

CLASSICAL TEXTUAL REVIEW OF IRIMEDA

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INTRODUCTION

Ayurveda, one of the most ancient medical science in the history of mankind, has got its roots in the Sacred Vedas too. Lots of work done by the *Rishis*, Scholars and *Vaidyas* have created a mammoth of knowledge about health and disease which is unparalleled.

Ayurveda considers '*Vaat-Pitta-Kapha*' (also called as *Tri Doshas*) as its important pillars, and believes in their equilibrium to be a state of health, and disease to be the other way around. So, any disease according to Ayurveda, is mostly categorized according to them. With emergence of modern science and technology, we now have found microorganisms like bacteria, viruses, protozoa and others to be the causative factors of many diseases. Ayurveda calls them as *Krumi*, and plants acting against them as '*Krumighna*'. Irimeda (*Acacia farnesiana*) is one of such plant which is said to be useful for its *krumighna* activity.

Ayurveda works on its own principle of diagnosis and treatment. Unlike modern medicine, Ayurvedic drugs are multi-faceted in action. For instance, a single herb like Irimeda works as anti-inflammatory and astringent as well. But due to lack of modern technology, it was not possible to deduce their mode of action. Today's era is of experiments and proofs and everything needs to be well documented. In order to stay alive with contemporary sciences, it is necessary to analyze Ayurvedic herbs according to modern parameters.

According to Ayurveda, Irimeda (*Acacia farnesiana*) is used in oral and dental problems, where decoction of its bark is used for gargling. Also, decoction of its bark is used in diarrhea and dysentery as a cure due to its astringent property. Since many microorganisms are responsible for various oral problems, diarrhea and dysentery also, it would be very important to study whether it shows anti-bacterial activity against these microorganisms too.

KEYWORDS: IRIMEDA.**Table no. 1: Irimeda Raspanchak according to Ayurveda.**

Drug Name	Latin name	Family	Rasa	Vipak	Virya
Irimeda	<i>Acacia farnesiana</i> . Willd	Mimosaceae	Kashay, Tikta ⁵	Katu	Ushna, Shita ⁴

Drug Details**Classification**

- Kingdom: Plantae
- Phylum: Spermatophyta
- Subphylum: Angiospermae
- Class: Dicotyledonae
- Order: Fabales
- Family: Fabaceae
- Subfamily: Mimosaceae
- Genus: *Acacia*
- Species: *Acacia farnesiana*
- English: Sweet acacia



Description *Acacia farnesiana* is a spinescent shrub, or rarely a small tree, 2-7 m tall with several slender stems and long thin branches growing from ground level. The slightly rough stems are a rich chocolate brown or grey, possessing long, sharp, multiple thorns. Branches are glabrous or nearly, purplish to grey, with very small glands. Stipules spinescent, usually short, up to 1.8 cm long, rarely longer, never inflated. Leaves twice pinnate, with a small gland on petiole and sometimes one on the rachis near top of pinnae. Pinnae 2-8 pairs, leaflets 10-12 pairs, minute, 2-7 mm long, 0.75-1.75 mm wide. The small, yellow, puff-like flowers are very fragrant and appear in clusters in late winter then sporadically after each new flush of growth providing nearly year-round bloom. Flowers glabrous, leathery; in axillary pedunculate heads, calyx and corolla glabrous, scented. Pod indehiscent, straight or curved, 4 -7.5 cm long, about 1.5 cm wide, subterete and turgid, dark brown to blackish, glabrous, finely longitudinally striate, pointed at both ends. Seeds chestnut-brown, in two rows, embedded in a dry spongy tissue, 7-8 mm long, 5.5 mm broad, smooth, elliptic, thick, only slightly compressed. Areole 6.5 - 7 mm long, 4 mm wide.

Properties: The active chemical constituents of *Acacia farnesiana* which have been identified so far include diterpene lactones and flavonoids. The main diterpenoids that have been isolated from *Acacia farnesiana* are aromadendrin and 14-deoxy-11, 12-didehydroaromadendrin. The aerial parts of the plant (leaves and stems) are used to extract the active phytochemicals. The leaves contain the highest amount of aromadendrin (2.39%), the medically most active phytochemical in the plant, while the seeds contain the lowest amount. The leaves also contain lipids, carotenoids, alkaloids, and reducing and non-reducing sugar. Regarding chemicals isolated from pods, seven polyphenols i.e. gallic acid, ellagic acid, m-digallic acid, methyl gallate, kaempferol, atomadendrin, and narigenin have been isolated. Also narigenin-7-glucoside and naringenin-7-rhamnoglucoside (naringin), as well as naringenin, glucose, and gallic acid have been found.

Cassie Absolute is extracted from the blossoms of *Acacia farnesiana*. The main volatile components of the absolute are methyl salicylate, anisaldehyde, geraniol (and derivatives) and benzaldehyde. The characteristic fragrance of cassie absolute is attributed to 3 minor components: 3-methyldec-3-en-1-ol, 3-methyldec-4-en-1-ol and 3-methyldec-4-enoic acid.

The wood is brownish-yellow and has a distinctive, somewhat unpleasant smell. It is heavy (specific gravity 0.8), hard and close-grained and has good durability. The bark has a high content of tannin (30-40%).

Uses: *A. farnesiana* is a true multipurpose species, with all parts of the plants being used as a resource. Floral essential oils are used in perfumes. The gum it yields is used as a substitute for gum. The bark and pods are used

for dyeing and tanning. The pods and leaves are forage for livestock, and extracts from the bark, leaves, flowers and green pods are used in traditional medicine in many areas. The wood makes an excellent fuel and can be used for posts, tool handles and turnery and to make furniture. Woody branches of the tree are used in India as tooth brushes. It is also used as an ornamental species, for example in India. Unripe (green) pods, when broken, yield a sticky substance which is used as a glue. It is, however, principally noted as a dry land forage species, with the foliage and the pods being palatable and nutritious. It is a nitrogen-fixing species and has also been used for erosion control.

Medicinal uses: Bark of the tree is astringent, demulcent, anthelmintic, antidiarrhetic, anti-inflammatory and is used in stomatitis, ulcers, swollen gums, dental caries, bronchitis, skin diseases. Ripe pods contain tannins and several polyphenolic compounds. Essential oil from pods are direct muscle relaxant, cardiac depressant and sedative. Various plant parts are used in insanity, epilepsy, delirium and convulsions. The ethanolic extract of unripe pods yields a glycosidal fraction (0.28%) which exhibits anti-inflammatory activity. It also shows significant antibacterial activity. The plant acts as an antiseptic agent for curing sores, gums and loose teeth.

Classical References

Nighantu: *Nighaṅṭu* may be defined as a glossary containing synonymous groups, the names of the drugs, plants, animals, minerals or anything that is administered either as food or medicines, to the human body. *Raj nighaṅṭu* explains the importance of *Nighaṅṭu* as—“A physician without the knowledge of *nighaṅṭu*, a scholar without the knowledge of grammar and a soldier without weapons, all these three are laughed at in this world”. From this statement it is clear that the knowledge of *nighaṅṭu* is indispensable for a physician.

The early *Nighaṅṭus* like *Aṣṭāṅga nighaṅṭu*, *Paryaya ratnamala*, *Nighaṅṭushesha*, *Abhidhanaratnamala* and *Madhavadravyaguṇa* give only the synonyms of food items and medicines. But the later *Nighaṅṭus* like *Dhanvantari nighaṅṭu*, *Madanapala nighaṅṭu*, *Raj nighaṅṭu*, *Kaiyadev nighaṅṭu* and *Bhavprakash nighaṅṭu* add the properties, reaction of the physique to them and uses of food items and medicines. These *Nighaṅṭus* have a detailed description of almost all of the food substances as well as medicinal substances. The study of these *Nighaṅṭus* will make easier to the study of Ayurvedic treatises also.

Nighantushesha^[1]: This *nighantu* mentions only the synonyms of medicinal plants. *Irimeda* is enlisted in the *Vriksha kaand* and mentions *Vit khadir*, *Irimeda*, *Godhaskandha*, *Arimedak*, *Ahimar*, *Arim*, *Pooti Irimeda* and *Mookha shodhana* as its synonyms.

विट्खदिरे त्वरिमेदो गोधास्कन्धोऽरिमेदकः |

अहिमारोऽरिमः पूत्यरिमेदो मुखशोधनः ॥

Amarkosha^[2]: This is another nighantu which deals with synonyms only. The book is divided in various *Kaanda*, with different *Vargas* in each *kaanda*. *Irimeda* is put in 4th *varga* of 2nd *Kaanda*. *Arimeda* and *Vit khadir* are the two synonyms described by the author.

अरिमेदो विट्खदिरे | अमरकोश

Bhavprakash^[3]: The author Bhavamishra enlists *Irimeda* in *Vatadi varga*. He mentions *Vit khadir*, *Kaalskandha* and *Arimedak* as its synonyms. It is described as *Kashay rasatmak*, *Ushna virya* and is indicated in *Mukha rog*, *Danta rog*, *Rakta vikar*, *Kushtha*, *Kandu*, *Visha*, *Kapha* and *Krumighna* in action.

इरीमेदो विट्खदिरः कालस्कन्धोऽरिमेदकः |

इरिमेदः कषायोष्णो मुखदन्तगदाऽसजित् |

हन्ति कण्डूविषश्लेष्मकृमिकुष्ठविषव्रणान् ॥ भा.प्र. नि.

Dhanvantari nighantu^[4]: The author puts *Irimeda* in *Aamradi varga*. *Arimeda*, *Godhaskandha*, *Arimedak*, *Ahimedo*, *Ahimar*, *Pootimeda* and *Ahimarak* are the synonyms given in this nighantu. *Dhanvantari nighantu* alone mentions *Irimeda* to be *Shita virya*. It is described to be *Stambhan* on *Rakta* and *Aama* in action and indicated in *Mukha rog*.

इरिमेदोऽरिमेदश्च गोधास्कन्धोऽरिमेदकः |

अहिमेदोऽहिमारश्च पूतिमेदोऽहिमारकः ॥

मुखरोगहरः शीतो रक्तामस्तम्भकारकः | ध. नि.

Raj nighantu^[5]: The author here puts *Irimeda* in *Shalmalyadi varga*. Synonyms similar to other nighantus like *Arimeda*, *Arimeda*, *Godhaskandha*, *Ahimedak*, etc are described here. *Tikta rasa* along with *Kashay* is described by the author. A very new set of diseases like *Shopha*, *Visarp*, *Atisar*, *Kaas* and *Bhoot dosha* are mentioned as indications for its use.

इरिमेदोऽरिमेदश्च गोधास्कन्धोऽरिमेदकः |

अहिमेदोऽहिमारश्च पूतिमेदोऽहिमेदकः ॥

अरिमेदः कषायोष्णस्तिक्तो भूतविनाशकः |

शोफातिसारकासघ्नो विषविसर्पनाशनः ॥ रा. नि.

Kaiyadev nighantu^[6]: In this nighantu, *Irimeda* is placed in *Aushadhi varga*, which is unique group described by the author. *Arim*, *Sarpameda*, *Medo*, *Ripu*, *Rim* are a few synonyms apart from the regular ones. Being *Kashay* and *Ushna* it reduces *Kapha* and *Krumi*, and is indicated in *Kandu*, *Rakta*, *Graha*, *Mukharog*, *Danta rog* and *Basti* related diseases as a special inclusion. It also mentions the qualities of its fruit as *Tikta*, *Madhur* and *Snigdha* with *Kapha-Vaat shaman* as its property.

इरिमेदः सर्पमेदोगोधास्कन्धोऽरिमेदकः |

अरिमेदो विट्खदिरोऽरिमो मेदो रिपू रिमः ॥

रिमः कटुः कषायोष्णस्तीक्ष्णो हन्ति कफं कृमीन् |

कण्डूरक्तग्रहान् बस्तिमुखदन्तगदानपि ॥

तत्फलं तिक्तमधुरं स्निग्धोष्णं कफवातनुत् | कै. नि.

Madanpal nighantu^[7]: Here the author Madanpal puts *Irimeda* in *Vatadi varga*. He describes it to be *Kashaya*, *Ushna* and indicated in *Mukha rog*, *Danta rog*, *Rakta dushti*, *Kushtha*, *Krumi*, etc. as the other nighantus.

अरिमेदो विट्खदिरो गोधास्कन्धोऽरिमेदकः |

अरीमेदः कषायोष्णो मुखदन्तगदाऽसनुत् |

तथा कण्डूविषश्लेष्मक्रिमीकुष्ठव्रणाञ्जयेत् ॥ म. नि.

Sodhala nighantu^[8]: Sodhala, the author of this nighantu puts *Irimeda* under *Aamradi varga*. *Arimandak*, *Pooti* and *Irimedaka* are some new synonyms along with the regular ones.

इरिमेदोऽरिमेदश्च गोधास्कन्धोऽरिमेदकः |

अहिमेदोऽहिमारश्चारिमः पूत्यरिमेदकः ॥ सो. नि.

Nighantu adarsh^[9]: The drug here has been enlisted in *Babbuladi varga*. The author reiterates the synonyms and indications mentioned in previous nighantus like *Raj* and *Madanpal nighantu*.

Samhitas: Unlike the nighantus, the *Samhitas* classify the medicinal drugs according to their functions i.e. *Karma*. Acharya Charak describe various *Mahakashayas*, that are groups of drugs showing same actions on the body, like *Urdhwabhaghar*, *Adhobhaghar*, *Shonit sthapan*, *Varnya* and so on. Talking about *Irimeda*, it is described in *Udarsa prashaman mahakashay*^[10] and *Sadnya sthapan mahakashay*^[11]. In *Vimana sthana*, it is included in *Kashay skandh*, which is collection of various *Kashay rasatmak* drugs. In *Trimarmiya chikitsa adhyay* of *Chikitsa sthana*^[12], there is a formula for *Khadiradi gutika* and *taila* in which we find the reference of *Irimeda*. A point should be noted that, Acharya Charak mentions *Khadira* and *Irimeda* separately in the same line of its shloka. That means, *Irimeda (Vit khadir)* was well differentiated from *Khadir* in the Charak era too.

In *Sushrut samhita*, we don't find a lot of references about *Irimeda*. In *Sutra sthana* 14th *adhyaya*, which is *Shonita varnaniya adhyay*^[13], *Irimeda* is found in the list of drugs to be used in *Shonit sthapan*, in case of *Ati pravutti*. Also a mention is found in *Kalpa sthana*, 6th i.e. *Dumduhishvaniya adhyay*^[14], where it is a part of the *Sarva visha ksharagad*.

Similarly, in *Ashtang hridaya*, Acharya Vagbhata has mentioned the use of *Irimeda* in *Mukha rog* in *Uttara sthana*, *Adhyay* 22.^[15,16,17,18,19,20,21] The use of *Irimeda* here is explained in various forms like *gutika*, *gandush*, *taila*, etc.

CONCLUSION

From all the above references we can conclude that, Irimesa is a very important drug, and its medicinal properties were well known from the Samhita era. Its inclusion in two of Acharya Charak's 50 *Mahakashayas* and one of its *Skandhas* based on six *Rasas* itself proves its importance. If we closely look at all these references, we find that apart from very few exceptions, Irimesa is preferably used in *Mukha rog* and *Danta rog*. The *kashay rasa* could be the reason for this indication, as its astringent property could be handy in bleeding gums and other bleeding disorders of oral cavity. But since it is said to be *Krumighna* too, and is used in worm infestations, it would be rather interesting to see whether it works on microorganisms and show anti-bacterial activity in various *Mukha rogas*, apart from its astringent property. This study would definitely help the mankind to abstain from unnecessary anti-bacterial load in various *Mukha rogas* with a single, yet all-rounder use of Irimesa.

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