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Medicinal value of the leaves of *Nyctanthes arbor-tristis*: A review

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Abstract

India have a huge population about 130 crore and as a part of developing country India lack a proper shelter, clean water, hygiene and food supply for all so some people of India are more prone to have infection of Bacteria, Fungi and interstitial worms including roundworms, hookworms and pinworms. Mostly parasitic infections are spread through the contaminated food and water, various diseases like Giardiasis, Amoebiasis (Amebic Dysentery) is occur in various age groups people and bacterial and fungal infection is also occur in various age group population due to lack of above mentioned facilities. The poverty is one of the major cause of morbidity and mortality in developing countries like India because the healthy life style and diagnosis or treatment of various diseases is very costly in current scenario. Nature provide various plant and their parts as gift to human beings and these plant and their parts are used for the treatment of various major and minor diseases. In this study the medicinal value of *Nyctanthes arbor-tristis* is studied in context of bacterial, Fungal and parasitic infection. This plant and their leaves have a marked effect against bacteria, fungi and Parasite.

Keywords: *Nyctanthes arbor tristis*, plant classification, bacterial diseases, fungal diseases, viral diseases, medicinal value

Introduction

India is the one of the Asian country, and their peoples are very prone to have bacterial, fungal as well as parasitic infections because the some peoples of India have money problem and can't afford various costly allopathic drugs and some people also have a various side effects due to allopathic drugs. WHO is also worried about the intestinal worms infection to reduce its cases because these worms infections are mostly occur in children's below 12 years and there are various times child is die due to immature immunity and lack of availability of suitable drugs as well as hygiene. So here we produce a report to treat the intestinal worms with the leaf of '*Nyctanthes arbor-tristis*'. Apart from Parasitic infection various bacterial diseases like bacillary dysentery and rheumatoid arthritis is also treated with the leaves of *Nyctanthes arbor-tristis* and few fungal infections like eczema and candidiasis is also treated with the leaves of *nyctanthes arbor tristis*. Harsingar is usually known as Parijat and Night Jasmine. It is perhaps the most helpful conventional restorative plants in India. Different pieces of the plant like seeds, leaves, blossoms, bark, and organic product have a few therapeutic properties and utilized in the society cure. It is utilized in Ayurveda, Sidha, and Unani frameworks of medications. Customarily, entire plants and various parts have utilized as a home grown solution for treating sciatica, joint pain, and jungle fever, growth of spleen and as blood purifier. As per Hindu folklore Parijat is wonderful tree brought to earth by Lord Krishna. Its branches have seven down to eight petals organized on an orangish red stem which sprouts at the evening so it is usually known as Night Jasmine. *Nyctanthes Arbor-tristis* is stacked with useful characteristics and is local to South East Asia and found in overabundance in West Bengal, India and furthermore in Kanchanaburi area in Thailand. Plant is a little tree or a bush developing up to 33feet tall with a dark flaky bark. The leaves are very unpleasant wide with edge. The product of the plant is round to heart molded case of 2cm breadth and brown in shading. *Nyctanthes arbor-tristis* (regularly known as Night-blossoming Jasmine), having a place with the family Oleaceae, is known for its broad customary restorative use by the provincial, predominantly ancestral individuals of India alongside its utilization in Ayurveda, Sidha, and Unani frameworks of medicines [8].

Traditionally, entire plants and various parts have utilized as a natural solution for treating sciatica, joint pain, and intestinal sickness, development of spleen and as blood purifier. The wonderful white blossoms are unpleasant in taste and are utilized as stomachic, carminative, astringent to inside, against bilious, expectorant, hair tonic and in the treatment of heaps and different skin diseases [9]. Recent pharmacological examinations showed hostile to convulsive, cancer prevention agent, anthelmintic, cytoprotective, against diabetic, against leishmanial, CNS depressant action of the bloom extract [9].

Classification of plant

Class: Eudicots

Division: Angiosperm

Family: Oleaceae

Genus: *Nyctanthes*

Kingdom: Plantae

Order: Lamiales

Species: *Nyctanthes arbor-tristis*

Leaf appearance

Leaves are opposite, 5 -10 by 2.5 – 6.3 cm, ovate, acute or acuminate, entire or with a few large distant teeth, short bulbous hairs rounded or slightly cuneate, main nerves few, conspicuous beneath, petiol 6cm long, hairy. Leaves are simple, petiolate and exstipulate. The lamina is ovate with acute or acuminate apex, the margin entire or serrated, somewhat undulated, particularly near the base, the upper surface dark green with dotted glands, and the lower surface pale green and softly pubescent. *N. arbor tristis* venation is unicostate, reticulate with an average of 12 lateral veins leaving the midrib. The petioles are about 5-7.7–10 mm long with adaxial concavity.



Fig 1: Showing the leaves of *Nyctanthes arbor-tristis*

Chemical leaf composition of leaves

Leaves of Harsingar have Leaves contain mannitol, astringent, resinous substances, ascorbic corrosive, shading matters, sugar and hints of a slick substance, tannic corrosive, methyl salicylate, carotene, a shapeless gum and hints of unstable oil. Leaves bits yield 12-16% of the light yellow brown fixed oil, which comprises of glucosides of linoleic, oleic, lignoceric, stearic, palmitic corrosive and bsitosterozl. Three new benzoic esters of Loganin and 6- β -hydroxyloganin, to be specific arborside-A, arborside-B, and arborside-C were viewed as present in the leaves. Leaves likewise contain the alkaloid nyctanthine alongside nannitol, β Amyrin β -Sitosterol, hentriacontane, benzoic corrosive, astragalol, nicotiflorin, oleanolicacid, nyctanthic corrosive, friedelin and lupeol.

Geographic distribution

Harsingar is local to India. It is appropriated broadly in sub-Himalayan areas and toward the south to Godavari. It is additionally found in Bangladesh, Indo-Pak subcontinent and South-East Asia, tropical and sub-tropical South East Asia. Its generally observed Indian states Assam, Bihar, Orrisa, Himachal Pradesh, Madhya Pradesh, Gujrat, Uttarakhand and Uttar Pradesh. Parts utilized for Treatment reason: Leaves.

Medicinal uses of *Nyctanthes arbor-tristis* leaves

From top to bottom all parts of this plant have a medicinal values but leaves have more medicinal value compare than the others like:-

The leaves of the Harsingar plant have been used to treat a different kind of fevers, cough, arthritis, worm infestation, etc. The leaves juice is bitter and works as a tonic. The kadha or decoction is excellent for arthritis, constipation, worm

infestation. Ayurveda doctors suggests that decoction of Parijat leaves are excellent for relieving arthritis and sciatica. It cures various nauseous types of fever including malaria, dengue, and chikungunya fevers. It Recent studies suggest that Parijat leaf and bark extract are very useful to ameliorate fever instantly helps to increase platelet count in dengue and chikungunya fever.

Benefits of *Nyctanthes arbor-tristis*

Harsingar plant display various restorative qualities like enemy of unfavorably susceptible, antibacterial (14), antiviral, mitigating (15), against diabetic, antipyretic (22), normal purgative, antihistaminic, antioxidant(13), fantastic bronchodilator, and so forth because of presence of referenced phytochemical parts the plant is exceptionally valuable in various medical conditions. It is broadly utilized in treatment of Bronchitis, joint inflammation, Asthma, hack, acid reflux, queasiness, Sciatica, Rheumatism, obstruction and so on It diminishes expanding because of its calming action; safeguard the switch as a decent hepato-defensive specialist. The leaf is useful in diminishing dopamine and builds the serotonin level appearance CNS depressant movement. The leaves decoction has huge headache medicine like property accordingly accommodating to deal with the fever while leaves are mostly great for skin and hair.

Adverse effects of *Nyctanthes arbor-tristis*

If it is given in suggested portion no after effect is known except for now and again leaf admission might make queasiness and spewing due its harsh taste. It can diminish the glucose level in diabetic patient so screen the sugar level. It is seen in a few clinical investigations for intense harmfulness and high portion can have adverse consequences.

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Conflict of interest

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Ethics statement

Not Applicable

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