



Review Article

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THE QUEEN OF SPICES AND AYURVEDA: A BRIEF REVIEW

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ABSTRACT

Small cardamom, well known as the 'queen of spices', belongs to the family Zingiberaceae, order Scitaminae is a rich spice obtained from the seeds of a perennial plant, *Elettaria cardamomum* Maton., in Ayurveda which is known as "ela". Ela is known for its medicinal value from ancient times. It had also been mentioned in Greek, Egyptian and Christian scripts. In India, cardamom production is mainly concentrated in the high ranges of Idukki district, Kerala state and certain pockets of the states of Karnataka and Tamilnadu. Cardamom possesses katu (pungent) rasa (taste) as it's main rasa followed by madhura (sweet) anurasa (taste followed by main taste). Ela pacifies all the three dosha's i.e. vata, pitta and kapha. Cardamom owes its aroma due to presence of volatile oil in its seeds and capsule. Cardamom is used from ancient times with betel leaves for chewing purpose due to its mouth purifier property. Seeds are aromatic, cooling, stimulant, carminative, digestive, stomachic, diuretic, cardiogenic, alexiteric, and expectorant. They are useful in anorexia, dyspepsia, asthma, bronchitis, dysuria, renal and vesicle calculi, halitosis, cardiac disorders, hyperdipsia, burning sensation, debility and defects of vision. In Ayurveda, Ela is used for the treatment of various diseases. Cardamom is used in a number of classical Ayurvedic medicines like eladi vati and sitopaladi churna. Badi elaichi (*Amomum subulatum* Roxb.), in its action and properties, is in many ways different from that of cardamom. This article aims at reviewing detailed Ayurveda and modern perspective of Ela i.e. choti elaichi (*Elettaria cardamomum* Maton.)

Keywords: Ayurveda, Ela, Choti Elaichi, classical uses, medicinal uses, *Amomum subulatum*, *Elettaria cardamomum* Maton.

INTRODUCTION

Historical Review

From medical history one can know about recognition of the continuity of medical thoughts. It tells us about the conception and misconceptions of the past from which one can draw inferences for the present and future times. History of any drug gives insight into its morphology, properties and therapeutic or dietary utility as conceived by various authors at different stages of the history. Thus here historical review of Ela has been put forward in chronological order:

VEDIC KALA (2500 B.C. – 600 B.C.)

References of Ela in Granthas of Vedic period

In Atharva Parishista, Ela has been utilized for Nakshatra snana (bathing at the specific timing of lunar mansion).¹ No other reference of Ela has been found in Veda.

SAMHITA KALA (2000 B.C. - 1300 A.D.)

Charak Samhita

In Charaka samhita, Ela has been mentioned as shirovirechaka dravya (drug used for purpose of purification therapy done through nose route)² and vamanakaraka dravya.³ (emetic drug) Ela as having numerous properties, it was included in various lepa (ointment) used for the treatment of Kushtha (diseases of skin), shiroruja (Headache), sheetada (Dental caries) etc.⁴ Ela is a member of shwasahar and Angamardaprashamana mahakashaya mentioned in Charaka samhita.⁵ It has been included in katukaskandha by Charaka.⁶ Ela is used as a content of

kwathadravya (drug used for decoction preparation) in the preparation of chyawanaprasha.⁷ Ela is a content of Brihani gutika which is popular for its vrishya karma. (Aphrodisiac)⁸ Ela is a content of Agurvadya taila used in the treatment of sheeta jwara.⁹ Ela and other drugs are used in mixture with soil in case of Mritabhakshana habit (pica behaviour).¹⁰ Ela is a content of Prapaundarikadi dhumapana used in the treatment of kasa (bronchial asthma).¹¹ Ela is a content of Mritsanjivana and Mahagandhahasti agada which are used in the treatment of all types of vishas (poisoning).¹² Ela is content of one of the aahara kalpana mridvika raga (dietary preparation) which is used as rochana (decreases bitterness in mouth) and deepana (increases digestive fire).¹³ Ela is a content of kampillakadi taila used as vranaropaka (wound healer) in vrana(wound).¹⁴ Content of tejovhadi churna used for rubbing on gums in case of bleeding gums, dental ache, itching of gums etc.¹⁵ Ela as a content of Vyoshadi modaka yoga used for virechana (purgation therapy) in the treatment of Mutrakrichha (dysuria) and all types of visha's (poisoning).¹⁶ Ela is content of koshtakyadi niruha basti which is given to kaphaja rogi (patient of diseases caused due to kapha dosha).¹⁷ Ela is mentioned as Aawapa/ Prakshepa dravya (drug used as an additives) in the preparation of all types of Basti (enema).¹⁸

Sushruta Samhita

Ela has been mentioned for rubbing at Raktamokshana (Therapeutic procedure mentioned in Ayurveda) site in case of improper letting of blood.¹⁹ Ela has been included in pippalyadi and eladi gana by Acharya sushruta.²⁰ Ela is a content of neelyadi rechaka churna used in sannipatika vyadhi (disease caused by involvement of multiple dosha's).²¹ Ela is a content of gandha taila used in the treatment of bhagna (fracture).²² Ela is a

content of bhagandaranashana taila used in bhagandara (fistula in ano).²³ Ela with other drugs used for Doshasyandana and Vedanashamana (analgesic) after parturition.²⁴ Ela is a content of Bala taila used in the treatment of all types of vata vikara (diseases caused by vata).²⁵ Ela is a content of vachadi taila used for Anuvasana basti (oil enema) in *vataja* roga (diseases caused by vata dosha).²⁶ Ela is a content of Ajeya ghrita used in the treatment of all types of visha (poisoning).²⁷ Ela is content of Tarkshya agada used in the treatment of snake bite.²⁸ Ela is content of Bhadrodaya anjana which has been indicated for regular use for prince.²⁹ Ela is a content of kalyanaka ghrita used in the treatment of infertility and grahabadha (paediatric idiopathic syndrome).³⁰ Ela is a content of Eladi rasayana indicated in Yakshma (tuberculosis).³¹ Ela is a content of phala ghrita used in the treatment of grahadosa (paediatric idiopathic syndrome) in child and female infertility.³²

Ashtanga Hridaya

Ela has been mentioned as vamanakaraka dravya (emetic drug) by vagbhata.³³ Ela has been included in Anjanadi and vatsakadi and eladi gana by vagbhata.³⁴ Ela is a content of various yoga's (formulations) used in the treatment of kasa (bronchial asthma), hikka (hiccups), shwasa (respiratory disorders) like Amritaprasha ghrita, kasanashaka avaleha etc. Ela is a content of Ashtanga lavana used in the treatment of Kaphaja madatyaya (a kind of alcohol poisoning).³⁵ Ela is a content of Patoladi churna used in the treatment of Grahani (irritable bowel syndrome).³⁶ Ela is a content of Hingvadi ghrita used in the treatment of Vataja gulma (abdominal tumour caused by vata dosha).³⁷ Ela has been quoted as anupana dravya (drug used as a vehicle) for virechana yoga (emetic preparation) by vagbhata.³⁸ Ela is a content of koshatakyadi niruha basti used in the treatment of kaphaja roga (diseases caused due to vitiation of kapha dosha).³⁹ Ela is a content of Bhutrarao ghrita used in grihabadha (paediatric idiopathic syndrome).⁴⁰ Ela is a content of Bhaskara anjana used in the treatment of Timira (disturbances of vision), kacha (cataract), Arma (pterygium) etc.⁴¹ Ela has been mentioned as prakshepa dravya (drugs used as additives) in Vajikarana yoga (aphrodisiac formulations).⁴²

Kashyapa Samhita (2-3rd century)

Ela has been a content of one of the Lashunakalpa which is used in the treatment of Kushtha (skin diseases), Prameha (diabetes mellitus), vatakundala etc.⁴³ Acharya kashyapa has advised one of the diet preparation which contains Ela for the patient of Raktagulma (abdominal tumour involving blood).⁴⁴

Chakradatta (11th century)

Acharya chakradatta has included ela in various kalpas (formulations) used for the treatment of various ailments i.e. ela as a content of Shiva gutika used as rasayana (rejuvenating therapy)⁴⁵ and Godhumadya ghrita used as vrishya (aphrodisiac) etc.⁴⁶

NIGHANTU PERIOD

Dhanvantari Nighantu (Mahendra bhogika, 10 – 13th century A.D)

In this nighantu, Ela has been mentioned in Shatapushpadi varga. Various synonyms, properties and Indications have been described.

Sodhala Nighantu (Sodhala, 12th century A.D)

In this nighantu, Ela has been described in Shatapushpadi varga. In Namsangraha, various synonyms have been described. In gunasangraha, properties and Indications has been described.

Shadarasa nighantu (Dr.Goli Panchala Prasad, 20th century A.D)

In this nighantu, Ela has been mentioned in Katudravyskandha. Various synonyms have been described.

Madanpala Nighantu (Madanpala, 14th century A.D)

In this nighantu, Ela has been mentioned in Karpuradi varga. Various synonyms and Indications have been described.

Kaiyadev Nighantu (Kaiyadeva 15th century A.D)

In this nighantu, Ela has been mentioned in Oshadhi varga. Various synonyms, properties and indications have been described.

Bhavaprakasha Nighantu (Bhavmishra 16th century A.D)

Bhavmishra included Ela in Karpuradi varga. Various synonyms, properties and indications have been described.

Raj Nighantu (Pandit Narhari, 17th century A.D.)

In Raj nighantu, Ela has been included in pippalyadi varga. Various synonyms, properties and indications have been described.

Mahaushadhi Nighantu (20th century A.D)

In this nighantu, Ela has been mentioned in Trijaat and Chaturjaat. Various properties of these groups have been mentioned.

Priya Nighantu (P.V Sharma, 21st century A.D)

Ela has been included in Haritakyadi varga in this nighantu. Specifically mentioned habitat of Ela as Kerala by Acharya Priyavrat Sharma. Various synonyms, properties and indications have been described.

Adarsh Nighantu (Vaidya Bapalal, 20th century)

Ela has been included in Aardrakadi varga in this nighantu. Detailed description and various references of Ela have been given.

Gunaratnamala (Kailashpati Pandey, 20th Cen. A.D.)

Ela has been mentioned in Karpuradi sugandha varga. Various properties and indications have been described.

Vanoushadhi Chandrodaya (ChadRARAJA Bhandari, 20th Century)

Vernacular names, properties, indications of Ela have been described.

Table 1: Synonyms of Ela as mentioned in various Nighantus are as follows

Synonym	D.N	So.N	Sa.N	M.N	K.N	B.P.N	R.N	P.N	Gu.R
Dravidee	+	+	-	+	+	+	+	-	+
Tuttha	+	+	-	-	+	+	-	-	+
Korangee	+	+	-	-	+	+	-	-	+
Kunatee	-	-	-	+	-	-	-	-	-
Bahula	+	+	-	+	-	-	-	-	-
Elaa	+	+	+	+	+	+	+	-	-
Kapotavarna	+	+	-	+	+	-	-	-	-
Chandrabala	+	-	-	+	+	-	-	-	-
Nishkutee	+	+	-	+	+	-	+	-	-
Sukshmaila	-	+	-	+	+	+	-	+	+
Sukshma	-	+	+	-	+	+	+	-	+
Upakunchika	-	+	-	-	+	+	-	-	+
Trutee	-	+	-	-	+	+	+	-	+
Trushti	-	-	-	+	-	-	-	-	-
Twisha	-	-	-	+	-	-	-	-	-
Baalaila	-	-	-	-	+	-	-	-	-
Baalaa	-	-	-	-	+	-	+	-	-
Chandra	-	-	-	-	+	-	-	-	-
Kshudraila	-	-	-	-	+	-	-	-	-
Dwipa	-	-	-	-	+	-	-	-	-
Tridiva	-	-	-	-	+	-	-	-	-
Nistrutee	-	-	-	-	+	-	-	-	-
Mashee	-	-	-	-	+	-	-	-	-
Bahulagandhaa	-	-	-	-	-	-	+	-	-
Eindree	-	+	-	-	-	-	+	-	-
Kapotvarnee	-	-	-	-	-	-	+	-	-
Gaurangee	-	-	-	-	-	-	+	-	-
Balavatee	-	-	-	-	-	-	+	-	-
Himaa	-	-	-	-	-	-	+	-	-
Chandrika	-	-	-	-	-	-	+	-	-
Upakunchee	-	-	-	-	-	-	+	-	-
Sargaminee	-	-	-	-	-	-	+	-	-
Garbhari	-	-	-	-	-	-	+	-	-
Gandhaphalikaa	-	-	-	-	-	-	+	-	-
Kayastha	-	-	-	-	-	-	+	-	-
Sukshmadya	-	-	+	-	-	-	-	-	-
Chandravela	-	+	-	-	-	-	-	-	-
Ghritaa	-	+	-	-	-	-	-	-	-
Vayastha	-	+	-	-	-	-	-	-	-
Sugandha	-	+	-	-	-	-	-	-	-

Table 2: Classification of drug Ela in Ayurvedic classics is as under

Sr.No.	Classical text	Gana/Varga
1.	Charaka samhita	Swasahara Mahakashaya, Angamardaprasamana mahakashaya, Katukaskandha, Shirovirechana
2.	Sushruta samhita	Eladi gana
3.	Astanga hridaya	Eladi gana, Trijataka, Chaturjataka
4.	Dhanvatari nighantu	Shatapushpadi varga
5.	Sodhala nighantu	Shatapushpadi varga
6.	Shadarasa nighantu	Katudravya skandha
7.	Hridayadipaka nighantu	Pittalam Kaphavataghna varga
8.	Madanapala nighantu	Karpuradi varga
9.	Kajyadeva nighantu	Oshadhi varga
10.	Bhavaprakasha nighantu	Karpuradi varga
11.	Raj nighantu	Pippalyadi varga
12.	Mahaushadhi nighantu	Trijaat, Chaturjaat
13.	Madhav dravyaguna	Vividhaushadhi varga
14.	Priya nighantu	Haritakyadi varga
15.	Nighantu aadarsha	Aardrakadi varga
16.	Gunaratnamala	Karpuradi-sugandh varga

Table 3: Properties of Ela detailed by different Acharya are tabulated

Properties		D.N	So.N	M.N	K.N	B.P.N	R.N	Mah.N	Sh.N	P.N	N.A	Gu.R
Rasa	Madhura	+	-	-	-	-	-	-	-	-	-	-
	Katu	-	-	-	+	+	-	+	+	+	-	+
	Tikta	-	-	-	-	-	+	-	-	-	-	-
Guna	Laghu	+	-	-	+	+	-	+	+	-	-	+
Veerya	Sheeta	+	-	-	+	+	+	-	+	-	-	+
	Ushna	-	-	-	-	-	-	+	-	-	-	-
Vipaka	Katu	-	-	-	-	-	-	+	-	-	-	-

Table 4: Karma of Ela in various Nighantu`

Karma	D.N	So.N	M.N	K.N	B.P.N	M.D	P.N	Gu.R
Hridya (cardiotonic)	+	-	-	-	-	-	-	-
Rochana (decreases bitterness in mouth)	+	-	-	-	-	-	-	-
Deepana (increases digestive fire)	+	-	-	-	-	-	-	-
Mukhashodhana (mouth cleanser)	-	-	-	-	-	-	+	-

Table 5: Rogagnata of Ela in various Nighantu`s

Roga	D.N	So.N	M.N	K.N	B.P.N	R.N	M.D	P.N	Gu.R
Mutrakrichha (dysuria)	+	+	+	+	+	-	+	+	+
Shwasa (respiratory disorders)	+	+	+	+	+	-	+	-	+
Kasa (bronchial asthma)	+	+	+	+	+	-	+	-	+
Kshaya (weakness)	+	-	-	-	-	-	-	+	-
Arsha (piles)	-	+	+	+	+	-	+	-	+
Vaatarakta (gout)	-	-	-	-	-	-	-	-	+
Kaphapittaja vikara (diseases caused by vitiated kapha and pitta dosha)	-	-	-	-	-	-	-	+	-
Pittavikara (diseases caused by vitiated pitta dosha)	-	-	-	-	-	+	-	-	-
Kaphavikara (diseases caused by vitiated kapha dosha)	-	+	+	-	+	+	-	-	-
Hidroga (cardiac diseases)	-	-	-	-	-	+	-	-	-
Bastishoola (pain in lower abdomen)	-	-	-	-	-	+	-	-	-

Table 6: Doshagnata of Ela in various nighantu`s

Doshagnata	D.N	So.N	Hr.N	M.N	K.N	B.P.N	R.N	M.D	P.N	Gu.R
Kaphahara	-	-	-	+	+	+	-	+	-	+
Apittam	-	-	+	-	-	-	-	-	-	-
Kaphavataghna	-	-	+	-	-	-	-	+	-	-
Vatahara	-	-	-	-	+	+	-	-	-	-

MODERN LITERATURE

Classical Uses of Medicinal Plants (Acharya P.V. Sharma – 20th Century A.D.)

Description of Ela according to its therapeutic indications has been documented.

Glossary of vegetable drug in Brihatrayi (K.C.Chunekar - 20th Century)

Here all the references of Ela described in Brihatrayi are given.

Indian materia medica (Dr.K.M.Nadkarni – 20th Century A.D.)

In this text K.M. Nadkarni have given the details of Ela in Vol.I

Indian Medicinal Plants (Kirtikar and Basu– 20th Century A.D.)

Different names, morphology and therapeutic uses are mentioned in Vol. 10, 3rd revised edition, p. 3374-3377

Database on Medicinal Plants (CCRAS, Vol.5; 20th Century)

Botanical name, classical names, vernacular names, botanical description, Distribution, parts used, action and uses, pharmacognosy, chemical constituents, pharmacological activities, therapeutic evaluation, formulations and preparations, trade and commerce, substitute and adulteration, propagation

and cultivation are described in detail. Ela is described in Vol.5th of Database.

Ayurvedic Pharmacopoeia of India (Part-I, Vol.I)

Latin name, family, general description, distribution, vernacular names with classical names, its macroscopic and microscopic description, chemical constituents, properties and action, formulations, therapeutic uses and Dose are described.

Encyclopaedia of World Medicinal plants (T. Pullaiah)

Complete description of Ela is available like Latin name, family, botanical description, distribution, vernacular names & medicinal uses in vol.2, page no.856-857

Wealth of India (Council of scientific and industrial research India, Vol. II)

Complete description of Ela is available like Latin name, vernacular names, distribution, cultivation, propagation, harvesting, different types, grading, trade and commerce, medicinal uses etc. in vol.3, page no.149-160

TYPES OF ELA: All the texts have mentioned about two varieties of Ela viz. Sukshma Ela (*Elettaria cardamomum* Maton.) and Brihat Ela (*Amomum subulatum* Roxb.).

MODERN REVIEW

Taxonomical Classification⁴⁷

Kingdom: Plantae – Plants

Subkingdom: Tracheobionta – Vascular plants

Superdivision: Spermatophyta – Seed plants

Division: Magnoliophyta – Flowering plants

Class: Liliopsida – Monocotyledons

Subclass: Zingiberidae

Order: Zingiberales

Family: Zingiberaceae – Ginger family

Genus: *Elettaria* Maton – elettaria

Species: *cardamomum*

Substitutes and Adulterants⁴⁸

Amomum subulatum Roxb., which is known by the name Sthulaila, possesses similar properties to that of Sukshmaila (*Elettaria cardamomum* Maton.), for which they are often substituted.

Some other common adulterants/substitutes of *E. cardamomum* include *E. cardamomum* var. *major* Thw., *Amomum kepulanga* Sprague and Burkill, *A. korarima* Pereira, *A. aromaticum* Roxb., *A. xanthioides* Wallich.

Fumigation therapy: Ela, Haridra, Bhallataka, Jatamansi, Nirgundi and Tulasi possess potent anti-bacterial activity and therefore can be successfully used in fumigation therapy both as mainline treatment and for prophylaxis with minimal adverse effects.⁴⁹

CONCLUSION

Ela (cardamom), one of the spice belonging to the family Zingiberaceae is used since ancient times in the management of various diseases. In Ayurveda it is said to be pacifier of all three dosha's i.e. Vata, Pitta and Kapha. Ela is very important drug as being the composition of majority of formulations mentioned in Ayurveda and also indicated as prakshepa/ aawapa dravya (drug used as additives) in the preparation of various formulations like Chyawanaprasha etc. Thus Ela is an important dravya/drug having greatest importance in healthcare system. This review article would help the researchers to get a detailed Ayurvedic references about the drug Ela (Cardamom) or simply Choti elaichi.

ABBREVIATIONS

D.N-Dhanwantari nighantu; So.N-Sodhala nighantu; M.N-Madanapala nighantu; R.N-Raj nighantu; K.N.-Kaiyadeva nighantu; B.P.N-Bhavaprakasha nighantu; Sha.N-Shadarasa nighantu; M.D.- Madhava dravyaguna; P.N.- Priya nighantu; Gu.R.- Gunaratnamala; Hr.N.- Hridayadipaka nighantu; N.A.- Nighantu aadarsha.

REFERENCES

1. Sastry J.L.N., Illustrated Dravyaguna vigyana; Vol. 2, Reprint 2014. Varanasi : Chaukhamba Orientalia; p. 527
2. Charaka, Charaka samhita (Charakachandrika Hindi commentary, Tripathi B. (ed), Vol. 1, Reprint 2008. Varanasi: Chaukhamba Surbharati prakashana. Sutrasthana 2/4; p. 50
3. Charaka, Charaka samhita (Charakachandrika Hindi commentary), Tripathi B. (ed), Vol. 1, Reprint 2008. Varanasi: Chaukhamba Surbharati prakashana. Sutrasthana 2/7; p. 51

4. Charaka, Charaka samhita (Charakachandrika Hindi commentary), Tripathi B. (ed), Vol. 1, Reprint 2008. Varanasi: Chaukhamba Surbharati prakashana. Sutrasthana 3/5,24,28; p. 60-67
5. Charaka, Charaka samhita (Charakachandrika Hindi commentary), Tripathi B. (ed), Vol. 1, Reprint 2008. Varanasi: Chaukhamba Surbharati prakashana. Sutrasthana 4/37, 44; p. 91-94
6. Charaka, Charaka samhita (Charakachandrika Hindi commentary), Tripathi B. (ed), Vol. 1, Reprint 2008. Varanasi: Chaukhamba Surbharati prakashana. Vimanasthana 8/142; p. 781-782
7. Charaka, Charaka samhita (Vaidyamanorama Hindi commentary); Shukla V, Tripathi R D (ed), Vol. 2, Reprint 2010. Delhi: Chaukhamba Sanskrit pratishthan. Chikitsasthana 1/1/64; p. 13
8. Charaka, Charaka samhita (Vaidyamanorama Hindi commentary); Shukla V, Tripathi R D (ed), Vol. 2, Reprint 2010. Delhi: Chaukhamba Sanskrit pratishthan. Chikitsasthana 2/1/31; p. 50
9. Charaka, Charaka samhita (Vaidyamanorama Hindi commentary); Shukla V, Tripathi R D (ed), Vol. 2, Reprint 2010. Delhi: Chaukhamba Sanskrit pratishthan. Chikitsasthana 3/267; p. 108
10. Charaka, Charaka samhita (Vaidyamanorama Hindi commentary); Shukla V, Tripathi R D (ed), Vol. 2, Reprint 2010. Delhi: Chaukhamba Sanskrit pratishthan. Chikitsasthana 16/122; p. 411
11. Charaka, Charaka samhita (Vaidyamanorama Hindi commentary); Shukla V, Tripathi R D (ed), Vol. 2, Reprint 2010. Delhi: Chaukhamba Sanskrit pratishthan. Chikitsasthana 18/71; p. 446
12. Charaka, Charaka samhita (Vaidyamanorama Hindi commentary); Shukla V, Tripathi R D (ed), Vol. 2, Reprint 2010. Delhi: Chaukhamba Sanskrit pratishthan. Chikitsasthana 23/54, 77; p. 549-554
13. Charaka, Charaka samhita (Vaidyamanorama Hindi commentary); Shukla V, Tripathi R D (ed), Vol. 2, Reprint 2010. Delhi: Chaukhamba Sanskrit pratishthan. Chikitsasthana 24/181; p. 597
14. Charaka, Charaka samhita (Vaidyamanorama Hindi commentary); Shukla V, Tripathi R D (ed), Vol. 2, Reprint 2010. Delhi: Chaukhamba Sanskrit pratishthan. Chikitsasthana 25/91; p. 614
15. Charaka, Charaka samhita (Vaidyamanorama Hindi commentary); Shukla V, Tripathi R D (ed), Vol. 2, Reprint 2010. Delhi: Chaukhamba Sanskrit pratishthan. Chikitsasthana 26/190; p. 654
16. Charaka, Charaka samhita (Vaidyamanorama Hindi commentary); Shukla V, Tripathi R D (ed), Vol. 2, Reprint 2010. Delhi: Chaukhamba Sanskrit pratishthan. Kalpasthana 7/46; p. 836-837
17. Charaka, Charaka samhita (Vaidyamanorama Hindi commentary); Shukla V, Tripathi R D (ed), Vol. 2, Reprint 2010. Delhi: Chaukhamba Sanskrit pratishthan. Siddhisthana 3/57; p. 907
18. Charaka, Charaka samhita (Vaidyamanorama Hindi commentary); Shukla V, Tripathi R D (ed), Vol. 2, Reprint 2010. Delhi: Chaukhamba Sanskrit pratishthan. Siddhisthana 10/15; p. 935
19. Sushruta, Sushruta samhita (Sushrutvimarshini Hindi commentary); Sharma A R(ed), Vol. 1 ; Reprint 2010. Varanasi: Chaukhamba Surbharati prakashana. Sutrasthana 14/36; p. 109
20. Sushruta, Sushruta samhita (Sushrutvimarshini Hindi commentary); Sharma A R(ed), Vol. 1 ; Reprint 2010.

- Varanasi: Chaukhamba Surbharati prakashana. Sutrasthana 38/22, 24; p. 297-298
21. Sushruta, Sushruta samhita (Sushrutvimarshini Hindi commentary); Sharma A R(ed), Vol. 1 ; Reprint 2010. Varanasi: Chaukhamba Surbharati prakashana. Sutrasthana 44/22; p. 340
 22. Sushruta, Sushruta samhita (Sushrutvimarshini Hindi commentary); Sharma A R(ed), Vol. 2 ; Reprint 2010. Varanasi: Chaukhamba Surbharati prakashana. Chikitsasthana 3/60; p. 201-202
 23. Sushruta, Sushruta samhita (Sushrutvimarshini Hindi commentary); Sharma A R(ed), Vol. 2 ; Reprint 2010. Varanasi: Chaukhamba Surbharati prakashana. Chikitsasthana 8/43; p. 247
 24. Sushruta, Sushruta samhita (Sushrutvimarshini Hindi commentary); Sharma A R(ed), Vol. 2 ; Reprint 2010. Varanasi: Chaukhamba Surbharati prakashana. Chikitsasthana 15/20; p. 295
 25. Sushruta, Sushruta samhita (Sushrutvimarshini Hindi commentary); Sharma A R(ed), Vol. 2 ; Reprint 2010. Varanasi: Chaukhamba Surbharati prakashana. Chikitsasthana 15/32; p. 296
 26. Sushruta, Sushruta samhita (Sushrutvimarshini Hindi commentary); Sharma A R(ed), Vol. 2 ; Reprint 2010. Varanasi: Chaukhamba Surbharati prakashana. Chikitsasthana 37/11; p. 458
 27. Sushruta, Sushruta samhita (Sushrutvimarshini Hindi commentary); Sharma A R(ed), Vol. 2 ; Reprint 2010. Varanasi: Chaukhamba Surbharati prakashana. Kalpasthana 2/47; p. 525
 28. Sushruta, Sushruta samhita (Sushrutvimarshini Hindi commentary); Sharma A R(ed), Vol. 2 ; Reprint 2010. Varanasi: Chaukhamba Surbharati prakashana. Kalpasthana 5/66; p. 558-559
 29. Sushruta, Sushruta samhita (Sushrutvimarshini Hindi commentary); Sharma A R(ed), Vol. 3 ; Reprint 2010. Varanasi: Chaukhamba Surbharati prakashana. Uttartantra 18/94; p. 138
 30. Sushruta, Sushruta samhita (Sushrutvimarshini Hindi commentary); Sharma A R(ed), Vol. 3 ; Reprint 2010. Varanasi: Chaukhamba Surbharati prakashana. Uttartantra 39/229; p. 279-280
 31. Sushruta, Sushruta samhita (Sushrutvimarshini Hindi commentary); Sharma A R(ed), Vol. 3 ; Reprint 2010. Varanasi: Chaukhamba Surbharati prakashana. Uttartantra 41/50; p. 329-330
 32. Sushruta, Sushruta samhita (Sushrutvimarshini Hindi commentary); Sharma A R(ed), Vol. 3 ; Reprint 2010. Varanasi: Chaukhamba Surbharati prakashana. Uttartantra 62/28; p. 508-509
 33. Vagbhata, Ashtanga Hridayam (Nirmala Hindi commentary); Tripathi B (ed), Reprint 2009. Delhi: Chaukhamba Sanskrit pratishthan. Sutrasthana 15/1; p. 197
 34. Vagbhata, Ashtanga Hridayam (Nirmala Hindi commentary); Tripathi B (ed), Reprint 2009. Delhi: Chaukhamba Sanskrit pratishthan. Sutrasthana 15/14,33, 43; p. 199-202
 35. Vagbhata, Ashtanga Hridayam (Nirmala Hindi commentary); Tripathi B (ed), Reprint 2009. Delhi: Chaukhamba Sanskrit pratishthan. Chikitsasthana 7/41; p. 646
 36. Vagbhata, Ashtanga Hridayam (Nirmala Hindi commentary); Tripathi B (ed), Reprint 2009. Delhi: Chaukhamba Sanskrit pratishthan. Chikitsasthana 10/35; p. 699
 37. Vagbhata, Ashtanga Hridayam (Nirmala Hindi commentary); Tripathi B (ed), Reprint 2009. Delhi: Chaukhamba Sanskrit pratishthan. Chikitsasthana 14/10; p. 730
 38. Vagbhata, Ashtanga Hridayam (Nirmala Hindi commentary); Tripathi B (ed), Reprint 2009. Delhi: Chaukhamba Sanskrit pratishthan. Kalpasthana 2/62; p. 842
 39. Vagbhata, Ashtanga Hridayam (Nirmala Hindi commentary); Tripathi B (ed), Reprint 2009. Delhi: Chaukhamba Sanskrit pratishthan. Kalpasthana 4/18; p. 851-852
 40. Vagbhata, Ashtanga Hridayam (Nirmala Hindi commentary); Tripathi B (ed), Reprint 2009. Delhi: Chaukhamba Sanskrit pratishthan. Uttarasthana 5/19; p. 915
 41. Vagbhata, Ashtanga Hridayam (Nirmala Hindi commentary); Tripathi B (ed), Reprint 2009. Delhi: Chaukhamba Sanskrit pratishthan. Uttarasthana 13/29; p. 968
 42. Vagbhata, Ashtanga Hridayam (Nirmala Hindi commentary); Tripathi B (ed), Reprint 2009. Delhi: Chaukhamba Sanskrit pratishthan. Uttarasthana 40/20; p. 1208
 43. Kashyapa samhita(English translation and commentary); Tewari P V(ed), Reprint 2008. Varanasi: Chaukhamba Visvabharati. Kalpasthana 2/48.2; p. 330-332
 44. Kashyapa samhita(English translation and commentary); Tewari P V(ed), Reprint 2008. Varanasi: Chaukhamba Visvabharati. Khilasthana 9/83.2; p. 550-552
 45. Chakradatta, (Vaidyaprabhaa Hindi commentary); Tripathi I ,Dwivedi R(ed), Reprint 2014. Varanasi: Chaukhamba Sanskrit bhavan. Shloka 66/176; p. 428
 46. Chakradatta, (Vaidyaprabhaa Hindi commentary); Tripathi I ,Dwivedi R(ed), Reprint 2014. Varanasi: Chaukhamba Sanskrit bhavan. Shloka 67/30; p. 433
 47. Retrieved from <http://plants.usda.gov/java/ClassificationServlet?source=display&classid=ELCA19> (Accessed on 22/05/2015)
 48. Database on medicinal plants, Vol.5,Reprint 2008, New Delhi: CCRAS ;P.395
 49. Sumod Khedekar, Sumeet Goel, Nisha Kumari Ojha. Ayurveda dhoopana (medicated smoke) chikitsa in present scenario : A review. Int. J. Res. Ayurveda Pharm. Mar – Apr 2016;7 (Suppl 2): 98-102 <https://dx.doi.org/10.7897/2277-4343.07265>

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