



A SYSTEMIC TAXOLOGICAL STUDY ON BHALLATAKA PLANT

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ABSTRACT

The plant family Anacardiaceae includes *Semecarpus anacardium* Linn. Another name for this tree is the marking nut tree. Although this plant is poisonous, the Ayurvedic medical system advises utilizing its fruits and other useful parts for the treatment of haemorrhoids, worms, constipation, ascites, bronchitis, skin problems, acute rheumatism, and other illnesses. Additionally, the *Semecarpus anacardium* Linn. may be analgesic, anti-helminthic, anti-cancer, anti-inflammatory, and anti-oxidant. *Semecarpus anacardium* Linn's active ingredients, *Semecarpol* (monohydroxy phenol) and *Bhilawanol* (o-dihydroxy substance), have been demonstrated to be primarily responsible for the therapeutic potentials. The primary goal of this website is to present the most recent findings on the therapeutic potential of Bhallataka (*Semecarpus anacardium*) for a variety of diseases. The major goal of this article is to present the most recent findings on the medicinal potential of Bhallataka (*Semecarpus anacardium*) against a variety of diseases.

KEYWORDS - Bhallataka, *Semecarpus anacardium*, Diseases, etc.

INTRODUCTION

The plant bhallataka (*Semecarpus anacardium* Linn.), also known as marking nut, dhobi nut, bhilawa, and biba, belongs to the Anacardiaceae family. One of the most effective, useful, and popular herbs for home remedies. In India, it has been in use for centuries. Ancient ayurvedic traditions held it in the highest regard. It is a plant that is well-known for its significant therapeutic significance in Ayurveda and for treating a variety of illnesses. The term "bhallataka" describes a sharp characteristic of the plant. Faster alleviation is provided by Bhallataka's hot potency, light, and sharpness qualities, which also have a variety of other beneficial benefits.¹

Both internally and externally, bhallataka is useful (fruit should be cleansed before eating or use of the beneficial component of bhallataka). Since Bhallataka is one of the irritating organic vegetable toxins, people must go through a procedure known as shodhansanskara before beginning therapy with it. Bhallataka's medicinal potential is increased while its toxicity is decreased by this method. The Charak Samhita has a number of ballataka recipes. The Sushrut Samhita describes the qualities of objects, foods, and medicinal oil from

Bhallataka. In bhaishajyaratnawali, several bhallataka formulations are described in depth. One of the primary drugs used in Ayurvedic medicine is bhallataka..²

DESCRIPTION OF BHALLATAK PLANT

From the Sutlej to Sikkim and in the outer Himalaya, this tree may be found in profusion in the drier regions of India. A medium-sized deciduous tree, *Semecarpus anacardium*, may grow to heights of 12 to 15 meters and girths of 1.25 meters. The fruits—also known as marking nuts—are used medicinally. The tree produces nuts, which frequently resemble hearts, have a rough base protrusion, and an edible kernel within. When combined with lime water or alum, blackberry oil, sometimes referred to as bhilawan oil, which is formed by the pericarp of the kernel, has been used as writing ink in Malaya and India. The leaves are huge, obviate-oblong in shape, tightly clustered.³

AYURVEDIC PROPERTIES

Bhallataka also has a sweet and astringent flavor (rasa), a sweet aftertaste (vipaka), and a sweet post-digestive impact (veerya), in addition to its hot intensity. It is fully free of the kapha and vatadoshas and possesses the qualities of light (laghu), unctuous (snigdha), sharp (teekshna), and heat (ushna). It works well as a stimulant, digestive aid, rejuvenator, aphrodisiac, and for the treatment of rheumatic and skin conditions.⁴

ANCIENT APPLICATION

According to the Ramayana in particular, Bhallataka was purportedly used in traditional medical systems for hair maintenance. It is also used in conventional medicine to color hair and encourage hair growth. furthermore, employed to cauterize joint soreness and swelling brought on by rheumatoid arthritis⁵

CHEMICAL COMPOSITION

The nut's kernel contains just a little amount of delectable oil. The fruit's pericarp contains a strong, bitter astringent component that is utilized as a mark-replacement agent all across India. The tarry oil found in the pericarp's black, acidic juice is made up of 90% anacardiac acid, a higher, non-volatile alcohol, and 10% cardol. Naidu (1925) extracted catechol, a monohydroxyphenol he termed anacardol, two acids, and a fixed oil from the nut's kernel. Vesicating oil, which is 32% soluble in ether and becomes black when exposed to air, is also present in the pericarp. Just a tiny quantity of delicious oil may be found in the nut's kernel. In India, the pericarp of the fruit contains a strong, bitter astringent substance that is used as a mark-replacement agent. The dark, acidic juice of the pericarp contains tarry oil that is 90% anacardiac acid, 10% cardol, and a higher, non-volatile alcohol. From the kernel of the nut, Naidu (1925) isolated catechol, a monohydroxyphenol he called anacardol, two acids, and a fixed oil. The pericarp also contains vesicating oil, which is 32% soluble in ether and becomes black when exposed to air. 2.14 percent of the fruit's ash is formed by progressively extracting crushed fruit (pericarp and kernel) with light oil, alcohol, and water.⁶

Pillay and Siddiqui (1931) recently analyzed the medication's composition. The juice from the pericarp can be used to extract the following ingredients. Its nut has been chemically and photochemically analyzed, and it was

found to include flavonoids, tannins, carbohydrates, proteins, and steroids. In the past, the fluid, which is copious, black, oily, bitter, and extremely vesicant in the pericarp of the semecarpusanacardium fruit, has been used to make linen labels. Phenols are abundant in the commercially offered vesican juice known as Bhilawan Shell Liquid.⁷

MEDICINAL USES

Among the many health benefits of bhallataka are aphrodisiac, carminative, diuretic, antihelminthic, liver and heart stimulant, diuretic, nervinetic, and rasayana. Both internally and externally, bhallataka is employed. Due to the fruit's powerful medicinal properties, its oil and seeds are used to treat a variety of diseases. The bitter, fiery, antihelminthic fruit of *S. anacardium* is said to be able to cure ascites, tumors, warts, acute rheumatism, asthma, neuralgia, epilepsy, and psoriasis. It is used externally as a vesicant for rheumatism, sprains, eczema, leprosy, and other skin disorders, but only very rarely and with extreme caution. The kernel is a filling dish that creates a delicious appetizer, helps with digestion, and has carminative properties.⁸

PHARMACOLOGICAL ACTIVITY

ANTI- ONCOGENIC ACTIVITY

Biological investigations show that the fruit extracts are efficient in tissue culture against human nasopharyngeal epidermoid carcinoma. Oral administration to cancer patients, particularly those with oesophageal and mouth cancer, is advantageous in terms of delivering clinical improvement, symptom alleviation, and lengthening lives, according to experimental investigations on the anti-cancer action of nut juice.⁹

ANTI –INFLAMMATORY ACTIVITY

the SA nut extract's anti-inflammatory effects on newly diagnosed and established adjuvant arthritis. The paw edema caused by carrageenan and cotton pellets was considerably reduced by semecarpusanacardium. These findings demonstrate *Semecarpus anacardium*'s significant anti-inflammatory properties and medicinal potency. When it comes to lowering inflammation at all stages, nut extract is just as efficient as indomethacin.¹⁰

ANTI –BACTERIAL ACTIVITY

The pericarp's juice has antimicrobial qualities. BHI-lawanol sulphonates and arsenic derivatives do not vesiculate. At dosages of 1 in 5000–15 000, several of them have detectable bactericidal activity against *Bacillus pyogenes*, *B. coli*, *Staphylococcus*, and *Streptococcus pneumaticus*.¹¹

DISCUSSION

Since the dawn of civilization, *Semecarpus anacardium* have been used to heal ailments all across the world. A comprehensive analysis of the literature revealed that *Semecarpus anacardium* possesses a broad range of pharmacological actions. It is one of the most prized plants and contains a variety of biological potentials. Additionally, it offers a lot of chances for brand-new academic disciplines. The fruit extract has a wide range of beneficial properties, including those that are antibacterial, anti-cancer, anti-inflammatory, anti-atherogenic,

antioxidant, and hair growth promoter. Semecarpus anacardium requires more study and development to fully appreciate its traditional use and confirm its activity and mechanism of action for human wellbeing and survival.¹²

TOXICITY

Bhallataka should only be used on occasion because it is so hot and prickly. Anyone taking Bhallataka who experiences an allergic response should cease using it immediately. Young youngsters, the extremely old, pregnant women, and those with mostly pitta constitutions shouldn't use it. Only seldom throughout the summer should the same rule be followed. External remedies for its adverse responses, such as rash, itching, and swelling, include butter mixed with musta (*Cyperus rotundus*), coconut oil, rala ointment, ghee, coriander leaf pulp, and butter. When seeking treatment for Bhallataka, it is advised to stay away from the sun, the heat, and excessive sex. Salt and spice restrictions should also be quite strict.¹³

- **Toxic Part-** Fruit
- **Colour** - hard, black rind within which brownish, oily juice known as Bhallataka oil is present. **Weight** - 1.5 to 3.5 gm
- **Oil - Colour:** Brownish, oily Medicinal Dose
- **Kalka** - 3-6 gm
- **Taila** - 10-20 drop
- **Fatal Dose** - 5-10gm (pulpy juice) & 140-150 grain
- **Fatal Period** - 12-24 hour

Medico - Legal Aspect

- Juice given internally by quacks has the potential to accidentally poison people.
- Poisoning that is homicidal or suicidal is uncommon.
- The juice may be injected into the vagina as retribution for adultery.
- The juice is applied to the skin to induce lesion-stimulating bruises to support a bogus assault claim.
- The liquid could be hurled towards the body to harm it.
- The bruised nut is put to the cervicalos during illegal abortion.
- Malingerers create opthalmia with juice.

CONCLUSION

There are several medical applications for Semecarpus anacardium. The antiatherogenic, anti-inflammatory, antioxidant, antibacterial, anti-reproductive, CNS stimulant, hypoglycemic, anticarcinogenic, and hair growth promoter qualities of the fruit and nut extract are only a few of its many benefits. Further research is necessary to further understand the plant's traditional uses, as well as the following validation of activity and the mechanism of action.

CONFLICT OF INTEREST –NIL**SOURCE OF SUPPORT -NIL****REFERENCES**

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