

## Micromorphological Studies On Rhizome Of *Corallocarpus Epigaeus* Benth. ex Hook. f.

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**Abstract:** Rhizome of *Corallocarpus epigaeus* Benth ex Hook. f, Cucurbitaceae were studied and detailed pharmacognostical evaluation was done. The synonym of this plant is *Bryonia epigaea*. It is commonly called as Indian Bryonia and in tamil it is called as Karutan kilangu, Kollan kovai or Akasagarooda Morphology of the rhizome have been studied to aid pharmacognostic and taxonomic species identification using camera lucida diagrams, parameters presented in this paper may be proposed to establish the authenticity of this plant and can possibly help to differentiate the drug from its other. The alkaloid Bryonine from this plant is used in syphilis, chronic dysentery, chronic mucus enteritis and rheumatism. Plant has antirespiratory, anticancer and antimalarial properties also. It is used for external application in conjunctivitis and chronic veneral complaints. Tuber boiled with coconut oil is used to cure leprosy in siddha system of medicine.

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**Key words:** akasagaroodan, camera lucida, Corallocarpus, Krutan Kilangu. leprosy, pharmacognostical, phytochemical, rhizome.

### Introduction

India is one of the mega diversity countries in the world and medicinal plants form the backbone of traditional systems of medicine in India, thousands of tribal communities still use folklore medicinal plants for the cure of various diseases. Indian medicinal plants have been studied for potential source of bioactive compounds. The great interest in the use and importance of medicinal plants in many countries has led to intensified efforts on the documentation of ethnomedical data of medicinal plants Dhar *et al.* (1968). Earlier there were a few or no synthetic medicine and species of higher plants were the main sources of medicines for the world Duke (1990). Medicinal plants are the rich source of novel drugs that forms the ingredients in traditional systems of medicine, modern medicines, nutraceuticals, food supplements, folk medicines, pharmaceutical intermediates, bioactive principles and lead compounds in synthetic drugs Ncube *et al.* (2008) Many plants synthesize substances that are useful to the maintenance of health in humans and animals. This experimental plant is a prostrate monoecious plant found in tropical and temperate regions of India, Ceylon, Deccan and Maharashtra Kirtikar and Basu (1996). Decoction of rhizome is useful in cases of chronic mucous enteritis and also used as anthelmintic. This plant is used by tribals of Rajasthan to cure various ailments indigestion, constipation, abdominal pain, dysentery and typhoid. In the Deccan and Mysore the root acts as antidote for snakebite. It is also used to cure skin diseases like wounds, tumors, boils, sunburns, cuts and injury Sara Oldfield (1997).

It is a siddha remedy for chronic eczema Choudhary; Singh; and Pillai, (2008). Rhizome boiled with coconut oil is used to cure leprosy in siddha system of medicine Anitha; Kamakshamma; Prasad and Sundarsanam (2008). Hence the present investigation was undertaken The uses of this plant as traditional medicine confirms that it may possess some important biological activities.

### Materials And Method

The rhizome of *Corallocarpus* was collected from Kolli hills of Tamilnadu, India, identified by botanist of CSMDRIA Chennai, Tamil Nadu. Fresh hand sections were taken and treated with chloral hydrate and phloroglucinol and HCl. Microscopical characters were studied Evans and Trease and Evans (1997). Camera lucida diagrams were drawn. The dried powdered was treated with Jeffereys reagent, ruthenium red.

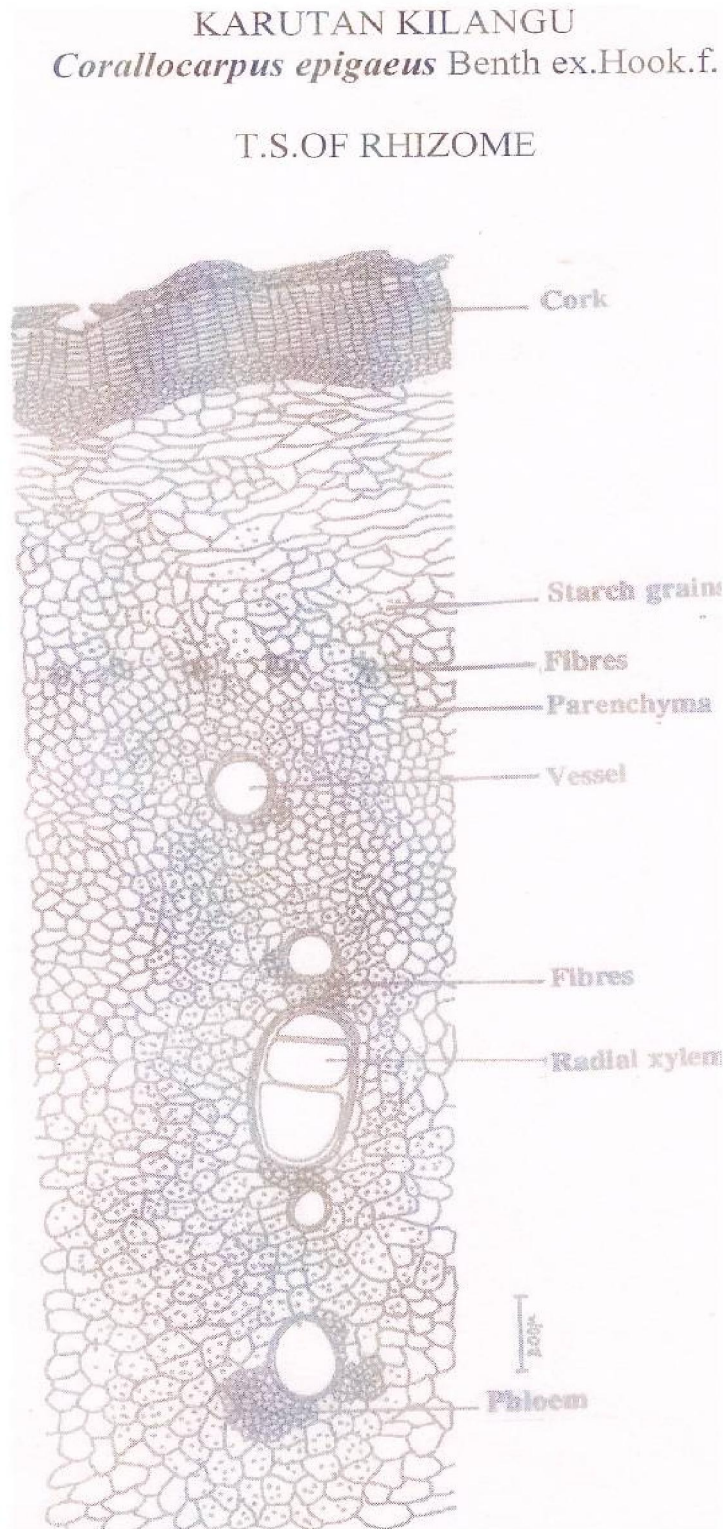
### Results

#### I) Botanical Description

*Corallocarpus epigaeus* belonging to Cucurbitaceae family is a prostrate climbing perennial plant in tamil it is called as karutan kilangu, Kollan kovai or Akasagarooda. Leaves tri or pentaangular, pubescent, apex acute, base cordate, dentate; petiolate. Flowers monoecious, yellow male flowers in racemes, stamens 3, erect female flowers solitary, ovary oblong, beaked. Fruit ellipsoid, beaked, circumscissile at base.

#### ii) Macroscopic Characters

Rhizome are of various sizes length and width, many layered, It has a bitter and sub-acid taste. surface rough, colour brown externally Cork hard,



**Figure I: A Transverse Section Of Rhizome Of Corallocarpus Epigaeus**

**iii) Microscopical Characters**

A transverse section of the rhizome shows a compact tangentially oblong periderm phellem cells with suberised walls and a few layers of less conspicuous phelloderm, continuous periderm is present. Parenchymatous cortex several radiating rows of compact, rectangular xylem cells with compact ray cells and fibres, phloem dispersed. Major portion of the tuber has compact, thin walled parenchymatous tissue with starch grains.

Powder microscopy shows parenchymatous cells are filled with simple or compound type of starch grains. Simple starch grains are 20µm wide, circular and concentric with central hilum, The compound starch grains are 25µm in size. The above parameters help in identifying the species and to establish the authenticity of this plant and can possibly help to differentiate the drug from its other adulterants.

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