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A Short Overview on Significance of Shimshapa (Delbergia sisso) and Its Applications

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ABSTRACT
The first reference of Shisham which is known as Shimshapa in Sanskrit observed in Rugaveda[1] where it is expressed for Yagnakarma (procedure to conduct environment purification). Later, every traditional text of Ayurveda has described the tree for various clinical applications. The Latin name of Shisham *Dalbergia sissoo Roxb* and belongs to *fabaceae* family. The plant is widely growing plant at different parts of country. Its useful parts are wood, stembark, leaves and roots.The traditional medicines usually derived from medicinal plants Out of all clinical applications, the medicinal plant was mainly quoted for its activity on wound, skin diseases and urinary track system. The present review is, therefore, an effort to given detailed survey of the literature *Dalbergia sissoo.*

Keywords: Shimshapa, Delbergia sisso, Therapeutic.

INTRODUCTION

Dalbergia sissoo, known commonly as North Indian rosewood or shisham,is a fast-growing, hardy, deciduous rosewood tree native to the Indian subcontinent and southern Iran. Shimshapa(Seeshama) Latin named as *Dalbergia sissoo Roxb*. Of family Leguminosae is described in various Dravyaguna texts *D. sissoo* is a large, crooked tree with long, leathery leaves and whitish or pink flowers. The tree's seed oil and powdered wood are used in the treatment of skin ailments. *Dalbergia sissoo* also have efficacy in the treatment of stomach and blood conditions. It is Laghu, Ruksha in Guna, Kashaya, Katu, Tikta, in Rasa, Katu in Vipaka and Ushna in Veerya. Due to UshnaVirya it is Kaphavata Shamaka in nature and also due to Katu vipaka and Katu, Tikta, Kashaya rasa it is KaphaShamaka. it has vast therapeutically activities documented in many Ayurvedic treatises and also observed to be practiced in the routine classical Ayurveda practice.

Chemical Constituents[2]:
Leaves: Isoflavone -O- glycoside.
Pods : Mesoinisited, 7 - 0 - methyle
tectorigenin and 4'- rhamnoglycoside.

Mature pods: Isocaviumin, tetorigeni dalbergin, caviunin and tanniuns.
Steam bark: Dalberginone, dalbergin methyl dalbergin and dalberichromene

MATERIAL AND METHODS

By use of Different Dravyaguna text,nighantus & other literature, valuable and descriptive information of Shimshapa (Sheeshama) have provided.

THERAPEUTIC INDICATIONS[3-11]

Hikka, Shopha, Daha, Visarpa, Vranaruja, Arti, Dadru, Kustha, JeernaJwara, Prameha, Shwitra, Vami, Krimi, BastiRoga, Raktvikara, Medoroga, Peenasa, Atisara.

THERAPEUTIC USES[12]

1. Shimshapa Sara dhuma is useful at the time of labour in Asanna Prasava.
2. Leha of Shimshapa twak kwatha can be given in Gridhrasi with Payas and Havishyanna, it can cure Gridhrasi within 21 days. (Vangasena, Gridhrasi Nidana/609).
3. In Sushruta Chikitsa sthana, Shimshapa in Kashaya form is indicated for Vasameha.
4. Sura of Shimshapa is indicated in Kushtha. (Su. Chi. 10/8), (A.S. Chi. 21/38)
5. Heart wood of Shimshapa should be boiled in milk being double the quantity of water reduced to milk only. Intake of this milk alleviates all types of fever. (Su. U. 39/203)
1. (A.H.Chi. 1/115).
6. Pichha basti of Shinshpa and Kovidar i.e. decoction made of the crushed tender leaves of Shinshpa and Kovidar along with barley and mixed with ghee and milk should be given asslimy enema in discharge of mucus, tenesmus and prolapse of rectum.
7. Swarasa of Shimshapa patra can be given in eye disease as eye drop with honey.
8. Gargling of Shimshapa twak is useful in mouth ulcer. (Unial Mayaram, 1995)
9. As per Unani opinion decoction of leaves can be used in acute Gonorrhoea. (Bhandari Chandraraj, 1971).
10. Decoction of leaves also can be given in blisters and furuncles. (Bhandari Chandraraj, 1971)
11. Poultice of leaves can be tied on inflammation of breast. In this condition, washing with decoction can also be done. (Bhandari Chandraraj, 1971).
12. The bark is haemostatic and is effective in bleeding piles, menorrhagia and in varicose veins. (Dhiman Anil, 2004).

THERAPEUTIC POTENTIAL OF *D. SISSO* IN MODERN REASERCH[13-18]

Being a very easily available and easy to identify the plant has attracted many scholars to work on it. As of now, there are more than 13 Pharmacological screening were conducted on this plant. In most of the cases the plant shows a significant activity and exerts positive impression for its action. Some of them are-

Analgesic and anti-inflammatory effects[13]:

Behera et al. studied the anti-inflammatory effect of methanol and hexane extracts of leaves of D. sissoo from which the methanolic extract showed maximum anti-inflammatory effect at a dose of 200 mg/kg.

Anti-diarrhoeal effect[14]:

Biological assay results showed that *D. sissoo* has significant antidiarrhoeal effects. In a study, various extracts of *D. sissoo* bark including ethanol, ether and aqueous extracts at an oral dose of 200–400 mg/kg

were administered to castor oil-induced diarrhoea in rats. The ether extract showed potent anti-diarrhoeal activity.

Anti-diabetic effect[15]:

In a study, different leaves extract of *D. sissoo* were examined for anti-diabetic activity including ethyl acetate, ethanol, petroleum ether and n-butanol. The extracts were reported to produce significant anti-diabetic activity at a dose of 300 mg/kg. The ethanolic extract has shown comparatively high anti-diabetic activity than Glibenclamide which is used as a standard drug.

Anthelmintic activity[16]:

Different extracts of leaves of *D. sissoo* including carbon tetrachloride, petroleum ether, benzene and ethanolic extract were investigated against Indian earthworms at different concentrations for the anthelmintic activity and compared with piperazine citrate. All the extracts showed anthelmintic activity among which carbon tetrachloride extract exhibited significantly high activity with the shortest paralysis and death time of approximately 19 min and 48 min, respectively.

Neuroprotective effect[17]:

Ethanolic leaves extract of *D. sissoo* showed noteworthy enhancement in the learning and memory activities of mice. The effect was investigated in mice using different experimental models such as passive avoidance and transfer latency. The results reported a significant enhancement in memory and learning actions.

Immuno-modulatory effect[18]:

The immune-modulatory effect of bark extract of *D. sissoo* was investigated by using different methods such as WBC count, immune response, carbon clearance test and cellular immune response. The extract was administered at a dose of 250 and 500 mg/kg the findings revealed potential stimulation of the immune system in a dose-dependent manner.

Conclusion

Using herbs as an alternative treatment is becoming popular and gaining worldwide demand and popularity. In recent years, ethno-medicinal studies has received much attention towards *Dalbergia sissoo*. The use of plants as a source of medicines has been inherited and is an important component of the health care system in India, also It possesses various Pharmacological activities to be conducted to investigate the potential of the plant.

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