī	Kattu kasthuri
Lavaṅga	Kirambu
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Vaṁśa	Moongi
Vacā	Vasambu
Vaṭa	Ali
Vatsanābha	Nabi
Vantrapuṣī	
Vanpalāṇḍu	Marovemgayam
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Vikānkata	Sirukala
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Vidārī	
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Vṛkṣāmla	Mugal
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