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Review Article

NYCTANTHUS ARBORTRISTIS – PARIJATA

A NATURAL REPOSITORY

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ABSTRACT

Parijata (*Nyctanthus arbortristis*) commonly known as night jasmine, a wonderful plant is described in Ayurveda with its enormous medicinal value. It is mostly found in subtropical Himalayas of Nepal and southern parts of India and widely cultivated in tropical and subtropical regions in all over the world other than parijata.it is popularly known as Harshinghar different parts of this plant are used for various medical purposes. Its leaves has broad spectrum medicinal uses such as anti -bacterial, anti –helminthic, anti-pyretic, anti-inflammatory effects. The description of habitat, morphology, etymology, traditional pharmacology, therapeutic dose etc..., scientific classification, family, genes characters, vernacular names, habit and habitat, ethno-botanical use pharmacological activity, chemical constituents. Cultivation and propagation etc..., are also described in the literacy study authors are hopeful, the article will help research of Ayurveda as well as in other field of bio medical sciences to explore more about the said plant for the benefit of society.

Keywords: Parijata, Nyctanthus arbortristis, Ayurveda, Night Jasmine.

INTRODUCTION

Ayurveda, world most ancient healing heritage uses the plant kingdom since its inception both for diet and medicines as when required ancient acharyas have felt enormous therapeutic potentiality of each and every plant on being their different species having therapeutic predominance in certain disease conditions like chronic fever and warm infections.

Taxonomical classification

Kingdom	Plantae		
Order	Lamiales		
Family	oleaceae		
Genus	Nyctanthes		
Species	N.arbor-tristis		

Synonyms and their significance

- 1. Raga-puship : Its flower have very beautiful and Attractive colours.
- 2. shephalika : plenty of honey bees reside on tree.
- 3. khara-patraka : Its leaves are rough in nature.

- 4. Naala-kunkuma : corolla tube is orange in colour.
- 5. Hara-singhaara : Lord hara is decorated by parijat Puspha.
- 6. Rakta-kesara : Red colour corolla.

Local names

- 1. Hindi name : Har singar
- 2. English name : Night jasmine
- 3. Bengali name : Shefalika, shivuli
- 4. Marathi name : parijath
- 5. Telugu name : parijathamu
- 6. Tamil name : Majjapu
- 7. Gujarathi name: Harshanagar
- 8. Kannada name : parijatha

Geographical source/Habitat

✓ Night jasmine native to the sub-tropical Himalayas of Nepal and India.it is more found in southern parts of India and south-east Asian countries such as Thailand,Malaysia and Indonesia¹

- ✓ In the native area night jasmine is found on rocky ground in dry hill sides, and as under growth in dry deciduous forest
- ✓ It is cultivated in tropical and subtropical regions all over the world from sea level up to 1500m attitude at the equator, with in a wide range of rain fall patterns, from seasonal to non-seasonal
- ✓ It is easily propagated through seeds and cutting parts.it grows well In any soli except water logged areas
- ✓ Night jasmine is often planted near Hindu temples in India and Sri Lanka as well as Malaysia and Indonesia.²



Fig. 1: Flowers of Nyctanthus arbortristis

Plant parts used/uses

Leaf, bark, seeds and flowers³⁻⁵.

Bark

- ✓ Used as tanning material.
- ✓ Part of the bark is applied over the surface affected with eczema and ring worm.
- ✓ Used in eye diseases and ulcers.

✓ Bark decoction is used for bleeding gums.

Leaves

- ✓ It is used for polishing the ivory also used like sand paper to polish wood.
- ✓ Fresh leaves are used in the preparation of homeopathic medicines.
- ✓ To treat malarial fever.
- ✓ Fresh juice of leaves are given to treat sciatica.
- ✓ Dried leaves powder is used to treat Asthma.
- ✓ In case of snake poisoning, the juice of leaves of leaf is administered.
- ✓ In cold infusion of the leaf is given to treat difficulty in micturition

Seeds and Flowers

- ✓ Flowers are used to treat hepatoprotective,anti-leishmanial,immune stimulant,anti-viral and anti-fungal activities.
- Used medicinally to provoke menstruation.
- ✓ Used to treat Antidote.
- ✓ Flowers are bitter and astringent it is used in ophthalmic diseases and as carminative.
- ✓ And also used for remittent fever and rheumatism.
- Past of the seeds is applies over the area of affected with alopecia.
- ✓ Flowers are used to prepare perfumes and scents after distillation.

Dose

For Swarasa (Juice): 10 - 20ml For Churna (Powder): 1-3gm For Kwatha (Decoction): 50-100ml

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Phytoconstituents	Pet.Ether extract	Chloroform extract	Ethanol extract	Aqueous extract	
Alkaloids	-	+	+	-	
Saponins	-	-	-	-	
Glycosides	-	-	+	+	
Carbohydrates	-	-	+	+	
Tannins and phenoliccompounds	-	-	+	+	
Flavonoids	-	-	+	+	
Phytosterols	+	-	-	-	
Proteins and amino acids	-	-	-	+	
Triterpenoids	-	-	-	-	
Fixed oils and fats	+	-	-	-	
Gums and mucilage	-	-	+	+	

Preliminary Phytochemical Studies

Chemical constituents⁶⁻⁹

- 1. D-mannitol
- ✓ Mannitol is an organic compounds.
- ✓ Mannitol is used clinically to reduce acutely raised intra cranial pressure and used as an osmotic diuretic agent and a weak renal vasodilator.

2. Tannin

✓ Tannins are astringent, bitter plant, polyphenols that either bind and precipitate or shring problems and various other organic compounds including amino acids and alkaloid.

3. Linoleic acid

- ✓ Linoleic acid is an unsaturated omega 6 fatty acid.It is a color less liquid, beneficial in cystic fibrosis, cancer prevention, dermatitis and diabetes.
- ✓ Research activities prove the linoleic acid acts as acne reductive antiinflammatory and protective properties when applied topically on to the skin.

Medicinal Properties and Uses

To alleviate pain and inflammatory

Many Ayurveda medications use the parijata essential oil to help with pain,irritation and swelling associated with health conditions like arthritis,stress,muscle tension,rheumatism and sore muscles too.It can also be used to relieve menstrual pain, headaches,sciatica,and joint aches.

Along with these,

- ✓ The leaves are bitter and pungent in taste. It is used to treat fever, fungal skin, infection also used as antibacterial, anti-inflammatory and antihelmentic. Bitter leaves extract is given to children for the expulsion of roundworms and threadworms.
- ✓ It is used in treatment of bronchitis and also as an antidote to snake bite.
- ✓ The bark of this tree is used in eye diseases, ulcers and bark decoction is used for bleeding gums.
- ✓ The seeds, leaves, flowers of Nyctanthus arbortristis possess hepato-protective, anti-leishmanial, immune-stimulant, antiviral and antifungal activities.
- ✓ It cures dandruff and prevents hair from turning grey.

CONCLUSION

For each and every illness, the remedy was already designed by nature and it is our time to explore natural resources for human welfare. As the current advancements are highly related to the synthesized products, side effects and other adverse events follows. Hence there is a need for reversal mechanism which act for a better remedy. This is possible with herbal plants as they have less side effects and high medicinal values. Encouraging the formulations related to herbal products will enhance the sustainability of healthy society.

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CONFLICT OF INTEREST

We declare that we have no conflict of interest.

REFERENCES

- Champa rani. Nyctanthus arbortristis Parijata a natural repository, Indian Journal of Traditional Knowledge. 2012;11(3):427-435.
- Pushpendra Kumar Jain and Arti Pandey. The wonder of Ayurvedic Medicine – Nyctanthes arbortristis International Journal of Herbal Medicine. 2016;4(4):09-17.
- 3. Vats M, Sharma N and Sardana S. Antimicrobial activity of stem bark extracts of Nyctanthes arbortristis Linn. (Oleaceae) Inter Nyctanthes arbortristisional. Journal of Pharmacognosy and Phytochemical Research. 2009;1:12-14.
- 4. Jain R and Mittal M. A review on pharmacological and chemical documentation of Nyctanthes arbortristis Linn. Asian Journal of Traditional Medicine. 2011;6(5):187-02.
- 5. Abraham A. Anti-anxiety evaluation of Nyctanthes arbortristis Lin. Indian journal of Phytoconstituents. 2010;6:77-79.
- 6. Abhishek Kumar Sah. Phytochemicals and Pharmacological Potential of Nyctanthes arbortristis Inter Nyctanthes arbortristisional. Journal of Research in Pharmaceutical and Biomedical Sciences. 2012;3(2):34-37.
- Suresh. Pharmacognostical and Preliminary Phytochemical studies of bark of Nyctanthes Arbor – Tristis Linn.Inter Nyctanthes arbortristisional. Journal of Pharmacy and

Pharmaceutical Sciences. 2012;4(1):45-47.

- 8. Champa Rani. Nyctanthes arbortristis Linn (Night Jasmine): A Scared Ornament Plant with Immense Medicinal Potentials. Indian Journal of Traditional Knowledge. 2012;11(3):427-35.
- 9. Das S, Sasmal D and Basu SP. Antispasmodic and antihelmintic activity of Nyctanthes arbortristis Linn. Inter Nyctanthes arbortristisional.

Journal of Pharmaceutical Sciences and Research. 2010; 1:51-55.

- 10. Divya Paikara. Phytochemical Analysis of leave extract of Nyctanthes arbortristis. J Environmental Science, Toxicology and Food Tech. 2015;1(3):39-42.
- 11. Shinde PR, Sali VA, Patil PS and Bairagi VA. Assessment of pharmacognostic, phytochemical and antibacterial potential of fruit of Nyctanthes Arbor-Tristis Linn. Journal of Pharmacognosy and Phytochemistry. 2014;2(6):203-12.