Research Paper

Aphrodisiac Activity of Roots of Mimosa pudica Linn. Ethanolic Extract in Mice

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ABSTRACT: The present study was aimed to investigate the effect of the ethanolic extract of roots of Mimusa pudica Linn. (Mimosae) on libido of sexually normal Swiss Albino male mice. The suspension of the extract was administered orally at the dose of 100, 250, and 500 mg/kg to different groups of male mice (n = 6) once a day for seven days. The female albino mice involved in mating were made receptive by hormonal treatment. The general libido and potency were determined and compared with the standard reference drug sildenafil citrate. A change in hormonal parameter like testosterone was evaluated. Oral administration of the extract significantly increased the libido and hormonal levels of testosterone. The most appreciable effect of the extract was observed at the dose of 500 mg/kg. The results indicated that the ethanolic extract of roots of Mimusa pudica Linn. (Mimosae) produced a significant and sustained increase in the aphrodisiac activity of normal male mice, without any adverse effects.

KEYWORDS: Mimosa pudica; aphrodisiacs; sexual behavior; testosterone; aphrodisiac activity.

Introduction

An (aphrodisiac) is a substance that is believed to arouse sexual desire or improve sex performance. It can be food, drink, scent, drug or any thing that provokes sexual desire and may be derived from plant, animals and minerals. They are common in every culture and belief in the power dates back to centuries. The term, Aphrodisiac is derived from Aphrodite, the Greek goddess of sexual love and beauty. Most food substances considered aphrodisiac, are essentially harmless, however, several drug, bugs, animals and chemicals can have deadly effects. Massaging with various oils all over body is also carried out to improve blood circulation. As sexual activity like the one any other biological activity is biochemical in nature, the role of herbs and drugs to affect this function should not be ruled out. Ayurveda recognized this vital importance and formulated Bajikaran, therapy to a horse for sexual urge and horse like energy for sex. These drugs are placed under rejuvenating drugs in Ayurveda for rejuvenating purpose. However the systematic methodology and research was not reported in literature on this ethanomedicinal plant gives us clue for evaluation of this drug for aphrodisiac activity.

Mimusa pudica Linn. (Mimosae) known as sensitive plant in English and Layvanti or Chuimui in local Hindi language. The plant is distributed through out in India in moist locality. A diffuse prickly under shrub, is about 45 - 90 cm in height. Leaves bipinnately compound, pinnate 2-4, delicately arranged with 10-20 pairs of leaflets, rachis clothed with ascending bristles. Flowers pink, in globose heads, peduncles prickly, usually in auxiliary pairs all along the branches. The roots and leaves are commonly used in treatment as bitter, astringent, acrid, cooling vulnerary, alexipharmic, resolvent, diuretic, antispasmodic, emetic, constipating, and febrifuge. They are useful in vitiated conditions of pitta, leucoderma, vaginopathy, metropathy, ulcers, dysentery, inflammations, burning sensation, haemorrhoids, jaundice, asthma, fistula, small pox, strangury, spasmodic, affections and fevers. (Vaidyaratnam, P.S., 2001)

The leaves are bitter, sudorific and tonic, and are useful in hydrocele, haemorrhoids, fistula, scrofula, conjunctivitis, cuts, wounds, and hemorrhages. The whole plant is used internally for vesicle calculi and externally for odema, rheumatism, myalgia and tumors of the uterus. (Sharma PC, et. Al., 2001)

Literature survey on Mimusa pudica Linn. (Mimosae) suggest various therapeutic use of plant reported such as urolithiasis (Joymma S, et. al., 1990), ovulation (Valsala S, et al., 1992), vibriocidal (Akinsinde KA, et al., 1995), antidepressant (Molina M, et al., 1999), estrogenic