Review 2013: SSRIs
Evaluating the effectiveness and safety of SSRIs for treating premenstrual syndrome.

Link: https://pubmed.ncbi.nlm.nih.gov/23744611/

Year: 2013

Pubmed classification: Review.

Objective: The objective of this review was to evaluate the effectiveness and safety of SSRIs for treating premenstrual syndrome.

Number of studies and types of papers: 31 Randomised Controlled Trials.

Drugs: Studies compared Fluoxetine, Paroxetine, Sertraline, Escitalopram and Citalopram versus placebo.

Databases searched: Electronic searches for relevant Randomised Controlled Trials (RCTs) were undertaken in the Cochrane Menstrual Disorders and Subfertility Group Specialised Register, Cochrane Central Register of Controlled Trials (CENTRAL) (The Cochrane Library), MEDLINE, EMBASE, PsycINFO, and CINAHL (February 2013). Where insufficient data were presented in a report, attempts were made to contact the original authors for further details.

Inclusion criteria: Studies were considered in which women with a prospective diagnosis of PMS, PMDD or late luteal phase dysphoric disorder (LPDD) were randomised to receive SSRIs or placebo for the treatment of premenstrual syndrome.

Methods for assessing research quality: Two review authors independently selected the studies; assessed eligible studies for risk of bias; and extracted data on premenstrual symptoms and adverse effects. The overall quality of the evidence for the main findings was assessed using the GRADE working group methods.

Research quality: The overall quality of the evidence was low to moderate, the main weakness in the included studies being poor reporting of methods. Heterogeneity was low or absent for most outcomes, though there was moderate heterogeneity for one of the primary analyses.

Statistical analysis methods: Studies were pooled using random-effects models. Standardised mean differences (SMDs) with 95% confidence intervals (CIs) were calculated for premenstrual symptom scores, using separate analyses for different types of continuous data (that is end scores and change scores). Odds ratios (ORs) with 95% confidence intervals (CIs) were calculated for dichotomous outcomes. Analyses were stratified by type of drug administration (luteal or continuous) and by drug dose (low, medium, or high). We calculated the number of women who would need to be taking a moderate dose of SSRI in order to cause one additional adverse event (number needed to harm: NNH).

Efficacy outcomes: SSRIs reduced overall self-rated symptoms significantly more effectively than placebo. The effect size was moderate when studies reporting end scores were pooled (for moderate dose SSRIs: SMD -0.65, 95% CI -0.46 to -0.84, nine studies, 1276 women; moderate heterogeneity (I(2) = 58%), low quality evidence). The effect size was small when studies reporting change scores were pooled (for moderate dose SSRIs: SMD -0.36, 95% CI -0.20 to -0.51, four studies, 657 women; low heterogeneity (I(2)=29%), moderate quality evidence).

SSRIs were effective for symptom relief whether taken only in the luteal phase or continuously, with no clear evidence of a difference in effectiveness between these modes of administration. However, few studies directly compared luteal and continuous regimens and more evidence is needed on this question.

In secondary analyses, SSRIs were effective for treating specific types of symptoms (that is psychological, physical and functional symptoms, and irritability).

Side-effects assessment: Withdrawals due to adverse effects were significantly more likely to occur in the SSRI group (moderate dose: OR 2.55, 95% CI 1.84 to 3.53, 15 studies, 2447 women; no heterogeneity (I(2) = 0%), moderate quality evidence). The most common side effects associated with a moderate dose of SSRIs were nausea (NNH = 7), asthenia or decreased energy (NNH = 9), somnolence (NNH = 13), fatigue (NNH = 14), decreased libido (NNH = 14) and sweating (NNH = 14). I Adverse effects were dose-related.

Conclusion: SSRIs are effective in reducing the symptoms of PMS, whether taken in the luteal phase only or continuously. Adverse effects are relatively frequent, the most common being nausea and asthenia. Adverse effects are dose-dependent.

Revue 2008: SSRIs

Selective serotonin reuptake inhibitors for premenstrual syndrome and premenstrual dysphoric disorder: a meta-analysis

Link: https://pubmed.ncbi.nlm.nih.gov/18448752/

Year: 2008

Pubmed classification: Meta-analysis.

Objective: To systematically review evidence of the treatment benefits of selective serotonin reuptake inhibitors (SSRIs) for symptoms related to severe premenstrual syndrome (PMS) and premenstrual dysphoric disorder.

Number of studies and types of papers: From 2,132 citations identified, we pooled results from 29 studies (in 19 citations), and the meta-analysis included 2964 women.

Databases searched: We conducted electronic database searches of MEDLINE, Web of Science, Cochrane Library, Embase, PsycINFO, and Cinahl through March 2007, and hand-searched reference lists and pertinent journals.

Inclusion criteria: Studies included in the review were double-blind, randomized, controlled trials comparing an SSRI with placebo that reported a change in a validated score of premenstrual symptomatology. Studies had to report follow-up for any duration longer than one menstrual cycle among premenopausal women who met clinical diagnostic criteria for PMS or premenstrual dysphoric disorder.

Statistical analysis methods: We pooled results using random-effects meta-analyses and present results as odds ratios (ORs).

Efficacy outcomes: Our meta- analysis demonstrates that SSRIs are effective for treating PMS and premenstrual dysphoric disorder. Intermittent dosing regimens were found to be less effective than continuous dosing regimens. No SSRI was demonstrably better than another. The choice of outcome measurement instrument was associated with effect size estimates. The overall effect size is smaller than reported previously.

Conclusion: Selective serotonin reuptake inhibitors were found to be effective in treating premenstrual symptoms, with continuous dosing regimens favored for effectiveness.