



## ETHNOMEDICINAL ASPECT OF BHARANGI (*CLERODENDRUM SERRATUM* (LINN) MOON)

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### ABSTRACT:

**Background:** Ethnomedicine generally refers to the study of traditional medicine practiced by different ethnic groups for the prevention and treatment of diseases. *Bharangi* (*Clerodendrum serratum* (Linn) Moon) is a perennial shrub belongs to the Verbenaceae family. Traditionally, Bharangi is used as a medicine for various ailments in India. **Material & Method:** Available books on ethnomedicine and various online articles and websites like DHARA, Google scholar, Ayushportal etc. were referred to collect information about ethnomedicinal uses of Bharangi. Collected data were presented systematically and in tabular form. **Observation & Result:** Referring various books, articles in detail adds up a vast therapeutics range of Bharangi. **Discussion:** *Bharangi* has wide range of therapeutic application such as in Asthma, epilepsy, snake bite, mouth ulcer, alopecia, hair loss, etc. But it has remained clinically very less explored. **Conclusion:** Present review study, inferred that more such tribes can be explored for its various uses which can be beneficial to other people once it is scientifically proven.

**Keywords:** Ethnomedicine, *Bharangi* (*Clerodendrum serratum* (Linn) Moon), Therapeutics

## INTRODUCTION

Plants have been widely used for various purposes such as food, fodder, medicine, spices, construction tools and dyes. Practitioners of traditional medicine around the world have used plants to treat human and animal ailments. Medical systems such as Ayurveda, Siddha, Unani and Chinese medicine use several plant species to promote health and fight infectious diseases and some other disorders. For example, India, China, Bangladesh, Thailand, Japan, Malaysia, Bhutan, Sri Lanka, Taiwan, Pakistan and many African countries use herbal medicines in primary health care. Indigenous peoples identified various plants with medicinal properties and used them to treat various ailments. They had knowledge of various plants, but these were not documented. It spreads from person to person by word of mouth. So, it is necessary to collect information about those herbs that are undocumented and used by the tribes. When information about these plants is collected and scientifically proven, it can be documented and can be useful to other people. The Charaka Samhita also mentions that the shepherd, forest dwellers have knowledge of plants.<sup>[1]</sup>

Nighantus are described in Ayurvedic texts where various medicines are described and mentioned based on their characteristics, properties, uses, action and synonyms. The Nighantu literature is as ancient as Ayurveda. It is presumed that from Samhita kala Nighantu was formed. The ancient Nighantus were

actually like Kosha, containing the Paryaya (Synonyms) of Dravya. Later on, the Aushadha (Drugs) description, their Guna (Properties), Karma (Actions), and their uses were added. In a true sense, the Nighantu means a collection of words, Paryaya (Synonyms), and the names of the medicinal Dravya. Nighantus form an integral part of Dravyaguna Vigyan and for the study of medicinal herbs, an elaborative study of Nighantus is important. *Bharangi* is mentioned in 23 Nighantu with its different synonyms, *Guna*, *Karma* and *Rogaghnata*.

Around 80% of the world's population is estimated to use traditional medicine.<sup>[2]</sup> So here in this present paper *Bharangi* is selected for the review of its traditional uses. *Bharangi* is a well-known and potent drug of Indian system of Medicine. Botanical name of *Bharangi* is *Clerodendrum serratum* (Linn) Moon) belongs to the Verbenaceae family. *Bharangi* is slightly woody shrub with bluntly stems and branches. This shrub is about 2-8 ft high. It is annual or perennial. Root is mature, hard, woody, cylindrical; upto 5cm thick, external surface light brown having elongated lenticles. Stem is usually quadrangular(four-angled). Bark is thin and easily separated from a broad wood which shows marked medullary rays and concentric growth rings in a transversely cut surface; short fractures; acid taste. Leaves is usually three at a node sometimes apposite oblong or elliptic, serrate, alternate without stipules. Flowers is blue, many in long cylindrical thyrsus. They are bisexual, zygomorphic, rarely sub-

actinomorphic, and bracteolate or not. Fruits is four lobed purple drupe.<sup>[3]</sup>

#### MATERIALS & METHODS:

Books, online articles and websites were reviewed to collect the information about the traditional uses of *Bharangi*. All information

about *Bharangi* is collected from the books and online articles. It is then systematically classified, organized and accordingly the results are presented in the table below.

#### OBSERVATIONS & DISCUSSION

**Table no. 1: References of *Bharangi* (*Clerodendrum serratum* (Linn) Moon) used as ethnomedicine**

Plant part	Country/Region/Tribe	Administration details	Traditional use
Root	Chhota Nagpur	Aqueous extract along with 10 black pepper for 3 days	Fever <sup>[4]</sup>
Root	India	-	Bronchitis, Asthma, Ozaena (Atrophic rhinitis), Fever, Disease of blood, Tumour, Inflammations, Burning sensation, Hiccough, Epilepsy, Tuberculosis glands, Wounds, Increases appetite, Lessens expectoration, Febrile and catarrhal affections of the lungs
	Ratnagiri, India		Malarial fever
	India		Scorpion sting
Leaves	India	Ointment	Cephalalgia & Ophthalmia
		Powder	Snake bite
Seed		Bruised & boiled in butter milk	Aperient, Dropsy <sup>[5]</sup>
Whole plant	Santals tribes	-	Fever, Dropsy, Anasarca, Rheumatism, Hemiplegia, Sores, Fistula, Cholera, Protracted labor, Snake bite, Rinderpest <sup>[6]</sup>
Flower	Chhindwara, Madhya Pradesh	-	Lockjaw disease <sup>[7]</sup>
Fruits	Meghalaya, India	-	Gastric trouble, Flatulency, Spermicidal activity
Seeds	Jabalpur, Madhya pradesha	-	Dropsy
Leaves	Amravati, Maharastra	-	Cephalalgia, Ophthalmia
	North east tribe		Swelling, Aches
	Nilgiri, Tamilnadu		Cuts, Wounds

	Uttarakhanda		Tumour growth
	Tribes of Totopara, west bengal		Eye complaints
	Hill miri tribe, Arunachal pradesha		Headache
	Pune, Maharastra		Snake bite
	Central india		Skin infection
	Tumkur district, Karnataka		Fever
	Dist of Deharadun		Increasing appetite & digestion
Shoots & Root	Nainital & Uttar pradesha	-	Typhoid fever
Root			Cold, Tuberculosis
Root	Mysore, Karnataka	-	Cold, Tuberculosis
	Maharastra	-	Catarrhal affections
	Shevaroy hill		Bronchitis <sup>[8]</sup>
Leaves	Hill, Miris, Arunachal Pradesh	Leaves are tied on belly	Digestion <sup>[9]</sup>
Leaves	Adivasi tribe, Assam	Extract	Dysentery
	Bodo tribe, Assam		Seasonal fever
	Mishing tribe, Assam	Juice	Seasonal fever
Fruits	Karbi tribe, Assam	Baked Fruits	Dietary purposes (as chutney)
Leaf	Shan tribe, Assam	Decoction	fever
Root		Paste	Rheumatism <sup>[10]</sup>
Root	Harda, Madhya Pradesh	Powder	Cough <sup>[11]</sup>
Bark	Southern Eastern ghats, Andhra Pradesh, India	-	Fractures <sup>[12]</sup>
-	Malayasia	decoction	High blood pressure <sup>[13]</sup>
Root	Jharkhand, India	-	Asthma, Fever, Cough & Cold
Roots & Leaf			Eye complaints, Snake bite <sup>[14]</sup>
-	Assam	-	Stomach disorder <sup>[15]</sup>
Leaf	Adi, Miri Tribe	-	Cephalalgia and Ophthalmia, Fever
Stem			Dropsy
Root	-	Extracts	Malaria
	Nishi, Adi tribe	-	Rheumatism
Leaf	Naga tribe	Decoction	Irregular menstruation, Jaundice
	Hill Miri tribe	brushing around the	Headache

		forehead	
Leaf & Whole plant	Adi, Miri, Jaintia tribe	ground with water	Fever <sup>[16]</sup>
Root	-	-	Bronchitis, Asthma, Fevers, Blood disease, Tumours, Inflammations, burning sensation, Epilepsy, Malaria, Ulcer and Wounds
Leaves		Boiled	Fever and Hiccough
seeds		boiled in butter milk	Cephalgia & Ophthalmia
Whole plant	India, China, Korea, Japan, Thailand, and Africa	-	Aperients, Dropsy & catarrhal affection of lungs <sup>[17]</sup>
Leaf	Assam	Decoction	Cold, Hyperpyrexia, Asthma, Furunculosis, Hypertension, Rheumatism, Dysentery, Mammitis, Toothache, Anorexia, Leucoderma, Leprosy, Arthrofibrosis, and other Inflammatory disease <sup>[18]</sup>
	Assam, Mishing, Deori tribe	Paste	Jaundice
	Arunachal Pradesh-Nishi, Khasi tribe		Cuts & Wound
Leaf	Arunachal Pradesh	Juice	Fever <sup>[19]</sup>
Root & Leaf	Kalahandi, Odisha	Paste	Infected areas to prevent skin diseases. massaged on forehead relieves headache. <sup>[20]</sup>

Indigenous knowledge of the people observed in this present study vary greatly due to discrepancies in their origins and cultures. Documenting and comparing knowledge of single drug at one place may reveal a considerable depth of knowledge among communities, resulting in novel sources for drug development. In ethnomedicine *Bharangi* is prescribed for the cuts and wounds similar reference is available in Rajmartanda.<sup>[21]</sup> Tribal

people of Arunachal Pradesh administering *Bharangi* for increasing appetite & digestion, same reference available in *Madanadi Nighantu*, *Kaiyadeva Nighantu*, *Bhavaprakasha Nighantu*, *Shaligram Nighantu*, *Priya Nighantu* and *Chandra Nighantu*. In Nighantu *Bharangi* is mentioned in various diseases as *Jwara*, *Shwasa*, *Kasa*, *Sopha*, *Gulma*, *Yakshma*, *Kustha*, *Visa*, *Vrana*, *Daha*, and ethnomedicinally it is used for the almost

similar conditions *Bharangi* is used Internally as well as externally in different forms as ointment, decoction, juice, powder and paste form by tribals.<sup>[22]</sup> The present review, through various available literature, shows that *Clerodendrum serratum* is used traditionally in 12 states of

India, through 13 internal administration, and 3 external applications by different tribes. The plant as a whole or its individual parts, i.e., roots, leaves, seeds are used for various diseased conditions.

**Table no.2 List of disease condition in which *Bharangi* is used as an ethnomedicine is mentioned in below table**

Fever	Rheumatism	Dropsy
Cold	Dysentery	Aperients
Hyperpyrexia	Mammitis	Catarrhal affection of lungs
Bronchial asthma	Toothache	Hiccough
Furunculosis	Anorexia	Blood disease
Hypertension	Leucoderma	Tumours
Arthrofibrosis	Leprosy	Burning sensation
Inflammation	Malaria	Epilepsy
Ulcer	Wounds & Wound	Jaundice
Ophthalmia	Irregular menstruation	Stomach disorder
Cephalgia	Headache	Eye complaints
Snake bite	Tuberculosis	Ozaena (Atrophic rhinitis)
Fractures	High blood pressure	Typhoid fever
Scorpion sting	Cholera	Protracted labor
Increasing appetite & digestion	Rinderpest	Lockjaw disease
Flatulency	Spermicidal activity	Aches
Fistula	Skin infection	Sores

## CONCLUSION

*Clerodendrum serratum* (Linn) Moon has been mentioned in many indigenous health systems in the treatment of various diseases. This article contains ethnomedicinal information about *Bharangi*, its useful part, administration, and the region or country where it is used. This information can be useful for further analytical, experimental and clinical studies and the

production of this information can be documented for future reference. Based on this current review study, it can be concluded that more such drugs used by ethnic groups can be studied and can prove beneficial to other people if scientifically proven.

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