

VITEX NEGUNDO LINN IN AYURVEDIC CLASSICS (A BIRD EYES VIEW)

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ABSTRACT

Herbal medicine, rather than merely curing a particular disease, aims at returning the body back to its natural state of health. The world is gradually turning to herbal formulations which are known to be effective against a large inventory of diseases and ailments. Though usage of plants change from age to age the main motive of Ayurveda is ‘‘Preservation of health and cure of diseases’’.^[1] Ancient Acharyas have felt enormous therapeutic potentiality of each and every plant on being their judicious use. Among number of plants described in Ayurveda, *Nirgundi* is one which holds greater medical importance. A popular local quote of the Bengalis in the Western Himalayan region of India which translates as – A man cannot die of disease in an area

where *Vitexnegundo Linn*, *Adhatoda vasica* and *Acorus calamus* are Found.^[2] The plant is referred in the Indian traditional circles as ‘*sarvaroganivarini*’ – the remedy for many diseases. As *Nirgundi* is well known drug by common people and easily available hence we have selected this drug *Nirgundi(Vitex negundo Linn)* to have Literary review of this plant which may explore further therapeutic quality for the benefit of public in larger extent. The present aim of this study is to discuss *Nirgundi(Vitex negundo Linn)* in samhitas and various nighantus.

KEYWORDS: *Nirgundi*, Herbal medicine, Ayurveda, Diseases.

INTRODUCTION

Plants are used for medicinal purpose since traditional time. Among millions of plants and species, Study of ethnobotany reveals that *Nirgundi(Vitex negundoLinn)* has been used since ancient times. Ayurveda the science of life, for achieving health of an individual it laid stress

on preventive and curative aspects of the diseases by focusing various preparations which are either herbal or herbo-mineral in origin. one of the wonderful plant that is well established in Indian system of medicine is *Nirgundi* (*Vitex negundo* Linn).

Vitexnegundo Linn. belonging to the family Verbenaceae, is commonly known as *Nirgundi* in Sanskrit, *Sambhalu* in Hindi and five leaved Chaste tree in English is a fabulous plant where all parts possesses a multitude of secondary metabolites which imparts a high medicinal value to the plant. It is an aromatic large shrub or small slender tree of about 3 meter in height and is distributed throughout India.^[3] This species is globally distributed in Indo-Malaysia, cultivated in America, Europe, Asia and West Indies. Since ancient times it has been used as a traditional medicine, folk medicine and also in Roman medicine. The plant has pungent, bitter, acrid taste; heating, astringent, cephalic, stomachic, anthelmintic properties.^[4] The plant is traditionally reported for its use for the treatment of cough, asthma, fever, eye disease, inflammation, intestinal worms, skin diseases, nervous disorders, leprosy and rheumatism and is reported to have expectorant, antiseptic, antipyretic, diuretic, anti-inflammatory, anti-rheumatic, antibiotic, Hepatoprotective and tonic properties.^[5,6] The various chemical constituents like flavonoids, flavones glycosides, volatile oil, triterpenes, tannins and many others were isolated in this plant. In the present review an attempt was made to focus the light on the stand of the herbal drug *Nirgundi* in Ayurvedic texts from samhitas to nighantus.

Etymology

“*Nishkasya Vyaadhinam Gundayathi Sareeram Rakshatiti*” (Prakash L.H.).^[7]

Nirgundi cures many diseases and protects the body.

Mythological story of *Nirgundi*

Sacred status and uses in rituals in India, *Nirgundi* is considered a sacred plant and is thought to have originated from the abdomen of Ganadhupa.^[8]

Habit and Habitat

Distribution

It thrives in humid places or along water courses in wastelands and mixed open forests and has been reported to occur in Afghanistan, India, Pakistan, Sri Lanka, Thailand, Malaysia, eastern Africa and Madagascar. It is grown commercially as a crop in parts of Asia, Europe, North America and the West Indies.^[9]

Plant Description

Vitex negundo Linn is an erect shrub or a small tree that grows from 2 to 8 m in height. The bark is usually reddish brown.

Leaves 3-5foliate; leaflets lanceolate, acute, the terminal leaflet 5-10 by 1.6-3.2cm. with a petiole 1-1.3 cm. long, the lateral leaflets smaller with a very short petiole, all nearly glabrous above, covered with a fine white tomentum beneath, base acute; common petioles 2.5-3.8 cm long.^[10]

Flowers in pedunculate branched tomentose cymes, opposite along the quadrangular tomentose rachis of a large terminal often compound pyramidal panicle (axillary peduncles in the upperaxils sometimes present); bracts 1.5- 2.5 mm long, lanceolate caduceus.

Calyx 3 mm long, white tomentose; teeth triangular, 0.8-1mm long.

Both the corolla and calyx are covered in dense hairs. The fragrant flowers are hermaphrodite (have both male and female organs) in nature and are pollinated by insects.^[11]

Ovary glabrous; style glabrous; stigma forked.

Drupe less than 6 mm diameter, black when ripe.

Description of *Nirgundi* (*Vitex negundo* linn) in various Ayurvedic literatures

In different ancient literatures *Nirgundi* is described under different Vargas. Regarding the etymology, synonyms, morphological description, therapeutic use there are enormous descriptions found in all most all samhitas and nighantus. By observing the morphology, therapeutic effect, habit and habitat different Acharyas have placed *Nirgundi* under different varga (group) for convenient of study.

Tableno: 1 Classical categorization of nirgundi (*Vitex negundo* Linn) According to Different Authors. [12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33]

	<i>Name of the Classical book</i>	<i>Varga/Gana</i>
1.	<i>Charaka Samhita</i>	<i>Krimighna, Vishagna</i>
2.	<i>Susrutha Samhita</i>	<i>Surasadi, Sleshma Samshamana</i>
3.	<i>Astanga Sangraha</i>	<i>Surasadi</i>
4.	<i>Astanga Hridaya</i>	<i>Surasadi, Sleshma Samshamana, Vishagna</i>
5.	<i>Astanga Nighantu</i>	<i>Shyamadi</i>
6.	<i>Dhanvantari Nighantu</i>	<i>Karaveeradi</i>
7.	<i>Sausrutha Nighantu</i>	<i>Surasadi</i>
8.	<i>Amarakosa</i>	<i>Vanaoushada</i>
9.	<i>Sodhala Nighantu</i>	<i>Karaveeradi</i>
10.	<i>Shadrasa Nighantu</i>	<i>Tiktakanda</i>
11.	<i>Madhava dravyaguna</i>	<i>Vividhoushadavarga</i>
12.	<i>Hridayadeepika</i>	<i>Dwipadavarga</i>
13.	<i>Siddhamantra</i>	<i>Kaphavatagnavarga</i>
14.	<i>Madanapala Nighantu</i>	<i>Harithakyadivarga</i>
15.	<i>Raja Nighantu</i>	<i>Shatavaryadivarga</i>
16.	<i>Kaiyadeva Nighantu</i>	<i>Oushadivarga</i>
17.	<i>Bhavaprakasha Nighantu</i>	<i>Guduchyadivarga</i>
18.	<i>Saraswathi</i>	<i>Kshupadi Varga</i>
19.	<i>Shaligrama</i>	<i>Tailavarga</i>
20.	<i>Mahaoushada Nighantu</i>	<i>Bilwadivarga</i>
21.	<i>Nighantu Adarsh</i>	<i>Nirgundyadivarga</i>
22.	<i>Priya Nighantu</i>	<i>Harithakyadi Varga</i>

Paryayas (synonyms)

One of the ancient methods of identification is through “Paryayas”. The importance of paryayas in Dhanwantari Nighantu is mentioned as –

“Ekam tu naama prathiditham bahuna mekasya naamani tatha bahuni

***Dravyasya jaatyakruti Varna veerya rasa prabhavaadi gunairbhavanthi*”** [34]

i.e, one are many names can be assigned to the plants according to habitat, form, colour, potency, taste, effect etc. The root derivation of Paryaya is that which follows an order”. The term paryaya means “words which are related to each other”. These are the tools for describing the plants and they are based on either morphological structure, source, habitat, seasons, properties, therapeutic actions, customs, historical importance or sensory perception. Therefore these paryayas help in identification and understanding the drug in total. The synonyms given to *Nirgundi* in different lexicons are as follows,

Tableno: 2 Synonyms of *Nirgundi*(*Vitexnegundo* Linn) according to Classical literature. [12,12,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,35,36,37,38,39,40,41,42,43,44,45,46]

Name of the classical book	Synonym used
Charaka Samhita	<i>Sindhuvara, Nirgundi</i>
Susrutha Samhita	<i>Sindhuvaraka, Nirgundi</i>
Astanga sangraha	<i>Bhutakesi, Sindhuvaraka</i>
Astanga Hridaya	<i>Nirgundi</i>
Sarangadhara Samhita	<i>Sindhuvara, Nirgundi</i>
Bhavaprakasha Samhita.	<i>Nirgundi</i>
Vangasena samhita	<i>Sindhuvara, Nirgundi, Sephalika</i>
Chakradatta	<i>Nirgundi</i>
Vrindamadhava	<i>Sephalika, Sindhuvara, Nirgundi</i>
Rajamartanda	<i>Sephalika, Sindhuvara</i>
Gadanigraha	<i>Renuka, Sindhuvara, Nirgundi, Sephalika</i>
Rasaratnasamyacchaya	<i>Sindhuvara, Nirgundi</i>
Yogaratanakara	<i>Sindhuvara, Nirgundi</i>
Laghuyogaratanakara	<i>Nirgundi</i>
Yogatarangini	<i>Nirgundi</i>
Bhaisajya ratnavalli	<i>Sindhuvara, Nirgundi</i>
Sausrutha Nighantu	<i>Sindhuvaracca, Neelaimanjari, Bhutavesi Sugandhika</i>
Dhanwantari Nighantu	<i>Sindhuvara, Sephalika</i>
Amarakosa Nighantu	<i>Sephalika, Surasa, Nirgundi.</i>
Shodala Nighantu	<i>Bhutakesi, Swetapushpa, Sinduka, Sindhuvaraka, Indrani, Nilapushpa, Nilasinduka,</i>
Hridayadeepaka Nighantu	<i>Sindhuvari, Bhutakesi, Nirgundi, Sindhuvarakah</i>
Siddhamantra Nighantu	<i>Sindhuvarakah, Sephali.</i>
Madanapala Nighantu	<i>Bhutakesi, NilaSindhuka, Sephalika, Sitabhiru, Anilamanjari</i>
Raja Nighantu	<i>Sitasaha, Nirgundi, Nilasindukah, Bhutakesi, Indrani</i>
Kaiyadeva Nighantu	<i>Neelasinduka, Girisinduka, Neelapushpa, Sitasaha, Vanaja, Neelamanjari</i>
Bhavaprakasha Nighantu	<i>Sephali, Suvaha, Sinduka, Sindhuvara.</i>
Saraswathi Nighantu	<i>Bhutakesi, Bhutavesi, Sindhuvarakah, Sindhukah, Varada, Indrani</i>
Nighantu Adarsh	<i>Sindhuka, Sindhuvara, Sephalika, Suvaha, Indranika, Indrasurasa, Neelika.</i>
Sankara Nighantu	<i>Sindhuvara, Nirgundi</i>
Mahaoushadi Nighantu	<i>Sindhuka, Nirgundi, Sephali</i>
Priya Nighantu	<i>Sindhuvara, Nirgundi.</i>

	Etymology of Synonyms	
<i>Nirgundi</i>	:	<i>Nirgudati Shareeram rakshati rogebhyaha –</i> which protects body from diseases
<i>Sindhuvara</i>	:	<i>Sindu shotham vaarayati it sinduvaraha –</i> which helps to relieve inflammation
<i>Sephali</i>	:	that which is liked by insects and flowers are blue in color.
<i>Suvaha</i>	:	The flowers are blue in color or that which purifies the body.
<i>Sindhuvara</i>	:	It checks the accumulations of fluid in the body.
<i>Indrasurasa</i>	:	The swarasa is an effective drug.
<i>Sugandika</i>	:	the leaves have aroma.
<i>Sheethasaha</i>	:	a plant resistance to cold.
<i>Shephalika, Suvaha,</i>		
<i>Sinduka, Sindhuvara,</i>		
<i>Surasa, Shvetapushpa,</i>	:	That which protect from number of disease.
<i>Nilamanjari, Vanaja,</i>		
<i>Bhutakeshi</i>		

Table No: 3 Guna and Karma (Pharmacological properties) of *Nirgundi* (*Vitex negundo* Linn) according to various authors ^[17,25,26,27,28,46,31,32,33]

Name	Rasa	Guna	Veerya	Vipaka
Dhanwantari Nighantu	Katu,Tikta	-	Ushna	-
Madanapala Nighantu	Katu,Kashaya	Laghu	-	-
Madanapala Nighantu	Katu,Kashaya	Laghu	-	-
Raja Nighantu	Katu,Tikta	Ruksha	Ushna	-
Kaiyadeva Nighantu	Katu,Tikta, Kashaya	Laghu	Ushna	-
Bhavaprakasha Nighantu	Katu,Tikta, Kashaya	Laghu	-	-
Sankara Nighantu	Katu	Ruksha	Ushna	-
Mahaoushadi Nighantu	Katu,Tikta, Kashaya	-	Ushna	Katu
Nighantu Adarsh	Katu,Tikta	-	Ushna	Katu
Priya Nighantu	Tikta,Katu	-	Ushna	-

Table no: 4 Karma (Therapeutic uses) of *Nirgundi* according to different authors. ^[12,13,14,15,35,28,36,37,38,39,40,41,42,43,44,45,17,25,26,27,28,46,31,32,33]

Name of the classical book	Karma(Therapeutic use/Indication)
Charaka Samhita	Krimighna, Visahara, Jwaraghna
Susrutha Samhita	Visahara, Krimighna, kasa Swasahara
Astanga sangraha	Krimihara, Visahara, Switrahara
Astanga Hridya	Krimihara, Switrahara, kasa, Apachi
Sarangadhara Samhita	Krimihara, Slipada, Vataja vidradi
Bhavaprakasha Samhita.	Jwara, Amavata, Krimi, Apasmara
Vangasena samhita	Pandu, Kamala, Gandamala, Apaci,
Chakradatta	Gandamala, Slipada, Kusta
Vrindamadhava	Ghridrasi, Krimihara, Switrahara,
Rajamartanda	Sandhivata, Siroruja
Gadanigraha	Mushika visha, Luta visha, Ghridrasi
Rasaratnasamyauccaya	Sandhivata, Yonisula, Krimi
Yogaratanakara	Sutikaroga, Danta Udbava Janya rogas
Laghuyogaratanakara	Gandamala
Yogatarangini	Sutikaroga, Sula, Vata rogas
Bhaisajya ratnavalli	Vata rogas, Gandamala
Dhanwantari Nighantu	Krimighna, Kapavatahara
Madanapala Nighantu	Sandhisothahara, Sulahara
Raja Nighantu	Sandhivatahara
Kaiyadeva Nighantu	Kaphavatahara, Krimighna, Deepana
Bhavaprakasha Nighantu	Vatakaphahara, sulahara, Krimihara
Sankara Nighantu	Vatapittahara, Krimihara, Medoanaka
Mahaoushadi Nighantu	Vatakaphahara, Vataghna, Vedanasthapana
Nighantu Adarsh	Vatakaphahara, Sulahara, Sothahara
Priya Nighantu	Vatakaphahara, Medhyam

Varieties of *Nirgundi* (*Vitex negundo* linn) according to Different Authors

Susrutha:	2 types	—	<i>Swethapushpa, Nilapushpa.</i>
Dalhana:	2 Types	—	<i>Nirgundi, Sinduvara.</i>
Dhanvanthari:	2 Types	—	<i>Swetha, Nila.</i>
Bhavamisra:	2 Types	—	<i>Swethapushpa, Nilapushpi.</i>
Kaiyadeva:	5 Types	—	<i>Nirgundi, Sinduvara,</i> <i>Sephali, Mahapatri, Bhupadhi</i>
Shodhala:	2	Types	—
Raja Niganthu:	3	Types	—
Niganthu Rathnakara:	2	Types	—
			<i>Sinduvara, Sephalika.</i>
			<i>Sinduvara, Nilanirgundi, Sephalika.</i>
			<i>Karthari, Aranya.</i>

According to botany *Vitex negundo* Linn has both types of flowers white & light blue coloured flowers. The leaves of this plant are dentate. Another species is also there *Vitex trifolia*. It is mentioned that both *sinduvara* & *nirgundi* have similar properties.

VERNACULAR NAMES	
Sanskrit	: <i>Nirgundi; Sephalika; Sindhuvara; Svetasurasa; Vrikshaha</i>
Telugu	: <i>Sindhuvara; Vavili; Nallavavili; Tellavavili</i>
Hindi	: <i>Mewri; Nirgundi; Nisinda; Sambhalu; Sawbhalu</i>
English	: <i>Fiveleaved</i>
Bengali	: <i>Nirgundi; Nishinda; Samalu</i>
Bontok	: <i>Liñgei</i>
Chinese	: <i>Huang jing</i>
Filipino	: <i>Lagund</i>
Gujarati	: <i>Nagoda; Shamalic</i>
Ifugao	: <i>Dabtan</i>
Ilokano	: <i>Dangla</i>
Kannada	: <i>Bilenekki</i>
Malayalam	: <i>Indrani</i>
Marathi	: <i>Nirgunda</i>
Punjabi	: <i>Banna; Marwan; Maura; Mawa; Swanjan Torbanna</i>
Sinhala	: <i>Nika</i>
Tamil	: <i>Chinduvaram; Nirnochchi; Nochchi; Notchi; Vellainochchi</i>

Useful parts

- Leaf
- Seed
- Root

Flowering & Fruiting Time

Plant flowers in June – August & fruits is December, January. Generally flowering begins during summers & rains and fruiting during cold season.

Posology

Leaf juice:10-20 ml

Root bark powder:3-6 g

Seed powder :3-6 g, in divided doses per day is the adult dose

Classical Formulations

- *Nirgundi taila*
- *Nirgundi kalpa*
- *Nirgundi ghritha*
- *Nirgundi guggulu*
- *Vatagajankusha rasa*
- *Dasamoola taila*
- *Vishatinduka taila*
- *Mahavisagarbha taila*
- *Mahavataavidhvamsana rasa*
- *Trivikrama rasa*
- *Tribhuvana rasa*
- *Manasamritha vataka*
- *Arkadi kwath churna*
- *Manikya rasa*
- *Vatavidhvamsana rasa*
- *Vishagarbha taila*

Description of *Nirgundi* in Botanical literatures

Taxonomical classification

Kingdom—Plantae,

Subkingdom—Tracheobionta

Superdivision—Spermatophyta

Class—Magnoliopsida

Subclass—Asteridae

Order—Lamiales

Family—Verbenaceae

Genus—*Vitex*

Species—*negundo*.

Database on Medicinal Plants^[6]

In this book the description, properties, actions, uses, physical constants, chemical constituents, trade and commerce, substitutes, propagation and cultivation of *Vitex negundo* was explained. Various formulations like *Nirgunditaila*, *Nirgundikalpa*, *Trivikramaras*, *Nirgundighrita*, *Mahavataavidhvamsaras*, *Pushparajaprasarnitaila* are mentioned.

Indian Medicinal Plants^[4]

The author described that *Vitexnegundo* is having pungent, bitter, acrid taste and is indicated in diseases of eye, bronchitis, asthma, inflammations, enlargement of spleen, rheumatism.

The root of this plant is an antidote to snake venom and is considered as tonic, febrifuge and expectorant, otalgia, arthritis, dyspepsia, colic, rheumatism, leprosy, verminosis, flatulence, dysentery, urinary disorders, wounds, ulcers, bronchitis, cough, malarial fever, hemorrhoids, dysmenorrhoea, leprosy, skin diseases and general debility.

The leaves are aromatic, tonic, stomachic, antihelmintic and vermifuge. The juice of the leaves is said to have the property of removing foetid discharges and worms from ulcers.

The flowers are useful in diarrhea, cholera, fever, hemorrhages, hepatopathy and cardiac disorders.

The Fruit is nervine, cephalic and emmenagogue; dried fruits acts as a vermifuge.

Leaves and bark are useful in scorpion stings, seeds are considered useful in eye diseases in form of *anjan*.

Ayurvedic pharmacopoeia of India^[47]

The physicochemical parameters of *Nirgundi* mentioned in Ayurvedic pharmacopoeia of India are:

- | | | |
|-------------------------------|---|-----------------------------|
| 1. Foreign matter | - | Not more than 1 per cent. |
| 2. Total Ash | - | Not more than 3 per cent. |
| 3. Acid-insoluble ash | - | Not more than 0.2 per cent. |
| 4. Alcohol-soluble extractive | - | Not less than 5 per cent. |
| 5. Water-soluble extractive | - | Not less than 9 per cent. |

Recent researches on *Nirgundi*(*Vitex negundo* Linn)

The plant is reported to have various Photochemical in different parts of the plant like volatileoil, triterpenes, diterpenes, sesquiterpenes, lignan, flavonoids, flavones glycosides, iridoid glycosides and stilbene derivatives Phenol, Dulcitol, Alkaloid – Vitricine, Bsitosterol, Camphene, ∞ & Bpinenes, Angoside, Aucubin, Casticin, Artemetin, Orientin etc., due to which various pharmacological activities like Antimicrobial Activity, Analgesic and Anti- inflammatory, Antioxidant Activity, Anticancer Activity, Antifeedent Activity, Immuno-stimulant Activity, Antipyretic Activity, Nephroprotective Activity, Anti eosiniphilic Activity, Antiestrogenic Activity, Anti amnesic Activity, Antinociceptive Activity have been reported.

CONCLUSION

Thorough literature is available on *Vitex negundo* Linn that includes traditional, biochemical, ethnobotanical and pharmacological experiments, observations and inferences which depicted the fact that it is a popular remedy. However, there are many gaps which need to be filled by researchers in different disciplines.

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