Holarrhea antidysenterica

TAXONOMICAL CLASSIFICATION:[1]

- *Kingdom:Plantae*
- *Subkingdom:Tracheobionta*
- *Division:Magnoliophyta*
- *Class:Magnoliopsida*
- *Subclass:Asteridae*
- *Order:Gentianales*
- *Family:Apocynaceae*
- *Genus:Holarrhena*
- *Species:antidysenterica*

INTRODUCTION:[2,3]

Holarrhena antidysenterica belongs to the family Apocynaceae is commonly known as kurchi in Hindi, Tellicherry bark in English is a small deciduous tree which is distributed throughout the world and in India, it is found in dry forests. In Indian traditional medicine, *H. antidysenterica* is popularly used as a medication for dysentery, diarrhoea and intestinal worms. Plant parts such as bark are used to treat anti-microbial, anti-inflammatory, analgesics, amoebiasis, chronic bronchitis, locally for boils, ulcers; a decoction of the bark is used in bleeding and piles. The phytochemicals present in the plant include coumarins, ergosterol, flavonoids, phenolic acids, resins, saponins, steroidal alkaloids, tannins, triterpenoids. Pharmacological studies include anti-amnesic, neuroprotective, acetylcholinesterase inhibitory, anti-diabetic, anti-urolithic, antibacterial activity, anti-haemorrhoidal, analgesic activity, anti-inflammatory, anti-malarial, anti-diarrhoeal, anti-mutagenic, antihypertensive activity, antioxidant/free radical scavenging property, diuretic activity, anti-amoebic, anthelminthic, anti-microbial and anti-MRSA properties of *Holarrhena antidysenterica. Holarrhena antidysenterica* is a short term tree with a small to a

huge height up to 30 to 40 feet producing milky white, thick and less profuse latex. Its leaves are ovate, simple, large, smooth or hairy and opposite to each other. Leaves are 15–30 cm × 4–12cm in size. Its base is obtuse, generally rounded or acute. Leaves nerves are 10 to 14 pairs, opposite and sessile. Its petioles are 1.5cm in length and cymes are 3 to 6cm in diameter. Seeds are 1-2cm long, linear or oblong with long coma shaped or boat-shaped which is light brown to brownish in color and shows epigeal germination. Hairs are present at the apex of the seeds and short-lived. The stem bark of the plant is smooth or rough, pale brown to greyish brown in color which peels off in irregular patches with bitter in taste. The root bark is reddish-brown in color. Plant flowers in the month of April to July which is white, small and arranged in a cluster and glimpse like a flattened top. Petals are disc-shaped and overlay at the right side and corolla 3-4 times longer than calyx; anthers are present inside the corolla tube. It fruits from August to October. The fruits have small, long follicles having white spots on the surface. Dried fruits when busted it releases numerous flat seeds with brown hairs. Chemical constituent's present in *Holarrhena antidysenterica* was found mostly in the stem, leaves, bark, and seeds. The primary phytoconstituents are coumarins, ergosterol, flavonoids, phenolic acids, resins, saponins, steroidal alkaloids, tannins, triterpenoids.

PROPERTIES AND USES: [4,5]

- Anti-amnesic activity
- Neuroprotective activity
- Acetylcholinesterase inhibitor
- Antidiabetic activity
- Antiurolithic activity
- Antibacterial activity
- Anti-inflammatory
- Analgesic Activity

- Anti-malarial activity
- Anti-diarrhoeal activity
- Antimutagenic
- Antihypertensive Acitivity
- anti-haemorrhoidal action
- Diuretic property
- anti-amoebiasis
- CNSstimulant activity
- Anthelminthic
- anti-microbial activity

DOSAGE: [6]

- Kutaj Powder - ¼- ½ teaspoon twice a day
- Kutaj Capsule - 1-2 capsules twice a day.

RESEARCH:

1. Hyper lipidemia is a condition wherein there is raise in the levels of Lipoproteins, Cholesterol, Triglyceride in plasma. It is one of the major cause of heart disease and a hypertension, Diabetes, Obesity. The study was done in Dr. D Y patil college of ayurveda nerul navi mumbai, 40 patients taken in two groups Two arm open labeled, randomized controlled study. There was a statistically non significant difference seen for all variables under study with inter group comparison ($p>0.05$). Outcome of the study indicates that kutaja bark and seed has showing positive role in lowering lipids levels. the lowering of lipids has been observed better in kutaja bark then kutaja seed (indrayava). [8]
2. Shonitarsha (Bleeding piles) is a common chronic painful disease afflicts the mankind, having only surgical treatment (Haemorrhoidectomy) in modern science but recurrence is more often. Bleeding per rectum during defaecation with fresh blood not mixed with motion is the commonest symptom of Shonitarsha. Kutaja (Holarrhena antidysenterica Wall) is an important plant mentioned in Ayurveda used successfully in atisara, pravahika and arsha especially in Shonitarsha. The fine powder of the Holarrhena antidysenterica Wall stem bark was prepared and given to the patients in

a dose of 4 gms twice a day for two weeks. The results of this study are subjective of significant efficacy of the drug in the symptom "stoppage of bleeding" in Shonitarsha. [9]

PRECAUTIONS & WARNINGS: [6]

- Avoid Kutaj or use only under medical supervision during breastfeeding.
- Avoid Kutaj or use only under medical supervision during pregnancy.

INTERACTIONS: [6]

Avoid Kutaj during taking tablets for constipation.

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