



Medicinal uses and Pharmacological activity of Mothirakanni (*Hugonia mystax* Linn). – A Review

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ABSTRACT

Hugonia mystax Linn. belonging to family Linaceae, commonly known as *Mothirakanni*. It is a rambling leafy tomentose climbing shrub found in low country, especially in dry regions of Sri Lanka and throughout the world, with a multitude of uses in traditional medicine. Review of literature revealed less work on this plant; hence the Sri Lankan traditional practitioners are using this plant to treat the poisonous bites. *Mothirakanni* is effectiveness in treating to reduce inflammatory tumours, snake bite, fever and worm infestation. *Hugonia mystax* is an anthelmintic, febrifuge and Antidote. In this paper general medicinal uses, Pharmacological activities and phytochemistry of the plants have been revised.

Keywords: *Mothirakanni*, *Hugonia mystax* Linn., Medicinal uses, Pharmacological activity

INTRODUCTION

Hugonia mystax Linn. belonging to family Linaceae, commonly known as Mothirakanni. It is a rambling leafy tomentose climbing shrub found low country, especially in dry regions of Sri Lanka and throughout the world, with a multitude of uses in traditional medicine². Mothirakanni is most well – known for its effectiveness in treating to reduce inflammatory tumours, snake bite, fever and worm infestation¹. *Hugonia mystax* is an anthelmintic, febrifuge and Antidote^{1,5}. It has been used for eras with much success to treat poisonous conditions. In the form of a powder it is administrated internally as an anthelmintic and febrifuge. Bark of the root is also employed as an antidote to poison¹. Ethnobotanically, the stem bark is used for stomach pain, vomiting and indigestion.⁶

1. Vernacular names

Tamil	: Mothira kanni, Mothira konnai, Arure
Sanskrit	: Kamsamara
Sinhala	: Maha – getiya, Bu- getiya
English	: Climbing flax
Telugu	: Venoapa
Malayalam	: Modera – kanni

2. Plant description :

Hugonia mystax Linn. belongs to the medicinal family Linaceae. It is a scrambling shrub, with – spreading, yellow – tomentose branches set with short, horizontal twigs leafless below and provided at the end with a pair of nearly opposite, woody, reflexed, circinate, tapering, tomentose spines in the axils of

the two lowest leaves or scales; leaves alternate, on the main branches distant, on the lateral twigs crowded at their ends, 1 – 4 in, variable, oval or oblong – oval or obovate – oval, tapering to base, obtuse, entire or somewhat dentate, glabrous, thin, with reticulate venation prominent on both sides, petiole very short, stip. conspicuous, setaceous, persistent; flower rather large, 1 – 1 ¼ in, on woody petals as long as sepals., in axils of the crowded leaf at end of twigs; outer sepals. lanceolate – oblong, tomentose, obtuse; petals. Many times longer than sepals., oblong – oval, acute or truncate; styles longer than stamens, stigmas capitate; drupe nearly globose, ½ in., supported on persistent sepals, pulp scanty, stone bony, grooved, 10 celled, with usually 2 or 3 seeds.^{2,3}



**Hugonia mystax Linn
(Mothirakanni)**

3. Phytochemistry

Stem:

Totally 62 chemical compounds were identified. Di-n-octyl phthalate (24.32%), 2-methyl-7-nonadecene (20.83%), α -D-Glucopyranoside, methyl

(21.10%) were major constituent with the biological activities like antimicrobial, antifungal and antioxidant activity present in the stem extracts⁵

Bark:

Twenty compounds were identified. 2- Furan carboxaldehyde, 5-(hydroxyl methyl) - (27.64%), α -D-Glucopyranoside, methyl, (15.00%), n-Hexadecanoic acid (14.69%), 9,12-Octadecadienoic acid (Z,Z)- (7.24%), Oleic Acid (7.03%), Benzaldehyde, 2-hydroxy-6-methyl- [Synonyms: 2,6-Cresotaldehyde] (6.79%), Benzofuran, 2,3-dihydro-[Synonyms: Coumaran] (5.25%), Octadecanoic acid (2.24%), 1-Docosene (1.69%) and Stigmastan-6,22- dien, 3,5-dihydro- (1.49)⁶

Leaves:

Carbohydrates, flavonoids, steroids, tannins, saponins, terpenoids, and absences of alkaloids, proteins and amino acids⁷

4. Pharmacological activity

Anti-inflammatory, Antimicrobial, Antioxidant, cancer prevention, Nematicide, Hypo-cholesterolemic, Anti-tumour, Immuno-stimulant, Diuretic^{1,4,5,6,7,8}

5. Medicinal uses

Bruised roots are employed externally in reducing inflammatory tumours and as an antidote to snake bites^{1,3}. Roots were used as anthelmintic, astringent and also used for dysentery, fever, inflammation, and rheumatism^{5,7}. Form of a powder it is administered internally as an anthelmintic and febrifuge¹. Bark of the root is employed as an antidote to poison¹. Used for skin diseases by the

traditional healers of Tiruvannamalai hills, Tamil nadu⁵. Ethnobotanically, the leaves are used for anthelmintic and rheumatism⁵. Ethnobotanically the bark is made in to a decoction with Curcuma aromatic and is given with honey for inflammations in stomach, vomiting, stomach pain, indigestion⁸. The aerial parts used as herbal remedies for diabetes⁸.

CONCLUSION

Review of literature revealed less work on this plant, hence *Hugonia mystax* possesses numerous biological activities proved by many experimental studies. It denotes a class of herbal drug with strong theoretical or traditional base as a strong experimental base for its use. Thus, this plant has great potential for Rheumatism, Anthelmintic, Anti-inflammatory, anti tumour and antidote activities, but before recommending it for clinical use in these conditions, there is a need to conduct clinical trials and prove its clinical utility.

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