

A REVIEW OF *ACORUS CALAMUS* (VACHA) AS PER ANCIENT ASPECT & RECENT ADVANTAGES WITH PHARMACOTHERAPEUTIC PROPERTIES

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ABSTRACT -

Acorus calamus is a useful medicinal plant that has proven to be beneficial in a variety of medical fields. This study examines the various pharmacological activities of plants using various extracts or solvents. In humans, this herb enhances the capacity of intelligence and self-expression. *Acorus calamus* comes in a variety of forms, each of which has anti-inflammatory, anti-spasmodic, anti-protective, and anti-hepatotoxic properties. The article also discusses the numerous *Acorus calamus* products on the market. The rhizome of the Calamus (*Acorus calamus* Linn., Araceae) plant, also known as sweet flag or Vacha, is an aromatic herb native to Central Asia and Eastern Europe. It has been used by the Ayurvedic practitioners since time immemorial for diseases ranging from weakness of memory to being used as an anthelmintic.

Keywords - *Acorus calamus*, Vacha, Ayurveda, Pharmacotherapeutic Properties.

INTRODUCTION –

Sweet roots are also known as Golomi, Ugragandha, Vekhanda, and Bach. Vacha (*Acorus calamus* Linn.) rhizomes are also known as sweet flag. Vacha holds a special place in Ayurveda because it is a key Medhya medicine that has the potential to enhance memory and intellect. In today's demanding and competitive environment, poor memory, poor retention, and sluggish recall are all common issues. Age, stress, emotions are conditions that may led to memory loss, amnesia, anxiety, high blood pressure, dementia and to more ominous threat like schizophrenia and Alzheimer's diseases. ^[1] Calamus root (also known as sweet flag, rat root, sweet sedge, flag root, sweet calomel, sweet myrtle, sweet cane, sweet rush, beewort, muskrat root, and pine root) contains multiple active constituents known as "asarones." 2,4,5-trimethoxy-1-propenylbenzene is the basic structure, and is related to the hallucinogen 3,4-methylenedioxyphenylisopropylamine (MDA). The amount of asarones in calamus

rhizomes varies greatly depending on the botanical variety. For example, triploid calamus from Eastern Europe has high concentrations, but the diploid North American variety has none.

Classic References -

Acharya Charaka has categorized Vacha in Lekhaniya, Arshoghna, Triptighna, Asthapnopa, Shirovirechana, Sanjnasthapana, Sitaprashamana Mahakashaya.² Charaka enumerated Haimvati (Shweta Vacha) under Mulini Varga.³

In Sushruta samhita, Vacha has been found in Pippalyadi, Mustadi and Vachadi gana.⁴ Acharya Vagbhatta has included the plant Vacha in Mustadi, Vachadi, Vatsakadi, Haridradi, Chardana and Niruhana varga.

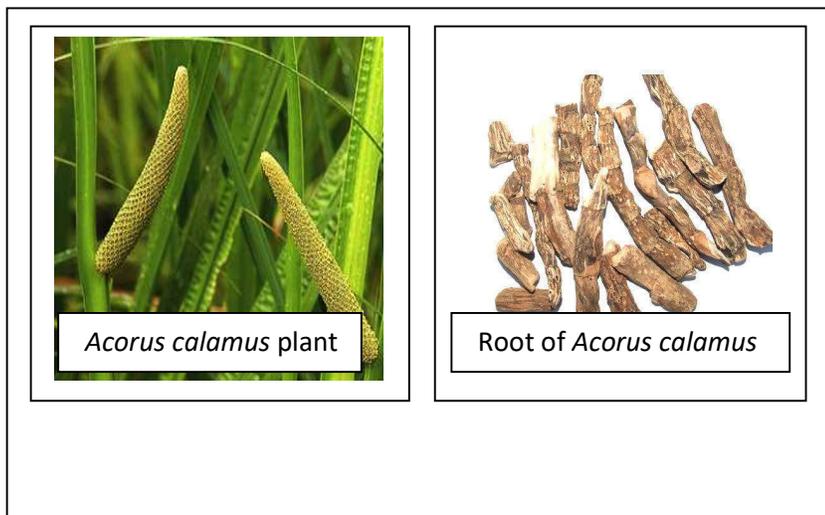
DESCRIPTION

a) Macroscopic⁵ -

Drug occurs in simple or rarely with thumb-like branches at nodes, sub cylindrical to slightly flattened, somewhat tortuous or rarely straight, cut pieces of 1-5 cm long, and 0.5-1.5 cm thick; upper side marked with alternately arranged, large, broadly, triangular, transverse leaf scars which almost encircle the rhizome; at nodes leaf sheath mostly having an appearance present; lower side shows elevated tubercular spots of root scars; light-brown with reddish-tinge to pinkish externally, buff coloured internally; fracture, short; odour, aromatic; taste, pungent and bitter.

b) Microscopic⁵ -

Rhizome - Shows single layered epidermis; cortex composed of spherical to oblong, thin-walled cells of various sizes, cells towards periphery, smaller, somewhat collenchymatous, more or less closely arranged cells towards inner side, rounded and form a network of chains of single row of cells, enclosing large air spaces, fibro-vascular bundles and secretory cells having light yellowish-brown contents, present in this region; endodermis distinct; stele composed of round, parenchymatous cells enclosing large air spaces similar to those of cortex and several concentric vascular bundles arranged in a ring towards endodermis, a few vascular bundles scattered in ground tissues; starch grains simple, spherical, measuring 3-6 μ in dia., present in cortex and ground tissue.



CONSTITUENTS⁵ –

Volatile Oil (principal constituents of the Volatile oil are Asaryl aldehyde, Eugenol and Asarone), contains a bitter principle Acorin (Glucoside), Starch and Tannin.

PROPERTIES AND ACTION⁶ –

Rasa : Katu, Tikta

Guna : Laghu, Tikshna

Virya : Ushna

Vipaka : Katu

Karma: Deepan, Krimihara, Kanthya, Kaphahara, Medhya, Vatahara, Vamak, Mutravishodhani

IMPORTANT FORMULATIONS –

Vachadi Taila, Vacha lasunadi Taila, Sarasvata churna, Sarasvatarishta, Chandraprabha vati, Khadiradi vati.

THERAPEUTIC USES –

Acorus calamus used in Ayurvedic medicine on a regular basis for the treatment of memory loss (Smriti daurbalya) and other mental disorders. Acorus calamus also used in Shula, Apasmara, Shwasa, Kasa, Vibandha, Unmada, Adhmana.⁶

CONCLUSION –

One of the most popular herbal medicines is vacha. Acorus calamus is a medicinal plant that is used to cure a number of diseases and has the potential to enhance memory and intellect. Vacha is used to

treat vitiated Vata and Kapha disorders, as well as gastrointestinal issues such as dyspepsia, flatulence, stomatopathy, and helminthiasis, as well as amenorrhea, dysmenorrhea, nephropathy, calculi, stragury, and hoarseness of speech. Vacha essential oils have antispasmodic and carminative properties, and are used to treat epilepsy, psychiatric illnesses, chronic diarrhea, dysentery, and tumors. The rhizome of *Acorus calamus* is used to treat a variety of ailments, including asthma and as a sedative.

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