

Comparative and therapeutic studies Of some medicinal Plants of family Fabaceae

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Abstract: To investigate the therapeutic properties of some plants of family fabaceae, it was necessary to had survey of place near Bairagarh, Bhowanri, District Bhopal, to find the species of family fabaceae ,Their site of habitate was search and it were found at farm sites . The family fabaceae was chosen to explore its medicinal values.The plants like *Dalbergia sissoo*, *Cassia fistula* and *Pisum sativum* was taken for study methodology. It reveals that these plants had many similarities and dissimilarities in their therapeutic values. It is need to study their comparative therapeutic values to enhance their values for present generation to cure many diseases. To compare their medicinal potentials and to explore their uses in similar and dissimilar diseases. These plants had great medicinal potentials in leaves, pods (fruits), bark stem and roots. These plants are natives of Madhaya Pradesh. These plants are being used as medicinal plants from Ayurveda era.

Keywords: therapeutic properties; medicinal values; similarties and dissimilarties.

I. Introduction

Medicinal plants are those plants which had some phytochemical naturally occurring in plants and had their therapeutic properties. Many plants are investigated for the development of phytocompounds useful in drug development. There is no doubt that these natural compounds from plants had contributed positively to the health care delivery system in many rural community. It has been reported that these phytocompounds are being used from ancient ayurvedic period by human race. These plants of family fabaceae have reported for their medicinal values in leaves, pods stems bark and roots. These plants are natives of India, Srilanka , China , Burma, Pakistan and Myanmar [1-2].*Dalbergia sissoo* is a hard, woody deciduous timber tree. It grows at higher altitudes, sides of river, sides of farm sites and as a shade plants. It has been reported for its medicinal properties from ancient era. It is called as Indian Rose tree, Shisham sissu, thali in various parts of India. It is large deciduous tree, often with crooked trunk and light crown. Under favorable conditions the tree attains a height of about 100 ft and girth up to 8 ft. It grows well on porous soils containing sand, pebbles and boulders. It reaches its finest development in the river and rain track. *Dalbergia sissoo* includes many members which are broadly used in folk medicine for several diseases. The concentrated extract of heartwood in milk was prescribed in fevers; extract of leaves in jaundice, bark extract is used as anti-inflammatory agent in piles, sciatica, and as blood purifier. The oil was used externally in the skin diseases and infected ulcer. Many authors have reported the isolation of several compounds [3-4].*Cassia fistula* known as golden shower tree, Amaltas Indian laburnum, Swana patrika Karnwakar, Konrai, Konak in various part of India. Its external vegetative parts had many similarities with *Dalbergia* species and *Pisum* species [5].*Pisum sativum* a pea plant used as vegetable plant in Indian food diet . It is also known as Matar, and Bel Roopa . Its leaves had similarities with *Dalbergia* species and *Cassia*. It is a herb plant and seasonal [6].Current paper deals to explore the therapeutic values of these plants and their use in similar and dissimilar diseases. Therefore it is need to study their similarities and dissimilarities of their medicinal value to enhance the several special therapeutic properties These plants have pinnately compound leaves and Racemes branching as similarity but *Dalbergia sissoo* is hard , woody timber tree, *Cassia fistula* is a shrub and *Pisum sativum* is a green soft herb [7-9].

II. Methodology

The plants of fabaceae have much similarty and various dissimilarities in their morphology and in their therapeutic properties. It has been reported that these plants had many similar phytochemicals like flavanoids , isoflavanoids, glycosides , Alkaloids , and steroids. To explore their use in similar and dissimilar diseases it is necessary. The present study reveals their similarities and dissimilarities in their therapeutic values [10].

III. Medicinal Uses

a. *Dalbergia sissoo*

Dalbergia sissoo(Roxb.) belongs to fabaceae plant family which is native to India and had been long cultivated in Egypt as shade tree on the banks of irrigation canals . It is large deciduous tree, often with crooked trunk and light crown. Under favorable conditions the tree attains a height of about 100 ft and girth up to 8 ft. It grows well on porous soils containing sand, pebbles and boulders. It reaches its finest development in the river

and rain tracts. *Dalbergia sissoo* includes many members which are broadly used in folk medicine for several diseases. The Current literature reveals that the isolation of several compounds of confirmed biological activity such as flavones, isoflavones, quinines and coumarins from *Dalbergia sissoo*, has been isolated. The concentrated extract of heartwood in milk was prescribed in fevers; extract of leaves in jaundice, bark extract is used as anti-inflammatory agent in piles, sciatica, and as blood purifier. The oil was used externally in the skin diseases and infected ulcers. Many authors have reported the isolation of several compounds so there is need to confirmed biological activity for *Dalbergia sissoo* leaves, pods, bark, heart wood and sap wood. The plant parts are being used in various diseases as antipyretic, analgesic and anti inflammatory. The bark extract has been reported to be used against many bacteria, pseudomonas, plasmodia and alga also. The decoction of dried leaves of *Dalbergia sissoo* has anti diarrhoeal activity. It has been reported that ethanol extract of leaves and bark posses the antipyretic, analgesic and anti inflammatory properties. The ethanol extract of *D.cultrate* and *D. nigrescens Kurz* were found to exhibit a significant anti tumour properties. The plant as a whole is used as firewood [11-14].

b. Cassia fistula

Cassia fistula is a deciduous shrub and very effectively used in treatment of constipation, ulcer, piles, intestinal worms, skin diseases, antioxidant and antipyretic Its roots are used in common cold, influenza. The pulp of Cassia Fistula is used in chronic cases of agues. This disease is basically the loosing of taste due to the excessive consumption of cocaine or opium. Many people inhale the smoke of its roots to cure the respiratory tract infection. The use of *Cassia fistula* can help in relieving the problem of fever. The root of the Cassia Fistula tree is a well known widely used tonic that helps in reducing fever. An alcoholic extract of the Cassia Fistula plant is used to fight the black water fever. The pods of plant are dried in shade and powdered, with honey used to cure cough problems. A tonic is prepared from roots to increase the blood contents and also as antipyretic values. The whole plant is used in skin diseases like irritation, rashes, swelling, fungal infections, ringworms and jock itches. The bark of plant acts as antioxidant to boost the immunity system of body. The pulp of pods is used as anti-inflammatory and in purification of blood. A decoction of dried leaves and pods is being used as purgative. The plant wood is used as firewood. The plant must be used in small quantity as its excess use result in stomach ache and vomiting [15-17].

c. Pisum sativum

Pisum sativum is soft, green and herb. It is a seasonal and vegetable plant. It is rich in protein content, and vitamin – c. It has high content of sodium so heart patient and diabetic patient can consume it in large quantity. It is used by pregnant women to prevent fatal nervous system. It is used in myocardiopathy to heart valve lesion. It has carbohydrate, minerals like sodium, magnesium, zinc and iron. It is also used in insomnia, depression, debilitated nervous system, nausea, and nervous disorder. It is being used in dysentery and spain. The seeds are used for acne and skin problems. It has vitamin – k which play a potential role in neuro – tropic activity [18-20].

IV. Result And Discussion

The present comparison study reveals the plants of fabaceae has various similarities and dissimilarities of morphology and therapeutic properties They reside at same site of habitat and similar climatic conditions. They grow at same temperate zones and they are herbs, shrubs and trees also. They possess the many of same phytochemicals as glycosides, flavanoids, isoflavanoids and steroids. They act as antioxidant, antipyretic and analgesic, skin problems and blood purifier. They are use as immunity boosters.

V. Conclusion

The present study reveals the similarities and dissimilarities in the plants of fabaceae family with refer to their morphological therapeutic values. The plant *Dalbergia sissoo* leaves are acting as antipyretic anti inflammatory and analgesic but the leaves of *Cassia fistula* and *Pisum sativum* are used in skin problems, purgatives and blood purifier. The plants of this family lie at same condition of temperature and climatic conditions. The therapeutic values of this family are moreover same but the part of plant differs in respects. The presence of phytochemical are also similar. The table shows the similarities and dissimilarities –

SN	Plant	Habit	Part of plant	Used as
1	<i>Dalbergia sissoo</i>	Tree	Leaves	Antipyretic, Analgesic, Anti inflammatory Blood purifier, Anti diabetic, Antioxidant Anticancer.
			Pods (fruits)	Analgesic, Antipyretic, Antioxidant, Anti inflammatory.
			Bark	Anti inflammatory and Antipyretic.
			Roots	Analgesic and Anticancer.

			Stem	Anti inflammatory and Antipyretic.
			Flower	Skin problems ,Blood purifier ,Immunity Booster.
			Seeds	Antipyretic, Analgesic, Anti inflammatory.
2.	Cassia fistula	Shrub	Leaves	Skin problems ,Blood purifier ,Immunity Booster, in wounds, In Tissue generation.
			Pods (fruits)	Stomach ache and vomiting , medicines for Pregnant women.
			Bark	Anti inflammatory, Antipyretic.
			Roots	Antipyretic , common cold and influenza , Constipation.
			Stem	Heart Problems and immunity booster
			Flower	Stomach ache , Tissue generation , skin Problems.
			Seeds	common cold and influenza , Analgesic and Constipation.
3.	Pisum sativum	Herb	Leaves	Tissue generation , skin Problems , Heart problems and immunity booster
			Pods (fruits)	Antipyretic , common cold and influenza , Constipation
			Bark	Antipyretic, Analgesic, Anti inflammatory.
			Roots	Anti inflammatory and Antipyretic
			Stem	Antipyretic ,Analgesic ,Anti inflammatory
			Flower	Skin problems ,Blood purifier ,Immunity Booster.
			Seeds	Skin problems ,Blood purifier ,Immunity Booster, To increase the blood content to pregnant women .

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