

## Pharmacognosy of a local market sample of parpataka *Polycarpaea corymbosa* (L.) Lam.

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### SUMMARY

*Polycarpaea corymbosa* (L.) Lam. is used in Ayurvedic drugs for the treatment of jaundice, urinary calculi, boils inflammatory swelling and ulcers. The botanical, macro-, microscopic characters, macerate, histochemical studies, powder microscopy and physico-chemical studies have been presented in the paper.

**Key words :** Macro, Microscopical, Macerate, Histochemical, Physico chemical studies

In Ayurveda parpataka is one of the important drug used in fevers particularly. The drug is diuretic, antehelminthic and bitter (Nadkarni, 1996). It is used in the treatment of haemorrhage, thirst and burning sensation (Lakshmiipati, 1973). In spite of its manifold uses the drug remains controversial because several plants are used and sold under the name parpataka in different parts of the country and in local markets. The accepted source of the drug is *Fumaria indica* (Hassk.) Pug. (Anonymous, 1978). Whole plant possess medicinal properties (Sharma, 1983 and Nesamony, 1985). Some of the plants used as parpataka are *Polycarpaea corymbosa* (L.) Lam., *Glinus oppositifolius* (L.) A.DC., *Mollugo nudicaulis* Lam. and its allied species, *Hedyotis corymbosa* (L.) Lam. and its allied species, *Glossocardia bosvallea* (L. f) DC. and *Rungia repens* (L.) Nees. (Chunekas, 1999; and Bapalal Vaidya, 1982).

*Polycarpaea corymbosa* (L.) Lam. is widely distributed in tropics of both East and West hemispheres. Common in fields, waste places and forests, in most districts. The leaves are used in jaundice, also applied as poultice, over boils and inflammatory swellings. (Yoganarasimhan, 1996; and Kirtikar and Basu, 2003). Its uses are similar to *Hedyotis corymbosa* (L.) Lam. in Ayurveda (Yoganarasimhan, 2000). Decoction of the herb is used for curing gastritis and vomiting along with honey.

A perusal of the literature revealed that no pharmacognostical work has been carried out on this taxon

(Gurudeva and Yoganarasimhan, 2009). It is differed from the accepted source. Hence, the present study was initiated to identify the local market sample and analyse its botanical macro-, microscopic and physico-chemical details which helps to differentiate this drug from the accepted sources.

### Taxonomy : (Plate 1):

*Polycarpaea corymbosa* (L.) Lam. Tabl. Encycl. 2: 129. 1792; FBI 1: 245. 1874; Gamble 1: 65 (46). 1915. *Achyranthes corymbosa* L. Sp.Pl. 205. 1753.

Annual erect much branched herbs, up to 30 cm tall, branchlets densely villous or glabrescent. Leaves decussate or in false whorls, linear to subulate. Flowers in axillary/terminal cymes. Flowers 4 mm across, light pink, at length white in colour, calyx campanulate, sepals 5, lanceolate, scarious. Petals 5, ovate – suborbicular, Stamens 5, Ovary globose, 1-celled, ovules a, free central placentation, capsule oblong. embryo curved, rarely straight.

### Herbarium specimen examined: DR 1919. (S.V.U):

The specimen was collected on 23rd November 2006, Japalitheertham of Tirumala Hills, Tirumala, Chittoor District of Andhra Pradesh and it is authenticated with Rangacharyulu (1991) deposited at the Herbarium of S.V.University, Tirupati

### MATERIALS AND METHODS

The herbarium specimen was processed and followed by standard methods (Jain and Rao, 1977) and deposited in the Herbarium, Department of Botany, S.V.University, Tirupati. Macro and microscopical studies were carried out (Johansen, 1940 and Wallis, 1985) during the year 2005.

Physical constants were carried out by standard methods (Kokoski *et al.*, 1958; Chase and Pratt, 1949;

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