

Pharmacological Values of Selected Medicinal Plant *Cassia tora* L

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Abstract

Cassia tora L. is also known as sickle pod, sickle senna, , tora, coffee pod, tovara, chakvad. It belongs to family Fabaceae. It is a dicot legume, herbaceous annual herb. It is mostly found in South-East Asia and the South West Pacific as an important weed. It produces pods which are flattened or four angled and sickle shaped, So the common name of *Cassia tora* L is sickle pod. Different parts of *Cassia tora* L such as roots, stem, leaves, flower and seeds have been widely used in herbal medicines . The leaf and seeds are acrid, laxative, anthelmintic , antiperiodic, ophthalmic, liver tonic and cardiogenic. It is used in different types of diseases like ringworm, dyspepsia , cough, constipation, bronchitis, leprosy and cardiac disorders. The present studies provides broad spectrum protocol for further research .

KEYWORD – Annual herb , Sickle pod , Diseases and *Cassia tora* L.

Introduction

Cassia tora L. is herbaceous annual herb. It belongs to family of Fabaceae . *Cassia tora* is found in many countries of the world . It grows in tropical parts of India. . It is distributed throughout India, Sri Lanka, West China. It is wild weed that has many healing benefits. The *Cassia tora* is also known as Charota and Chakvad in Hindi, Chakramarda & Dadmari in Sanskrit , Chakunda in Bengali & Oriya, Kawaria in Gujarati, Chakramandrakam in Malayalam, Takala in Marathi, Chinnakasinda in Telugu and Tagarai in Tamil .

Cassia tora consists of alternative pinnate leaves. Each leaf has three pairs of leaflets that are opposite, ovate, oblong and oblique at the base. The flowers are in pairs in axils of leaves . Flowers comprises of five petals and pale yellow in colour . The plant bears flowers in the rainy season and fruits in the winter season . It produces pods which are somewhat flattened or four angled, 10–15 cm long and sickle shaped, hence the common name of *Cassia tora* is sickle pod. The seeds of *Cassia tora* are rhombohedral and brown in color. *Cassia tora* is high stress tolerant weed and is easy plant to grow (Figure-1).

Different parts of plant like roots, stems, leaves, flowers and seeds have been widely used and was suggested to combat different human diseases. It is medicinal herb , exhibits various pharmacological values viz., Laxative, Antihelminthic, Expectorant, Liver tonic and Cardio tonic. Several researchers have studied on pharmacological values of some important medicinal plant species (Le, G.A. 1989; Prajapati et al., 2003; Anushia et al., 2009; Sarika et al., 2010; Chavanet al., 2011; Rawat and Vashista, 2011;).

Materials and Methods

Medicinal herb *Cassia tora* L. have been collected from college campus and from different location of Ranchi District of Jharkhand . Plant was identified by plant taxonomist. Pharmacological values of plant are identified with the help of relevant floras, book, book chapters and published literature (Raizada, 1976; Kanjilal, 1979; Raizada and Saxena, 1984; Collet, 1980; Fairbrain J.W.1980 ; Kirtikar et al., 1999; Singh and Anand, 2002; Adhikari et al., 2010; Rajendran et al., 2014; Anonymous 2016) .

Results and Discussion

Field survey was conducted to collect information related to pharmacological values of *Cassia tora* L. Different parts of plant were concerned and information was collected.

Pharmacological values of *Cassia tora* L.

The whole plant and different parts of *Cassia tora* L. have been widely used to combat different diseases. In some regions of different States of India, rural and traditional practitioners use *Cassia tora* L. as whole plant in different diseases. It has been used in Chinese and Ayurvedic medicine. *Cassia tora* L. and its seeds are edible. Roasted seeds are a good substitute for coffee. It has been used for treating skin diseases, leprosy, ringworm, itching and also for snakebites. Leaves of *Cassia tora* are used as balm for arthritis.

Cassia tora L. helps in maintaining the normal level of cholesterol. The alcoholic extracts of fresh leaves is used externally to treat skin diseases like eczema and dermatomycosis and also for getting rid of chronic diseases. According to Ayurveda the leaves and seeds are acrid, laxative, piles, hemorrhoids, anthelmintic, ophthalmic, liver tonic and cardiogenic. Different parts like leaves and seeds are useful in leprosy, ringworm, dyspepsia, constipation, cough, bronchitis, cardiac disorders. Juice of fruit of *Cassia tora* is used in fever. *Cassia tora* acts as a liver stimulant, mild laxative and heart tonic. Powder of *Cassia tora* are useful in indigestion, heart muscles and purifying blood. Extracts of leaves are used in skin ailments, rashes and allergies. It is also used as an antidote in various poisonings.

Chemical Constituents

Pharmacological values of *Cassia tora* L. is mainly because some bioactive compounds. *Cassia tora* is one of the recognized anthraquinone (organic compound) containing plants and has been used in Chinese and Ayurvedic medicine. *Cassia tora* contains bioactive chemicals such as emodin, calcium, iron, phosphorus, resin, chrysophanol, stigmasterol, cathartine, palmitic, stearic, succinic and d-tartaric acids, uridine, quercitrin, isoquercitrin, cinnamaldehyde, tannins, mannitol, coumarins and essential oils (Hatano et al., 1999; Sadique et al., 1987). It also contains 1,3,5-trihydroxy-6,7-dimethoxy-2-methylanthraquinone, beta-sitosterol, naphtho-alpha-pyrone-toralactone, physcion, emodin, rubrofusarin, chrysophonic acid-9-anthrone, tricontan-1-ol, stigmasterol, beta-sitosterol-beta-D-glucoside, freindlen. Seed contains mannitol, cinnamaldehyde, gum, tannins, coumarins and essential oils. The seeds of *Cassia tora* also contain sugars, resins and mucilage, among other elements.

Conclusion

Cassia tora L. is a medicinal annual herb. Different parts like roots, stem, leaf and seeds of plant are used in various diseases. Pharmacological values of *Cassia tora* L. is because of some bioactive compounds. Extracts of leaves are used in skin ailments, rashes and allergies. *Cassia tora* are useful in indigestion, heart muscles and purifying blood. It is used in cough, bronchitis, skin disease, leprosy, ringworm, dyspepsia, constipation and cardiac disorders. Leaf of *Cassia tora* is used as balm for

arthritis and also used in treatment of eczema and dermatomycosis. It controls level of cholesterol in human body.



Figure- 1 - Cassia tora L.

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