

**International Journal  
of Ayurveda and  
Pharmaceutical  
Chemistry**



Volume 7 Issue 3 2017

[www.ijapc.com](http://www.ijapc.com)

**e ISSN 2350-0204**



Greentree Group



### *Shirish* as an Antidote in Ayurveda

Harmeet Kour<sup>1\*</sup> and Inderpal Kaur<sup>2</sup>

<sup>1,2</sup>Agad Tantra Dept at, S.K.S.S. Ayurvedic College, Sarabha, Punjab, India

#### ABSTRACT

*Albizia lebbek* commonly known as *shirish*, has number of therapeutic properties. *Albizia lebbek* is an economically important plant for industrial and medicinal uses. The leaves are good fodder with much protein content. The plant contains saponin, macrocyclic alkaloids, phenolic glycosides and flavonols. In Ayurvedic medicine, it is considered as an antidote against all type of poisons. Many ayurvedic formulation of *shirish* like *Panch shirish agada*, *Mahagandhahasti Agad* etc. have been indicated in poisoning. However, it has been established that the plant has antidotal value against either snake or scorpion venoms. In addition, the bark decoction of *Albizia lebbek* possesses antianaphylactic, anti-asthmatic activity

#### KEYWORDS

Saponin, Anaphylactic activity, *Vishagana*, *Panch shirish agada*



**Greentree Group**

Received 19/07/17 Accepted 09/09/17 Published 10/09/17



## INTRODUCTION

There are huge number of herbal medicines described in ayurvedic and other alternative medicines whose popularity and use in uplifting the general health of common people is still not efficient as it should be. Active constituents along with mineral ,vitamins, oils present in the herbal medicines are much valuable for human being as well as animals .There are so many herbal medicines either individually or in combination which are being used in various medical treatise for the cure of different ailments. Albizzia lebeck is one of them, which are commonly used in ayurvedic medicines.<sup>13</sup>

## ALBIZIA LEBBECK

### **Varga:**

*Charaka: Vishaghna, Vedanasthapaka, Shirovirechaka, Kashayaskandha.*

*Sushruta: Salsaradi gana.*

### **Family:**

Family: *Shimbi kula* (Leguminosae).

Natural Order: *Balbool kula* (Mimosoidae).

**Latin name:** Albizzia lebeck Benth.

synonyms

Sanskrit: *Shirish, shukpriya.*<sup>4</sup>

### **Types:**

- Albizzia odorotissima Benth.

- Albizzia lucida Benth.

- Albizzia procerra Benth.

### **Habitat:**

All over the India.

### **Parts Used:**

Bark, seed, leaf, flower, root.

### **Morphology**

17 to 20 meter tall shady tree.

**Leaf :** Compound, glossy and with fine hair on it.

**Leaflets:** Broad with 4 to 8 pairs.

**Flower:** Yellowish white, fragrant, tender.

**Fruit:** 15 to 30 cm. long 1.5 to 3 cm broad flat pods each contain 6 to 10 seed.

**Seed :** Flat, round, smoky in colour.

Flowering in *Versha* and fruiting in *Vasanta ritu.*<sup>4</sup>

### **CONSTITUENTS:**

The main chemical in the bark of Albizzia lebeck are

Saponins –

Albiziasaponin A.

Albiziasaponin B.

Albiziasaponin C.

Triterpenoids:

A steroidal ketone, stigmastadienone stimasta -4,

Polyphenols:

Flavone 3 ols. Epicatechin.

Procyanidines C1 procynidines B5

procynidines B2 Albizinin<sup>4, 10</sup>



## PHARMACOLOGICAL ACTIVITY

Saponins are glycosides components often referred to as 'natural detergent' because of their foamy nature. It has been established that saponins have anti-carcinogenic activity, immunomodulatory activities, regulation of cell proliferation as well as health benefits such as cholesterol lowering capacity. The toxic effect of cyanogenic glycoside is that it decreases heart rate, sympathetic activity & systemic vascular resistance. However its seeds are low in tannin. Tannin reduces protein solubility by forming a complex with protein, thereby causing a reduction in digestibility & causing depressed growth of the body. The level of Tannin in the seed is negligible. Flavan 3 ols has anti-carcinogenic, anti-microbial, anti-viral and anti-oxidant property. Therefore it has a potential to be utilized as a cheap source of protein, energy, & mineral supplement for animals.<sup>11</sup>

## USES IN CLASSICAL TEXTS

Albizia lebbek is general and universal antidote (*Sirishah vishaghnanam shreshthah-Charak sutra*)<sup>1</sup>

Its bark is used as ointment/*lepa* in skin diseases, erysipelas. All parts of the plants are recommended for the treatment of snake bite. *Panchshirish Agad*, a preparation of 5 parts of this is recommended for the

treatment of all type of poisoning. *Amritaghrita*, *Gandhhasti agad*, *Mahagandhahasti agad* are some other common preparation of AL which was used in different type of poisoning.<sup>1</sup>

### Attributes

**Rasa :** *Kashay, Tikta, Madhura.*

**Vipaka :** *Katu.*

**Virya :** *Anushna.*

**Guna :** *Laghu, Ruksha, Tikshna*

**Karma :** *Tridosha shamak.*

**Prabhava :** *Vishagnata.*<sup>4</sup>

### Actions & Uses:

#### Local:

Being *shothahara* and *vedanastapana* a paste of the seeds should be applied in *shotha* and *gandamala*. Being *varnya*, paste of the bark is useful in *varnavikaras*, *kushta*. Gums become firm if gargled with bark decoction. Fine seed paste obtained by rubbing seeds on a stone is applied in the eyes in night blindness and eye diseases. Leaf juice should be instilled in the eyes in night blindness. Seed paste should be applied in *kaphaja netrabhishyanda*. Albizia lebbek should be used in *vishavikaras*. C.ch 23<sup>1</sup>

*Shirish puship swaras* with honey is useful in *Virshak dansh*. C ch 23. Powder of *Shrish* is used as *anjanarth* in *sarpvisha* C



ch 23. A seed of *Albizia lebbek* is used in *loota vish C ch 23*.<sup>1</sup>

In *mukha visha* powder of seeds mixed with honey is used as *pratasarana*. *Su.ka*

*Shirish* bark, *rasanjan* and *haridra* should be made into a paste with honey and applied on syphilitic ulcers. *Shirish* bark should be made into a paste with milk and applied to rash due to allergy.<sup>2</sup>

#### **Internal use:**

##### ***Annavaha***

It is a binding agent due to its *kashaya rasa*, but is an emetic in a larger dose. It should be used in *atisaara* and *pravahika* as *stambhana*. *Shirish pushpi swaras* mixed with honey is used in *kriminasha.su .k*<sup>2</sup>

##### ***paranvaha***

It is *kaphashodhana* and *shoshana* due to its *ushna*, *teekshna*, and *rooksha gunas*. *Beeja churna nasya* should be given in jeerna Kapharogas. *Pushpasvarasa* should be given with honey and *pippali* powder in *shvasa*. *Avaleha* made from the bark is also used.<sup>2</sup>

***Raktavaha*** It is alterative and styptic due to its *kashaya* and *tikta rasa*. Hence, bark decoction or seed powder should be used in *raktavikaras*, *visarpa* and *shotha*. *Vishavikaras* – Bark decoction and the seed powder is used in *sthavara* and *jangama vishas*.<sup>4</sup>

##### ***Mamsa – Medavaha***

*Kushtha – Gandamala* – It is a good *kledanashana* and *kaphaghna draya* due to its *kashaya*, *tikta*, *rooksha*, *laghu*, *ushna* and *teekshna gunas*. Hence, should be used in *kushtha* to overcome *kledakapha dushti*. It should be used in *gandamala* also it acts as *kaphaghna* and *medoghna*. Bark decoction or used powder should be for the purpose.<sup>4</sup>

##### ***Amayika prayoga***

1) *Dashangalepa* made of *shirisha*, *yastimadhu*, *tagara*, *raktachandana*, *ela*, *jatamansi*, *haridra*, *daruharidra*, *kushtha* and *ushira* is useful in *visphota*, *visarpa* and *varna*.

2) *Shirish Beeja churna* is used in *muchaka visha*. *Su.kl*<sup>2</sup>

3) *Astam visha nashak yog* is given in *c.ch*<sup>1</sup>

4) *Panch shirish agad* is the main *gada* in *stahavar* and *jangam visha c.ch 23*<sup>1</sup>

5) Useful in *luta visha* if taken orally *ch c 23*<sup>1</sup>.

#### **DOSE**

The dosages of *albizzia lebbek* bark or bark powder for decoction is 3 – 6 gm.

*Swaras* - 10 to 20 mg.

Decoction – 10 to 100 ml.

Seed - Saponin for antifertility pessaries.<sup>4</sup>

##### ***Kalpa***

*Mahashirishagada*, *Shirisharista*, *Dashang lepa*<sup>1</sup>



## MODERN RESEARCH Anti allergic

**activities:** Albizza lebbeck shows partial protection against histamine and acetylcholine induced broncho spasm. In a series of studies Albizzia lebbeck the plant extract administered in the oral dose of 25 mg/kg/day for 7 – 12 days produced a significant anti allergic effect. A stabilizing effect on mast cell as compared with disodium cromoglycate and steroid in produced. Degranulation was inhibited by 62 %. It also inhibited the early process of sensitization. The level of allergy induced antibodies is seemed to be depressed by Albizzia lebbeck. If the drug is used for a long period it is known to depress the T-lymphocyte and B- lymphocyte activity. Administration of the liquid extract of Albizzia lebbeck on histamine induced broncho spasm in guinea pig showed significant rise in plasma cortisol, which shows the protective action of Albizzia lebbeck in bronco spasm and other allergic disorders.<sup>14</sup>

### Anti – ulcer property

### Miscellaneous activity

Albizzia lebbeck is known to reduce plasma cholesterol level significantly. Root of Albizzia lebbeck possess antifungal properties against *Helminthosporium sativum*. Pods of the plant exhibits

anticancer activity against human epidermis carcinoma of nasopharynx in tissue culture. bark of Albizzia lebbeck possesses a wide antibacterial property against *E. coli* and antiamebic activity against *Entamoeba histolytica*. Seed of Albizzia lebbeck in the dose of 200mg/kg inhibits ovulation in 60 % of experimental animals. The extract at 2 % concentration exhibits spermicidal effect on rat and human semen

### Drug interactions

Drug interactions are not reported up till date with Albizzia lebbeck.

### Toxicity

Albizzia lebbeck does not exhibit any toxic effect

## CONCLUSION

The present review on *shirish* of different *nighantus* can be useful to know about the different formulations of *shirish* in which different parts of this plant is use. By this way we can use *shirish* in the treatment of different diseases. Most of the *nighantus* have mentioned *shirish* has good *vishaghan*, *kushtagan*, *kasahara* properties.

**BIBLIOGRAPHY**

1. Charak Samhita: Agnivesh, Charak Chandrika Hindi Commentary Edited by Bramhanand Tripathi 4th Edition Chaukhambha Sanskrit Series Varansi – 1995.
2. Shshrut Samhita: Sushrut, Ayurveda Tatva Sandipika Part – 1 & 2, Hindi commentary edited by Kaviraj Ambikadatta Shastri, 17th Edition 2003, Chaukhambha Sanskrit Sansthan, Varanasi.
3. Ashtang Hridaya: Vagbhat Vidyatini Hindi commentary - By Atridev Vidyalankar Edited by Yadhunanda Upadhyaya. 11th Edition. 1993.
4. Dravyaguna Vighyan, 17<sup>th</sup> Edition. By Acharya Priyavat Sharama. Chaukhambha Bharti Academy, Varanasi, 1995.
5. Chopra R.N., Badhwar R.L., Ghosh S., Poisonous Plants of India, volume 1:352 (1984)
6. Amani M.D., El-Mousllamy, Phytochemistry 48(4):759-761(1998)
7. Rashid R.B., Chowdhary.R., Jabbar A., Hasan C.M., Rashid M.A., Saudi.Pharm.J.11(1-2):
8. Modern Medical Toxicology by V.V. Pillay. JAYPEE Publishers (P) Ltd. Fourth edition (2013).
9. Chopra R.N., Badhwar R.L., Ghosh S., Poisonous Plants of India, volume 1:352 (1984).
10. Bhatnagar S.S., et.al., Indian J med. Res.48,799- 813(1961).