

A Potential Herbal Plant- *Asteracantha Longifolia*

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Abstract: *Hygrophila auriculata* belonging to family Acanthaceae; is also known as *Asteracantha longifolia* and commonly known as “*Neermulli, Talmakhana, Kokilaksha & Iksura*” is a common plant growing in marshy and water logged areas. The plant is an important medicinal herb, widely distributed in India and is used for different medicinal purposes. *Asteracantha longifolia* is an important medicinal herb and is used in traditional system of medicine for various ailments like diuretics, jaundice, diopsy, rheumatism, hepatic, obstructions and dissolution of gallstones, kidney stones, liver dysfunction and disease of urinogenital tracts. It contains lupeol, β -sitosterol, stigmasterol, butelin, fatty acids, and alkaloids.

Keywords: *Asteracantha longifolia*, Phytochemistry, Uses.

I. INTRODUCTION

Medicinal plants have played an important role throughout the world in treating and preventing human diseases. The different medicinal plants such as arid zone plants, herbal plants and some shrubs have the potential in the prevention and treatment of human diseases.¹

Hygrophila auriculata belonging to family Acanthaceae; is also known as *Asteracantha longifolia*. The common plant growing in marshy and water logged areas.² *Asteracantha longifolia* is described in ayurvedic literature as *Ikshura, Ikshugandha* and *Kokilasha* “having eyes like the Kokilaor Indian Cuckoo”.^{3,4} *Asteracantha longifolia* is a plant common in India. It is widely distributed throughout tropical and subtropical regions of India. Internally, the plant is used in vast range of diseases.⁵ The plant contains various groups of phytoconstituents, namely, phytosterols, fatty acids, minerals, polyphenols, proanthocyanins, mucilage, alkaloids, enzymes, amino acids, carbohydrates, hydrocarbons, flavonoids, terpenoids, vitamins, and glycosides. The parts of this plant are widely used in traditional medicine for the treatment of various disorders, which include anasarca, diseases of the urinogenital tract, dropsy from chronic Bright's disease, hyperdipsia, vesical calculi, flatulence, diarrhea, dysentery, leukorrhea, gonorrhoea, asthma, blood diseases, gastric diseases, inflammation, cancer, rheumatism, painful micturition, menorrhoea. It is also scientifically proved to have a variety of pharmacologic functions, which indicate its usefulness in the treatment of different types of diseases and disorders.⁶ The plants has been used in several ayurvedic preparations-Lukol, speman, confindo etc.⁷ Seeds of *A. longifolia* are an important component of many traditional/herbal formulations because of their scientifically evaluated therapeutic potential.⁸



Synonym: *Hygrophila auriculata* (Schumach.) Heine.
Hygrophila spinosa T. Anders.

Geographical source: The plant is widely distributed throughout India, Srilanka, Burma, Malaysia and Nepal.

Vernacular names:

Sanskrit: Iksura;

Bengali: Kuliyaakhara;

Gujarati: Ekharo;

Hindi: Talmakhana;

Malyalam: Nirmuli;

Marathi: Talimakhana;

Tamil: Golmidi

Urdu: Talmakhana.⁹

II. MORPHOLOGY OF ASTERACANTHA LONGIFOLIA

Kokilaksha is a small plant growing to a height of 3-5 feet with small thorns or hairy parts all over the plant. The stem resembles to that of sugarcane. The flowers of the plant are of purple color. The seed are black in color and it swell and becomes slimy when it comes in contact with water or saliva. Flowers and the fruits are seen in the month of September to November. The plant is found all over India near water source, fields and marshy land.¹⁰

III. GENERAL DESCRIPTION

It is a spiny, stout, annual herb, common in water logged places. Leaves subsessile, oblong-lanceolate or linear lanceolate, spines yellowish brown, 2-3 cm long, Flower yellowish brown, fruit two celled, linear oblong, compressed about 8 cm long, pointed, 4-8 seeded. Seed ovate, flat or compressed, 0.2-0.25 cm long and 0.1-0.15 cm wide, hairy but appearing smooth; when soaked in water immediately get coated with mucilage, light brown: taste slightly bitter and odour not distinct.¹¹

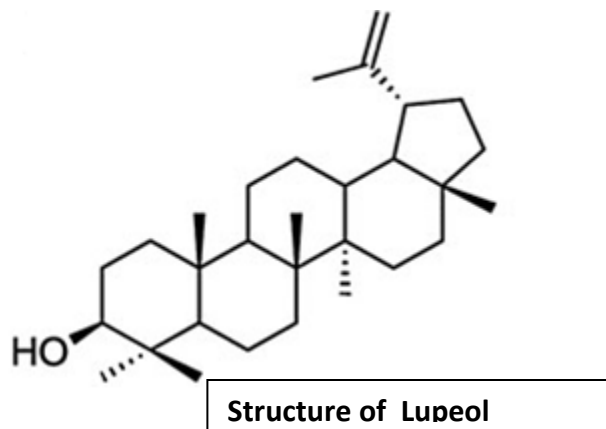
IV. PHYTOCHEMISTRY

Phytochemical studies have shown that the different parts of the *Asteracantha longifolia* have different chemical constituent. They are as follows:-

The whole plant contains – Lupeol, β -sitosterol, Stigmasterol, Isoflavone glycoside, alkaloid and small quantities of uncharacterized bases.

The seed contains- 1. Aasterol I, II, III, and IV, 2.Asteracanthine, 3.Asteracanthicine, 4.Amino acids- histidine, lysine and phenyl-alanine.

The fresh flowers contains- Apigenin – 7- O - glucoside.¹²



V. TRADITIONAL USES

The whole plant, roots, seeds, and ashes of the plant are extensively used in traditional system of medicine for various ailments like rheumatism, inflammation, jaundice, hepatic obstruction, pain, urinary infections, oedema and gout. It is classified in ayurvedic system as seethaveeryam,

mathuravipaka and used for the treatment of premeham (diabetes), athisaram (dysentery) etc.¹³

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