



A CRITICAL INTERPRETATION ON NIMBA (NEEM) – A KEY MEDICINAL PLANT

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ABSTRACT

In Ayurveda, nimba (*Azadirachta indica* A. Juss, Meliaceae) has been widely employed. All five parts of Nimba (root, bark, leaves, herb, and fruit) were utilized individually or all at once in Panchanga to treat various diseases. All portions of Nimba, with the exception of the sometimes-accessible Nimba, which has a sweet flavor and necessitates particular handling, are primarily bitter in flavor. Nimba is a milky, sweet liquid that flows spontaneously from the roots, huge leaves, and trunk of the Nimba tree. Nimba contains free sugars, amino acids, and organic acids. One of the most popular and efficient herbal remedies in Ayurveda is nimba. There is a freely accessible plant having effects on male contraceptive, antibacterial, antifungal, anthelmintic, diuretic, hypotensive, and analgesic. Nimba boosts immunological function. Almost all parts of the plant, including the flowers, leaves, bark, fruit, seeds, and roots, can be used medicinally. Nimba's chemical make-up includes azadirachtin, azadirachnol, melianon, nimocin, nimocetin, etc. Female diseases can be effectively treated locally using a decoction made from nimba leaves.

KEYWORDS: *Azadirachta indica*, medicinal drug, Nimba etc.

INTRODUCTION

Nimba (*Azadirachta indica* A. Juss, Meliaceae) has long been a source of Ayurvedic medicine. Laghu, Ruksha, Tikta (Rasa), Katu (Vipaka), and Sita (Virya) are the main therapeutic regions, and many of its therapeutic areas include fever, piling and jaundix and worms, kusta (leprosy and skin illness), diabetes, and wounds. It has five parts (bark, leaf, root, seed, and flower), which are utilized individually or all together according on the situation (Panchang). The Meliaceae family includes the massive, virtually straight-trunk, 12–18 m tall Nimba tree. It is an evergreen tree. It is widely used in India's deciduous trees. In Hindi, the plant is referred to as nemb or nimb. Nimba is often utilized in the Ayurvedic, Unanai, and homoeopathic systems of medicine. Flowers with a sweet

scent that are white or light yellow in color are produced in a variety of axillary panicles and pedicles. The fruits are rectangular, one-seeded drupes that are greenish yellow when ripe.¹

METHODOLOGY

Materials about nimba were gathered from a variety of publications, books, Ayurvedic and modern textbooks, reputable articles, acclaimed reviews, papers, etc.

SCIENTIFIC NOMENCLATURE:

Azadirachta indica.

SYNONYMS:

Melia Azadirachta Linn.

CLASSICAL NAMES:

Tiktaka, Hinguniryasa, Arishtaphala, Neta, Shukpriya, Jeshtamalak, Arishta, Pichumarda.

HABITAT:

Throughout India, in deciduous forests also widely cultivated.

GEOGRAPHICAL DISTRIBUTION:

It is spread in most parts of India; in heavy rainfall areas, it does not develop and thrive (more than 75 inches of rains)

PARTS USED:

Leaves, flowers, seed, Bark, oil

SPECIES:

***Melia azedarach* Linn**

The plants are trees that grow to a height of up to 14 feet, with a low, upright trunk, and a dense crown. Its historical name is Mahanimba.²

CHEMICAL CONSTITUTES

From the *Azadirachta indica* plant, over 100 chemical components were extracted. Triterpenoids, limonoids, butenolides, and a few other nontriterpenoid elements are just a handful of the categories to which they belong. Nimbocetin, Behenic, Nimbandiol, Nimbinene, Nimocinone, Azadirachtin, Azadirachnol, Melianone, Carbohydrates, amino acids, Tannin, Beta-Sitosterol, Gedunin, Nimocinol, Nimolinolic Acid, Nimbolins A and B, Cycloeucaleanol, Culactone, Lupeol, Sitosterol, Catechol, Vanilic Acid, Kulinone, and Sugiol^{11,12} are all components of this compound.³

AYURVEDIC PROPERTIES

- Rasa -Tikta, Kashaya
- Guna - Laghu
- Virya -Sheeta
- Vipaka –Katu

PHARMACOLOGICAL ACTIVITIES

- Anti-cancer
- Anti-viral
- Anti-bacterial
- Anti-fungal
- Anti-helminthic
- Hypoglycemic
- Antitubercular
- Antimicrobial
- Diuretic
- Hypotensive
- Antigastric
- Antineoplastic
- Spasmogenic.



ACTIONS & USES

- Seed oil is believed to be antiseptic and is used to treat leprosy and dermatitis.⁴
- Neem oil may treat ulcers and chronic skin conditions, and it also contains anti-infertility, antibacterial, and antifungal properties.⁵
- Warm oil is used to alleviate ear, tooth, and gum problems.⁶
- One of the components of the substance also includes leaves for diabetic people.
- Its branches are used as a toothbrush to clean the teeth.⁷
- A warm infusion of the plant's leaves is employed as an anesthetic for the treatment of wounds, sprains, and swollen glands.⁸
- Fruit-derived gum is a recognized proteolytic, stimulant, and tonic.

DOSES

- 10 – 40 ml in adults
- Bark powder: 2- 5 gms
- Oil: 5 to 10 drops

PHARMACOLOGICAL ACTIONS

SKIN DISEASE ACTIONS

- Nimbidin has been demonstrated to be useful in treating a number of skin conditions, including herpes labialis, scabies, furunculosis, and burn ulcers. To treat different fungal skin diseases, dry leaves are extracted with 70% alcohol, dried, and then dissolved in propylene glycol (4:6).⁹
- External use of lotion of neem twice daily for three straight days has been proven to be quite effective in treating scabies.
- A lotion was applied to treat ringworm infection for 4–8 days

WORM INFESTATIONS ACTIONS

100 gm of extract from 10 kg of neem leaves was produced; 3 gm of the extract was given to patients orally as a single dosage on an empty stomach and showed outstanding anthelmintic activities, notably for round worms.¹⁰

DENTAL PROBLEM ACTIONS

Nimbidin gargles and denitrifies are effective for treating bleeding gum pyorrhea.

ANTI-FUNGAL ACTIONS-

Nimba Kid was taken from the trees and put through a phenolic acid HPLC (high performance liquid chromatography) test for the white milk-based liquid secretion. The phenolic acids identified included vanillic, o-coumaric, cinnamic, and salicylic acids from coffee. After being further broken down, ethanol was tested against numerous fungi to see whether it had any anti-fungal properties. It was shown to have potent in vitro antifungal properties.¹¹

CONCLUSION

Ayurveda is the Traditional Indian System of Herbal and Therapeutic Medicine. Nimba is one of Ayurveda's most potent therapeutic remedies. The Philosophy of Creation" means Ayurveda." Nimba is frequently used in a variety of disorders as a Bahya & Abhyantara Aushadhi without producing any negative side effects. It frequently plays a significant role in some severe and protracted instances of leprosy, other skin conditions,

ingesting, atonic dyspepsia, and general weariness. Nimba, however, is extremely rare, which is a significant disadvantage to its typical use and acceptance.

SOURCE OF SUPPORT: NIL.

CONFLICT OF INTEREST: NIL

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