

A Review Article on Nirgundi

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Abstract: Traditional medicines were originally used with vast knowledge about the therapeutic utility of numerous plants. *Vitex negundo* Linn (Nirgundi) is one of the very useful plants in Indian System of Medicine. Owing to wide range of medicinal properties, Nirgundi is very useful herb. It is used for its Medicinal values for thousands of years by the people all over the globe. As per Ayurvedic system of medicine, its Rasa is Katu, Tikta and Kashaya and it pacifies Vata and Shleshma. Its property is Laghu and Veerya is Sheetoshna and is used in the treatment of various disorders like Pleeha rog, Gulma, Krimi, Kushtha, Vrana, Visha and Aruchi. The present paper deals history of nirgundi, and its uses in rituals, religious rites, as an insecticide and as medicine. The paper also presents a scientific validation of pharmacological evidences on its use in folk medicine and Ayurveda.

Keywords: Nirgundi, *Vitex negundo* Linn, Pharmacological action

INTRODUCTION

Ayurveda, a life science deals with various affiliations of body, mind and soul. Maintaining the health of healthy person and preventing disease in diseased individual is the main motto of this ancient science. True to its meaning in Sanskrit (that which keeps the body free from All diseases) The word *Vitex* is derived from the Latin 'vieo' (meaning to tie or bind) because of The flexible nature of its stems and twigs. It Helps as if rather than merely curing a particular disease, aims at returning the body back to its natural state Of health. True to its meaning in Sanskrit (that which keeps the body free from All diseases), it is used to treat a plethora of ailments, ranging from headache to migraine, From skin affections to wounds, and swelling, asthmatic pains, male and female sexual and Reproductive problems. Referred to as *sindhuvara* in Ayurveda, nirgundi has been used as Medicine since ancient times. It is taken in a variety of ways, both internally and externally.

Chronological Order of References of Nirgundi in Vedic kala ¹ In Vishnu dharma sootra as Nirgundi 61 / 3. In Kalpasutra as Nirgundi no. 235In Panineeya

ashtadhyayi as Shephalika no. 135. In Panineeya vartika ganapatha as Shephalika 4/3/167. In Patanjala mahabhashya as Shephalika 5/3/55 no. 104. References in samhita kala Charaka samhita,² Nirgundi is mentioned Under Krimighna and Vishaghna Gana. In Sushruta Samhita,³ Nirgundi is mentioned under Surasadi varga, Shleshma Samhamana varga. In Ashtanga Hridaya⁴ it is mentioned Under Vishghna, Surasadi and Shleshma samshamana Varga. In nighantu kala Acharya Bhavamishra⁵ has mentioned Nirgundi. Acharaya Kaiyadeva⁶ has mentioned Nirgundi as Medhya. References regarding Karma, Bheda of Nirgundi are available In Bhavaprakasha⁷ Nighantu, Shodala nighantu⁸ Nighantu ratnakara.

Pharmacological properties of Sindhuvara according to Ayurveda:

Rasa Katu (pungent), Tikta (bitter)
Guna Laghu (lightness), Ruksha (dry)
Virya Ushna (hot)
Vipaka Katu (pungent)
Doshakarma Kapha-Vata Shamaka
Nirgundi Botanical Classification:
Kingdom Plantae- Plants
Subkingdom Tracheobionta – Vascular plants
Super division Spermatophyte – Seed plants
Division Magnoliophyta – Flowering plants
Class Magnoliopsida - Dicotyledons
Subclas Asteridae
Order Lamiales
Family Lamiaceae
Genus *Vitex* Linn.
Species *Vitex negundo* Linn

Anti-Inflammatory And Anti-Arthritic Activity

Different parts of the *Vitex nigundo* linn especially leaves, fruits, root and seed possess anti-inflammatory and anti-arthritic activity.⁸ However The possible mechanism of antri-inflammatory activity was indicated as an inhibitory action on prostaglandin biosynthesis

Antioxidant Activity

Anti-oxidants are substances capable for neutralizing free radicals and prevent them from Causing cell damage and health related problems such as cancer, aging, heart diseases.

Leaf extracts of *V.negundo* were determined to possess anti-oxidant potential.

The extracts were useful in decreasing levels of superoxide dismutase, catalase and glutathione peroxidase in Freund's adjuvant induced arthritic-rats.

(Devi, P.R., Kumari, S.K. and Kokilavani, C. 'Effect of *Vitex negundo* leaf extract on the free radicals scavengers in complete Freund's adjuvant induced arthritic rats', *Indian Journal of Clinical Biochemistry*, 2007; 22: 143-147.)

Vitedoin A, one of the phytochemical present in the plant acts as a strong antioxidant.

(Dharmasiri, M.G., Jayakody, J.R.A.C., Galhena, G., Liyanage, S.S.P. and Ratnasooriya, W.D. 'Anti-inflammatory and analgesic activities of mature fresh leaves of *Vitex Negundo*', *Journal of Ethnopharmacology*, 2003; 87: 199-206.)

Antibacterial studies:

Essential oils and successive ethyl acetate and ethanol extracts of *Vitex negundo* Linn. Showed antibacterial activity against *Staphylococcus aureus*, *Bacillus subtilis*, *Escherichia coli* and *Pseudomonas aeruginosa* bacterial strains. Main constituents identified in leaves oil were d-guaiene, carryophyllene epoxide and ethylhexadecenoate; In flowers oil α -selinene, germacren-4-ol, carryophyllene epoxide and ϵ -nerolidol while fruit oil showed β -selinene, α -cedrene, germacrene D and hexadecanoic acid as the main constituents which help for antibacterial activity.

(Ladda P L and Magdum C S-*Vitex negundo* Linn.: *Ethnobotany, Phytochemistry and Pharmacology-A Review: International Journal of Advances in Pharmacy, Biology and Chemistry-Vol.1(1), Jan-Mar, 2012, Page-115*)

Antiallergic Activity:

Ethanol extract of *Vitex negundo* Linn. Showed antiallergic activity against immunologically induced degranulation of mast cells. The extract significantly inhibited both the initial and later sustained phases of tracheal contractions. The initial phase was primarily due to histamine and the latter phase was due to release of lipid mediators from arachidonic acid.

(Ladda P L and Magdum C S-*Vitex negundo* Linn.: *Ethnobotany, Phytochemistry and Pharmacology-A Review: International Journal of Advances in Pharmacy, Biology and Chemistry-Vol.1(1), Jan-Mar, 2012, Page-115*)

Anticonvulsant activity

Maximal electroshock seizures (MES) in albino rats and pentylenetetrazole (PTZ) induced Seizures in albino mice were used to study anticonvulsant activity of *Vitex negundo* Linn. Leaf Extract. It also decreased number and duration of Convulsions significantly decreased. The anticonvulsant activity of *Vitex negundo* Linn. Has not been found equi-effective With standard drugs. *Vitex negundo* Linn Potentiated anticonvulsant activity of valporic Acid.

(Devi, P.R., Kumari, S.K. and Kokilavani, C. 'Effect of *Vitex negundo* leaf extract on the Free radicals scavengers in complete Freund's adjuvant induced arthritic rats', *Indian Journal of Clinical Biochemistry*, 2007; 22: 143-147.)

Hepatoprotective activity

Vitex negundo Linn. shows hepatoprotective action against carbon tetrachloride induced liver damage.

(Ladda PL, Magdum CS. *Vitex negundo* Linn.: *Ethnobotany, phytochemistry and Pharmacology-A review. International Journal of Advances in Pharmacy, Biology and Chemistry, 2012; 1(1): 111-20.*)

The ethanolic extract of *Vitex negundo* Linn. At 250 and 500 mg/kg doses significantly Decrease Serum Bilirubin, Aspartate Aminotransferase (AST), Alanine Aminotransferase (ALT), Alkaline Phosphates (ALP) and Total Protein (TP) levels against hepatotoxicity (HT) Produced by administering a combination of three antitubercular drugs isoniazide (7.5 Mg/kg), rifampin (10 mg/kg) and pyrazinamide (35 mg/kg).

(R, Rajesh P, Ramesh N, Balasubramanian V, Rajesh Kannan V: Hepatoprotective activity on *Vitex negundo* Linn. (Verbenaceae) by using Wistar Albino Rates in Ibuprofen Induced Model. *International Journal of Pharmacology*, 2010; 6(5): 658-663.)

Anti-eosinophilic activity

Egg albumin induced asthma in guinea pig model was used to study the anti eosinophilic activity of the *Vitex Negundo* Linn. The effects of various fractions such as aqueous subfraction, acetone subfraction, chloroform

Subfraction of the leaves of *Vitex negundo* Linn on the bronchial hyper responsiveness and serum bicarbonate level was evaluated. Aqueous subfraction of the leaves of *Vitex negundo* Linn possessed anti eosinophilic activity.

(I Jignesh Patel; S Shrikalp Deshpande. Int J Nutri Pharmacol Neuro Dis, 2011, 3(2), 135 – 141.)

CONCLUSION

Nirgundi is having Katu tikta kashaya rasa, Laghu ruksha guna, Ushna veerya and Vata kaphahara property. Nirgundi is having Medhya, Smritiprada, Deepani, Kushtaghna, Krimighna, Shothahara, Shulahara karma and mainly used in Vatavyadhi, Karna Roga, Krimi Kushta, Rajayakshma, Gulma chikitsa. It has been scientifically proven in many researches that Nirgundi is having diversified action which is beneficial in both maintaining health and curing diseases. So the use of Nirgundi should be promoted by the Ayurvedic practitioners and scholars among the people.

REFERENCES

- [1]. Sharma P.V., *Dravyaguna Vijnana (Vedic Plants and History of Dravyaguna)* Vol IV Reprint Varanasi, Chaukhamba Bharathi Academy, 1999
- [2]. Agnivesha. *Charaka samhita- Agnivesha treatise Refined and annotated by Charaka, redacted by Dridhabala Ayurveda Deepika commentary by Chakrapanidatta, edited by Yadavji Trikamji Acharya.* Varanasi: Chaukhamba Prakashana; reprint 2011, pg 738.
- [3]. Sushruta, *Sushruta Samhita, Vol I (Edited with Ayurveda Tattva Sandipika)* by Shastri Kaviraja Ambikadutta, 12th ed. Varanasi: Chaukhamba Sanskrit Sansthan 2001, pg:879
- [4]. Vagbhatacharya, *Ashtanga Hridayam with Sarvangasundhara of Arunadutta and Ayurved Rasayana of Hemadri, collated by Dr. Anna Moreshwar Kunte and Krishna Ramachandra Shastri Navre,* Varanasi: Chukhamba surabharathi Prakashan, Reprint 2010 pg:956.
- [5]. Bhavamishra. *Bhavaprakasha Nighantu – Hindi Commentary* by K.C.Chunekar. 1st ed. Varanasi: Published by Chaukhumbha Bharathi Academy; 2002, pg-984
- [6]. Kaiyadeva Acharya, *Kaiyadeva Nighantu, Pathyapattyavibodhaka, Sampadde Acharya Priyavrit Sharma and Guruprasad Sharma,* Varanasi, Chowkambha Orientalia, 1979. Pg-696.
- [7]. Lala Shaligrama Vaidhya, *Shligrama Nighantu,* 2007, Mumbai, Khemaraj Shrikrishnadas publication, Pg 333
- [8]. Chaturvedi GN and Singh RH, *Experimental study on anti-arthritis effect of certain indigenous drug,* Indian j med Res, 1965,53(1),71-80.