Alecrim de Angola - Vitex Agnus-castus

Arbusto bastante ramificado; folhas digitadas, opostas, folhas labiadas, violáceas em cachos terminais. Originário da África.

**Princípio Ativo:** Pineno, cineol, lineol e vitricina.

**Partes Usadas:** Folhas

**Uso Popular:**
(O chá das folhas em descanso noturno)
- anti-espasmódico;
- anti-séptico;
- diurético;
- evita a formação de gases estomacais e intestinais (carminativo) e contra dores de estômago;
- tratamento da cefaléia.

**Uso Cientificamente Comprovados ou em Estudo:**
- mastalgia pré-menstrual (2, 5, 12, 23)
- atua seletivamente no receptor beta de estrogênio (3, 16)
- atua nos sintomas pré-menstruais (5, 7, 9, 11, 16, 18, 19, 20, 22)
- melhora dos sintomas depressivos pré-menstruais (8, 13)

**Biblioteca:**

1. Isolation of linoleic acid as an estrogenic compound from the fruits of *Vitex agnus-castus* L. (chaste-berry).
Department of Medicinal Chemistry and Pharmacognosy, UIC/NIH Center for Botanical Dietary Supplements Research, College of Pharmacy, University of Illinois at Chicago, Chicago, Illinois 60612, USA.

A methanol extract of chaste-tree berry (*Vitex agnus-castus* L.) was tested for its ability to displace radiolabeled estradiol from the binding site of estrogen receptors alpha (ERalpha) and beta (ERbeta). The extract at 46 +/- 3 microg/ml displaced 50% of estradiol from ERalpha and 64 +/- 4 microg/ml from ERbeta. Treatment of the ER+ hormone-dependent T47D:A18 breast cancer cell line with the extract induced up-regulation of ERbeta mRNA. Progesterone receptor (PR) mRNA was upregulated in the Ishikawa endometrial cancer cell line. However, chaste-tree berry extract did not induce estrogen-dependent alkaline phosphatase (AP) activity in Ishikawa cells. Bioassay-guided isolation, utilizing ER binding as a monitor, resulted in the isolation of linoleic acid as one possible estrogenic component of the extract. The use of pulsed ultrafiltration liquid chromatography-mass spectrometry, which is an affinity-based screening technique, also identified linoleic acid as an ER ligand based on its selective affinity, molecular weight, and retention time. Linoleic acid also stimulated mRNA ERbeta expression in T47D:A18 cells, PR
expression in Ishikawa cells, but not AP activity in Ishikawa cells. These data suggest that linoleic acid from the fruits of Vitex agnus-castus can bind to estrogen receptors and induce certain estrogen inducible genes.

2. Treatment of cyclical mastalgia with a solution containing a Vitex agnus castus extract: results of a placebo-controlled double-blind study.

Halaska M, Beles P, Gorkow C, Sieder C.
Department of Gynecology and Obstetrics, Charles University of Prague, U Nemocnice 2, 128 00 Praha 2, Czech Republic.

In a placebo-controlled, randomized, double-blind study the efficacy of a Vitex agnus castus extract-containing solution (VACS) was investigated in patients suffering from cyclical mastalgia. Patients had mastalgia on at least 5 days in the pre-treatment cycle. During this cycle and during treatment (3 cycles; 2 x 30 drops/day), the intensity of mastalgia was recorded once per cycle using a visual analogue scale (VAS). After one/two treatment cycles, the mean decrease in pain intensity (mm, VAS) was 21.4 mm /33.7 mm in women taking VACS (n=48) and 10.6 mm/20.3 mm with placebo (n=49). The differences of the VAS-values for VACS were significantly greater than those with placebo (p=0.018; p=0.006). After three cycles, the mean VAS-score reduction for women taking VACS was 34.3 mm, a reduction of 'borderline significance' (p=0.064) on statistical testing compared with placebo (25.7 mm). There was no difference in the frequency of adverse events between both groups (VACS: n=5; placebo : n=4). VACS appears effective and was well tolerated and further evaluation of this agent in the treatment of cyclical mastalgia is warranted.


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Recent cell culture experiments indicated that extracts of Vitex agnus-castus (VAC) may contain yet unidentified phytoestrogens. Estrogenic actions are mediated via estrogen receptors (ER). To investigate whether VAC compounds bind to the currently known isoforms ERalpha or ERss, ligand binding assays (LBA) were performed. Subtype specific ER-LBA revealed a binding of VAC to ERss only. To isolate the ERss-selective compounds, the extract was fractionated by bio-guidance. The flavonoid apigenin was isolated and identified as the most active ERss-selective phytoestrogen in VAC. Other isolated compounds were vitexin and penduletin. These data demonstrate that the phytoestrogens in VAC are ERss-selective.

4. Glucosides from Vitex agnus-castus.

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The methanolic extract of the flowering stems of Vitex agnus-castus yielded three new iridoids: 6'-O-foliamenthoylmussaenosidic acid (agnucastoside A), 6'-O-(6,7-dihydrofoliamenthoyl)mussaenosidic acid (agnucastoside B) and 7-O-trans-p-coumaroyl-6'-O-trans-caffeoyl-8-epiloganic acid (agnucastoside C) in addition to four known iridoids (aucubin, agnuside, mussaenosidic acid and 6'-O-p-hydroxybenzoylmussaenosidic acid) and one known phenylbutanone glucoside (myzodendrone). The structure elucidations were mainly done by
spectroscopic methods (1D and 2D NMR spectra) and MS data interpretation. The purified compounds were tested for biological activities against various microorganisms and cancer cell lines.

5. Chaste tree (Vitex agnus-castus)--pharmacology and clinical indications.
Wuttke W, Jarry H, Christoffel V, Spengler B, Seidlova-Wuttke D.
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Extracts of the fruits of chaste tree (Vitex agnus castus = AC) are widely used to treat premenstrual symptoms. Double-blind placebo-controlled studies indicate that one of the most common premenstrual symptoms, i.e. premenstrual mastodynia (mastalgia) is beneficially influenced by an AC extract. In addition, numerous less rigidly controlled studies indicate that AC extracts have also beneficial effects on other psychic and somatic symptoms of the PMS. Premenstrual mastodynia is most likely due to a latent hyperprolactinemia, i.e. patients release more than physiologic amounts of prolactin in response to stressful situations and during deep sleep phases which appear to stimulate the mammary gland. Premenstrually this unphysiological prolactin release is so high that the serum prolactin levels often approach heights which are misinterpreted as prolactinomas. Since AC extracts were shown to have beneficial effects on premenstrual mastodynia serum prolactin levels in such patients were also studied in one double-blind, placebo-controlled clinical study. Serum prolactin levels were indeed reduced in the patients treated with the extract. The search for the prolactin-suppressive principle(s) yielded a number of compounds with dopaminergic properties: they bound to recombinant DA2-receptor protein and suppressed prolactin release from cultivated lactotrophs as well as in animal experiments. The search for the chemical identity of the dopaminergic compounds resulted in isolation of a number of diterpenes of which some clerodadienols were most important for the prolactin-suppressive effects. They were almost identical in their prolactin-suppressive properties than dopamine itself. Hence, it is concluded that dopaminergic compounds present in Vitex agnus castus are clinically the important compounds which improve premenstrual mastodynia and possibly also other symptoms of the premenstrual syndrome.

6. An integrative medicine approach to premenstrual syndrome.
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Complementary and alternative medicine (CAM) approaches are widely used by women with premenstrual syndrome (PMS) and premenstrual dysphoric disorder (PMDD). This article provides a comprehensive review of the medical literature on clinical applications of CAM for these conditions. The information was collected via a Medline review dating back to 1966 and subsequent selected review of bibliographies from these articles for non-Medline referenced but relevant clinical studies. For many of the therapies discussed, there is a lack of conclusive evidence either confirming or refuting efficacy. For other therapies, including certain herbal and nutritional approaches, the use of exercise, and the use of mind-body approaches, there is substantial evidence of efficacy. This review will be relevant to the practicing clinician seeking to become aware of and to understand the relevance of the complementary/alternative therapies being used by his/her patients for PMS and PMDD.

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OBJECTIVE: To review the evidence of herbs commonly used by women.
DATA SOURCES: Articles were located by searching Medline, Cochrane Database of Systemic Reviews, and the Combined Health Information Database and by hand searching the reference lists of recent systematic reviews. The databases were searched in January 2000 and October 2000 by using the Latin and common name of each herb. METHODS OF STUDY SELECTION: Preference was given to randomized, placebo-controlled trials. When available, English language studies were reviewed. If not, data are presented from review articles that summarize the foreign study. RESULTS: Many women use herbal therapies. In the United States, herbs are considered dietary supplements. The Food and Drug Administration (FDA) cannot remove them from the market unless they are proven unsafe. The herb industry plans to improve monitoring. Many prospective randomized controlled trials are being funded. Gingko biloba seems to slow the progression of dementia but increases the risk of bleeding. St John's Wort is efficacious for treating mild to moderate depression but has many drug interactions. Ginseng seems to improve well being in perimenopausal women, but it is often impure and has side effects and drug interactions. Garlic slightly lowers blood pressure and lipids. Echinacea slightly decreases the duration of colds but does not prevent them. Valerian is beneficial for insomnia, but there is no long-term safety data. Black cohosh may help the symptoms of perimenopause, and chasteberry may improve premenstrual syndrome. More study is needed on both herbs. CONCLUSION: Some herbs are medically useful, but the American public would benefit from increased regulation. Manufacturers should be able to ensure that herbs contain pure ingredients. Side effects and drug interactions should be listed. Well-designed studies are being conducted. The results will be helpful to physicians and patients when the clinical evidence becomes available.

8. Fluoxetine versus Vitex agnus castus extract in the treatment of premenstrual dysphoric disorder.
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Clinical trials have demonstrated that serotonin reuptake inhibitors (SRIs) and the extract of Vitex agnus castus are effective for the treatment of premenstrual dysphoric disorder (PMDD). However, to the best of our knowledge, there has been no study comparing the efficacy of the SRIs with Vitex agnus castus (AC) extract. Therefore, the aim of the present study was to compare the efficacy of fluoxetine, a selective serotonin reuptake inhibitor (SSRI), with that of the AC extract, a natural choice. After a period of 2 screening months to screen the patients for suitability, 41 patients with PMDD according to DSM-IV were recruited into the study. The patients were randomized to fluoxetine or AC for 2 months of single-blind, rater-blinded and prospective treatment period. The outcome measures included the Penn daily symptom report (DSR), the Hamilton depression rating scale (HAM-D), and the clinical global impression-severity of illness (CGI-SI) and -improvement (CGI-I) scales. At endpoint, using the clinical criterion for improvement, a similar percentage of patients responded to fluoxetine (68.4%, n = 13) and AC (57.9%, n = 11). There was no statistically significant difference between the groups with respect to the rate of responders. This preliminary study suggests that patients with PMDD respond well to treatment with both fluoxetine and AC. However, fluoxetine was more effective for psychological symptoms while the extract diminished the physical symptoms. Copyright 2002 John Wiley & Sons, Ltd.

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10. Cytotoxicity and apoptotic inducibility of Vitex agnus-castus fruit extract in cultured human normal and cancer cells and effect on growth.

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A crude extract was prepared with ethanol from dried ripened Vitex agnus-castus fruits growing in Israel (Vitex extract). Cytotoxicity of the extract against human uterine cervical canal fibroblast (HCF), human embryo fibroblast (HE-21), ovarian cancer (MCF-7), cervical carcinoma (SKG-3a), breast carcinoma (SKOV-3), gastric signet ring carcinoma (KATO-III), colon carcinoma (COLO 201), and small cell lung carcinoma (Lu-134-A-H) cells was examined. After culture for 24 h (logarithmic growth phase) or 72 h (stationary growth phase), the cells were treated with various concentrations of Vitex extract. In both growth phases, higher growth activity of cells and more cytotoxic activity of Vitex extract were seen. The cytotoxic activity against stationary growth-phase cells was less than that against logarithmic growth-phase cells. DNA fragmentation of Vitex extract-treated cells was seen in SKOV-3, KATO-III, COLO 201, and Lu-134-A-H cells. The DNA fragmentation in Vitex extract-treated KATO-III cells was inhibited by the presence of the antioxidative reagent pyrrolidine dithiocarbamate or N-acetyl-L-cysteine (NAC). Western blotting analysis showed that in Vitex extract-treated KATO-III cells, the presence of NAC also inhibited the expression of heme oxygenase-1 and the active forms of caspases-3, -8 and -9. It is concluded that the cytotoxic activity of Vitex extract may be attributed to the effect on cell growth, that cell death occurs through apoptosis, and that this apoptotic cell death may be attributed to increased intracellular oxidation by Vitex extract treatment.
11. Phytoestrogens: a viable option?
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Estrogen replacement therapy is one of the most commonly prescribed medicines in the United States by traditional medical professionals. Over the past decade, the market for complementary/alternative therapies for hormone replacement has dramatically increased. Women are seeking more "natural" alternatives to treat menopausal symptoms. Well-designed randomized clinical trials are often lacking, as is the information on efficacy and safety. This article will review several popular herbal therapies for menopausal symptoms including phytoestrogens, black cohosh (Cimicifuga racemosa), dong quai (Angelica sinensis), chast tree (Vitex agnus-castus), and wild Mexican yam. Their use, mechanism of action, and adverse effects are outlined.

12. [Effectiveness of Vitex agnus-castus preparations]
[Article in German]
Gorkow C, Wuttke W, Marz RW.
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The prolactin-inhibiting effect of ACF-preparations, which is due to dopaminergic activities, has been shown in humans too and gives a pharmacological rationale for the clinical effects observed in the different indications (2, 11, 25, 26, 35, 41). Confirmation of efficacy in the treatment of mastalgia has been best endorsed by two recently published double-blind studies conducted according to the principles of GCP (14, 41). One double-blind study, several open and postmarketing surveillance studies have shown that the premenstrual syndrome, or individual symptoms, can be influenced positively (3, 6, 7, 9, 19, 21, 37). Design shortcomings in a second double-blind study should be eliminated in future studies in this indication to improve the body of evidence (18). Hither to there has been one controlled double-blind study of cycle disorders in the case of corpus luteum insufficiency with significant results and a number of non-controlled open studies (1, 4, 15, 16, 20, 24, 26, 27, 32, 35, 36). The high success rates in the open studies indicate therapeutic effects, and it should be possible to reproduce these results under double-blind conditions. The success rates on fertility disorders should be confirmed in controlled double-blind studies (10, 33, 34).

13. Selections from current literature. Treatments for premenstrual dysphoric disorder.
Carr M.
Department of Family Medicine, State University of New York at Stony Brook, Stony Brook, NY 11794, USA.

Hobbs C.

15. Herbal treatment for PMS?
Harv Womens Health Watch. 2001 May;8(9):7.
[No authors listed]
Liu J, Burdette JE, Xu H, Gu C, van Breemen RB, Bhat KP, Booth N, Constantinou AI, Pezzuto JM, Fong HH, Farnsworth NR, Bolton JL.
Department of Medicinal Chemistry and Pharmacognosy, UIC/NIH Center for Botanical Dietary Supplements Research, College of Pharmacy, M/C 781, University of Illinois at Chicago, 833 South Wood Street, Chicago, Illinois 60612, USA.

Eight botanical preparations that are commonly used for the treatment of menopausal symptoms were tested for estrogenic activity. Methanol extracts of red clover (Trifolium pratense L.), chasteberry (Vitex agnus-castus L.), and hops (Humulus lupulus L.) showed significant competitive binding to estrogen receptors alpha (ER alpha) and beta (ER beta). With cultured Ishikawa (endometrial) cells, red clover and hops exhibited estrogenic activity as indicated by induction of alkaline phosphatase (AP) activity and up-regulation of progesterone receptor (PR) mRNA. Chasteberry also stimulated PR expression, but no induction of AP activity was observed. In S30 breast cancer cells, pS2 (presenelin-2), another estrogen-inducible gene, was up-regulated in the presence of red clover, hops, and chasteberry. Interestingly, extracts of Asian ginseng (Panax ginseng C.A. Meyer) and North American ginseng (Panax quinquefolius L.) induced pS2 mRNA expression in S30 cells, but no significant ER binding affinity, AP induction, or PR expression was noted in Ishikawa cells. Dong quai [Angelica sinensis (Oliv.) Diels] and licorice (Glycyrrhiza glabra L.) showed only weak ER binding and PR and pS2 mRNA induction. Black cohosh [Cimicifuga racemosa (L.) Nutt.] showed no activity in any of the above in vitro assays. Bioassay-guided isolation utilizing ER competitive binding as a monitor and screening using ultrafiltration LC-MS revealed that genistein was the most active component of red clover. Consistent with this observation, genistein was found to be the most effective of four red clover isoflavones tested in the above in vitro assays. Therefore, estrogenic components of plant extracts can be identified using assays for estrogenic activity along with screening and identification of the active components using ultrafiltration LC-MS. These data suggest a potential use for some dietary supplements, ingested by human beings, in the treatment of menopausal symptoms.

17. Is an extract of the fruit of agnus castus (chaste tree or chasteberry) effective for prevention of symptoms of premenstrual syndrome (PMS)?
Huddleston M, Jackson EA.
University of Connecticut and Saint Francis Hospital and Medical Center, Hartford, CT, USA.

18. Treatment for the premenstrual syndrome with agnus castus fruit extract: prospective, randomised, placebo controlled study.
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OBJECTIVES: To compare the efficacy and tolerability of agnus castus fruit (Vitex agnus castus L extract Ze 440) with placebo for women with the premenstrual syndrome. DESIGN: Randomised, double blind, placebo controlled, parallel group comparison over three 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) one tablet daily or matching placebo, given for three consecutive cycles. MAIN OUTCOME
MEASURES: Main efficacy variable: change from baseline to end point (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 placebo group (P<0.001). Analysis of the secondary variables showed significant (P<0.001) superiority of active treatment in each of the three global impression items. Responder rates were 52% and 24% for active and placebo, respectively. Seven women reported mild adverse events (four active; three placebo), none of which caused discontinuation of treatment. CONCLUSIONS: Dry extract of agnus castus fruit is an effective and well tolerated treatment for the relief of symptoms of the premenstrual syndrome.


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In a prospective, multicentre trial the efficacy of an Vitex agnus castus L extract Ze 440 was investigated in 50 patients with pre-menstrual syndrome (PMS). The patients were treated daily with one tablet (20 mg native extract) during three menstrual cycles. 43 patients completed the study protocol which encompassed 8 menstrual cycles (2 baseline, 3 treatment and 3 post-treatment). 13/43 patients were receiving concomitant oral contraceptives. 6 patients did not complete the study for reasons not related to study medication, and one patient complained of fatigue possibly related to study medication. All evaluated patients took at least 85% of the prescribed medication. The main effect parameter was the validated Moos' menstrual distress questionnaire (MMDQ), and secondary parameters were a visual analogue scale (VAS; self-assessment) and a global impression scale (GI, self-assessment). The study population was homogenous in age (31.3 +/- 7.7 years) weight (58.9 +/- 6.9 kg) and cycle length (28.4 +/- 0.3 d). The diagnosis was according to DMS-III. At the end of the study, PMS-related symptoms were reduced by treatment. There was a significant score reduction (42.5%) of the MMDQ as the main effect parameter (p<0.001). Symptoms gradually returned after treatment cessation. However, a difference from baseline remained (20%; p<0.001) up to 3 cycles thereafter. 20/43 patients were considered "responders", with a reduction in MMDQ score by at least 50% relative to baseline. At baseline, the VAS score was elevated in the late luteal phase and low at the follicular phase, as expected. During treatment, VAS score decreased in the late luteal phase (47.2%; p<0.01) and remained 21.7% (p<0.001) below baseline after 3 cycles post-cessation of treatment. The low VAS score within the follicular phase remained unchanged over the whole observation period. 38 patients judged the global efficacy moderate to excellent, 5 patients indicated no global efficacy. The number of days patients sustained PMS symptoms was reduced slightly from 7.5 to 6. Resting levels of blood prolactin remained within the physiological range throughout. No differences were seen between patients on or off oral contraceptives. 20 patients reported 37 adverse events (AE). No serious AE were reported. One patient withdrew after four days of treatment due to fatigue and headache. Laboratory safety control parameters were not affected. In conclusion, patients with PMS can be treated successfully with Vitex agnus-castus extract Ze 440, as indicated by clear improvement in the main effect parameter during treatment and the gradual return after cessation of treatment. The main response to treatment seems related to symptomatic relief rather than to the duration of the syndrome.


http://medicina.cebinet.com.br/fitoterapia/alecrim2.shtm
The pharmacological effects of ethanolic Vitex agnus-castus fruit-extracts (especially Ze 440) and various extract fractions of different polarities were evaluated both by radioligand binding studies and by superfusion experiments. A relative potent binding inhibition was observed for dopamine D2 and opioid (micro and kappa subtype) receptors with IC50 values of the native extract between 20 and 70 mg/mL. Binding, neither to the histamine H1, benzodiazepine and OFQ receptor, nor to the binding-site of the serotonin (5-HT) transporter, was significantly inhibited. The lipophilic fractions contained the diterpenes rotundifuran and 6beta,7beta-diacetoxy-13-hydroxy-labd-8,14-dien. They exhibited inhibitory actions on dopamine D2 receptor binding. While binding inhibition to mu and kappa opioid receptors was most pronounced in lipophilic fractions, binding to delta opioid receptors was inhibited mainly by an aqueous fraction. Standardised Ze 440 extracts of different batches were of constant pharmacological quality according to their potential to inhibit the binding to D2 receptors. In superfusion experiments, the aqueous fraction of a methanolic extract inhibited the release of acetylcholine in a concentration-dependent manner. In addition, the potent D2 receptor antagonist spiperone antagonised the effect of the extract suggesting a dopaminergic action mediated by D2 receptor activation. Our results indicate a dopaminergic effect of Vitex agnus-castus extracts and suggest additional pharmacological actions via opioid receptors.

[Article in German]
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22. Treatment of premenstrual syndrome with a phytopharmaceutical formulation containing Vitex agnus castus.
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A multicentric noninterventional trial (open study without control) to investigate the efficacy and tolerance of a drug in a large number of patients under routine medical conditions was performed for a new solid preparation from an extract of the fruit of Vitex agnus castus (VAC, Vitex, chaste tree, Chasteberry) in 1634 patients suffering from premenstrual syndrome (PMS). A specific questionnaire was developed for determining the effect of Vitex on psychic and somatic complaints, on the four characteristic PMS symptom complexes depression, anxiety, craving, and hyperhydration (DACH), and on single groups of symptoms. After a treatment period of three menstrual cycles 93% of patients reported a decrease in the number of symptoms or even cessation of PMS complaints. To a certain extent, this effect was observed within all symptom complexes and correlated with the global assessment of therapeutic efficacy. Whereas 85% of physicians rated it as good or very good, 81% of patients assessed their status after treatment as very much or much better. Analysis of frequency and severity of mastodynia as the predominant symptom revealed that complaints still present after 3 months of therapy were mostly less severe. Ninety-four percent of patients assessed the tolerance of Vitex treatment as good or very good. Adverse drug reactions were suspected by physicians in 1.2% of patients, but there were no serious adverse drug reactions. Hence, the risk/benefit ratio of the new Vitex preparation can be rated as very good, with
significant efficacy for all aspects of the multifaceted and inhomogeneous clinical picture of PMS, with a safety profile comparable to other Vitex preparations.

23. [Treatment of cyclical mastodynia using an extract of Vitex agnus castus: results of a double-blind comparison with a placebo]
[Article in Czech]
Halaska M, Raus K, Beles P, Martan A, Paithner KG.
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The aim of study presented here was to gather the data about the tolerability and efficacy of Vitex agnus castus (VACS) extract. The study was designed as double-blind, placebo controlled in two parallel groups (each 50 patients). Treatment phase lasted 3 consequent menstrual cycles (2 x 30 drops/day = 1.8 ml of VASC) or placebo. Mastalgia during at least 5 days of the cycle before the treatment was the strict inclusion condition. For assessment of the efficacy visual analogue scale was used. Altogether 97 patients were included into the statistical analysis (VACS: n = 48, placebo: n = 49). Intensity of breast pain diminished quicker with VACS group. The tolerability was satisfactory. We found VACS to be useful in the treatment of cyclical breast pain in women.

Veal L.

Complementary therapists take a more holistic view of infertility treatment than do allopathic health professionals. Lifestyle and nutritional factors may be considered and possibly changed, and psychological and emotional problems such as stress will be treated. Hormonal imbalance in both sexes may be treated with Chinese herbal mixtures such as Hachimijiogan, herbs such as Vitex agnus-castus, or a blend of essential oils designed to treat amenorrhoea or scanty/irregular periods. Herbalists, practitioners of traditional Chinese medicine, aromatherpists, homeopaths and Ayurvedic practitioners all have a range of treatments for infertile people.

25. Multiple follicular development associated with herbal medicine.
Cahill DJ, Fox R, Wardle PG, Harlow CR.
University of Bristol Department of Obstetrics and Gynaecology, St Michael's Hospital, UK.

After three endocrinologically normal cycles while undergoing unstimulated in-vitro fertilization treatment, a woman took a herbal medicine (Vitex agnus castus) at the beginning of a fourth unstimulated IVF treatment cycle. In this fourth cycle, her serum gonadotrophin and ovarian hormone measurements were disordered. One embryo resulted from the three eggs collected but a pregnancy did not ensue. She had symptoms suggestive of mild ovarian hyperstimulation syndrome in the luteal phase. Two subsequent cycles were endocrinologically normal. We do not advocate the use of this herbal medicine to promote normal ovarian function.

26. [Vitex agnus castus extract in the treatment of luteal phase defects due to latent hyperprolactinemia. Results of a randomized placebo-controlled double-blind study]
[Article in German]
Milewicz A, Gejdel E, Sworen H, Sienkiewicz K, Jedrzejak J, Teucher T, Schmitz H.

The efficacy of a Vitex agnus castus preparation (Strotan capsules) was investigated in a randomized double blind study vs. placebo. This clinical study involved 52 women with luteal phase defects due to latent hyperprolactinaemia. The daily dose was one capsule (20 mg) Vitex agnus castus preparation and placebo, respectively. Aim of the study was to prove whether the elevated pituitary prolactin reserve can be reduced and deficits in luteal phase length and luteal phase progesterone synthesis be normalized. Blood for hormonal analysis was taken at days 5-8 and day 20 of the menstrual cycle before and after three month of therapy. Latent hyperprolactinaemia was analysed by monitoring the prolactin release 15 and 30 min after i.v. injection of 200 micrograms TRH. 37 complete case reports (placebo: n = 20, verum: n = 17) after 3 month of therapy were statistically evaluated. The prolactin release was reduced after 3 months, shortened luteal phases were normalised and deficits in the luteal progesterone synthesis were eliminated. These changes were significant and occurred only in the verum group. All other hormonal parameters did not change with the exception of 17 beta-estradiol which rouse up in the luteal phase in patients receiving verum. Side effects were not seen, two women treated with the Vitex agnus castus preparation got pregnant. The tested preparation is thought to be an efficient medication in the treatment of luteal phase defects due to latent hyperprolactinaemia.

27. Agnus castus extracts inhibit prolactin secretion of rat pituitary cells.
Sliutz G, Speiser P, Schultz AM, Spona J, Zeillinger R.
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In our studies on prolactin inhibition by plant extracts we focused on the effects of extracts of Vitex agnus castus and its preparations on rat pituitary cells under basal and stimulated conditions in primary cell culture. Both extracts from Vitex agnus castus as well as synthetic dopamine agonists (Lisuride) significantly inhibit basal as well as TRH-stimulated prolactin secretion of rat pituitary cells in vitro and as a consequence inhibition of prolactin secretion could be blocked by adding a dopamine receptor blocker. Therefore because of its dopaminergic effect Agnus castus could be considered as an efficient alternative phytotherapeutic drug in the treatment of slight hyperprolactinaemia.

28. [ISOLATION OF HOMO-ORIENTINE FROM THE LEAVES OF VITEX AGNUS CASTUS L.]
[Article in German]
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29. [Flavonoids from Vitex agnus castus L.]
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30. [Pseudoindican from Vitex agnus castus L.]
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Arch Pharm. 1960 May;293/65:556-67.
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