

A LITERARY REVIEW ON THE MEDICINAL IMPORTANCE OF ELA

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ABSTRACT

Medicinal plants are coming forward as reliable life saving drugs. Literature review of the medicinal plants gives an thorough knowledge of its morphology, properties and therapeutic utility. Several medicinal plants have been mentioned in the Ayurveda, Ela is one among them which is very well utilized in daily practice.

KEY WORDS: Ela, Ayurveda, Properties etc.**INTRODUCTION**

Ela is one among trisugandha and an ingredient in many formulations.^[1] Ela is said as Sthoulya vidvamsi and many medohara yogas containing Ela are mentioned. Almost all ancient Acharyas of Ayurveda have referred this drug for its multiple benefits in therapeutics. Ela is explained in almost all the important Nighantus like Bhavaprakasha Nighantu, Kaiyadeva Nighantu, Dhanwantri Nighantu, Shodhala Nighantu, Shaligrama Nighantu etc. We can get the detailed explanation about its synonyms, qualities and different medicinal uses. Ela is also explained detailly in the text books of modern periods like The Ayurvedic materia medica, The Ayurvedic pharmacopoeia of India, Wealth of India and other books written by recent Acharyas, which provide information about its habit, habitat, morphology, chemical composition etc.

Historical Review**Ancient Literature**

There is no direct reference mentioned about Ela in vedic period. Cardamom is mentioned in Sanskrit texts of the 4th century BC in a treatise called Kautilya's Arthashastra and in Taittiriya Samhita where it is used in offerings during ceremonies. In the 11th century in India cardamom was included in the list of ingredients for panchasugandha-thambula or 'five-fragrance betel chew' in the Manasollasa or Book of Splendour.

Samhita kala

In Charaka Samhita^[2], the drug Ela has been mentioned in Vishaghna, Shwasahara, Angamarda Prashamana and Vedanasthapana gana. In Sushruta Samhita^[3], the drug is mentioned under Eladi, Pippalyadi, Mustadi and Priyangvadi gana. In Ashtanga Sangraha^[4], Ela is found mentioned under Vamanopaga, Prayogika dhumopaga,

Krimihara gana. In Ashtanga Hrudaya^[5], Ela is found in Rodradi and Vatsakadi gana to which medokaphahara karma is attributed, also in Mustadi and Eladi gana and there is mentioning of preparations containing Ela in the Medoroga chikistha.

Nighantu kala

It is mentioned in all the nighantus. It is one among trisugandha and is an ingredient in many formulations^[6].

Adhunik kala

Priya nighantu mention Ela in hareetakyadi varga^[7]. Nighantu adarsha mention Ela under Ardrakadi varga^[8]. The Wealth of India identifies Ela as Elettaria cardamomum (L.) Maton (Syn. Alpinia cardamomum Roxb or Cardomum officinale Salisb).

Synonyms^[9]**Based on Swarupa**

Sukshma ela, Bahula, Truti, Kapotaparnika, Sukshma, Triputa, Bahula truti, Nishkuti, Bala, Kapota varna, Indri, Bahulagandha.

Based on Karma

Ela, Garbhari, Vayastha, Tuttha, Hima, Balavathi, Visramsini.

Itharahwaya

Dravidi, Chandrabala, Korangi, Upakunchika, Chandra, Kshudra ela, Tridiva, Chandrika, Sagaragamini, Gandha phalika, Kayastha, Ghrta, Sugandha.

Chemical constituents^[10]

The seeds yield an essential oil. The oil contains the following major components:
Terpinyl acetate - 48.6 – 68%

1,8 cineole – 18.7 – 23.0 %
 α - pinene – 0.1 -5.5 %
 α - terpinol – 3.7 – 4.0 %
 linalool – 2.5- 5.0 %
 linalyl acetate – 1.9- 2.6 %
 nerolidol – 1.2 – 5.2 %

The seed contain palmitic and oleic as dominant fatty acids, besides linoleic and linolenic acids along with α -tocopherol, desmosterol and campesterol. On the other hand, the oil rich in esters like terpinyl acetate and linalyl acetate are known to give flowery smell.

Other major componenets of the oil are α -pinene, limonene camphene, sabinene, α -phelladrene, α -terpinene, α - terpineol, α - terpinyl acetate, borneol, nerol, nerolidol, geraniol, geranyl acetate, linabol and linalyl acetate.

Rasapanchaka

Showing Rasapanchaka of Ela according to various authors

According to Bhavaprakasha Nighantu

Rasa- Katu, Guna- Laghu, Veerya- Sita, Doshagnata- Vatahara

According to Raja Nighantu

Rasa- Tikta, Veerya- Sita , Doshagnata- Pittakaphahara, Karma-

According to Kaiyadeva Nighantu

Rasa- Katu, Guna- Laghu, Veerya- Sita, Doshagnata- Vatahara

According to Madanapala Nighantu

Rasa-Madhura, Guna- Guru, Doshagnata-Vatapittahara

According to Priya Nighantu

Rasa- Katu, Veerya- Sita, Doshagnata- Kaphapittahara

Karma

Karma- Deepana, Pachana, Rochana, Mutrala, Vataanolomana, Hrdhya, Balya, Rechana, Mukha shodhana.

Rogagnata

Shwasa, Kasa, Arshas, Mutrakrakra, Kshaya, Amavata, Hdroga, Vasti shula, Hikka, Prameha.

Parts used

All the Samhitas and Nighantus have advocated the usage of ela beeja.

Botanical aspects

Botanical name is *Elettaria cardamomum*.

Etymology

Elettaria - derived from sanskrit name ela *cardamomum* – derived from the latin word which was the name for a kind of an Indian spice plant and amomum means without impurities.

Taxonomical Classification

Kingdom : Plantae

Subkingdom : Tracheobionta
 Superdivision : Spermatophyta
 Division : Magnoliophyta
 Class : Liliopsida
 Subclass : Zingiberidae
 Order : Zingiberales
 Family : Zingiberaceae
 Genus : Elettaria
 Species : Elettaria cardamomum (L.) Maton

Botanical Description^[11]

Habit: A tall herbaceous perennial with subterranean branching root stock, 1.5- 5 m height.

Leaves: subsessile, elliptic or lanceolate with sheathing base 1-3 ft long.

The tuberous underground rhizome is its real stem and the aerial shoot is a pseudostem formed by the encircling leaf sheaths.

Flowers: borne in panicles, 2-4 ft long, arising from the base of vegetative shoots; panicles upright throughout their length or upright at first and ultimately pendent or prostrate; flowers about 1.5 inch long, white or pale green in colour with a central lip streaked with violet, borne in a close series on the rachis; they are bisexual, but self sterile, and open in succession from the base towards the tip .

Corolla: is tubular, 3-lobed, pale green, androecium with petaloid labellum, white in colour with pink or purplish veins, composed of three modified stamens with an undulated edge. There are two further rudimentary staminodes and one functional stamen.

Fruit: The fruit is an ovoid, three-celled, loculicidally dehiscent capsule containing many seeds, which are covered by an aril. During drying, it is said to lose three-quarters of its weight. The fruits are trilobular, ovoid or oblong, greenish-brown capsules containing about 15–20 seeds attached to an axile placenta.

Seeds: 15-20 per pod, brownish black covered by a thin mucilagenous membrane. The light reddish or dark reddish-brown seeds are irregularly 3-sided, transversely wrinkled or furrowed and are covered by a membranous aril. Each pod contains up to 20 aromatic, dark red brown seeds that have a mild ginger flavour.

Synonyms

Table 1: Showing Synonyms of *Ela*.

<u>Ela</u>	It is a stimulant.
Upakunjika	Fruit is contracted and small.
Korangi	It grows in south india
Tutha	It relieves abdominal pain.
Triputa	It has three surfaces.
Dravidi	It grows in south india.
Nishkuti	The seeds, part used, are taken out of the outer covering
Sukshma	Seeds are small in size.
Chandrabala	Seeds smells like karpura
Bahulagandha	Seeds are exceedingly aromatic.
Bahula	Seeds are numerous.

Vernacular names

Table 2: Showing Vernacular names of *Ela*.

English	Cardamomum
Hindi	Choti elaichi
Kannada	Elakki, Ilaji, Korangi,
Malayalam	Cittelam, Ela, Elakkaya, Elam
Arabic	Haibawa
Sanskrit	Ela, Upakunchika, Korangi, Nishkuti, Dravidi, Sukshma, Bahula, Bahulagandhi, Truti
Bengali	Elach
French	Cardamom de Malabar
Urdu	Heel khurd, Ilayachikhurd
Tamil	Anji, Elam, Ilanji, Iravadi
Telugu	Elaki, Elakkaya, Korangi
Marathi	Veldode, Elachi, Velloda
Gujarati	Elchi
Spanish	Cardamomo
German	Kardamome
Bombay	Elchi

Gana/Varga

Table 3: Showing the classification according to various authors.

CLASSICAL TEXT	GANNA/VARGA
Charaka Samhita	Angamardaprasamana Katukaskanda dravya Svasahara Trisugandha
Sushrutha Samhita	Eladi Pippalyadi Mustadi
Astanga Hrdaya	Eladi Mustadi Vatsakadi Rodradi
Astanga Sangraha	Eladi Vatsakadi Rodradi Mustakadi Vamanopayogini Krimihara Shwasaghna
Bhavaprakasha Nighantu	Karpuradi
Dhanwantari Nighantu	Satapushpadi
Kaiyadeva Nighantu	Osadhi varga

Madanapala Nighantu	Karpuradi
Raja Nighantu	Pippalyadi
Adarsha Nighantu	Ardrakadi varga
Madanadi Nighantu	Madanadi Varga
Siddha mantra	Kaphavataghna varga
Soushruth Nighantu	Eladi Varga
Hrdaya Deepika	Tripada Varga
Shodala Nighantu	Satapushpadi varga

Yogas of ela

Showing Rasapanchaka of Ela according to various authors

Sl.No	Yoga	Adhikara	References
01	Amrtadi taila	Shwasa, kasa, shirashula	AS, Ci 23/70-75
02	Amrtaprasa ghrta	Shwayathu chikitsa	CS,Ci 11/35-43
04	Eladi kasaya	Swarasaada	Sahasrayogam
05	Asshwagandhaarista	Moorchadhikara	B.R 13-17
07	Avipattiurna	Pitta roga and malabandha	S.Ychurna yoga prakarana
08	Balarista	Vatavyadhiadhikara	B.R 607-610
09	Bala taila	Vatavyadhi chikitsa	AH,Ci 21/73
10	Brahma Rasayana	Rasayana	CS,Ci 1/42-57
11	Chyavanaprasha	Rasayana	CS,Ci 1/62-74
12	Dadimastakaurna	Pandu chikitsa	AH,Ci 16/2
14	Dashamula haritaki	Shwayathu chikitsa	AH,Ci 17/14
15	Dashamula rasayana	Meha, arsha, kushta	Sahasrayogam
17	Dhatri elaurna	Mutraghata	AH,Ci 11/10
19	Draksha arishta	Agnimandya, shwasa, kasa	S.S madhyamakhandha 10,69-71
20	Jiraka arista	Atisara, grahani	B.R 492-495
21	Kanchanara guggulu	Gandamala, granthi	Sh.Mk7/95
22	Khadira arista	Maha kusta, granthi, krimi	Sh.Madhyamakhandha10,60-63
23	Satavari gudam	Shwetha pradara, rasayana	Sahasrayogam
24	Talisapatradiurna	Rajayakshma	CS,Ci 8/145-148
25	Vyoshadi vati	Nasa roga	AH, U 20/5
26	Sitopaladiurna	Shwasa, agnimandya, arochaka	Sharangadara, Madhyamakhandha, 6/134-137
27	Kalyanka ghrta	Apasmara, vandyata, yoni roga	AH,U 6/26-28



Ela plant and Fruits

Macroscopic Features of Ela Seeds

CONCLUSION

Elettaria cardamomum is one of the most broadly used spice called cardamom. Ela is a very important and useful medicinal herb used in many formulations. Seeds are used widely mostly as prakshepaka dravya. Ela has several health benefits. Ela is a good aromatic, digestive, stimulant and carminative. All these medicinal properties are due to the essential oil present in the Ela.

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