JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue
JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)
An International Scholarly Open Access, Peer-reviewed, Refereed Journal

''A NCIENT DRUG REVIEW ON *BLEPHARIS EDULIS [UTINJAN BEEJ]*''

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ABSTRACT-

The present highlight the comprehensive ethano-medicinal uses of Blepharis edulis ,, to enlighten its phytochemical constituents and pharmacological uses which may useful in various types of diseases. *Blepharis* is a genus of plant in family Acanthaceae and it contains around 126 species found in seasonally dry to arid habitats. It has been recognized by the *Utinjan, Otigan, Utagan,* and *Chatushpatri* in Hindi, Gujarati, Marathi, and Sanskrit respectively Blepharis edulis is an erect to prostrate, annual to perennial plant. It grows up to 50cm tall. This is an exceedingly variable species and plants in dry places. It is sometimes gathered from the wild for its edible seed. *Blepharis edulis, Pers.* belongs to family Acanthaceae and conventionally used as a purgative, antimicrobial, anti-inflammatory and aphrodisiac agent. Present research was conducted to scrutinized the phytochemicals present in *B. edulis* and also explore its biological properties.

KEYWORDS-*Acanthaceae ,Uttanjan, Sunishannaka ,Diuretic, Aphrodisiac,Uses*

INTRODUCTION-

Medicinal plants have been defined in the most accepted definition as given by the Agricultural and Natural Resource Development being, "Plants that are recognized by people to have reliable and effective medicinal values, are commonly used in treating and preventing specific ailments and diseases, and play an essential role in health care".India has been conventional towards traditional medicine and ethnopharmacology for practice. Remarkably, the formulations of Indian traditional medicine have been mixtures of multi-component and their therapeutic uses have been based upon practical skills rather than a mechanism of active ingredients of a mixture [1]. The traditional system like *Ayurveda* and the innovative approach of predictive, protective, and personalized medicine (PPM) have a resemblance between their relationship [2]. European Union rightly considered PPM because of the core of its strategy [3]. More than 1500 herbals are sold as nutritional supplements and/or traditional medicines [4]. *Blepharis* is a genus of plant in the family Acanthaceae and contains around 126 species found in seasonally dry to arid habitats. In *Blepharis* genus *Blepharis persica* is well-known plant which is recognized as a *utingan* in *Ayurveda* and the wealth of India. The leaves are reportedly useful in wounds, asthma, throat inflammation, disorders of liver and spleen, and as a beneficiary in *mutrakruccha* and dysmenorrhoea.[5] Seeds of *Utingan* have been useful in *Mutrakruccha* (dysuria), *Svasa, Kasa*; in *Vajikaran*, and useful in strangury and eye disorder. The present review is about one of the lesser well-known plant of *Blepharis* genus; *Blepharis maderaspatensis* (L.) B. Heyne ex Roth which is known for its similar uses as *Blepharis persica* like the juice of leaves have been administered for throat troubles and asthma; egg albumin triturated with leaves of *Utingan* along with onion applied externally for bone fractures; the whole plant has been beneficiary in urinary problems [5]. *Utinjan. Utingan* is mainly helping to prevent and/or cure inflammation, wound, diabetic wound, ulcer, as an anti-oxidant, anti-hyperlipidaemic type of the diseases.[6,7,8]

The Chinese system of medicine has been considered 5000 years old. Chinese conventional system of medicine is broadly accepted system of medicine about the use of natural extracts. The Materia medica is most historical system of phytochemicals based on wide verities of drug monographs and manuscripts published in 1100 B.C. (Huang, 1998). In 300 B.C the manuscripts and model of Wu Shi Er Bing Fang was published about 52 different diseases. [9,10] It consists of 52 different natural products and 150 various pharmaceutical prescriptions the purpose of practice

was to evaluate the safety, tolerance and effectiveness. In 300 B.C The Shen Nong Ben Cao Jing document also known as Shen Nong Herbal or Shen Nong Materia medica, it was compiled it consist of 365 natural products, medicinally there were 252 important and therapeutically 67 were significant.[11,12] Various pharmaceutical and medicinal and agents which derived from different natural origins have been assessed and evaluated such as *Melia azedarach* (chinaberry seed) which possess an anthelmintic property and *Ephedra sinica*, which used as anti-asthmatic agent and *Coptis chinensis* (coptis root) used to treat diarrhoea. Taai chang was first pharmacopeia issued in 659 AD published in the Chinese traditional medicinal system which comprised of 850 agents. Materia Medica is the modern era of the Chinese Medicinal Encyclopaedia which is considered authentic source of new Chinese medicine. The encyclopaedia comprises 6000 drugs out of which 4800 were obtained from plant origins. (Gurib-Fakim, 2006)[13,14].

MATERIALS AND METHODS-

Different available kinds of literatures like Vanaspati shastra, Flora of Davanagere district, Flora of Saurashtra, the flora of Orissa, Medicinal plants of India. Blepharis edulis is a small, grey-pubescent or nearly glabrous perennial herb. The stem is rigid and prickley. The plant has numerous serrate leaves, which are armed with prickles. The flowers are yellow. The capsules are 2-seeded, seeds are heart shaped, smooth and shining, flattened of a brownish colour 15,16,17.

- **Classical categorization**

Charaka samhita	–	Shukrajanan	Varga
Astanga sangraha	–		Shukrajanan
Adarsha nighantu	–	Vasadi	varga
Dhanvantari nighantu	–	Guduchyadi	varga
Kaiyyadeva nighantu	–	Ousadhi	varga

Systemic classification-[19,20,21]

Kingdom		–		Vegetable
Subkingdom		–		Phanerogamia
Division	–	I	–	Angiospermia
Class	–	I	–	Dicotyledons
Natural order		–		Acanthaceae
Genus		–		Blepharis
Species	– Edulis			

- Common Name Uttanjan, Sunishannaka
- Botanical Name -Blepharis edulis
- Latin name- Blepharis edulis Pers.
- Family- Acanthaceae
- Vernacular names-Names in different languages:
  Hindi name – Utanjana, Uttanjan
  Bengali name – Shushani
  Gujarati name – Utangana/uttingana
  Marathi name – Utangana
  Malayalam name – Karad
  Persian name – Anjar
  Punjabi name – Utangana
  Telugu name – Maneshaklu
- Sanskrit synonyms-Uttingana, Utanjana

Properties, part used, dosage[22]

Medicinal Properties:-

''उटंजनस्य बीजं तु गुरु स्निग्धं सुपिच्छिलम् ।
मधुरं तिक्तमुष्णं च वृष्यं मूत्रलमुच्यते॥ '' (द्र.गु.वि)

Rasa (Taste) – Madhura (Sweet), Tikta (Bitter)
Guna (Qualities) – Guru (Heavy), Snigdha (Slimy)
Veerya (Potency) – Ushna (Hot)

Vipaka – Madhura (Undergoes sweet taste after digestion)
Karma (Actions) – Vatahara (reduces vitiated vata dosha)

Part used- Seeds, Leaf

Dosage-

3 to 6 g of seed powder
10 to 20 ml of leaf decoction

Chemical constituents of Blepharis edulis:

The seed contains Allantonin – 2.1%, Blepharin- a glucoside, Di allantonin, Blepharigenin, B- Sitosterol and D-Glucosoil.

Controversies -

It is one among most controversial drugs in Indian medicinal plant. Bapalal vaidhya Considered Utangana as Ucchata based on its aphrodisiac property. According to P.V Sharma Ucchata cannot be considered as Utangana. He mentions swet gunja for Ucchata.
According to Bhavaprakash it is more convenient to consider Ucchata as swet gunja.According to katipeya Ucchata is swet durvarika.

- **Uses-Medicinal Uses Of Utanjan[23,24]:**
- The seed of Utangana is boiled with milk and consumed to increase the sexual vigor in males.
- The seed powder of Blepharis edulis is used as aphrodisiac in a dose of 2 to 3 g with luke warm milk.
- The paste of the leaf of Utangana is applied over bleeding piles, wounds to control and arrest bleeding.
- The decoction of the leaf of the plant (10-15 ml) is given with goat milk in cases of tuberculosis.

  Cold infusion of the leaf of Blepharis edulis is given in a dose of 30-40 ml to treat hepatitis.

- The fresh leaf of the plant is applied as paste over the skin affected with sun burns and fire.
- The cold infusion of the root and stem of Utangana is consumed in a dose of 30-40 ml to treat burning micturition and urogenital infection.
- Leaves: useful in tridosha fevers, urinary discharges, leucoderma, stop nasal haemorrhage, control asthma, cough and inflammation of throat, mental derangements, leaves are also used in treatment of ascites and liver and spleen disorders. When applied locally they are said to have beneficial effects on wounds and ulcers. Seeds: seeds have the reputation of curing strangury, also beneficial in diseases of the blood, chest, lungs and liver. Roots: regulate menstruation
- **Ayurvedic medicines**-Formulations containing Utangan: **Kumaryasava:** It is a medicine in liquid form used for the treatment of abdominal distention, bloating, respiratory conditions like cough, cold, wheezing, piles etc.

DISCUSSION –

Utangana- Blepharis edulis is an Ayurvedic herb, used for the purpose of treating low sperm count, difficulty in micturition and acts as aphrodisiac. The extracts of plant aerial parts were screened for total phenolic content (TPC) gallic acid equivalents (GAE), total flavonoid compound (TFC) quercetin equivalents (QE), antioxidant capacity and its antimicrobial activity by micro broth dilution assay. The 50%-inhibition values of BHT and 70% (v/v) aqueous ethanol, 70% (v/v) aqueous methanol, methanol, and water extracts of B.edulis according to the DPPH method were found to be 19.6, 71.2, 73.7, 81.4, and 218.4 mg/ml, respectively. TPC ranged from 38.9 to 102.7 mg GAE/g dry extracts. The antimicrobial activity showed that yeast and fungi were sensitive and resistant microorganisms to the extracts. The 70%-methanol extract showed more drastic antimicrobial activity than the others. The antimicrobial activity of ethanolic extract is the same as of the methanolic extract; water extract had the weakest antimicrobial activity. **Aphrodisiac potential:** The present study is aimed to investigate the effect of ethanolic extract of Blepharis edulis Linn. on general mating behaviour, libido, and adverse effects on sexually normal male albino mice. The most appreciable effect of the extract was observed at the dose of 500 mg/kg. The results indicated that the ethanolic extract of Blepharis edulis Linn. produced a significant and sustained increase in hormonal levels of testosterone indication for the sexual

activity of normal male mice without any adverse effects.

CONCLUSION-

Various parts of the *Utingan* have been utilized in different aliment like inflammation, ulcer, wound, diabetic wound. And, pharmacologically it is found that it can be used as an anti-ulcer, anti-microbial, anti-inflammatory, antihypercholesteromic, anti-proliferative, and in wound healing activity due to the presence of the phytoconstituents. However, a clinical study should be necessary to verify and to evaluate its tribal claim in humans. Various species of *Blepharis* were found to be used in traditional medicine systems in African and Asian countries. There are only a few studies on chemical constituents and pharmacological activities of the *Blepharis* plant extracts and isolated compounds from *Blepharis* species. It is therefore important to have a clear idea about the scientific progress on the genus related to its traditional uses, phytochemistry and pharmacological activities to design future studies on these species. Species of the genus *Blepharis* have perceived the attention of researchers for their various uses in different traditional medicine systems.

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