

A SHORT REVIEW ON UN-EXPLORED MEDICINAL PLANT: *ECBOLIUM VIRIDIE*

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ABSTRACT

Medicinal plants are the nature's gift to human being to make disease free healthy life. It plays a vital role to preserve our health. In our country more than 2000 medicinal plants are recognized. *Ecbolium viridie* (Acanthaceae) is one of the important medicinal plant in India and Malaysia. Some of its medicinal uses have been mentioned in traditional system of medicine such as ayurveda, siddha and unani. This review attempts to encompass the available literature of *Ecbolium viridie* with respect to its traditional uses and summary of its pharmacological activities.

Keywords: *Ecbolium viridie*, Acanthaceae, pharmacological activities.

INTRODUCTION

Ecbolium viridie is an erect glabrous herb grows up to 1.3m tall and leaves are large (11.5-15 cm), oblong-ovate or lanceolate, tapering to the base. Flowers are sessile, spikes nearly sessile and present in opposite pairs and 5-25 cm long. Fruits are ovoid and capsule consists of two seeds¹⁻³.

Botanical Study

Description

Common name: Green Shrimp Plant

Tamil: Nilambari

Hindi: Udajat

Malayalam: karimkurunni

Telugu: Nakka toka

Kannada: Kappu bobballi, kappu karni

Sanskrit: Sahacharah

Bengali: Udajati

Classification

Kingdom: Plantae

Family: Acanthaceae

Genus: *Ecbolium*

Species: *Ecbolium viridie*

Chemical Constituents

Leaves, roots and flowers contain orientin, vitexin, iso-orientin, iso-vitexin. They also contain glycoflavones and other flavones (Ghani, 2003).

Medicinal Uses

All parts of the plant are used for gout and dysuria⁴. Decoction of the leaves is given for stricture. Roots are used for jaundice, menorrhagia and rheumatism. Roots and leaves together are used against tumours (Yusuf *et al.* 2009). EtOH (50%) extract of the plant possesses cardiovascular effects (Asolkar *et al.*, 1992).

BIOLOGICAL ACTIVITIES

Anti-microbial activity

Abdel-Sattar *et al* reported the anti-microbial activity of twenty wild plants growing in the western regions of the Kingdom of Saudi Arabia was tested. The methanolic extracts from the aerial parts was determined using the agar diffusion method. Eight microorganisms were used in this study are *Escherichia coli*, *Proteus vulgaris*, *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Sarcina lutea*, *Bacillus subtilis*, *Mycobacterium phlei* and *Candida albicans*. The results revealed that methanolic extract exhibited a significant broad-spectrum antibacterial activity against both Gram-positive and Gram-negative bacteria⁵.

Free radical scavenging activity

Ashok *et al* reported the free radical scavenging activity by employing three different established in vitro methods, such as DPPH radical scavenging activity, Nitric oxide radical scavenging activity and reducing power assay. Total flavonoid content was also determined by colorimetric method. The extract was found to be rich in flavonoid content (78±4.8mg quercetin equivalent/g dry weight of extract) and the data obtained in these three methods (78.25%, 69.79% and 0.2756(absorbance) at 100µg concentration respectively) comparable to standard. This study reveals that the methanolic extract of *Ecbolium viridie* posse's significant antioxidant activity⁶.

Anti-inflammatory activity

K G Lalitha and M G Sethuraman reported the ethyl acetate fraction of *Ecbolium viride* root extract was prepared and administered orally to rats. The anti-inflammatory activity of *Ecbolium viride* was determined by carrageenan-induced paw edema and cotton pellet granuloma models. Oral administration of *Ecbolium viride* extract reduced inflammation significantly (P<0.01) in both the carageenan paw edema and the cotton pellet granuloma models. The results of the study supported the traditional use of *Ecbolium viride* in the treatment for inflammatory disease⁷.

CONCLUSION

In recent years ethno medicinal studies received much attention on natural resources to light the numerous medicines, especially of plant origin which needs evaluation on modern scientific lines such as phytochemical analysis, pharmacological and clinical trials. The reported phytochemical and pharmacological studies on *Ecbolium viride* supports its traditional uses and may prove to be useful for clinical evaluation and development of drugs.

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Fig 1: *Ecbolium viride*