

## A CRITICAL REVIEW OF *HARITAKI* (*TERMINALIA CHEBULA* RETZ) IN CLASSICAL TEXTS

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Article Received on  
25 September 2022,

Revised on 15 Oct. 2022,  
Accepted on 05 Dec. 2022

DOI: 10.20959/wjpr202217-26176

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### ABSTRACT

The Drug *Haritaki* (*Terminalia Chebula* Retz.) *Terminalia* – Proceeding from the extremity at the end. *Chebula*- Distorted form of the world Kabul. belong to family Combretaceae. It has been widely used in the traditional Indian medicine system of *Ayurveda* for the treatment of a variety of disease. *Haritaki* evacuates Mala and cure the disease. The uses of its varieties along with their sources, identifying features and therapeutic uses are described in *Ayurvedic* classics and other medical literature. It helps to improve physical and mental health, prevents degeneration, extends youth and delays aging or rather reverse the aging process. Main phyto-chemicals of *Haritaki* are chebulic acid,

gallic acid, corilagin, chebulagic acid, ellagic acid, chebulinic acid, triterpenoids and anthraquinone. It performs various therapeutical actions like; antimicrobial, anti-inflammatory, antioxidant, anti-diabetic, renoprotective, anti-mutagenic, anti- proliferative, radio-protective, cardio-protective etc. This paper presented comprehensive review of *T. chebula* especially its pharmacological actions on the basis of ancient texts as well as modern literatures.

**KEYWORDS:** *Haritaki*, *Terminalia Chebula Retz*, *Ayurveda*, *Pharmacological Activity*.

### INTRODUCTION

*Haritaki* (*Terminalia chebula* Retz) is held in high esteem in *Ayurveda* for its properties to prevent and cure diseases. It has enjoyed the prime place among medicinal herbs in India since ancient times. It is called the 'King of Medicines' and is always listed first in *Ayurveda* because of its extraordinary therapeutic benefits.

*Acharya Charaka* stated *Haritaki* as best among the herbs to be used regularly. *Haritaki* is the best among *Pathya* (wholesome) *Dravya*.<sup>[1]</sup> According to *Acharya Sharangdhara*, it is the best among *Anulomana* (mild laxative) *Dravyas*.<sup>[2]</sup> It is found throughout India up to an altitude of 1500.<sup>[3]</sup> its fruit rind is used for medicine. Hundreds of formulations of *Haritaki* are described in *Ayurveda* texts. It is one of the ingredients in most common and famous formulation of *Ayurveda* i.e. *Triphala* (three *myrobalans*). *Bhavamishra* describes seven varieties of *Haritaki* viz; *Vijaya*, *Rohini*, *Putana*, *Amrita*, *Abhaya*, *Jivanti* and *Chetaki*.<sup>[4]</sup> Ancient scholars have described its varieties along with its sources, identity features, and therapeutic uses. Many scholars have studied the pharmacological screening of the drug. However, *Vaidya Bhagawan Dash*<sup>[5]</sup> has only tried to correlate the variety of the plants in the context of *Ayurveda* and Tibetan medical science. Hence, a comprehensive study to discover collective data on the variety of *haritaki* (*Chebulic myrobalan*) mentioned in *Ayurvedic* as well as other literatures are carried out for botanical standardization.

## MORPHOLOGY

It is a moderate sized deciduous tree, attaining height 25-30m. Leaf-buds, branchlets and youngest leaves are soft, shining, and generally with rust-coloured hairs. **Bark** is usually 6mm. thick, and dark brown with many shallow vertical cracks. **Leaves** are 7-20 cm. long and 4-8 cm. breadth, elliptic-oblong, rounded or cordate at base, glabrous, alternate or sub-opposite, secondary nerves 6-8 pairs, arching, prominent; petioles 2-5 cm. long, pubescent, usually with 2 glands near the top. **Flowers** are hermaphrodite, 4mm. across, sessile, dull white or yellowish, with an offensive smell. **Fruit** is ellipsoidal or ovoid, more or less distinctly 5-angled.

## Chemical composition

*Haritaki* consisted of several phyto-constituents like tannin, flavonoids, sterols, amino acid, fructose, resin, fixed oil etc. It contains 33% of hydrolysable tannin which is responsible for pharmacological action. The chief components of tannin are chebulic acid, chebulinic acid, chebulagic acid, gallic acid, corilagin and ellagic acid. Tannins of *Haritaki* are of pyrogallol (hydrolysable) type. Phytochemicals like anthraquinones, ethaedioic acid, sennoside, 4,2,4 chebulyl-d-glucopyranose, terpinenes and terpinenols have also been reported to be present. Triterpenoids and their glycoside have been isolated from the stem bark of *Haritaki*.

## Interpretation and etymology of synonyms<sup>[6]</sup>

- *Haritaki*- It provides a good complexion or colour.

- *Abhaya*- It relieves fear against all diseases.
- *Avyatha*- Its usage provides relief from many diseases.
- *Pathya*- It cleanses the channels hence beneficial to the body.
- *Kayastha*- Once used internally it always remain successful (fruitful)in eliminating diseases.
- *Putana*- Cleanses the body by purgation.
- *Amrita*- It has a rasayana property and rejuvenates the body and removes the diseases.
- *Hemvati*- Grows (everywhere and) in Himalayas.
- *Chetaki*- itcleanses the channels in the head and improves mental function.
- *Shreyasi*- It is highly beneficial due to its good properties.
- *Shiva*- It brings good fortunes.
- *Vijaya*- It specifically conquers diseases.
- *Jivanti*- It provides *Rasayana* (Rejuvenative) effect for a long time and thus increases longevity.
- *Rohini*- It is useful for healing of wounds.

SL. NO.	BHEDA/ TYPES	LAKSANA(Characters)	PRAYOGA (Utility)
1	VIJAYA	Alabu vritta (oval)	Sarva roga (All diseases)
2	ROHINI	Vritta (Round)	Vrana ropak (Wound healing)
3	PUTANA	Ashthimati suksama (smallbut with large seed)	Pralepnartha (For external application)
4	AMRITA	Mansala (bulky)	Shodanartha (For Purification)
5	ABHAYA	Panchrekha (Five line on it)	Akshi roga (Eye diseases)
6	JIVANTI	Swarnavarna (yellowcoloured)	Sarva rogahara (All diseases)
7	CHETAKI	Trirekha (Three lines overit)	Churanartha ( For preparing powder)

### ***Ritu Haritaki***<sup>[7]</sup>

*Aacharya Bhavprakash* mentioned *Ritu Haritaki* for the purpose of *Rasayana* (rejuvenation, anti-aging and imunity promoter). *Haritaki* is taken along with different *Anupaan* (vehicle) in different *Ritu* (seasons). This regimen is called as *Ritu Haritaki*.

- *Varsha Ritu* - *Haritaki* is given along with *Saindhava* (rock salt).
- *Sharad Ritu* - It is given along with *Sharkara* (sugar).
- *Hemanta Ritu* - It is given along with *Shunti* (*Zingiber officinale* roxb).
- *Shishir Ritu* - It is given along with *Pippali* (*Piper longum* linn).
- *Vasant Ritu* - It is given along with *Madhu* (honey).
- *Greeshma Ritu* - It is given along with *Guda* (jaggery).

**Rasapanchaka of Haritaki<sup>[8]</sup>**

- *Rasa* (Taste) - *Pancharasatmaka* i.e. having five taste viz. *Madhura* (Sweet), *Amla* (Sour), *Katu* (Pungent), *Tikta* (Bitter) and *Kashaya* (Astringent).
- *Guna* (Quality) - *Laghu* (Light), *Ruksha* (Dry).
- *Veerya* (Potency) - *Ushna* (Hot)
- *Vipaka* (Taste conversion after digestion) - *Madhura* (Sweet).

**Action of Haritaki on Dosha with Anupan**

लवणेन कफं हन्ति पित्तं हन्ति सशककरा । घृतेन वातजान् रोगान्सर्वकरो गान्गुडान्तिता ॥३०॥		
SI.NO	DOSHA HARATWA	ANUPANA
1	Kaphahara	Saindhava Lavana
2	Pittahara	Sarakara
3	Vatahara	Ghrita
4	Tridoshhara	Guda

**MATERIALS AND METHODS**

Information on the varieties of *Haritaki* was collected from all ancient literatures of Ayurveda and the lexicons of Medicinal plants (*Nighantus*), recent literature, journals, and information gathered from the internet.

**Identification of different varieties of Haritaki**

The physical characteristics and therapeutic attributes of various types of *Haritaki* are described in the classical texts of Ayurveda, with a view to help in their identification. According to the ancient lexicons of medicinal plants, *Vijaya* has the shape of a gourd, *Rohini* is round in shape, *Putana* contains a proportionately bigger stone, *Amrita* is fleshy, *Abhaya* contains five ridges, *Jivanti* is golden in color, and *Chetaki* has three ridges.

**THERAPEUTIC USES OF HARITAKI**

*Haritaki* (*Terminalia chebula* Retz. Family: Combretaceae) commonly known as, "*Harada*" in Ayurveda is mentioned as "*Sarvarogaprashamnam*" meaning it cures all diseases. It is also known as "*vayasahsthapaniparaam*" meaning it has potential *Rasayana* (rejuvenating) properties. *Haritaki* is a wonder drug having different pharmacological actions and benefits according to different *Anupana* (a vehicle, a drink with or after medicine), different season and its physical properties.

*Haritaki* when prescribed along with *lavana*, *sharkara* (sugar), *ghrita* (ghee) and *guda*

(jaggery) pacify respectively *kapharoga*, *pittaroga*, *vataroga* and *tridoshajroga*. For *rasayana* properties, *Haritaki* is prescribed with different *anupana* in each season. It is used with *saindhavlavana* in *varsharitu*, with *sharkara* in *sharadritu*, with *shunthi* in *hemanta ritu*, with *pippali* in *shishirritu*, with *madhu* in *vasantritu* and with *guda* in *greeshmaritu*.

*Haritaki* has different pharmacological actions according to its different forms used in prescription. It increases *jatharagni* (digestive fire) when it is chewed, it clears bowel when consumed in powder form, when boiled/steamed it act as anti-diarrhoeal and if it consumed after roasting it pacify *tridoshajroga*. Some important preparations of *Haritaki* are *triphalachurna*, *abhayarishta*, *chitrakharitaki*, *dantiharitaki* and *abhyadimodak*.

Ayurvedic classics have vividly described the therapeutic effect of the different varieties of *Haritaki*. With regard to the effect, all the classics are not unanimous and the various effects stated are: *Vijaya* is given more importance as it is useful in all kinds of diseases, for both purificatory measures and preparation of malt (*Avaleha*)-based products, *Rohini* is useful in consumption and wounds, *Putana* is useful for external application, the *Amrita* variety is useful as a purgative, *Abhaya* is for eye disease, *Jeevanti* is medicine for oleation therapy, *Kalika* is effective in removing the foul smell of the ulcer, and *Chetaki* for purgation.

### Pharmacological actions of *Haritaki*

Nowadays, pharmaceuticals are being interested towards the herbal medicine, and many researches are being to reveal the pharmacological actions of different phyto-chemicals found in plants. As we have discussed previously that *T. Chebula* is one of the most common used drug in Ayurveda and ethno medicine. Different modern researches have proved its various pharmacological actions as well.

- **Immunomodulatory Activity and Anti-oxidant activity**

In Ayurveda, *Hartaki* is considered the best *Pathya Dravya* (substances that clean the channels) and a good *Rasayan* (immunomodulator).<sup>[9]</sup>

- **Antitussive activity**

*Haritaki* in *Nighantus* described as *Kasahara* i.e. to alleviate the cough.<sup>[10]</sup>

- **Anti-diabetic activity**

In classic texts, *Hartaki* is indicated frequently in the treatment of *Prameha* (diabetes).<sup>[11]</sup>

- **Cardio-protective activity**

*Haritaki* is considered as *Hridya* i.e. beneficial for heart and indicated in heart disease.<sup>[12]</sup>

- **Hepato-protective activity**

*Haritaki* is drug of choice for gastro-intestinal and liver-disorders, it is traditionally used for indigestion.<sup>[12]</sup>

- **Skin Diseases**

In *Ayurvedic* text, *Haritaki* is stated as *Kushthaghna* i.e. to alleviate the skin diseases including leprosy, various modern researches have proved its activities against a number of dermatophytes and yeasts and it is found that aqueous extract of *T. chebula* exhibited antifungal activity.<sup>[13]</sup>

- **Anti-ulcerogenic & wound healing activity**

- **Anti-arthritic activity**

It produced a significant inhibition of joint swelling as compared to control in both formaldehyde-induced and CFA-induced arthritis and it also reduced serum TNF- $\alpha$  level and synovial expression of TNF-R1, IL-6 and IL-1 $\beta$ .<sup>[14]</sup>

- **Anti-mutagenic and anti-carcinogenic activities**

- **Anti-viral activity**

*Terminalia chebula* inhibited HSV-1 entry at non-cytotoxic doses in A549 human lung cells by preventing binding, penetration, and cell to cell spread, as well as secondary infection.<sup>[15]</sup>

- **Antihelmintic activity**

In *Ayurveda* *Haritaki* is described as *Krimihara* i.e. to alleviate Parasites or microbes.<sup>[16]</sup>

- **Antiplasmodial activity**

In *Ayurveda* *Haritaki* is described as *Krimihara* i.e. to alleviate Parasites or microbes.<sup>[17]</sup>

## DISCUSSION

It is one of the ingredients of the renowned formulation *Triphala* (Three myrobalans). In *Ayurvedic* and Tibetan literature, the classification of *Haritaki* varies considerably. However,

in both systems, the total varieties of *Haritaki* accepted are seven. In fact only two types (big and small) of *Haritaki* are available. The big variety, available everywhere and used in the preparation of *Ayurvedic* proprietary medicine, is the *Vijaya* variety, useful for both rejuvenation and purification purposes. The small variety (trade name – *Jangi haritaki*) is the *Chetaki* variety mentioned in the classics. These are immature, unripe, small, stoneless fruits used for purgative purpose.

In *Ayurvedic* literature, although the plant is mentioned in *Brihatrayee* (the three main lexicons of *Ayurveda Charak-Susruta-Vagbhatt*), its variety is not described by them. *Nighantus* have only stated the different varieties of *Haritaki* (i.e. *Vijaya*, *Rohini*, *Putana*, *Amrita*, *Abhaya*, *Jivanti*, and *Chetaki*), based on the region where the fruit is harvested, as well as the color and shape of the fruit. Furthermore, two varieties of *Chetaki*, namely, black and white, are described by *Bhavamishra* in *Bhavaprakash nighantu*. The Black Variety *Chetaki*, ‘*Krisnaatwekaangulamata*’ (Black chebulic myrobalan of only one fingerbreadth size) described by *Bhavamishra* may be compared with the black small-sized fruit of *Haritaki* (*Jangi Haritaki*/immature fruit of *Haritaki*) of the present time, which is available everywhere. ‘*Churnarthachetakisasthaa*’ told for manufacturing the powder form of medicine for laxative purpose, the *Jangi Haritaki* (*Chetaki*) is mainly used. The other variety (white) the Golden/Big variety, which is six-angula (six fingerbreadths) in length may be one of the variations of the large variety of *Haritaki* available in the market, which is used in the manufacture of preparations like, *Abhayarishta*, *Agastyaharitakee*, *Vyaghriharitakee Avaleha*, etc.

Among all the fruits used for purgation, *Haritaki* is considered to be the best by all *Aacharyas*. *Haritaki* is also mentioned as *Rasayandravya*, but mostly it is used for its laxative property as a *Virechandravya* where *Virechan* is the basic line of treatment either for symptomatic relief or for curing the disease. All *Aacharyas* has indicated its use in *Ekal* form in around 9 diseases - *Jwar*, *Shoth*, *Udar*, *Arsha*, *Paandu*, *Atisaar*, *Vatarakta*, *Gulma*, *Malavibandha* (constipation). *Haritaki* fruit is used in different forms, in different ailments with various *Anupaans* for obtaining optimum results. Commonly used *Anupaan* are- *Gomutra*, jaggery, honey etc.

## CONCLUSION

*Haritaki* is an important and popular drug used by the practitioners of traditional medicine. In this article, an attempt has been made to review the relevant literature. With regard to the

exact botanical standardization of all the varieties of *Haritaki*, it is advisable to explore and collect the samples from all the regions of the country, along with the analysis of their active principles and screening of their pharmacological activities, on the basis of the properties mentioned in the *Ayurvedic* classics, before giving any conclusive remarks. However the botanical source of different varieties of *Haritaki* includes *Terminalia chebula* var. *chebula*, *Terminalia chebula* var. *tomentella* (Kurz) C.B. Clarke, *Terminalia citrina* Roxb. and *T. pallida*.

*Ayurveda* practitioners recommend taking it with desi kand or mishri or honey (in autumn); along with jaggery (in summers); with ginger (in early winters); and alongside long pepper or gaja pippali (in late winters). One can also consume haritaki with just honey or long pepper throughout the year.

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