

**THERAPEUTIC POTENTIAL OF CLASSICAL DRUG AGNIMANTHA**

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**ABSTRACT**

Ayurveda has a peculiarity in the management of diseases. In the *Vedic* lore, the drug *Agnimantha* occupied an important place and was employed to ignite the *Agni* (fire) for *Yajna* (ritual of sacrifice). An important medicinal plant has been used in the Indian system of medicine since antiquity for the treatment of various disorders. According to classical texts it possess different properties like *Kapha-Vata-hara* (*Kapha-Vata* pacifying), *Shothahara* (anti-inflammatory), *Dipana* (stomachic), *Jwarnashaka* (anti-pyretic), *Agnivardhaka* (digestive power stimulator) properties and is indicated in diseases like *shotha* (inflammation), *vatavyadhi* (neurological diseases), *prameha* (increased frequency and turbidity of urine), *sthoulya* (obesity), *agnimandhya* (digestive impairment), *arsha* (piles). It is also included in the group of *Dashmoola* (a group of ten drugs whose roots form the valuable part) which has broader applications in therapeutics. It contains various active principles like raffinose, apigenin, betulin, and premnenol. In pharmacological studies, it has been found to possess Anti-microbial, Anti-fungal, Anti-obesity, Anti-diabetic, and Anti-inflammatory activities. The present study aims at a comprehensive review of this drug to establish its therapeutic potential.

**KEYWORDS:** Agnimantha, Dashmoola, Shothahara Mahakashaya.

## INTRODUCTION

*Agnimantha* is an important ingredient of *Dashmoola* described in Sushrut Samhita Sutra Sthan referred to as *Shothahar Mahakashaya* in Charak Samhita Sutra Sthan Chapter 4. *Dashmoola* has two subcategories, *Brihat panchamoola* and *Laghu panchamoola*. *Agnimantha* is included under *Brihat panchamoola*. The treatises like *Charak Samhita* and *Sushrut Samhita* have not described any varieties of *Agnimantha*. Certain *Nighantus* and later texts have described two varieties viz. *Brihat Agnimantha* and *Kshudra Agnimantha*. *Premna integrifolia* Linn. is considered as (*Brihat Agnimantha*) and *Clerodendrum phlomidis* Linn. as (*Laghu Agnimantha*) by many of the scholars of Ayurveda. Ayurvedic pharmacopeia of India identifies *Clerodendrum phlomidis* Linn., as the source plant for *Agnimantha*. *Agnimantha* is used in the treatment of all types of *vata* disorders (diseases related to the nervous and musculoskeletal system), inflammatory disorders, neuralgia, rheumatoid arthritis, anaemia, piles, constipation, common cold, and loss of appetite. It is also useful in eruptive fevers, which include infections like scarlet fever (Scarlatina), measles, smallpox, varioloid eruptions, and erysipelas.

## CLASSICAL CATEGORIZATION OF AGNIMANTHA

S. N.	Classical texts	Gana and Varga
1.	<i>Charak Samhita</i>	<i>Shvyathuhara</i> <sup>[1]</sup> (anti-inflammatory), <i>Shita prashmanam</i> , <sup>[2]</sup> <i>Anuvasanopaga</i> <sup>[3]</sup>
2.	<i>Sushruta Samhita</i>	<i>Varunadi</i> <sup>[4]</sup> , <i>Vatasanshamana</i> <sup>[5]</sup> ( <i>Vata</i> -pacifying), <i>Dashamoola</i>
3.	<i>Ashtanga Sangraha</i>	<i>Varunadi Gana</i> <sup>[6]</sup>
4.	<i>Dhanvantri Nighantu</i>	<i>Guduchayadi Varga</i> <sup>[7]</sup>
5.	<i>Priya Nighantu</i>	<i>Haritkayadi Varga</i> <sup>[8]</sup>
6.	<i>Madanpal Nighantu</i>	<i>Abhyadi Varga</i> <sup>[9]</sup>
7.	<i>Kaiyadev Nighantu</i>	<i>Oushadhi Varga</i> <sup>[10]</sup>
8.	<i>Bhavaprakasha Nighantu</i>	<i>Guduchayadi Varga</i> <sup>[11]</sup>

## Vernacular Names of *Agnimantha*.<sup>[12]</sup>

S. No.	Language	Name
1.	Sanskrit	<i>Agnimantha</i>
2.	Hindi	<i>Arnii</i>
3.	Gujarati	<i>Arni</i>
4.	Tamil	<i>Irume mulle munne</i>
5.	Bengali	<i>Ganiyari</i>
6.	Udia	<i>Gandhona</i>
7.	Malayalam	<i>Appail</i>
8.	Nepali	<i>Ginari</i>
9.	Garwal	<i>Bakorcha</i>

### Synonyms of *Agnimantha* in Different Classical Texts.<sup>[13,14,15,16,17,18]</sup>

S. No.	Synonyms	S.Ni	BP.Ni	K.Ni	D.Ni	MP.Ni	Ni.Ad
1.	<i>Shriparni</i>	+	+	-	+	+	+
2.	<i>Vaijyantica</i>	+	+	+	+	+	+
3.	<i>Jaya</i>	+	+	+	+	+	+
4.	<i>Ketu</i>	+	-	+	+	+	-
5.	<i>Tarkari</i>	+	+	+	+	+	+
6.	<i>Ganikarika</i>	+	+	+	+	-	+
7.	<i>Jayanti</i>	-	+	+	-	+	-
8.	<i>Nadeyi</i>	-	+	-	+	+	+
9.	<i>Karnika</i>	+	-	-	-	+	+
10.	<i>Tapan</i>	+	-	-	-	-	-
11.	<i>Tanutwak</i>	+	-	-	-	-	-
12.	<i>Tejovriksha</i>	+	-	-	-	-	-
13.	<i>Arni</i>	+	+	+	+	+	+

### ETYMOLOGICAL DERIVATION OF SYNONYMS

- Its sticks were used to produce fire by rubbing together so it is called *Agnimantha*.
- Its leaf is very beautiful, so it is called *Sreeparni*.
- It overcomes many disorders so it is called *Jaya*.
- Due to *gunadhikya* (rich in properties) it brings a good opinion among the people hence it is called *Tarakari*.
- It grows along with other plants in a group, so it is called *Ganikarika*.
- It grows on the banks of the river so it is named *Nadeeja* or *Nadeyi*.

### PHARMACOLOGICAL ATTRIBUTES OF AGNIMANTHA IN CLASSICAL TEXTS<sup>[19,20,21,22,23,24]</sup>

S. N.	Classical texts	Rasa	Guna	Virya	Vipaka	Doshakarma
1.	<i>Dhanwantri Nighantu</i>	<i>Katu, Tikta</i>	-	<i>Ushna</i>	-	<i>Vata-Kapha-shamaka</i>
2.	<i>Priya Nighantu</i>	<i>Tikta, Kashaya</i>	-	<i>Ushna</i>	-	<i>Vata-Kapha-shamaka</i>
3.	<i>Madanpala Nighantu</i>	-	-	<i>Ushna</i>	-	<i>Vata-Kapha-shamaka</i>
4.	<i>Bhavprakash Nighantu</i>	<i>Katu, Tikta, Kashaya, Madhura</i>	-	<i>Ushna</i>	-	<i>Kapha-Vata-shamaka</i>
5.	<i>Kaiyadev Nighantu</i>	<i>Katu, Tikta, Kashaya, Madhura</i>	-	<i>Ushna</i>	-	<i>Vata-Kapha-shamaka</i>
6.	<i>Nighantu Adarsha</i>	<i>Katu, Tikta, Kashaya</i>	-	<i>Ushna</i>	<i>Katu</i>	<i>Vata-Kapha-shamaka</i>

## PHARMACOLOGICAL PROPERTIES & INDICATIONS OF AGNIMANTHA

In ancient classical texts, *Agnimantha* has been indicated as – *Vatashamaka*<sup>[26,27,28]</sup> (*vata* pacifying), *Vata-Kaphashamaka*<sup>[29,30,31]</sup> (*vata-kapha* pacifying), *Kaphashamaka*<sup>[32,33]</sup>, *Kapha-Meda-Agnimandya-Nashaka*<sup>[34]</sup>, *Shvyathuhara*<sup>[35,36,37,38,39,40]</sup> (anti-inflammatory), *Deepana*<sup>[41]</sup> (stomachic), *Balya*<sup>[42]</sup> (immunity- promoter), *Rasayana* (Rejuvenator)<sup>[43]</sup>, *Saraka* (Laxative)<sup>[44]</sup> *Pandurogahara*<sup>[45,46]</sup> (anti-anaemic), *Agnivardhaka*<sup>[47,48]</sup> (digestive power stimulator), *Agnideepaka*<sup>[49]</sup>, *Aama Doshahara*<sup>[50]</sup> (alleviates products of impaired digestion and metabolism), *Vibandha*<sup>[51]</sup> (constipation), *Jwaranashaka*<sup>[52]</sup> (antipyretic).

## CLASSICAL THERAPEUTIC USES OF AGNIMANTHA

1. ***Ikshumeha* (Glycosurea)** – *Agnimantha* decoction is useful.<sup>[53]</sup>
2. ***Sthoulya* (Obesity)** – *Shilajatu* is to be given with *Agnimantha Swarasa*.<sup>[54]</sup>
3. ***Gandmala* (Cervical lymphadenitis)**– Local application of leaves paste.<sup>[55]</sup>
4. ***Urustambha* (Stiffness in thigh muscles)** – The paste of root with *Gomutra* used externally.<sup>[56]</sup>
5. ***Arsha* (Piles)** – Sitz bath with its leaves *Kwath* helps relieve pain during *Arsha*.<sup>[57]</sup>
6. **Lymphadenitis** - *Agnimantha* root powder should be taken in a dosage of 2 grams twice daily with water. In addition to this, an herbal paste prepared from fresh *Agnimantha* leaves and bamboo leaves should also be applied to the swelling externally.
7. **Neuralgia** - 100 ml *Agnimantha Kwath* should be given along with 125 mg *Mukta Pishti* and 125 mg *Rajat Bhasma* twice daily for the best results.
8. **Urticaria** - 2 grams of *Agnimantha* root powder can be used along with 125 mg *Yashad Bhasma* for good results.

## BOTANICAL SPECIFICATIONS OF BRIHAT AND KSHUDRA AGNIMANTHA

- ❖ The treatises like *Charak Samhita*, and *Sushrut Samhita* have not described any varieties of *Agnimantha*.
- ❖ *Raj Nighantu* has described two varieties- *Agnimantha* & *Kshudra Agnimantha* (smaller variety).
- ❖ *Premna integrifolia* (Linn.) has been considered a botanical source for the classical drug *Agnimantha*/ *Brihat Agnimantha* (bigger variety) and *Clerodendrum phlomidis* (Linn.) as a botanical source for *Kshudra Agnimantha* (smaller variety).<sup>[58,59]</sup>

Based on geographical distribution, in south India, *Premna sp.* is used as *Agnimantha* in the preparation of formulations whereas in Gujarat and North India, *Clerodendrum sp.* is used as *Agnimantha*.

## MORPHOLOGY

***Clerodendrum phlomidis* Linn.<sup>[60]</sup> (*Laghu Agnimantha*):** It is a large bushy shrub with woody bark and spiny branches, leaves ovate-sinuate or serrate. Flowers colored and fragrant, show pubescence beneath. Fruits black, slightly succulent, seeds oblong. It is found commonly in regions of Bihar, Punjab, and West Bengal.

**Phytochemistry:** Major reported chemical constituents are Pectolinarigenin, 2-Palmitoyl glycerol, scutellarein, apigenin, hispidulin, clerosterol, clerodi, clerodendrin A, cerolic acid, ceryl alcohol, raffinose, etc.

***Premna integrifolia* Linn. (*Brihat Agnimantha*):** It is a large shrub or small tree with brown and thin large branches, spinous usually. Leaves opposite or whorled and entire or serrate. Flowers are small, irregular, arranged in terminal corymbs, greenish-white, with an unpleasant smell. Fruits black coloured drupes and seeds oblong shaped. It is commonly found in South India & West Bengal (Northern parts). Major reported chemical constituents are Premnosidic acid, premnine,  $\beta$ -sitosterol, luteolin (leaves); aphelandrine, betulin, ganiarine, ganikarine, caryophellen, premnenol, premnaspirodiene, etc.

## BIOLOGICAL ACTIVITY

Activity	<i>Premna integrifolia</i> Linn.	<i>Clerodendrum phlomidis</i> Linn.
▪ Anti-microbial	Rekha Rajendran et al, 2010 <sup>[61]</sup>	LP Awasthi et al, 2015 <sup>[66]</sup>
▪ Anti-fungal	Abdullah et al., 2021 <sup>[62]</sup>	Rajashekar et al., 2005 <sup>[67]</sup>
▪ Anti-obesity	Prashant Y. Mali et al., 2013 <sup>[63]</sup>	Vijay et al., 2012 <sup>[68]</sup>
▪ Anti-diabetic	Rajib Majumder et al., 2014 <sup>[64]</sup>	Ganesh Chaturvedi et al., 1984 <sup>[69]</sup>
▪ Anti-inflammatory	Rina H. Gokani et al., 2011 <sup>[65]</sup>	Reshma R. Parekar et al., 2012 <sup>[70]</sup>

## DISCUSSION

*Agnimantha* is one of the most frequently used herbs in therapeutic formulations described in almost all the texts of Ayurveda starting from *Charaka Samhita* (oldest one) to *Priya Nighantu* (latest one). According to *Nighantu Adarsha*, *Clerodendrum phlomidis* Linn. (Syn. *Clerodendrum multiflorum* Burm.) is *Arni*, and *Premna integrifolia* Linn. is *Tarkari*. Acharya Priyavrat Sharma states in his book *Dravyaguna Vigyanam* Volume II that *Premna mucronata* Roxb. is *Agnimantha*. The presence of *Katu-Tikta Rasa*, *Ushna Virya*, *Katu*

*Vipaka*, and chemicals like Pectolinarigenin, scutellarein, apigenin, hispidulin, clerosterol, clerodi, clerodendrin A, cerolic acid, ceryl alcohol, raffinose aphelandrine, premnine, betulin, ganiarine, ganikarine, caryophellen, premnenol, premnaspirodiene is responsible for its biological activity and therapeutically active in the treatment of *Arsha*, Urticaria, Neuralgia, Lymphadenitis, *Sthoulya*, *Urustambha*.

## CONCLUSION

The current trend of the medicinal system of the universe is shifting from synthetic to herbal medicine, so we can say 'Come back to Nature'. Herbal drugs are more popular among rural and urban communities of the Indian indigenous medicinal system (Ayurvedic, Siddha, etc.) After studying in detail about *Agnimantha* in various texts it can be concluded that *Agnimantha* has the property to produce fire by rubbing its sticks and the drug *Agnimantha* is described by almost all the *Ayurvedic* authors, but the thing is that everyone explained it with a different botanical name. If we think from an *Ayurvedic* point of view then the drug which poses *Katu-Tikta Rasa*, *Ushna Virya* and *Katu Vipaka* can either be *Agnimantha*, *Tarkari*, or *Arni* because they are described as synonyms of each other also. As per *Ayurvedic* properties, all three possess the same properties and can be used as substitutes for each other.

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