

A REVIEW ON PHARMACOLOGICAL STUDIES ON *NEOLAMARCKIA CADAMBA*

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ABSTRACT

Neolamarckia cadamba, belonging to Family (Rubiaceae) is Ayurvedic remedy used for medicinal purpose throughout the world. This plant has been used for application in the treatment of various ailments like, Curing diabetes, diarrhea, fever, inflammation, cough, Mouth ulcers, Blood related diseases, Glycosuria, UTI, Pimples. This Article discusses the pharmacological action such as Anti-diabetic, Antioxidant, Antimicrobial, Anthelmintic activity, Antihepatotoxic effects, Antilipidemic, Anti-inflammatory etc.

KEYWORDS: Vernacular names, Botanical description, Medicinal uses, Pharmacological activities.

INTRODUCTION

There are various Ayurveda plants which being used for medicinal purposes in the course of recent hundreds of years to cure the ailments. Ayurvedic science is profoundly established in India and its adjoining nations. It was grown even before the middle age time frame, when individuals had little information on science.^[1] Neolamarkia cadamba Syn. A. indicus, Anthocephalus cadamba (Family-Rubiaceae) normally called Cadamba appreciates a blessed situation in Ayurveda-an Indian native arrangement of medication. It is additionally named as Kadam. The tree is a medium to huge

measured deciduous tree achieving a tallness of 20-30 m and a bigness of around 2-3 m with barrel shaped branches and adjusted crown.^[2] The plant has accounted for to have tonic, impactful, sweet, astringent, febrifugal, mitigating, stomach related, carminative, diuretic, expectorant and antiemetic properties and is given to treat the fever and irritation And also shows some pharmacological activities such Anti-diabetic, Antioxidant, Antimicrobial, Anthelmintic activity, Antihepatotoxic effects, Antilipidemic, Anti-inflammatory etc.

Vernacular names

Scientific Name: *Neolamarkia cadamba* Family (Rubiaceae).

India	Kadambah and Priyaka Wild Cinchona
Malayalam	Attutekka, Katampu
Indonesia	Jabon
Cambodia	Thkoow
Malaysia	Kalempayan
Kannada	Kadamba mara, Kadavala
Hindi	Kadamb, Kadam
Common Name	Kadamb, Kadam

Botanical description^[4-5]

Bark	dark brown, roughish with longitudinal fissures	Leaves	Coriaceous, entire margin, elliptical-oblong and ovate, pulvinus base.
Flowers	Small, yellow and Orange color	Fruits	Fleshy and orange.

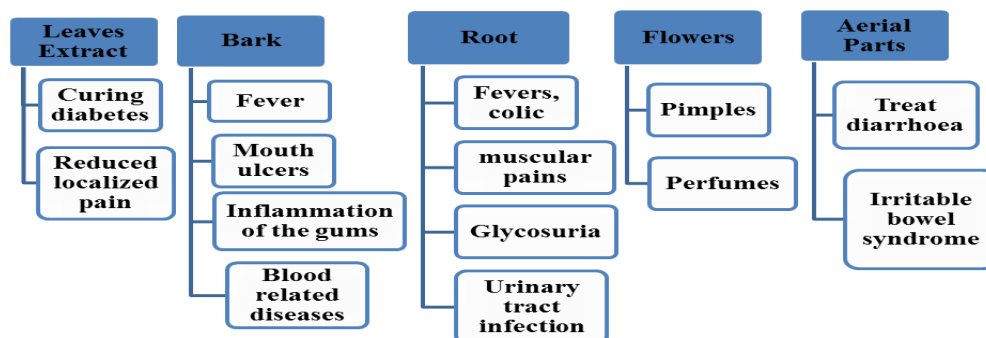


Figure 1: Medicinal Uses of *N. Cadamba*.

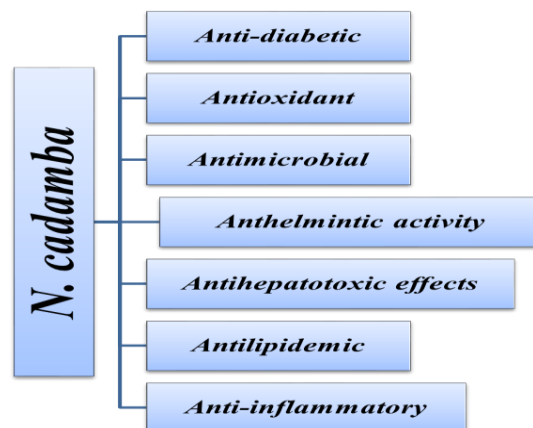


Figure 2: Pharmacological activities of *N. cadamba*.

Medicinal Uses of *N. Cadamba*^[6-9]

The traditionally medicinal uses of *N. Cadamba* show in figure no.01.

Pharmacological activities of *N. cadamba*

The pharmacological activities of *N. cadamba* has shown in figure no.02 and briefly discussed following are:-

Anti-diabetic

Antidiabetic capability of methanolic concentrate of *N. cadamba* are caused critical decrease in the blood glucose level in both normoglycemic and alloxan prompted diabetic Wistar rat skinned person rodents in a portion subordinate way, with methanol separates indicating comparable decrease to the standard medication glibenclamide and preferable impact over watery concentrate.^[10]

Antioxidant

The root extract of *Neolamarckia indicus* restrained the age of superoxide anions and hydroxyl extremists, in both enzymatic and non-enzymatic frameworks under in vitro conditions. Root separate repressed the development of OH[•] in enzymatic arrangement of hypoxanthine-xanthine oxidase and Fe⁺², and furthermore hindered the OH[•] intervened arrangement of 2, 3-dihydroxybenzoate in fixation subordinate way. The *N. cadamba* natural product hydro ethanolic extract diminished the degrees of thiobarbituric corrosive receptive substances, a lipid peroxidation item, and expanded the movement of the cell reinforcement

chemicals, for example, peroxidase and catalase bringing about the decrease of oxidative pressure in alloxan instigated diabetic rat.^[11] The antioxidant impacts may help in forestalling the oxidative adjustments of different crucial biomolecules, including lipids and proteins, and along these lines defer different pathophysiological conditions.^[12]

Antimicrobial

N. cadamba separates contain flavonoids, alkaloids and terpenes and presence of these optional metabolites may be answerable for restraint of microbial development. Antimicrobial action of leaves has been abused well as it has been utilized generally to cover bruises and wounds and used against the illnesses like roughness of throat, eye contamination and skin illnesses.^[13]

Anti-inflammatory

The methanolic concentrate of *N. cadamba* organic products as far as insurance of human erythrocyte against hypotonic arrangement and warmth actuated lysis of human erythrocyte was practically like the standard medication acetyl salicylic acid for membrane stabilizing activity.^[14] The leaf methanol extract had huge layer settling activity on human red platelet film and plant concentrates can offer huge assurance against unsafe substances and accordingly inspire calming properties.^[15]

Antilipidemic

N. cadamba root and natural product separate at different dosage was concentrated in hyperlipidemic grown-up

male Charles Foster rodents, and both the concentrates applied a lipid-bringing down impact as evaluated by inversion of plasma levels of complete cholesterol, phospholipids, and fatty substance following reactivation of the post-heparin lipolytic movement. Root extricate diminished complete cholesterol and fatty oils level in a way that is better than natural product remove, while organic product separate have better inversion of phospholipid.^[16]

Antihepatotoxic effects

N. cadamba have been accounted for to be utilized for its hepatoprotective Activity because of the presence of chlorogenic corrosive (CGA) disconnected from Neolamarckia cadamba found in mice at a different ratio hence showed a preferable liver defensive activity over silymarin (SM), in CCl₄ managed mice. The antioxidative action of CGA is liable for its hepatoprotective nature. CCl₄ is utilized as a model of liver injury.^[17]

Anthelmintic activity

Aqueous concentrates/extract or of develop bark of Neolamarckia cadamba has been accounted for its anthelmintic action against night crawlers, tapeworms, and roundworms.^[18]

CONCLUSION

This Review study revealed that Ayurvedic plants expanded throughout the world recently. Though N. Cadamba has various traditionally and pharmacological activities which help for various biotechnological techniques, innovative drug delivery study and toxicological studies. The work should likewise be possible toward this path to guarantee free utility of the plant.

Disclosure Statement

There are no conflicts of interest.

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