2008 Trial: SSRIs (Escitalopram)
Escitalopram administered in the luteal phase exerts a marked and dose-dependent effect in premenstrual dysphoric disorder

Link: https://pubmed.ncbi.nlm.nih.gov/18344730/

Year published: 2008

Pubmed classification: Randomised Controlled Trial.

Objective: To evaluate the efficacy of the selective serotonin reuptake inhibitor (SSRI), escitalopram, in the treatment of premenstrual dysphoric disorder (PMDD).

Blind/double blind? Unknown.

Randomised? Yes.

Placebo? Placebo group.

Participant information:151 women with PMDD.

Treatment length: 3 months.

Drug and dosage: 10 mg/d escitalopram; 20 mg/d escitalopram; or placebo (luteal phase only).

Measuring scales: Primary outcome parameter: Sum of symptoms irritability, depressed mood, tension and affective lability.
Additional measurement of breast tenderness, food craving, lack of energy.

Efficacy outcomes: Escitalopram was found to exert a marked and a dose-dependent symptom-reducing effect, 20 mg/d being clearly superior to 10 mg/d.
Although the primary outcome parameter, that is, the sum of the symptoms irritability, depressed mood, tension, and affective lability, was decreased by 90% with 20 mg/d escitalopram, the effect of active treatment on breast tenderness, food craving, and lack of energy was more modest and not significantly different from that of placebo; this outcome supports our previous assumption that the former symptoms are more inclined to respond to intermittent administration of an SSRI than are the latter.
Although the placebo response was high, the difference between the placebo group and the 20-mg/d escitalopram group with respect to the percentage of subjects displaying 80% or greater reduction in the rating of the cardinal symptom of PMDD, that is, irritability, was considerable: 30% versus 80%.

Side-effects assessment: Adverse events were those normally reported in SSRI trials, such as nausea and reduced libido, and were not more common in patients given 20 mg/d of escitalopram than in patients given the lower dose.

Conclusion: This study supports the usefulness of escitalopram for the treatment of PMDD and sheds further light on how different components of this syndrome are differently influenced by intermittent administration of an SSRI.

Trial 2006: SSRIs (Sertraline)

Low-dose Sertraline in the treatment of moderate-to-severe premenstrual syndrome: efficacy of 3 dosing strategies

Link: https://pubmed.ncbi.nlm.nih.gov/17107257/

Year published: 2006

Pubmed classification: Randomised Controlled Trial.

Objective: The objective of this study was to evaluate the safety and efficacy of sertraline in the treatment of moderate-to-severe PMS using 3 different dosing strategies.

Blind/double blind? Single-blind (during lead-in cycle).

Randomised? Yes.

Placebo? Placebo group (intervention phase) and placebo lead-in cycle.

Participant information: 314 women with PMS from 22 US sites.

Treatment length: 4 menstrual cycles (+ placebo lead-in cycle)

Drug and dosage: Sertraline 25mg, 50mg or placebo. 3 different dosing strategies: Luteal phase (2 cycles); followed by continuous dosing throughout the month (1 cycle); followed by dosing begun at the first onset of PMS symptoms, or "symptom-onset" dosing (1 cycle).

Measuring scales: Assessments included the Daily Symptom Report (DSR), the Clinical Global Impressions-Severity of Illness and -Improvement scales, the Patient Global Evaluation scale, the Quality of Life Enjoyment and Satisfaction Questionnaire, and the Social Adjustment Scale-Self Report.

Efficacy outcomes: Intermittent luteal-phase dosing with low doses of sertraline (25 and 50 mg/day) produced significant improvement across 2 menstrual cycles, based on total DSR scores, compared with placebo. Continuous and symptom-onset dosing were also effective in treating PMS symptoms, particularly at the lower dose of 25 mg/day.

Conclusion: The results of the current study suggest that low doses of Sertraline may be a safe and well-tolerated treatment for moderate-to-severe PMS.

Trial 2004: SSRIs (Sertraline)

Continuous or intermittent dosing with Sertraline for participants with severe premenstrual syndrome or premenstrual dysphoric disorder

Link: https://pubmed.ncbi.nlm.nih.gov/14754784/

Year published: 2004

Pubmed classification: Clinical trial.

Objective: To compare the efficacy and acceptability of continuous versus intermittent treatment with a selective serotonin reuptake inhibitor in women with severe premenstrual syndrome; and to determine the effects of postmenstrual symptom severity and depression history as covariates of the treatment response.

Blind/double blind? Double-blind.

Randomised? Yes.

Placebo? Placebo group.

Participant information: Patients who met symptom criteria and reported impaired functioning after three screening cycles.

Treatment length: 3 cycles (+3 screening cycles).

Drug and dosage: Continuous (full-cycle dosing); or intermittent (luteal-phase dosing); or placebo. Flexible sertraline dose was 50-100 mg/day.

Measuring scales: Outcome measures were the Daily Symptom Rating Form score and patient global ratings of functioning.

Further methodology information: The design was stratified for severity of postmenstrual symptoms and history of major depression.

Efficacy outcomes: Both sertraline groups improved significantly more than the placebo group as assessed by total premenstrual Daily Symptom Rating Form scores for 3 treatment months.

Daily Symptom Rating Form factors that were significantly more improved in the sertraline groups were mood and physical symptoms. More sertraline-treated subjects reported improved functioning in the domains of family relationships, social activities, and sexual activity.

Sertraline improvement occurred swiftly in the first month of treatment. Gradual placebo improvement was similar to sertraline in the third month.

Subjects with higher postmenstrual symptoms before treatment remained more symptomatic regardless of the dosing regimen. A history of major depression was not associated with treatment response.

Conclusion: Premenstrual dosing does not differ from continuous dosing with sertraline in premenstrual syndrome treatment. Higher levels of postmenstrual symptoms limit treatment response and are important to define in treatment of premenstrual syndrome.

Trial 2004: SSRIs (Venlafaxine)

Efficacy and tolerability of premenstrual use of Venlafaxine (flexible dose) in the treatment of premenstrual dysphoric disorder

Link: https://pubmed.ncbi.nlm.nih.gov/15349012/

Year published: 2004

Pubmed classification: Clinical trial.

Objective: To examine the efficacy and tolerability of intermittent dosing of venlafaxine for the treatment of premenstrual dysphoric disorder.

Blind/double blind? Single-blind (during lead in cycle).

Randomised? Unknown.

Placebo? Placebo lead-in cycle.

Participant information: 124 women aged 18-45 years with regular menstrual cycles who reported significant premenstrual symptoms. They were assessed prospectively to confirm PMDD diagnosis, and 20 participants were confirmed. After a placebo lead-in cycle, 12 went forward and 11 completed 2 cycles.

Treatment length: 2 cycles (+ 1 lead-in cycle).

Drug and dosage: Venlafaxine (75 to 112.5 mg/d). Doses could be adjusted after cycle 1 based on subjects' response and tolerability. Initiation of treatment occurred 14 days before anticipated onsent of menses and discontinued on second day of bleeding.

Measuring scales: Changes in the Daily Rating Severity of Problems and Premenstrual Tension Syndrome Questionnaire scores from baseline as well as Clinical Global Impression-Severity scores. Discontinuation symptoms were assessed between treatment cycles, using the Discontinuation-Emergent Signs and Symptoms questionnaire.

Efficacy outcomes: 9 subjects (81.8%) showed satisfactory response based on Clinical Global Impression of < or = 2. Changes in Daily Rating Severity of Problems scores and subscores (depression, physical symptoms, and anger), and in Premenstrual Tension Syndrome Questionnaire scores were significant ($P < 0.05$ for all comparisons, Wilcoxon tests).

Side-effects assessment: Intermittent treatment was well tolerated.

Conclusion: This preliminary report suggests that premenstrual use of venlafaxine is an efficacious and well-tolerated treatment for premenstrual dysphoric disorder.