

MEDICINAL USES OF JAYAPALA (*CROTON TIGLIUM* LINN): A REVIEW ARTICLEDr. Amandeep Kaur*¹ and Dr. Naresh Kumar Garg²¹PG Scholar Deptt. of Dravyaguna Sriganganagar College of Ayurvedic Science & Hospital, Tantia University, Sriganganagar – 335001, India.²Associate Professor Deptt. of Dravyaguna, Sriganganagar College of Ayurvedic Science & Hospital, Tantia University, Sriganganagar – 335001, India.

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Article Received on 14/08/2019

Article Revised on 04/09/2019

Article Accepted on 25/09/2019

ABSTRACT

Jayapala/Jepala (*Croton tiglium* Linn.) belongs to the family Euphorbiaceae. The croton plant is a native of India and is grown all through the East Indies. The seeds are poisonous and contain croton, a toxalbumin. Jamalgotia also called Purging Croton, is most powerful laxative, which has stimulant action on bowel movement. It has potent effects, which results in cramps during defecation and loose stools. Generally, Jamalgotia is not indicated in most cases of constipation because of its dangerous effects. The safer laxatives are available in the market. However, physician may require potent stimulant laxative in some cases with severe constipation, you should confirm for other causes especially Bowel obstruction (Intestinal obstruction). In this case, you should never use any formulation containing Jamal gota as an ingredient.

KEYWORDS: *Croton tiglium*, jamalgota, jayapala, croton seed.

INTRODUCTION

The croton plant is a native of India and is grown all through the East Indies. It is a small evergreen tree having a height of 15 – 20 feet, the young shoots sprinkled with stellate hairs, bark smooth, ash-colored. *Croton tiglium* is considered indigenous to Malabar, Ceylon, Amboina (of the Molucca Islands), the Philippines and Java. Joannes Scott, in his dissertation on the medicinal plants of Ceylon, states that the seeds of *Croton tiglium* under the name of “Jayapala,” are a most powerful purgative, and also that the leaves are very acrid, causing an intolerable burning in the mouth and throat.

It is a drastic purgative drug; its strong cathartic action begins with irritation in stomach, gripping in intestines, irritation in intestinal mucous membrane and results in watery motions repeatedly. The seeds and the oil extracted from them are drastic purgatives, they contain dangerous toxic and purgative properties, and therefore they can be used internally only after extracting the poison.

The drug material consisting seeds must be used in therapeutics after proper purification (*Shodhana*) and with posological consideration. Sometimes its disuse, if any, may be avoided. In case of complications and toxic signs and symptoms, the countering measures should be taken up for treatment.

Description

Croton is a diverse and complex taxonomic group of plants ranging from herbs and shrubs to trees. A well-known member of this genus is *Croton tiglium*, a shrub native to Southeast Asia. It was first mentioned in European literature by Cristobel Acosta in 1578 as *lignum pavanae*. The oil, used in herbal medicine as a violent purgative, is extracted from its seeds. Nowadays, it is considered unsafe and it is no longer listed in the pharmacopeias of many countries.

Scientific Classification

Kingdom: Plantae
Clade: Angiosperms
Clade: Eudicots
Clade: Rosids
Order: Malpighians
Family: Euphorbiaceae
Subfamily: Crotonoideae
Tribe: Crotonaeae
Genus: *Croton*

Medicinal Parts

- Seeds
- Leaves
- Roots
- External bark of croton roots
- Seed oil (Croton oil, also called Crotonis oleum)

Phytochemistry (Chemical Composition)

Jamalgota (Croton tiglium) kernels contain approximately 50 to 60% croton oil. Croton seed oil contains about 17 fatty acids.

Main Components

- Linoleic acid
- Oleic acid
- Elcosenoic acid

Ayurvedic Properties

Rasa – Katu

Guna – Guru, Ruksha, Tikshna

Virya – Ushna

Vipaka – Katu

Prabhav – Strong laxative

Dosha karma – Pacifies Kapha

Effects on Organs – Intestines or Bowel

Therapeutic Indications

Croton tiglium is helpful in following health conditions.

- Persistent and obstinence constipation.
- Hair Loss (Very rare use)

Croton roots Paste – External Application

- Hemorrhoids
- Skin tags
- Abscess

Seed Purification

Ayurveda recommends detoxifying or purifying (SHODHANA) the seeds of Croton tiglium before using it therapeutic purposes. The main target of the process is to reduce its irritant property. Jamalgota purification process includes following steps.

1. Soak croton seeds overnight.
2. Remove the outer coating (layer) of croton seeds.
3. Remove leaf like cotyledons from inside the croton kernels.
4. Tie in a cotton cloth and form bag (POTTALI) for steaming (SVEDANA) kernels.
5. Now, add cow's milk in stainless steel container (or ayurvedic instrument DOLA YANTRA) and heat it to boil and to produce steam.
6. Now, hang the cotton bag with croton seeds above the milk container and immerse the bag in milk container. Give heat produced in the milk container for 3 hours.
7. After that, remove seeds from cotton cloth and wash them with warm water.
8. To reduce more irritant effect of croton kernels, then you should also press the kernels between two blotting papers to remove residual croton oil.
9. Then dry then in the sun. Then the croton kernels can be stored in dry glass jar or earthen jar.
10. To reduce side effects of kernels, limejuice is helpful. Ayurveda texts recommend processing (BHAVANA) croton kernels with limejuice three times.

Dosage

- Purified jamalgota – 5 mg to 25 mg
- Croton root powder – 100 mg to 1000 mg
- External bark of croton roots – 500 mg to 1000 mg
- Croton oil – 1 drop mixed with honey or butter

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