**Shirish as an Antidote in Ayurveda**

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**ABSTRACT**

Albizia lebbeck commonly known as *shirish*, has number of therapeutic properties. Albizia lebbeck 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 lebbeck possesses antianaphylactic, anti-asthmatic activity

**KEYWORDS**

Saponin, Anaphylactic activity, Vishagana, Panch shirish agada

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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. Albizia lebbeck is one of them, which are commonly used in ayurvedic medicines.\(^\text{13}\)

ALBIZIA LEBBECK

**Varga:**
Charaka: Vishaghna, Vedanasthapaka, Shirovirechaka, Kashayaskandha.
Sushruta: Salsaradi gana.

**Family:**
Family: Shimbi kula (Leguminosae).
Natural Order: Balbool kula (Mimosoidae).

**Latin name:** Albizia lebbeck Benth.

**Synonyms**
Sanskrit: Shirish, shukpriya.\(^\text{4}\)

**Types:**
- Albizia odorotissima Benth.
- Albizia lucida Benth.

- Albizia 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*.\(^\text{4}\)

**CONSTITUENTS:**
The main chemical in the bark of Albizia lebbeck 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 \(^\text{4,10}\)
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 cyangenic 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.11

USES IN CLASSICAL TEXTS
Albizia lebbeck is general and universal antidote (Sirishah vishaghnanam shreshthah-Charak sutra1
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.1

Attributes
Rasa : Kashay, Tikta, Madhura.
Vipaka : Katu.
Virya : Anushna.
Guna : Laghu, Ruksha, Tikshna
Karma : Tridosha shamak.
Prabhava : Vishagnata.4

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 lebbeck should be used in vishavikaras. C.ch 23 1
Shirish puship swaras with honey is usefull in Virshak dansh. C ch 23. Powder of Shrish is used as anjanarth in sarpvisha C
A seed of Albizia lebbeck is used in loota vish C ch 23.\(^1\)

In mukha visha powder of seeds mixed with honey is used as pratasarana. Su. ka
Shirish bark, rasanjana 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.\(^2\)

**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.\(^2\)

**paranvaha**

It is kaphashodhana and shoshana due to its ushna, teeksha, and rooksha gunas. Beeja churna nasya should be given in jeerna Kapharogas. Pushpasvarasra should be given with honey and pippali powder in shvasa. Avaleha made from the bark is also used.\(^2\)

**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. Vishvnikaras – Bark decoction and the seed powder is used in sthavara and jangama vishas.\(^4\)

**Mamsa – Medavaha**

Kushtha – Gandamala – It is a good kledanashana and kaphaghna draya due to its kashaya, tikta, rooksha, laghu, ushna and teeksha 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.\(^4\)

**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.\(^2\)
3) Astam visha nashak yog is given in c.ch\(^1\)
4) Panch shirish agad is the main gada in stahavar and jangam visha c.ch 23\(^1\)
5) Useful in luta visha if taken orally ch c 23\(^1\).

**DOSE**

The dosages of albizzia lebbeck 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.\(^4\)

**Kalpa**

Mahashirishagada, Shirisharista, Dashang lepa\(^1\)
MODERN RESEARCH Anti allergic activities: Albizzia 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.\textsuperscript{14}

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 Albizia lebbeck possesses a wide antibacterial property against E. coli and antiamoebic activity against Entamoeba histolytica. Seed of Albizia 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 Albizia lebbeck.

Toxicity

Albizia lebbeck does not exhibit any toxic effect

CONCLUSION

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


