



Can chasteberry relieve premenstrual syndrome?

SHELLENBERG R. TREATMENT FOR THE PREMENSTRUAL SYNDROME WITH AGNUS CASTUS FRUIT EXTRACT: PROSPECTIVE, RANDOMIZED, PLACEBO-CONTROLLED STUDY. *BMJ*. 2001;322:134-137.

OBJECTIVE: To compare the efficacy and tolerability of agnus castus fruit (*Vitex agnus castus* L extract Ze 440) with placebo for women with premenstrual syndrome (PMS).

DESIGN: Randomized, double-blind, placebo-controlled, parallel group comparison over 3 menstrual cycles.

SETTING: General medicine community clinics.

PARTICIPANTS: 178 women were screened and 170 were evaluated (active 86; placebo 84). Mean age was 36 years, mean cycle length was 28 days, mean duration of menses was 4.5 days.

INTERVENTIONS: Agnus castus (dry extract tablets) 1 tablet daily or matching placebo, given for 3 consecutive cycles.

MAIN OUTCOME MEASURES: Main efficacy variable: change from baseline to endpoint (end of third cycle) in women's self-assessment of irritability, mood alteration, anger, headache, breast fullness, and other menstrual symptoms including bloating. Secondary efficacy variables: changes in clinical global impression (severity of condition, global improvement, and risk or benefit) and responder rate (50% reduction in symptoms).

RESULTS: Improvement in the main variable was greater in the active group compared with the placebo group ($P < .001$). Analysis of the secondary variables showed significant ($P < .001$) superiority of active treatment in each of the 3 global impression items. Responder rates were 52% and 24% for active and placebo, respectively. Seven women reported mild adverse events (4 active; 3 placebo), none of which caused discontinuation of treatment.

CONCLUSION: Dry extract of agnus castus fruit is an effective and well-tolerated treatment for the relief of symptoms of the premenstrual syndrome. (Reprinted with permission from the *British Medical Journal*.)

EXPERT COMMENTARY: *Vitex agnus castus*, or chaste-

berry, grows along hillsides and riverbanks in Mediterranean countries and central Asia. Ancient Greek physicians, including Hippocrates, used chasteberry preparations to stimulate milk production in new mothers and to treat menstrual difficulties.¹ Since the mid-1900s, herbalists, primarily European, have used chasteberry tinctures and extracts to treat luteal phase defects, hyperprolactinemia, menorrhagia, and PMS.¹

Chasteberry contains a mixture of flavonoids and iridoid glycosides, including casticin, orientin, and isovitexin. These constituents appear to stimulate production and secretion of luteinizing hormone or progesterone. They also exert a dopaminergic effect, which serves to suppress prolactin secretion from the pituitary gland, and they may interact with opioid and benzodiazepine receptors.² Although compounds structurally similar to estrogen have been isolated from the chasteberry, direct estrogenic effects have not been demonstrated.

While agnus castus was an effective treatment in this well-designed trial, all too often initial favorable results with herbal agents are unconfirmed in subsequent investigations. Although chasteberry has a 2,500-year-old track record of safety and utility in treating female reproductive disorders, there is still little scientific data regarding the mechanism of action of its constituent phytochemicals. However, we do know that because they lower prolactin levels, agnus castus preparations are contraindicated during pregnancy and breastfeeding. In addition, the herb could interfere with hormones or medications that affect the pituitary gland.

THE BOTTOM LINE: Physicians may consider administering 20 mg of *Vitex agnus castus* extract daily to patients suffering from PMS. Symptomatic improvement should be achieved within 3 months.

Samuel Smith, MD
Director, Department of OBG
Harbor Hospital
Baltimore, Md

REFERENCES

1. Foster S. Chaste Tree—*Vitex agnus castus*. Available at: <http://www.herbphoto.com/education/monograph/vitex.html>. Accessed January 2, 2002.
2. Medina JH, et al. Neuroactive flavonoids: new ligands for the benzodiazepine receptors. *Phytomedicine*. 1998;5:235-243.