

**COMPREHENSIVE REVIEW ON TEJOHVA WITH SPECIAL
REFERENCE TO NIGHANTUS****Dr. Unnati Sharma*¹, Dr. Kavitha B. M.² and Dr. Rajashekhara N.³**

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ABSTRACT

Medicinal plants have been a major source of treatment for Human disease since time immemorial. one fourth of the world population people are dependent on traditional medicines, particularly plant drug for curing ailments. Medicinal plants are promising choice over modern synthetic drugs. The use of medicinal plant is as old as human civilization. India has a glorious traditional of health care system. Traditionally used medicinal plants have recently received the attention of the pharmaceutical and scientific communities. There is a need to develop new effective traditional drug with scientific validation. Tejahva is a such medicinal plant that is used in traditional medicine for treating a variety of ailments, including diabetes, fever, toothache, and skin diseases, respiratory diseases. The current article is to highlight the importance of drug and reference has been collected from Vedas, Puranas, Samhita kala, manily Nighantu kala. Various Samhitas like Charaka Samhita, Sushurut Samhita, Nighantu Granthas viz. Astanga Nighantu, Dhanvantari Nighantu, Raj Nighantu, Madanpal

Nighantu, Kaiyadeva Nighantu, Bhavprakash Nighantu, Shaligram Nighantu had described Tejahva and its properties and therapeutic uses in detail. This review article deals with compilation of the information regarding tejohva from ancient literature and recent discoveries.

KEYWORDS: Review, *zanthoxylum armatum*, Tejohva, Nighantu kala.

INTRODUCTION

Herbal medicines are rich in natural substances that can promote health and prevent us from getting ill. In Ayurveda quite sample of herbs are enlisted to cure different ailments Herbal medicine has now become an integral part of our Healthcare system, as they are used both traditionally as well as in on-going scientific research. The plant Tejohva (*Zanthoxylum armatum*) also known as toothache tree belonging to Rutaceae family, has been used in Ayurveda for the treatment of diseases and ailments of human being.^[1]

Botanical name- *Zanthoxylum armatum* dc

Family – Rutaceae

Classical names- Tejohva, Tejaswini, tejani, Vanaja, saurabha, tumburu.

Vernacular name^[2]

Sanskrit :Tejohva

Assamee : Kulekhara

Bengali : Tejovati

Gujarati : Tejabala, Tejbal

Hindi : Tejbal

Kannada : Tejapatri, Jimmi, Tumbura, Tumburudra, Tejovanti

Malayalam : Thumboonal, Thumbooni, Valiyavaluzhavam

Marathi : Tejabal

Tamil : Thejyovathi

Urdu : Kabab-e-Khandan

DESCRIPTION

Tejovati is an armed, scandent or erect shrub or a small tree, 6 m. tall or more, with dense foliage Branches armed, the prickles flattened, up to 2 cm. long; bark pale brown, deep-furrowed; leaves imparipinnate or trifoliolate, 5- 23 cm. long, often with flattened prickles: leaflets upto 5 pairs, opposite, ovate to lanceolate, entire to glandular-crenate, acute to obtusely acuminate; flowers green or yellow, in dense terminal, and follicles generally reddish, sub-globose, glabrous; seeds solitary in a fruit, globose, shining black. The bark, fruits and seeds are extensively used in indigenous system of medicine as a carminative, Stomachic and anthelmintic. The bark is pungent and used to clean teeth. The fruits and seeds

are employed as an aromatic tonic in fever and dyspepsia. An extract of the fruits is reported to be effective in expelling roundworms. Because of their deodorant, disinfectant and antiseptic properties, the fruits are used in dental troubles, and their lotion for scabies.^[3]

LITERATURES REVIEW

VEDIC PERIOD^[4]

In Rigveda, Atharava veda references are found by the name tejan. And in kalpasutra, and patanjala mahabasya, tejan, tumburu synonymum are found which refers to tejohva.

SAMHITHA PERIOD

Charaka samhita^[5]

In Charaka Samhita totally 21 references were found in 11 different Adhyayas of 5 different Sthanas. In Sutra Sthana 2, Vimana Sthana 3, Chikitsa Sthana 13 and Kalpa Sthana 2 and in Siddhi Sthana 1 references were mentioned.

Sushruta samhita^[6]

Here, references about drug are found by names tejovati, tumburu in Sadyovrana, Kusta, Moodagarba, Shwasa, Pratishyaya and Apatantraka chikista.

Astanga hridya^[7]

Tumbaru Synonum has been explained in various contexts like Gulma, Arsha, kusta, karnapoorana yoga, danta vikara and adimamsa.

NIGHANTU PERIOD

Astanga Nighantu^[8]

Tumburu synonyms are mentioned in shymadi gana.

Dhanvantari nighantu^[9]

Tejohva is mentioned under guducyadi varga, and synonyms are found.

Shodala nighantu^[10]

Tejovati, tumburu are mentioned in different Vargas tejohvati in guducyadi varga and tumburu in satapuspadi varga.

Madava dravyaguna^[11]

Tumburu is mentioned in vividouashadi varga.

Siddamantra yoga^[12]

The author mentions about the drug in kaphavatagna varga.

Hridaya deepika nighantu^[13]

Here synonyms are mentioned.

Madanapala Nighantu^[14]

Tejovati properties are mentioned. and synonyms tumburu mention in phaladi varga.

Raja nighantu^[15]

Tejovati, tumburu are mentioned in different Vargas along with the synonyms. And guna karma are also mentioned. tejohva mention in amardi varga.

Kaideva nighantu^[16]

Tejohva Tumburu synonyms mention in aushadi varga, guna karma, indications are mentioned in this Nighantu.

Bhavaprakasha nighantu^[17]

Author explained it under the haritakyadi varga with its morphology, properties, uses, indications, useful parts, posology, and distribution.

Shivakosa^[18]

Tejovati synonyms are mentioned

Nighantu ratnakar^[19]

Tumburu synonym is mentioned in shoola rogadhikar

Saligrama Nighantu^[20]

Tejohva synonyms are mentioned in asta varga.

Nighantu Adarsha^[21]

The tejohva, tumburu synonym described in beejpoorakadi varga.

Priya Nighantu^[22]

Tumburu synonyms mention in haritkayadi, varaga, guna, karma and special indication in mukha roga are mentioned.

Dravya gunakosha^[23]

Tejohva Tumburu synonyms are mentioned.

Table No. 1: Showing The Varga of The Drug Tejohva in Various Texts.

TEXTS	VARGAS / GANAS
Charaka samahita	Harita varga, katuskanda, tiktakanda
Astanga Nighantu	Shyamadi gana
Raja Nighantu	Tumburu - amaradi varga Tejovati - guduchyadi varga
Dhanvantari Nighantu	Shatapushpadi varga
Shodala Nighantu	Tumburu- shatapushpadi varga Tejovati- guduchyadi varga
Kaideva Nighantu	Oushadi varga.
Bhavaprakasha Nighantu	Haritakyadi varga
Nighantu adarsh	Beejpoorakadi varga
Saligrama Nighantu	Haritakyadi varga
Madavadravyaguna	Vividoushadi varga
Priya Nighantu	Haritakyadi gana.
Hriday deepika Nighantu	Ekapada varga
Siddhimantra yoga	Kaphavatagna varga

Table No. 3: Showing the Synonyms of tejohva in various texts.

Synonyms	C. S	Su. S	A. H	A. N	DN	K.N	B. P	N. A	HD N	D. K	M. N	S N	SG N
Tejohva	+	+	-	-	-	-	-	+		+	+	-	-
Tumburu	+	+	+	+	+	+	+	+	+	+	-	+	+
Tejaswini	-	-	-	-	-	-	-	+	+	-	+	-	-
Tejani	+	-	-	-	-	-	-	+	+	-		-	-
Tejovati	-	-	-		-	-	-	+	-	+		-	-
Tejavati	-	-	-	-	-	-	-	-	-	+	+	-	-
Nepali daniya	-	-	-	-	-	-	-	-	-	+		-	-
Saaraja	-	-		-	-	-	-	-	-	-	-	-	+
Saurabh	-	-	-	-	-	-	+		-	-		+	
Soura	-	-	-	-	+	+	+	-	-	-	-	+	+
Vanaja	-	-		-	+	+	+	-	-	-	-	+	+
Saanuja	-	-	-	-	+	+	+	-	-	-	-	+	+
Anuja	-	-	-	-	-	-	-	-	-	-	-	-	
Teekshna valka	-	-	-	-	+	+	-	-	-	-	-	+	+
Laghu Valk ala	-	-	-	+	+	+	-	-	-	-	-	+	+
Teekshna phala	-	-	-	-	+	-	-	-	-	-	-	+	+
Teekshna patra	-	-	-	+	+	+	-	-		-	-	+	+
Maha muni	-	-	-	-	+	-	-	-	-	-	-	+	+
Mahoujasi	-	-	-	-	+	+	-	-	-		+	-	-
Aswaghni	-	-	-	-	+	-	-	-			-	-	-
Tikta	-	-		-	-	+	-	-	-	-	+	-	-
Sheeta	-		-	-	+	+	-	-	-	+	-	-	-
Paarijatha	-	-	-	-	+	+	-	-	-	-	+	-	-
Atitejini	-	-	-	-	-	-	-	-	-	-	+	-	-

Andhaka	-	-	-	-	-	+	+	-	-	-	-	-	-
Batasaghni	-	-	-	-	-	+	-	-	-	-	-	-	-
Saaraka	-	-	-	-	-	+	-	-	-	-	-	-	-
Ankaja	-	-	-	-	-	+	-	-	-	-	-	-	-
Sourabha	-	-	-	-	+	+	-	-	-	-	+	-	-

“+ ” denotes same name was mentioned in various Nighantu. “-” denotes this name was not mentioned.

RASAPANCHAKA^[24]

Rasa- Tikta, Katu

Guna- Laghu, Tikshna, Ruksha

Veerya- Ushna.

Vipaka- Katu

Doshagnata- Kaphavatashamaka

Table 5: Showing the Rasa Panchak of Tejovati According to Different Texts.

S. No	Granthadhara	Rasa	Guna	Veerya	Vipak
1.	Charak Samhita	Katu, Tikta			
2.	Dhanvantri Nighantu		Tikshan	Ushna	Katu
3.	Madanpala Nighantu	Katu, Tikta		Ushna	
4.	Kaiyadeva nighantu	Katu, Tikta		Ushna	
5.	Bhavprakash Nighantu	Katu, Tikta	Laghu, Ruksha, Tikshan, Vidhai	Ushan	Katu
6.	Raj Nighantu	Madhur, Tikta		Ushan	Katu
7.	Dravyaguna sangrah			Ushan	
8.	Nighantu Adarsh	Katu, Tikta			Katu
9.	Abhidhan ratna mala			Ushan	
10.	Shodhal Nighantu			Ushan	
11.	Priya Nighantu		Tikshan	Ushan	Katu

KARMA

Table No. 6: Showing the karma of the drug tejohva according to various Nighantu.

KARMA	B.N	K.N	P. N	R.N	D.N
Kaphavata shaman	+	+	+	+	+
Deepana	+	-	+	-	-
Ruchya	+	+	+	-	-
Vidahi	+	+	+	-	-
Hridya	-	-	+	-	-
Vahni deepana	-	-	+	+	+

PRAYOJYA ANGA^[25]

The different part of plant is usually administered in various dosage forms. The reference from books and journals shows that the useful parts are

1. Moola(root)
2. Kanda (Stem bark)
3. Phala (fruit)
4. Beeja (seed)
5. Kantaka (thorn)

MATRA (POSOLOGY)^[26]

The word “posology” which deals with doses or quantity of drugs, which can be administered to produce the required pharmacological action. Here medicine is used in the form of Kashaya and dose is fixed acc.to Sharangadhara Samahita.

Choornam (powder) – 12 gm

Kashay (decoction) - 48ml

MORPHOLOGY^[27]

Habit – Small or medium sized tree, trunk armed with sharp curved or straight prickles, on old wood having solid conical base; bark, deeply cracked; branches numerous, on the top spreading, mostly hollow.

Leaves – alternate, crowded at end of the branches, exstipulate, pinnately compound; rachis 20-34 cm long, leaflets 11-19, lateral leaflets opposite, ovate – oblong or oblong – lanceolate, entire, apex caudate – acuminate, base unequal or rounded, punctate with aromatic glands; petiole is very short.

Inflorescence- terminal large panicle cymes; branches of peduncle opposite, angled.

Flowers- pedicellate (pedicel 3-4mm long), bracteate; bract minute and caducous, actinomorphic, bisexual or polygamous.

Calyx- connate at base; calyx lobes 4, triangular.

Corolla – petals 4, free, elliptic, yellowish, valvate.

androecium- stamens 4, alternate the petals, free; filaments short; anther 2- celled; disc inconspicuous.

Gynoecium - ovary superior, 1- celled

Fruit- A capsule, 1 cm across, rugose, globose, dehiscent ventrally; 1-seeded; seed globose, smooth, shining, bluish – black.

Flowering occurs from March to May, while fruiting occurs from July to August.

Distribution^[28]

Distributed in the hot valleys of the subtropical Himalayas as from Jammu to Bhutan including Kumaon, Punjab between 1000 -2100m, in Khasi hills between 500-1800m altitude and along Eastern Ghats in Orissa and Andhra Pradesh at 1200m altitude. It is also grown as hedge in Assam and other states. Distributed in Trans-Indus and Bhutan.

Chemical Constituents

Bark^[29]- Asarinin, fargesin, Dictamnine, 8-hydroxydictamnine, armatamide (amide), epieudesmine, eudesmine, β sitosterol, (+) sesamin, (-) sesamin, Pluviatide, Lupeol, Vanillic acid, Zanthionitrile, berberine

Fruits Linalool, linalyl acetate, citral, geraniol, methyl cinnamate, limonene, sabinene

Leaves Methyl-n-nonyl ketone, linalool, uncharacterized sesquiterpenes, tricosane (Wealth of India, 1998).

Carpels^[30] - Carpels of the fruits yield an essential oil isomeric with turpentine having eucalyptus like odour & properties.

Seeds The essential oil of comprises of over 85% of hydrocarbon 1- α -phellandrene and linalool, an unidentified sesquiterpene in little quantities. Ramidi and Ali, 1998, isolated tambulin (flavonoid) from the seed.

Plant Oil- Hydrocarbon, acid, phenol, 1, 8-cineole, limonene, citronellal

Contraindication^[31] Hypersensitivity to the drug

Antidote^[32]- Badam rogan

Shelf Life^[33]- One year

Propagation and Cultivation

It is propagated through seeds. The plant is available in nature, hence not cultivated specifically.

Substitutes and Adulterants^[34]

- Zanthoxylum acanthopodium DC
- Z. rhetsa DC
- Z. limonella

In South India fruits of Zanthoxylum rhesa DC (Chir phal) are sold in the market and used as substitute.

Formulation

- Panchatikta Guggulu
- Ghrita Panchatiktaghrita guggulu
- Tumburvadi churna
- Tejovatyadi ghrita
- Kalaka Churna lepa
- Kalak churna lepa
- Tiktekshvakadi taila
- Kanakakshiri taila

CONCLUSION

Tejovati (Zanthoxylum armatum DC.) is a plant with a rich ethnobotanical history. The present review on Tejovati from different classical texts and Nighantus can be useful to know about the different useful parts, therapeutic uses, formulations, synonyms etc of the plant. By this way we can use Tejovati in various disease conditions. In this regard further researches are to be carried out to explore Tejovati for its potency towards pharmacological properties and action.

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