

REVIEW ARTICLE

Kushthaghna Mahakashaya: A Short Ayurvedic and Therapeutic Review

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ABSTRACT

Skin disorders are a very common problem nowadays. According to *Ayurveda*, Imbalance of *tridosha* and *dhatu* leads to skin diseases. The properties of *rakta shodana*, *rakta shamana*, *vishaghna*, *krimighna*, *kandughna* etc are required in the treatment of the skin diseases. Drugs are significant to use in the treatment of skin disorders which have pharmacological properties like antiviral, antifungal and antibacterial etc. *Kushthaghna Mahakashaya* are given in the Charak Samhita of *Ayurvedic* textbooks. The information about ten drugs in *Kushthaghna Mahakashaya* are collected from Ayurvedic texts such as *Bhavaprakash Samhita*, *Nighantu aadarsh*, *Raj Nighantu* etc., modern medicinal plant's books, research articles, other published / unpublished resources, electronic data like Google scholar, PubMed, Web of Science, Science direct etc. In this article, the various useful properties of ten drugs of *Kushthaghna Mahakashaya* has been discussed in a brief.

Key Words *Ayurveda*, *Kushthaghna Mahakashaya*, *Kushtha*

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INTRODUCTION

Skin is the largest organ of the body. In *Ayurveda*, the word “*Twacha*” means skin which is derived from “*tvac*” dhatu meaning ‘cover’¹. It provides a link between external and internal environment. Skin is a mirror that reflects internal and external pathology and thus helps in diagnosis of various diseases. Majority of the skin diseases in *Ayurveda* have been described under the broad heading of ‘*Kushtha*’, that further classified into *Maha Kushtha* and *Kshudra Kushtha*. The word *Kushtha* is derived from the root “*Kush Nishkarshe*” means to wear or to expel with suffix *k-than*. It despises and

destroy the beauty of the body and body tissues and cause any type of skin disorders. According to Ayurvedic concept, every *dravya* is *Panchabhautik* in this world so *twacha* is also *panchbhutatmaka* but it is considered as *prithvi* and *vayu mahabhoota* dominant *panchabhautik* organ. All the skin diseases in *Ayurveda* have been discussed under the broad headings of *Kushtha*. *Kushtha* word is pathologically originate from ‘*Saptadravyasangraha*’ means involvement of *Tridosha* and four *dhatu* in diseases². The disease which causes discoloration of skin and the putrific changes happens in skin after a long period of time called *Kushtha*,

REVIEW ARTICLE







whereas ‘ghna’ means destroying or killing³. Thus, the drugs which are used in the treatment of all kind of skin diseases (*Kushtha*) are called *Kushthaghna Mahakashaya*. *Kushtha* is also a highly contagious disease. Patients with body dysmorphic disorder, acne, psoriasis, and particularly men and women with facial conditions are more likely to have reactive depression and be at risk of suicide. Usually, the patient of skin disorders suffers from physical, emotional and socioeconomic embarrassment. *Ayurveda* emphasizes on the prevention of diseases and its cure by hook and crock⁴. There are total 274 dravya in *Mahakashaya*. Among 274 dravya, 92 dravya are commented by Chakrapani, 145 dravya by Gangadhara and 76 dravya by Chakrapani and Gangadhara both. In

Charak Samhita, 50 *Mahakashaya* (called it *Dashemani*) and Asthang Sangraha Samhita 45 *Mahakashaya* has been mentioned, whereas Susuhruta Samhita and Asthang Hridya Samhita didn’t mention about *Mahakashaya*.





Khadira, Abhaya, Amalaki, Haridra, Aruskara, Saptaparna, Aragwadha, Karaveera, Vidanga, Jati pravala are ten dravya under *Kushthaghana Mahakashaya*. Here, the study is on the *Kushthaghana Mahakashaya* in detailed.

Botanical description

Botanical description of ten medicinal plant in *Kushthaghana Mahakashaya* are as follows in Table no.1 with their pictures in Figure no. 1 to 10 respectively.

		
Figure 1 <i>Acacia catechu</i> (L.) Willd. (<i>Khadir</i>),	Figure 2 <i>Terminalia chebula</i> Retz. (<i>Abhaya</i>)	Figure 3 <i>Phyllanthus emblica</i> Linn. (<i>Amalaki</i>),
		
Figure 4 <i>Curcuma longa</i> L. (<i>Haridra</i>)	Figure 5 <i>Semecarpus anacardium</i> Linn. (<i>Aruskara</i>),	Figure 6 <i>Alstonia scholaris</i> Linn. (<i>Saptaparna</i>)

REVIEW ARTICLE

		
<p>Figure 7 <i>Cassia fistula</i> Linn. (Aragwadha)</p>	<p>Figure 8 <i>Nerium indicum</i> Mill (Karaveera)</p>	<p>Figure 9 <i>Embelia ribes</i> Burm. F. (Vidanga)</p>
		
<p>Figure 10 <i>Jasminum officinale</i> Linn. (Jatipravala)</p>		

REVIEW ARTICLE

Table 1 Botanical description of ten medicinal

1	Khadira (Figure no.1)	<i>Acacia catechu</i> (L.) Willd.	Mimosaceae	A moderate sized thorny tree 9-12m height ⁵ . Grows vigorously in central and east Africa, Southern Asia, Bhutan, China, India, Pakistan, Myanmar, and Nepal ⁵ . It is a medium-sized tree. Barks are dark greyish-brown to dark brown in colour, brown branches which are slender, puberulous when young, but glabrescent later, straight and greyish-brown stem, petiolate, bipinnately compound and alternate leaves, oblong and glabrous leaflets, white to pale yellow flowers in 5–10 cm-long axillary spikes with a campanulate 1–1.5 mm-long calyx, 2.5–3 mm long corolla, and pod-based fruits with ovoid seeds ^{6,7} .
2	Abhaya (Figure no.2)	<i>Terminalia chebula</i> Retz.	Combretaceae	In India, it is found in deciduous forests of Himachal Pradesh, Tamil Nadu, Kerala, Karnataka, Uttar Pradesh, Andhra Pradesh and West Bengal. It is a medium to large highly branched deciduous tree with a height up to 30 m and girth 1-1.5 m. Leaves are 10-30 cm long elliptical with an acute tip and cordate base. The vasculature of the leaves consists of 6-8 pairs of veins. Flowers are short stalked, monoecious, dull white to yellow with a strong unpleasant odour and are found in simple terminal spikes or short panicles. Fruits are 3-6 cm long and 1.3-1.5 cm broad yellowish-green ovoid drupes containing one oval seed. The trees may grow at places up to a height of about 2000 m from the sea level, and in areas with an annual rainfall 100-150 cm and temperature 0-17° C ⁸ .
3	Amalaki (Figure no.3)	<i>Phyllanthus emblica</i> Linn.	Phyllanthaceae	A small or moderate size deciduous tree upto an average height of 8-18 m. Bark is thin light grey, the main trunk is divided into 2 to 7 scaffolds very near to the base. Main stem having average girth is of 70cm. Leaves 10-13mm long, 3mm wide, in pinnate arrangement. Flowers are pale green in colour, 4 to 5 mm in length, unisexual, borne in leaf axils in clusters of 6 to 10. Fruits 2.1- 2.4 cm in diameter, 5.3-5.7 g in weight, 4.5-5.0 ml in volume, fleshy and depressed to globose shape ⁹ .
4	Haridra (Figure no.4)	<i>Curcuma longa</i> L.	Zingiberaceae	A tall herb, rootstock large, ovoid and tubers sessile cylindrical orange coloured inside. Leaves up to 50 × 8cm, oblong lanceolate, apex –acuminate, tapering to the base. Petiole as long as the blade. Peduncle hidden by the sheathing petiole. Spikes 10-15cm long. Corolla white tube funnel shaped, flowering bracts are pale green in colour, bracts of coma tingled with pink ¹⁰ .
5	Aruskara (Figure no.5)	<i>Semecarpus anacardium</i> Linn.	Anacardiaceae	A medium sized deciduous tree upto 15 metres in height. Bark is grey in colour and exudes an irritant secretion on incising. It is easily recognized by large leaves and the red blaze exuding resin, which blackens on exposure. The leaves are simple alternate, 30-60 cm long and 12-30 cm broad, glabrous above and pubescent beneath. The flowers are greenish white, in panicles. Nut 2.5 cm long, ovoid and smooth with a lustrous black. Fruit is 2.5 – 3.8 cm long, a moderate shade bearer, obliquely ovoid or oblong drupe, compressed, shining black when ripe, seated on an orange-coloured receptacle form of the disk ¹¹ .
6	Saptaparna (Figure no.6)	<i>Alstonia scholaris</i> Linn.	Apocynaceae	A large, evergreen tree that grows upto 6–10 m in height. Bark is rough, greyish white to whitish colour inside and exuding yellowish bitter latex when injures. The leaves are thick, dark green, obovate to oblanceolate, entire, rounded or bluntly acuminate at apex, arranged in whorls, narrow at the base. Greenish white small flowers, 7-10 mm long, arranged in umbellate branched manner. Fruits

REVIEW ARTICLE

			are 20–50 cm long, linear, glabrous, pair of follicles, narrowly winged on one suture. Seeds are 6–8 mm long, oblong, flattened with a tuft of brownish hair at either end. In India, the flowering period is during December to March and the fruiting period is during May to July ^{12,13} .	
7	<i>Aragwadha</i> (Figure no.7)	<i>Cassia fistula</i> Linn.	Fabaceae	The medium-sized deciduous tree of <i>Aragwadha</i> (<i>Cassia fistula</i> Linn.), belongs to the family Fabaceae, ascending to 1300 m in outer Himalaya, attains a height of 10-20 m (33-66 ft). It is commonly known as Golden Shower, <i>Amulthus</i> , Indiana Laburnum ¹⁴ . Leaves are pinnate and deciduous, 3–8 leaflet in pairs. Flowers with pendulous racemes, glabrous, slender and pubescent 4–7 cm in diameter. Legume as a fruit with numerous seeds producing a very strong odour. Pods are long and green when immature and gradually turn black, as they mature once the flowers have been shed. Bark occurs in curved or flat thick fragments; smooth to rough outer surface containing warty spots; green grey turning red; rough inner surface, red in colour showing parallel striations; laminate, fracture; characteristic sweet taste and odour and astringent ¹⁶ . pale grey, straight trunk and smooth bark when tender but the barks turn brown and rough when mature ¹⁵ . Pods are long and pendulous containing flat seeds (40-100) submerged within a murky sugary pulp that is colored ¹⁷ . Pods are green when immature and gradually turn into black, as they mature once the flowers have been shed ¹⁵ . Seeds are reddish brown in colour, thick, oval, horizontal, has a clearly marked raphe and each compartment bears a single seed ¹⁷ . The endosperm of the seed is white in colour and is embedded with a yellow embryo ¹⁵ .
8	<i>Karaveera</i> (Figure no.8)	<i>Nerium indicum</i> Mill	Apocyanaceae	An erect evergreen shrub, branches glabrous. Leaves 10-5 * 1-2 cm., linear-lanceolate, tapering at both ends, acuminate, thick coriaceous, midrib prominent, petiole 5-7.5 mm long. Flowers white, pink or dark red, single or double, form, fragrant 3-4 cm across, peduncle and pedicle hairy, bracts small, 5-7.5 mm long. Fruit 12-20 cm * 7 mm long 7 mm long, 7 mm long ^{18,19} .
9	<i>Vidanga</i> (Figure no.9)	<i>Embelia ribes</i> Burm. F.	Myrsinaceae	<i>Vidanga</i> (<i>Embelia ribes</i> Burm. f.) commonly known as 'False Black Pepper' and White flowered Embelia. It is a threatened woody shrub belongs to the family Myrsinaceae, It is an Indo-Malaysian species, reported from India, Sri Lanka, Singapore, Malaysia and S. China. It is found to occur throughout India in Central Himalayas, Arunachal Pradesh, Assam, Maharashtra, Andhra Pradesh, Karnataka, Kerala and Tamil Nadu. This species is globally distributed in Indo Malaysia. Within India, it is found throughout up to an altitude of 1500 m (5000 ft), Leaves are 7.5 by 3 cm, in size, obtusely acuminate, base cuneate or rhomboid, nerve slender flowers scarcely 0.2 cm long, white ovary ovoid, not conic upwards. Fruits globular, varying in colour from dull red to nearly black warty or wrinkled ²⁰ .
10	<i>Jatipravala</i> (Figure no.10)	<i>Jasminum officinale</i> Linn.	Oleaceae	An evergreen climbing shrub that grows up to 10 to 15 m in height. Leaves are opposite, imparipinnate compound with three paired foliates ending with a single leaf at the tip. There are 7 to 11 terminal leaflet somewhat massive than laterals, narrowing at the bottom, ovate-lanceolate, acute or acuminate, laterals ovate, terminal one larger than laterals and often partially united with surfaces with a

REVIEW ARTICLE

ciliate margin. Flowers are white tinged with pink outside. terminal and axillary cymes, whorl lobes long and linear. Fruit is a blackberry, elliptic, globose berries when ripe²¹.

Ayurvedic concept²²

The *Rasapanchaka* of ten medicinal plant in *Kusthaghana Mahakasaya* with their *Prabhava*,

Mukhaya karma, Used part and Chemical constituents are as follows in Table no.2.

Table 2 Used part and Chemical constituents

Dravya	Rasa	Guna	Veerya	Vipaka	Prabhava	Mukhaya karma	Used part	Chemical constituents
<i>Khadir a</i>	<i>Tikta, Kashaya</i>	<i>Laghu, Ruksha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kushthaghana</i>	<i>Kushthaghana</i>	Bark, Heartwood	Catechin
<i>Abhaya</i>	<i>Pancharasa (except lavana), Kashaya pradhana</i>	<i>Laghu, Ruksha</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Tridosha</i>	<i>Rasayana</i>	Fruit	Chebolic acid
<i>Amalaki</i>	<i>Pancharasa (except lavana), Amla pradhana</i>	<i>Guru, Ruksha, Sheeta</i>	<i>Sheeta</i>	<i>Madhura</i>	-	<i>Rasayana</i>	Fruit	Vitamin C, Ellagic acid, Amlaic acid, Phyllantine, Phyllantidine, Chebolic acid, Chebulinic acid, Chebulagic acid
<i>Haridra</i>	<i>Tikta, Katu</i>	<i>Ruksha, Laghu</i>	<i>Ushna</i>	<i>Katu</i>	-	<i>Kushthaghana</i>	Rhizome	Curcumin
<i>Aruskar</i>	<i>Katu, Tikta, Kashaya</i>	<i>Laghu, Snigdha, Tikshna</i>	<i>Ushna</i>	<i>Madhura</i>	-	<i>Kushthaghana</i>	Fruit	Bhilawanol, Semecarpol
<i>Saptarna</i>	<i>Tikta, Kashaya</i>	<i>Laghu, Snigdha</i>	<i>Ushna</i>	<i>Katu</i>	-	<i>Visamajwaraghana</i>	Bark	Ditamine, Echitenine, Echitamine
<i>Aragwadha</i>	<i>Madhura</i>	<i>Guru, Mridhu, Snigdha</i>	<i>Sheeta</i>	<i>Madhura</i>	-	<i>Kushthaghana</i>	Fruit marrow, Root bark, Leaves, Flower	Anthraquinone
<i>Karaveera</i>	<i>Katu, Tikta</i>	<i>Laghu, Ruksha, Tikshna</i>	<i>Ushna</i>	<i>Katu</i>	-	<i>Hridya</i>	Root, Root bark	Neriodorin, Neriodorein, Karabin
<i>Vidang</i>	<i>Katu,</i>	<i>Laghu,</i>	<i>Ushna</i>	<i>Katu</i>	<i>Krimigh</i>	<i>Krimig</i>	Fruit	Embelin

REVIEW ARTICLE

<i>a</i>	<i>Kashaya</i>	<i>Ruksha,</i> <i>Tikshna</i>	<i>ana</i>	<i>hana</i>		
Jati	<i>Tikta,</i> <i>Kashaya</i>	<i>Laghu,</i> <i>Snigdha,</i> <i>Mridhu</i>	<i>Ushna</i>	<i>Katu</i> - <i>Kushth</i> <i>aghana</i>	Leaves, Root, Flower	Benzyl acetate, Benzyl benzoate, Gevaniol, Nerol, d- linalool, Farnesol, Nerolidol, P- cresol, Cresol, Jasmone.

Table no. 2

Pharmacological activities-

In Table no. 3, Pharmacological activities of the following *Kushthaghana Mahakasaya* are given.

Table 3 Pharmacological activities

S.No.	Kushthaghana Mahakashaya	Activity	References
1	<i>Khadira</i>	Anti-oxidant	23
		Antimicrobial	24
		Antibacterial	25
2	<i>Abhaya</i>	Antibacterial	26, 27
		Antifungal	28, 29, 30
		prevents accumulation of pus in erysipelas and other skin disorders.	31
3	<i>Amlaka</i>	Antibacterial	32
		Antimicrobial	33
		Antioxidant	34
4	<i>Haridra</i>	Antifungal	35
		Antibacterial	36
		Antimicrobial	37
5	<i>Aruskara</i>	Antimicrobial	38, 39
		Antifungal	40
		Antioxidant	41
6	<i>Saptaparna</i>	Antioxidant	42
		Antimicrobial	43
		Antibacterial	44, 45
7	<i>Aragwadha</i>	Antibacterial and antifungal	46, 47
		Antioxidant	48
8	<i>Karaveera</i>	Antifungal	49, 50
		Antibacterial	51
9	<i>Vidanga</i>	Anthelmintic	52, 53
		Antibacterial	54
		Antifungal	55

REVIEW ARTICLE

10

Jati

Antibacterial

56

CONCLUSION

Skin ailments affects all ages from the neonates to the elderly and cause harm in a number of ways such as discomfort, disfigurement, disability etc. A MEDLINE search of English-language literature from May 1966 to May 2001 using the MeSH words psoriasis, acne vulgaris, atopic dermatitis and psychology revelation of how skin diseases are affecting our mental health. Therefore, the knowledge about the importance of herbs in *Kushthaghna Mahakashaya* helps to

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REVIEW ARTICLE

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REVIEW ARTICLE

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REVIEW ARTICLE

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