

Therapeutic effect and Significance of *Azadirachta indica* in COVID-19

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Introduction

The outbreak of coronavirus in India and world is a just likes a woe. India is the second largest population of the world, the spread of corona virus in India is faster in second as compare to first wave. Corona Virus is a deadly virus, which succumbs the life of people. India launched two major vaccines namely Covaxin and Covidshield but still there is need of lots of research. Hence scientist and researchers are looking forward various treatments to prevent spreadibility of corona virus. In this context natural plants play vital role to overcome this problem.

Fig: 1 Neem Tree



TAXONOMY OF AZADIRACHTA INDICA:

Kingdom	Plantae
Division	Magnoliophyta
Class	Dipsacales

Order	Rutales
Sub order	Rutinae
Genus	Azadiracha
Species	Indica

DESCRIPTION: MACROSCOPIC DESCRIPTION:

TREE:

Azadirachta indica found in local places of India. This tree is a fast growing tropical evergreen related to mahogany. It will grow in less rainfall region approximately 18 inches per year. It will grow where rainfall is as little as 18 inches per year and thrives in areas that experience extreme heat of up to 120 OF. They are reported to live for up to 200 years.

LEAVES –

Neem Tree leaves are mainly green to dark green color. Its taste is bitter, Compound, alternate, rachis 15-25 cm long, 0.1 cm thick; leaflets with oblique base, opposite, exstipulate, lanceolate, acute, serrate, 7-8.5 cm long and 1.0-1.7 cm wide.

STEM BARK:

Bark thickness of tree depends on age of the tree and also from which part it is taken. Upper layer of bark rough, fissured and rusty-grey; laminated inner layer yellowish and foliaceous, fracture, fibrous; odour, characteristic; taste, bitter.

FLOWER, FRUITS AND SEEDS:

Azadirachta indica covered in delicate flowers in summers. The color of flower is white arranged axillary, normally more-or-less drooping panicles which are up to 25 cm long. The taste of fruit has a semi-sweet and olive-sized. Seed of the tree is rich in oil content having high medicinal properties. Neem oil can obtain through processing methods and used for various purposes.

Table: 1 Local Name of *Azadirachta indica*

Language	Local name of Neem
Hindi	Neem
Bengali	Nim
Konkani	Beva-rooku
Marathi	kadunimb
Gujrati	leemdo
Tamil	Vempu, Vempu
Punjabi	Nimb
Malyalam	Veppu
Oriya	Nimo

Table: 2 Parts of Neem Plant

Parts of Plant	Uses
Leaves	Plant protectant, Cosmetics
Seed	Commercial pesticide, oil, medicine
Roots and Fruits	Oil extraction and medicine
Twigs	Different disorders
Cake	Soil manure and additives

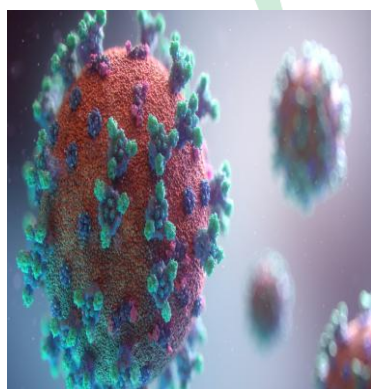
Therapeutic effect of Neem

Neem active constituent play a key role in the diseases cure via activation of antioxidative enzyme, rupture the cell wall of bacteria and play role as chemopreventive through the regulation of cellular pathways. Neem has been used for various therapeutic purpose and plays a significant role prevents or overcome the diseases and disorders. In recent times almost all the countries of world facing pandemic and trying to prevent it through various methods.

Fig: 2 Therapeutic Activity of Neem



In this view point where scientists have been looking forward for most effective or curable vaccine and medicine for COVID-19, there is a second view point are also that is natural way to prevent Covid. Hence in this regard it is seen that Neem which is rich in various nutrients and effective in cure of various diseases such as Diabetes, Cancer, Cardiovascular diseases.



In recent research it is found that Neem has been also effective in prevention of COVID-19. A study published in journal “Alternative Therapies in Health and Medicine” The study found a reduced risk of COVID-19 infection in participants receiving neem capsules, which



demonstrates its potential as a prophylactic treatment for the prevention of COVID-19 infection.

References:

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