

Anti-anxiety and CNS modulatory activities of *Vitex agnus-castus* Linn.

Anita Rani Shikshartha^{1,*}, Anupam Sharma²

¹L.R. Institute of Pharmacy, Solan 173 212, India.

²University Institute of Pharmaceutical Sciences, Panjab University, Chandigarh, India

*Corresponding Author: anitashikshartha@rediffmail.com

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Abstract

Vitex agnus-castus Linn. (Verbenaceae) has been traditionally used for the treatment of various ailments such as management of female reproductive disorders, menopausal symptoms, insufficient milk production, cyclical mastalgia and inflammatory conditions, diarrhea and flatulence. Despite a long tradition of use, no systematic phytochemical and pharmacological work has been carried out on this potential plant. Thus, *V. agnus-castus* was subjected to preliminary anti-anxiety screening studies, with a view to ascertain the verity of its traditional use as an anxiolytic. In the present investigation, fruits of the plant were extracted using solvents viz., petroleum ether (60–80°C), chloroform, methanol and distilled water. All the crude extracts were evaluated for anti-anxiety activity in rats using elevated plus maze, light/dark box and hole board test models. Among all these extracts, only methanol and water extracts exhibited significant anti-anxiety activity at a dose of 200 mg/kg with respect to control as well as standard (diazepam, 2 mg/kg). Phytochemical screening showed presence of alkaloids, iridoid glycosides, tannins, carbohydrates and flavonoids in methanol and water extracts of *V. agnus-castus*.

Keywords: *Vitex agnus-castus*; anti-anxiety activity; Verbenaceae

Introduction

Vitex agnus-castus Linn. (Family Verbenaceae) is commonly known as chaste tree or chasteberry. Its leaves, flowers, and/or berries traditionally may be consumed as a decoction, traditional tincture, cider vinegar tincture, syrup, elixir, or simply eaten straight off the plant as a medicinal food. The berries are considered a tonic herb for both the male and female reproductive systems. The leaves are believed to have the same effect but to a lesser degree. (Hartung, 2000; Chevallier, 2000). This plant is commonly called *monk's pepper* because it was originally used as anti-libido medicine by monks to aid their attempts to remain celibate. It is believed to be an aphrodisiac, hence the name *chaste tree*. Clinical studies have shown its beneficial effects in the management of premenstrual stress syndrome (PMS) (Wuttke, *et al.*, 2003) and infertility and also treat disorders including corpus luteum insufficiency cyclic