



Therapeutic potential of Azadirachta indica (Neem) in skin disorders: A literary Review

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ABSTRACT

Neem (Azadirachta indica) is a medicinal plant also known as Margosa. It is a member of the Meliaceae family and it possess many benefits in curing skin ailments. It also has an antioxidant effect hence it enhances immunity and promotes health. It has been widely used in Unani practice. Neem is being used as a medicine all around the world especially in India in prevention and management of many diseases. It is considered as safe medicinal plant and exhibits very less adverse effects.

It has wide variety of properties that can be used in treating many diseases. It possesses antibacterial and anti-inflammatory properties which help in soothing the skin. It contains nutrients like amino acids and polysaccharides. It is also known for its Daf-e- taffun, Daf-e-Ufoonat and Muhallil awram properties hence making it more beneficial to use in skin diseases.

Keywords – *Neem, skin diseases, Muhallil awram, anti-bacterial.*

I. INTRODUCTION

The neem (Azadirachta indica a. Juss) or margosa tree also known as the Indian lilac, belongs to a family of Meliaceae (Mahogany). It is a genus of tall, evergreen, native to Asia as it is commonly found in India, Bangladesh, Pakistan and Nepal but also grows in the tropical and subtropical regions of Africa, America and Australia. Neem is one of the most versatile medicinal plants with wide spectrum of biological activity. ⁽¹⁾

In Sanskrit it is called 'Arishtha' which means reliever of sickness. In India it still has been regarded as the 'village dispensary'. Its extract has antimicrobial effect and has reticence effect towards the many pathogens that

includes various bacterias and viruses. The oil from leaves, bark have inhibition action on gram-positive and gram-negative bacteria, considering this its extract is also used in treatment of many skin ailments like ringworm, eczema, scabies. Consistent use of its oil can treat many chronic skin diseases. ⁽²⁾

Azadirachta indica contains a range of different constituents like nimbin, nimbidin, nimbolide and its leaf extract is known to have antifungal and antimicrobial actions which are helpful in curing skin diseases. ⁽³⁾

II. HABITAT

The Meliaceae family, which includes the neem tree, is widely distributed in tropical and semitropical areas like India, Bangladesh, Pakistan, and Nepal. It is a tree that grows quickly, reaching a height of 20 to 23 metres. Its straight trunk measures about 4-5 feet in diameter. Each of the compound imparipinnate leaves has between 5 and 15 leaflets. It bears green drupes that mature to golden yellow in the months of June through August. ⁽³⁾

Taxonomical classification of neem ⁽⁴⁾⁽⁵⁾⁽⁶⁾

Kingdom	Plantae
Order	Rutales
Suborder	Rutinae
Family	Meliaceae
Subfamily	Melioidea
Tribe	Melieae
Genus	Azadirachta
Species	indica

Vernacular names

Urdu	Neem
Arabic	Azadirachtul hind
Persian	Neeb
English	Margosa tree, Neem tree, Indian lilac
Hindi	Neem
Bengali	nim, Nimgach
Gujrati	Leemado

III. HISSAE MUSTAMILA (PARTS USED) ⁽⁷⁾⁽⁸⁾⁽⁹⁾⁽¹⁰⁾

Leaves, Bark, Flowers, Seeds, Fruits, Root, Stem, Gum.



MIZAJ (TEMPERAMENT)

Har 1° Yabis 2°

AF'AL (MEDICINAL ACTIONS)

Musaffi Khoon, (Blood purifier)

Muhallil (Anti-inflammatory),

Musakkin, (Analgesic)

Daf-e- Taffun, (Anti septic)

Qatil-e-Jaraseem, (Anti-Microbial)

Qatil-e-kirm o shikam, (Anthelmintic)

ISTEMAL (USES) ⁽¹⁰⁾

Neem juice applied locally promotes the healing of wounds. It serves as a preventative measure against plague. Neem leaf decoction used to treat dysmenorrhea. The decoction can also be gargled with in order to strengthen the teeth and gums.

It is utilised to cure many kinds of skin infections due to its blood purifying effects.

MUZIR (ADVERSE EFFECTS) ⁽⁸⁾⁽⁹⁾⁽¹⁰⁾

Harmful to Yabis Mizaj (Dry temperament) people. Increases dryness.

MUSLEH (CORRECTIVES)

Asal (Honey), Mirch Siyah, Roghaniyat

BADAL (SUBSTITUTE)

Be badal / Musaffiyat

MIQDARE KHURAK (THERAPEUTIC DOSE)

6-10 gm

6 Masha

1 tola

MURAKKABAT (COMPOUNDS) ⁽⁹⁾⁽¹⁰⁾

Roghan-e-Neem

Habb-e-bawaseer

Habb-e-musaffi khoon

Zimade daad

Arq murakab musaffi khoon

Safoof-e-juzam

Majoon-e-mussafi khoon

Marham-e- Neem

Ethno botanical Actions ⁽¹¹⁾⁽¹²⁾⁽¹³⁾

Actions

Anti-fungal, Anti-bacterial, Anthelmintic, Anti-pyretic, Anti-septic, Analgesic, Astringent, Acrid, Demulcent, Insecticidal, Depurative, Liver tonic, Appetizer, Anti-inflammatory.

Indications

It is used for the treatment of rheumatism, chronic syphilitic sores and indolent ulcer. Bark, leaf, root, flower and fruit together act as blood purifier. It relieves itching and burning sensations and it is helpful in biliary problems, skin ulcers and phthisis.

Phytochemical constituents

Chemical analysis of neem shows that it contains nimbin, azadirachtin, polysaccharides and amino acids.

IV. SCIENTIFIC STUDIES

In-vitro research was carried out by Garima et al to analyse the antibacterial activity of Neem leaves extracts against *Escherichia coli* and *Staphylococcus aureus*. Anti-microbial action was tested by using agar well diffusion method, 1 ml sample culture (10⁷ CFU / ml) was inoculated into a 20 ml Muller Hinton agar sterile plate that was then made to solidify. By using a sterile cork borer, three wells with a diameter of about 6 mm was created on the surface of the agar plate. AILE was used at different concentrations (0.50 to 1.50 mg/ml). Neem leaves extracts showed significant antibacterial activity and effectively inhibited the growth of *E. coli* & *S. aureus*. Growth inhibition was based on concentrations and greater inhibition was observed for *S.aureus* as compared to *E.coli*.

In a review article by Mohammad A. Alzohairy he referenced about the mechanism of action of neem compounds that Parts of the neem plant exhibit an antimicrobial function by inhibiting microbial growth and/or the potential for cell wall collapse. The primary component causing both antifeedant and poisonous effects in insects is azadirachtin, a complex tetranortriterpenoid limonoid found in seeds.⁽³⁾

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