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Transdermal Estrogen and Progestogen Most Effective to Reduce Menopausal Vasomotor Symptoms

Clinical Question

Which treatments are most effective for the relief of vasomotor symptoms among naturally menopausal women?

Bottom Line

Transdermal estrogen plus progestogen, or oral estrogen plus progestogen, is the treatment most likely to effectively reduce the frequency of vasomotor symptoms among menopausal women. Isoflavones and black cohosh were found to be better than placebo. Other treatments, including selective serotonin reuptake inhibitors (SSRIs) and serotonin-norepinephrine reuptake inhibitors (SNRIs), are not likely to be beneficial and are more likely to be discontinued than placebo. (Level of Evidence = 1a-)

Synopsis

This meta-analysis of 47 randomized controlled trials (RCTs) was conducted on behalf of the U.K. National Institute of Health and Care Excellence for the purpose of clinical guideline development. The authors used a technique called network meta-analysis, which is suitable for decision making when multiple treatments are being considered for one indication, and the treatments have not been directly compared in the same trials. In this case, the question considered was the effectiveness

of pharmacologic and nonpharmacologic treatment for vasomotor symptoms among naturally menopausal women (defined as amenorrhea for at least 12 consecutive months). Trials of nonpharmacologic treatments had to be of at least four weeks duration, and trials to assess pharmacologic treatment had to be of at least 12 weeks duration. The authors considered 26 weeks to be the maximum follow-up time.

There were 32 RCTs of 12 treatment classes that assessed the frequency of vasomotor symptoms at the end of treatment, the principal end point considered. Combination treatment with transdermal estrogen and progestogen (E+P) had the highest probability (69%) of being the most effective treatment. The combination of oral E+P had a point estimate suggesting it was similarly effective to transdermal E+P, but with a wide confidence interval. There was strong evidence that transdermal E+P was more effective for relief of vasomotor symptoms than raloxifene (Evista), SSRIs, SNRIs, isoflavones, and Chinese herbal medicine. Isoflavones and black cohosh were found to be better than placebo at reducing vasomotor symptoms.

There were 21 RCTs that assessed treatment discontinuation. Non-oral E+P had significantly lower odds of discontinuation because of short-term adverse effects than placebo, whereas SSRIs and SNRIs had higher odds of discontinuation than placebo. The authors intended to assess the effect of treatments on vaginal bleeding, but data from the five included trials that assessed that outcome were insufficient to draw conclusions. Long-term adverse effects, such as cardiovascular events and breast cancer, were not assessed.

Study design: Meta-analysis (randomized controlled trials)

Funding source: Government

Allocation: Uncertain

Setting: Various (meta-analysis)

Reference: Sarri G, Pedder H, Dias S, Guo Y, Lumsden MA. Vasomotor symptoms resulting from natural menopause: a systematic review and network meta-analysis of treatment effects from the National Institute for Health and Care Excellence guideline on menopause. *BJOG*. 2017;124(10):1514-1523.

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