

Ethnomedicinal Review on *Cassia fistula* L.

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ABSTRACT

Cassia fistula is the medicinal plant which is used in Ayurveda, Unani and traditional medicine since long time. The plant parts of the species used for the treatment of around more than forty diseases. Almost every Indian knows this species and it is commonly used in traditional medicine. People of India have great knowledge about this species. The present review compiled the ethnomedicinal data concern *Cassia fistula* which will be helpful for Indians, other than Indians as well as researcher communities those are involved in research of pharmacognosy, phytochemistry, phytomedicine and phytonutraceutical industries.

KEY WORDS

Cassia fistula, traditional medicine, ethnomedicine

INTRODUCTION

Cassia fistula L. is the ethnomedicinal plant which belonging to family Leguminosae. Some synonyms are as follows, 1. *Bactrylobium fistula* Willd, 2. *Cassia bonplandiana* DC, 3. *Cassia excelsa* Kunch, 4. *Cassia fistuloides* Collad., 5. *Cassia rhombifolia* Roxb., 6. *Cathartocarpus excelsus* G. Don, 7. *Cathartocarpus fistula* Pers., 8. *Cathartocarpus fistuloides* (Collad.) G. Don, 9. *Cathartocarpus rhombifolius* G. Don. Golden shower, purging cassia, Indian laburnum, pudding- pipe tree are the English names of this species. In Sanskrit, it is known by names vyadhighat, nripdrum, Aaragwadh and Karnikar. In Hindi, it is known by name as Amaltas and in Marathi by Bahawa.



Flowering and Fruiting

MATERIAL AND METHODS

Literature survey was carried via Google search engine. Related research papers were downloaded and scrutinized and shortlisted. All shortlisted 51 relevant articles directly reported traditional and ethno medicinal uses were finalized for the study. Articles were screened and studied for this investigation.

BOTANICAL DESCRIPTION

Trees, about 8- 10 m tall. Leaflets 4-8 pairs, 5.0-12.5 x 2.5-6.0 cm, ovate. Flowers yellow, in 24-40 cm long, lax, drooping racemes. Pods 2.0-2.5 cm across, indehiscent. Seeds numerous, embedded in dark coloured pulp. Fls. & Frts. : April- October¹.

TAXONOMIC POSITION

Kingdom: Plantae
Division : Magnoliophyta
Class : Magnoliopsida
Order : Fabales
Family : Leguminosae
Genus : Cassia
Species : fistula

ETHNOMEDICINAL USES

For the present review fifty one research papers were studied and compiled ethnomedicinal information in the following paragraphs.

Amoebiasis: For the treatment of Amoebiasis seed powder used by tribals of Nankura districts of West Bengal². **Anemia:** Traditional healers (Vaidya, Hakim, Janata and Maharaj) of Nanded district used root powder for treatment of anemic disorders³. **Asthma:** Fruits are used in asthmatic troubles in Srikakulam district of Andhra Pradesh⁴. One to two seeds are taken for the treatment of asthma and also bark is chewed for the same⁵. **Breast cancer and wounds:** Fruit crushed in water and applied at the affected parts till cure by people of Bidar district of Karnataka⁶.

Burns: Leaves grounded with Coconut oil and paste is applied externally for a week for the treatment of burns⁷. **Constipation:** About 2gm tamarind (mucilaginous pulp surrounding the seeds) given to children and pregnant woman to remove constipation by local people of Panurti taluk of Cudallore district of Tamil Nadu whose inhabited near sacred groves⁸. Tribes of Kalahandi district take in small quantity to cure constipation⁹. Ripe pulp also used by tribal and rural communities of Rajasthan¹⁰. Leaves and fruits used in constipation are reported from Ajoydha Hill region of Purulia district of West Bengal¹¹. **Cough:** Ash of the pod given with honey to cure cough of children by local people of Solan district of Himachal Pradesh¹². **Cuts and wounds:** Leaf juice is applied to clearing cuts and wounds by people of Chatara region of Sonebhadra district of Uttar Pradesh¹³.

Diabetes: For treatment of diabetes, people of Dhar district of Madhya Pradesh given fruit pulp¹⁴. **Dye:** Trunk bark is used as dye with bark of *Terminallia bellirica*, *Pterocarpus masupium* by local people of Aravalli Hills of North Gujrat¹⁵. **Dysentery and diarrhea:** Konda Reddi and Koyas tribes of Khammam district of Andhra Pradesh crushed stem bark with five pepper grains and extract is given for three days to cure dysentery and diarrhea¹⁶. Khasis tribe of Meghalaya used fruit pulp for the treatment of dysentery occurs in new born babies¹⁷. **Dysentery and indigestion:** Paste of fruit with sugar used to control dysentery and indigestion problems by local people of Udayagiri forest in Eastern Ghat, Odisha¹⁸.

Earache: Fruit pulp extract dropped into ear to the treatment of ear pain by Billa tribe of Maharashtra¹⁹. **Enlargement of The stomach:** Paste of pods grinded with tamarind and given to cattle for the treatment of enlargement of stomach by Gond tribe of Bhandara district of Maharashtra²⁰. **Erysipelas:** Leaves are used for the treatment of erysipelas by the people of Jawadhu hills in Tamil Nadu²¹. **Fever:** People of Rajouri Poonch district of Jammu and Kashmir used plant for the treatment of fever²². **Fever in Infants:** Seed powder is given for the treatment of fever in infants by local people of Mokhada, Thane district of Maharashtra²³.

Gonorrhoea: Gond and Baiga tribe women of Achanakmar wildlife sanctuary of Bilaspur, C.G. applied flowers on the affected part to the treatment of Gonorrhoea²⁴. **Headache:** Stem bark applied on forehead to relief pain in head by People of Thuamul Rampur area of Kakahandi district²⁵. **Indigestion:** Leaf extract of this plant is used in indigestion by Khamptis tribe of Arunachal Pradesh²⁶. Seed decoction used with honey to cure indigestion problems in children by local people of Katei Baba sacred grove of Akole taluk of Ahmednagar district of Maharashtra²⁷.

Indigestion in Children: Decoction of seed with honey given for the treatment of indigestion in children by villagers of Adhalwadi who living near Katei Baba sacred grove in Akole taluka in Ahmednagar district²⁷. **Infantile diarrhea or irregular bowels in newborns:** In Meghalaya, Khasis people used fruit pulp to the

treatment of germs in infantile diarrhea or irregular bowels in newborns²⁸. **Jaundice:** Root powder given in the treatment of jaundice by traditional practitioners of Nanded district²⁹. **Laxative:** Rella chettu is the local name of *Cassia fistula* in Srikakulam district of Andhra Pradesh. Local medicine men used root bark and leaves as laxative³⁰.

Leprosy: Seeds used in the treatment of Leprosy by tribals of Sonebhadra district of Uttar Pradesh³¹. **Neck pain:** Leaf extract applied in neck pain by ethnic people of Sheshachala hill range of Kadapa district of Andhra Pradesh³². **Nervous disorder:** Root bark pounded with root of *Cryptolepis buchanani* and used to revival of nervous system paralysed by alcoholic intoxication by Malamalasar tribe of Parambikulam wildlife sanctuary of Kerala³³. **Nose infection:** Leaf paste and bark applied in the treatment of nose infection by tribal of Amrawati district³⁴. **Reduce bitter taste:** Garasia tribe of Rajasthan put mango fruits with flowers of the same plant to reduce bitter taste³⁵.

Rheumatism: Thuamul Rampur block is coming under Kalahandi district of Orissa. Paraja, Kutia Khdnha, Tekeria and Jhadia are the tribes inhabited in the same block. These tribes used fruit decoction for the treatment of rheumatism³⁶. **Ringworm and Skin diseases:** Leaf paste is applied on ringworm by inhabitants of Solan district of Himachal Pradesh³⁷. Leaves and flowers are used in ringworm by tribes of Satpuda region of Dhule and Jalgaon districts of Maharashtra³⁸. Kanikkar tribe of Kanyakumari district uses this plant for the skin diseases³⁹. **Scorpion bite:** Seeds are used as antidotes by tribals of Sonebhadra district of Uttar Pradesh¹³. **Smelling mouth:** Young leaves of *Cassia fistula* given for the treatment of foetid smell of mouth by local people of Ivanur Panchayat of Cuddalore district of Tamil Nadu⁴⁰. Leaf extract given orally for the treatment of jaundice by tribals of Mayurbhanj district of North Orissa⁴¹.

Snakebite: For the treatment of snake bite, one teaspoonful fruit powder given internally by Halakki, Kadukurba and Lambani tribes of Bidar district of Karnataka⁴². Sahariya tribe of Gwalior applied seed extract on snakebite and Gond tribe of Bastar applied fruit pulp, seeds and leaves in snakebite⁴³. Roots are used for snakebite by people of Kalrayan and Shervarayan Hills, Eastern Ghats of Tamil Nadu⁴⁴. **Stomach pain:** Gond, Halba and Kawar tribe of Darekasa hill range of Gondia district Maharashtra used fruit pulp for the treatment of Stomach pain in adults as well as infants⁴⁵. **Stomachache:** Traditional healers (Vaidya, Hakim, Janata and Maharaj) of Nanded district used fruit pulp as purgative⁴⁶. Bark decoction given with garlic and pepper powder to cattle as purgative by local healers of Madurai, Dindigul and Theni districts of Tamil Nadu⁴⁷.

Stomachache and stomach tumor: Seeds are boiled and taken orally to cure stomachache and stomach tumor by the people of Sanchor and Mount Abu regions of Sirohi district of Rajasthan⁴⁸. **Typhoid:** Bhil, Menna, Garasia, Damor, Sahariya, Gujar, Kathodia, Dindor, Ahari, Raot are the tribes of Rajasthan. These tribes used pods decoction for the treatment of Typhoid⁴⁹. **Urinary disorders:** Poultice of fruit pulp applied externally in the treatment of urinary problems by tribals of Balaghat district of Madhya Pradesh⁵⁰. **Weakness:** Gonds of Adilabad district of Andhra Pradesh used fruit pulp with crushed paste of pepper, garlic and tamarind as tonic in weaknesses⁵¹. **Wound healing:** Stem bark decoction employed to wash wound healing by the people of Solan district of Himachal Pradesh⁵².

CONCLUSION

Cassia fistula L. is tremendously used plant species for traditional medicine since long decades by Indian tribes. Near about all parts of the plant species have medicinal properties. People of the Indian continents have great knowledge about this plant to cure the diseases.

ACKNOWLEDGEMENTS

Authors are thankful to Dr Akhilesh V. Peshwe, Principal, Dharampeth M P Deo Memorial Science College, Nagpur for providing facilities and encouragement and inspiration throughout the research. Authors are thankful to Dr Rajesh Singru, Principal, Tai Golwalkar Mahavidyalaya, Ramtek for moral support and help. Authors are thankful to Dr Pitambar Humane, Head Dept of Botany, Dharampeth, M P Deo Memorial Science College, Nagpur for constant encouragement, valuable guidance and suggestions time to time.

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