



An overview on Traditional uses and Pharmacological profile of *Acorus calamus* Linn. (Sweet flag) .

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ABSTRACT

Acorus calamus commonly known as sweet flag or calamus is a tall perennial monocot plant belonging to the family Acoraceae. *Acorus calamus* (Sweet flag) has a long history of use and has numerous traditional and ethno medicinal applications. Since ancient times, it has been used in various systems of medicines such as Ayurveda, Unani, Siddha, Chinese medicine, etc. for the treatment of various ailments like nervous disorders, appetite loss, bronchitis, chest pain, colic, cramps, diarrhea, digestive disorders, flatulence, gas, indigestion, rheumatism, sedative, cough, fever, bronchitis, inflammation, depression, tumors, hemorrhoids, skin diseases, numbness, general debility and vascular disorders. The presence of appreciable volatile oil fraction (1.5% to 3.5%) gives the plant its characteristic odour and taste. The rhizomes of *A. calamus* are considered to possess aromatic, stimulant, bitter, tonic, emetic, expectorant, emmenagogue, aphrodisiac and anthelmintic properties. It has also been found to be effective in various disorders like chronic diarrhea, dysentery, bronchitis, otitis media, cough, asthma, and glandular and abdominal tumors. The plant is rich in phytochemical constituents such as α , β and γ -asarone, sequesterpenes and acorenones which have been reported to exhibit antimicrobial, anti-inflammatory, antioxidant and mitogen inhibitor activity. Various pharmacological activities of *A. calamus* rhizome such as sedative, CNS depressant, anticonvulsant, antispasmodic, cardiovascular, hypolipidemic, immunosuppressive, anti-inflammatory, cryoprotective, antioxidant, antidiarrheal, antimicrobial, anti-cancer and antidiabetic has been reported. Thus, the plant and its constituents exert protective effects against different diseases and disorders. The present study documents the traditional uses, phytochemical constituents and pharmacological activities of *A. calamus* and provides insights about its potential in the development of treatment strategies against various diseases.

Keywords: *Acorus calamus*, *Sesquiterpenes*, β - *asarone*, *Anticholinergic*, *Anticonvulsant*.