

## EVOLUTION OF KUṢṬĀ

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Amongst the number of drugs mentioned in the ancient *Āyurvedic* classics, the drug *Kuṣṭā* (*Saussurea lappa* Clarke), a rare Himalayan herb is used in various human pathologies. It is used as an aphrodisiac tonic and as a valuable remedy in asthma and chest complaints. Often an adulterated or an altogether different spurious and much cheaper stuff is sold in the market as *Kuṣṭā*. The present study was undertaken with a view to give detailed account of evolution of the drug and its adulterants.

*Kuṣṭā* has been mentioned as an important drug in *Atharvaveda*. According to certain references of *Atharvaveda* it is thought to be growing in *Amṛta Sarovara* in the Himalaya along with *Somā* (*Dravyagūṇa Vijñāna* by P. V. Sharma, Part IV, p. 51). Like *Somā* it is said to have grown in the third heaven under the famous *Aśvathā* tree where gods assembled and thence it was brought in a golden ship. As a remedy, it held the highest place among the herbs bearing auspicious names, *Naghā*, *Naghamarā* and styled as the offsprings of *Jīvalā*, the living one. Regarding its property it is said that it cures diseases of bodily affection especially fever (hence called fever destroyer), and consumption (*Yakṣmā*). From its general property, it was also named all healing (*Viśvabheṣṭaj*). Its aromatic qualities were apparently known as it is classed with salve (*Anjana*) and nard (*Nalad*) (*Kau. Sū.* 35, 27 and 38.9). This drug is widely referred in many diseases as a single drug or in compound form by the classics of *Bṛhatraī*. Some important points are discussed here.

In *Caraka Saṃhitā* (1000 B. C.) the drug *kuṣṭā* has been mentioned under *sūtra*, *vimāna*, *cikitsā*, and *siddhi sthān* mostly for the treatment of *vāta* and *kapha* predominant diseases. Here the drug was prescribed as *vāthar pradaha* (*sū.* 3.20), *lakhanīya-mahākāṣay* (*sū.* 3.23), *vātnāśak pradaha* (*sū.* 25.40) and also in *hydroga* (Ch. 26.101).

In *Suśruta Saṃhitā* (1000 B. C.) *kuṣṭā* is described under *elādīgana* (*sū.* 38.24), *mustādīgana* (*sū.* 38.54), and *vātasāmana* (*sū.* 39.65).

In *Vāgbhattā*, both *Aṣṭāṅga Saṃgraha* and *Aṣṭāṅga Hṛdaya* mentioned this drug under *vāta-nāśak pradēha* (*Ast. Sam. sūt. 13.3*), *kāś-svās* (*Ast. Saṃ. Ci. 14-6*), *prameha pidika* (*Ast. Hri. Ci. 45.2*).

Dalhana (12th century A. D.), commentator of *Suśruta Saṃhitā* and botanist of *Āyurveda*, suggested that *kuṣṭa* and *puṣkarmūla* are the same plant, the difference in name being due to the part used. The root of the plant is used as *puṣkarmūla* and the whole plant or its branches are used as *kuṣṭa*.

Śivdās-Sena (15th century, A. D.) commentator of *Cakradatta of Cakrapāṇi*, mentioned *kuṣṭa* as a substitute for *puṣkarmūla*. He also stated that if *puṣkarmūla* is not available, *kuṣṭa* should be used.

In *Cikitsā grantha i.e. Cakradatta* (11th century A. D.) *Śāraṅgadhāra Saṃhitā* (13th century A. D.), *Bhāvaprakāśa* (16th century A. D.) and *Yogarātnākara* (17th century A. D.), the drug *kuṣṭa* is prescribed for the treatment of many diseases, viz., *āmavāta* (*Cak. datt., 59.36*), *hṛdroga* (*Cak. Datt., 7.160*), *kāś śvās* (*Śār. Saṃ., 2.134*), *pārsva śūla* (*Bhāvaprak., 26.116*), and *prameha* (*Bhāvaprak., 38.47*) in a single or in a compound form.

A study of *Nighaṅṭus* of both the medieval and modern periods reveals that *kuṣṭa* was known by various synonyms i.e. *agad, jivalā, kāśmīrajā, etc. Aṣṭāṅga Nighaṅṭu, Paryāyaratnamālā, Rājaballabha Nighaṅṭu* dealt with synonyms only, while *Dhanvantariya, Śodhāl, Madanapāla* and *Kaideva Nighaṅṭus* dealt with the synonyms as well as properties of *kuṣṭa* i.e. *kuṣṭhaghna, kṛmighna* and *pramehaghna*. *Bhāvaprakāśa Nighaṅṭu* mentioned *kuṣṭhā bheda* for *puṣkarmūla* and *kāśmīrajā* for *kuṣṭha*.

An important Sanskrit lexicon (*Amara Koṣa*.) has mention of *Kuṣṭa*. Its commentators like Kṣīrasvāmi (11th century A. D.) and Bhānuji Dikṣita, while giving the etymology seem to have accepted that these words have been derived from the habitats\*, general characters\*\*, and properties\*\*\* of the drug. Similarly *Śiva Koṣa* (17th century A. D.) a Sanskrit lexicon describes synonymous terms of *kuṣṭa* as mentioned earlier.

*Kuṣṭa* (*Saussurea lappa* Clarke, family Compositae) has been described in almost all the text of modern materia medica viz. *Flora of British India* by Hooker, *Indian Medicinal Plants* by Kirtikar and Basu, *Glossary of Indian Medicinal Plants* by Chopra et al. and also in *Wealth of India*, a C.S.I.R., New Delhi publication. Its description is mainly based on botanical characteristics, pharmacological

\**Vāpya* (*vāpli vyāptu*) means it grows in the vicinity of Vāpie.

\*\**Utpala* (*utpala-puṣpa sa-patram*) means its flowers are like *utpala* (locus).

\*\*\**kuṣṭam* (*kuśnāṭirogam*) means it kills many diseases and *pāka* (*pākam-lāṭi*) means it produces *pāka*, which indicates its *ūṣṇa vīrya*.

action and therapeutic uses. It is a tall, stout herb with annual stem and thick perenial roots. Leaves are small and petioles of the leaf almost clasping the stem. Fruits are achene and the hairs on the fruits are pappus (Fig. 1). The fresh root is



FIG. 1. Botanical details of the plant.

stout, has the shape of a carrot and grows up to 0.6 m in length and 0.3 m in girth (Figs. 2 & 3). It possesses a characteristic penetrating odour and is somewhat



FIG. 2. Root of *S. lappa* Clarke.

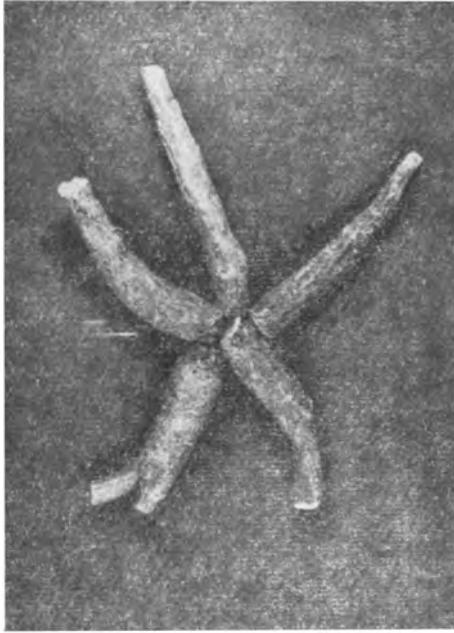


FIG. 3. Root of *S. lappa* Clarke.

bitter in taste. It is found in Kashmir and surrounding areas and grows freely on moist slopes of 8,000 to 13,000 ft. (Fig. 4). The roots contain an alkaloid Saussurine



FIG. 4. *Saussurea lappa* Clarke in ecological state.

0.5%, essential oil 5%, bitter resin, Kuṣṭhin 6.0%, inulin 1.8%, and volatile oil 1%. The drug is used as antiseptic, antispasmodic and in cardiac problems. Its *rasāyana* and *vājīkarana* properties are also reported.

There are many drugs very similar to *kuṣṭa* in their structural and functional aspects, and used as substitutes or adulterants.

#### DISCUSSION

When we turn over the pages right from Vedic era (600 B. C.), we find that *kuṣṭa* has been mentioned as a reputed drug for its excellent response in various human pathologies.

While going through the literature of *Bṛhatraī*, it is found that *kuṣṭa* is mentioned for various therapeutic purposes. There was no mention of identity or synonyms of *kuṣṭa*. But the commentators of *Suśruta* and *Caraka Saṃhitās* created confusion by giving different names for substitutes and adulterants.

Sufficient information for post-*Samhitā* period is available in the literature of *Koṣas* and *Nighanṭus*. These mention synonyms, derivation and in some cases property. A critical study of *kuṣṭa* in *Nighanṭus* reveals that *Dhanvantariya Nighanṭu* (10th century A. D.) had a very clear view on *kuṣṭa* and that there was no problem of identity. But in the 16th century A. D. *Bhāvaprakāśa* put more controversy in nomenclature and identity of *kuṣṭa* and *puṣkarmūla*.

Not only in *Nighanṭus* but also in the text of modern materia medica the drug *kuṣṭa* has occupied an important place. It attracted attention of famous authors like Ainslie who described *kuṣṭa* as a root of *Costus speciosus* (*Asiatic Researches*, Vol. II, p. 349). Dioscorides said that best qualities of *kuṣṭa* should be light coloured, compact, devoid of acrid smell and should have a firm texture. Falconer proved beyond doubt that *kuṣṭa* of upper India was the root of *Aucklandia costus* (Syn. *Saussurea lappa*).

Sarkar, however, tried to prove at great length by quoting Patanjali and Āyurvedic pharmacopoea (*Indian J. Pharm.*, Vol. I, p. 52-67) that *Saussurea lappa* is not *kuṣṭa* but *puṣkarmūla*. According to him *Costus speciosus*, which has been designated by Kirtikar and Basu, is really *kuṣṭa* and the Āyurvedic pharmacopoea of later period permitted the use of *kuṣṭa* in place of *puṣkarmūla*.

*Costus speciosus* (Fig. 5) is sometimes confused with *Saussurea lappa* (Fig. 2 and 3) and both the plants are known as *kuṣṭa* in Sanskrit. While *kuṣṭa* is the trade name of samples of *Saussurea lappa*, the ancient vernacular name "Keo" should be given to *Costus speciosus*. The resemblance of the roots of toonis or *Iris germanica* (Fig. 6) is also reported.



FIG. 5. *Costus speciosus*.



FIG. 6. *Iris germanica*.

The above controversy came up in the beginning of the 19th century. The credit of first suggesting the botanical source of the drug goes to Guilbourt who, on a visit to Kashmir, discovered that *Aplotaxis costus* (Syn. *Saussurea lappa*) growing there produced commercial *kuṣṭa* (Guilbourt, *History of Drug*, Vol. III, p. 32, 1969).

The natives of Kashmir say that this drug is adulterated with other kinds of roots viz of *Inula racemosa*, *Costus speciosus*, *Iris germanica*, *Aconitum heterophyllum*, etc. Another communication made to the Horticulture Society of India, Amritsar states that "Kut" is adulterated not only with "Tut" but the principal substitute seems to be a species of *Ligularia*. The roots are collected in enormous quantities in the mountains of Kashmir and find their way all over India and are also exported to China and Red Sea countries.

#### CONCLUSION

On summarising, it may be concluded that the drug *kuṣṭa* (*Saussurea lappa*) seems to have been in use since the Vedic era. In *Saṃhītā* period, the drug became more prominent and its widespread use shows its importance and popularity.

The commentator's views created controversy and produced substitutes. *Nighaṅṭus* like Dhanvantariya, Rāja, and Paryāyratnamālā had no problem pertaining to identification and use of *kuṣṭa*. But in 16th century A. D. Bhāvaprakāśa again created confusion by giving the name *kuṣṭabheda* for *puṣkarmūla*. Later in the beginning of the 19th century A. D. Falconer made it clear that there were two drugs having distinct features, one was *kuṣṭa* and the other was *puṣkarmūla*. He also named *kuṣṭa* as *Saussurea lappa* and *puṣkarmūla* as *Inula racemosa*.

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