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Review Article

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 revived.

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 medicine [2]. Mothirakanni is most well – known for its effectiveness in treating to reduce inflammatory tumours, snake bite, fever and worm infestation[1]. 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 poison[1]. Ethnobotanically, the stem bark is used for stomach pain, vomiting and indigestion.[8]

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 crowed 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 leave 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]

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 extracts[8]

Bark:

Twenty compounds were identified. 2- Furan carboxaldehyde, 5–(hydroxyl methyl) – (27.64%), à-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 acids[7]

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[9,3]. Form of a powder it is administered internally as an anthelmintic and febrifuge[1].Bark of the root is employed as an antidote to poison[1]. Used for skin diseases by the

traditional healers of Tiruvannamalai hills, Tamil nadu[5]. Ethnobotanically, the leaves are used for anthelmintic and rheumatism[5]. Ethnobotanically the bark is made in to a decoction with Curcuma aromatic and is given with honey for inflammations in stomach, vomiting, stomach pain, indigestion[8].The aerial parts used as herbal remedies for diabetes[8].

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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