FPIN's Clinical Inquiries

Treatments for Postmenopausal Hypoactive Sexual Desire Disorder

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Clinical Question

How effective are treatments for women with postmenopausal hypoactive sexual desire disorder (HSDD)?

Evidence-Based Answer

Transdermal testosterone for the treatment of HSDD in postmenopausal women results in an additional 0.92 sexually satisfying events (SSEs) per month, acne, and increased androgenic effects without major complications. (Strength of Recommendation [SOR]: A, based on a meta-analysis of high-quality randomized controlled trials [RCTs].) Women treated with flibanserin (Addyi) had increases in SSEs (0.4 additional per month, or approximately one SSE every 2.5 months) and sexual function, with increased dizziness, somnolence, and nausea. (SOR: B, based on a meta-analysis of low-quality RCTs.) The use of dehydroepiandrosterone (DHEA) improved sexual function in women with HSDD. (SOR: B, based on a meta-analysis of low-quality RCTs.)

Summary

A 2017 meta-analysis of seven double-blind RCTs (N = 3,035) evaluated the safety and effectiveness of transdermal testosterone in postmenopausal women with HSDD.[1] Women 20 to 70 years of age who were naturally or surgically menopausal, with or without hormone therapy using estrogen and/or progesterone, were given transdermal testosterone, 150 to 450 mcg per day for 24 weeks. Compared with those who received placebo, women treated with testosterone had more SSEs per month (five studies; mean difference [MD] = 0.92; 95% CI, 0.65 to 1.19; $P < .00001$). More SSEs were experienced by postmenopausal women receiving hormone therapy and testosterone (four studies; MD = 0.96; 95% CI, 0.50 to 1.42; $P < .0001$) or testosterone without hormone therapy (one study; MD = 1.40; 95% CI, 0.68 to 2.12; $P = .0001$). Testosterone therapy was associated with increased desire (six studies; standardized MD = 6.09; 95% CI, 4.51 to 7.68; $P < .00001$); decreased personal distress as measured on the Female Sexual Distress Scale, with a score of 15 or greater indicating distress (four studies; standardized MD = −8.15; 95% CI, −10.60 to −5.70; $P < .00001$); increased acne (five studies; relative risk [RR] = 1.56; 95% CI, 1.17 to 2.09; $P = .003$; number needed to harm [NNH] = 24); and increased total androgenic effects (seven studies; RR = 1.41; 95% CI, 1.05 to 1.88; $P = .02$; NNH = 48). There were no serious adverse events.

A 2016 systematic review and meta-analysis assessed the safety and effectiveness of the serotonin modulator flibanserin for the treatment of HSDD.[2] One of the included studies, an RCT

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of 949 naturally postmenopausal women, evaluated the safety and effectiveness of flibanserin, 100 mg nightly, vs. placebo for 24 weeks. Flibanserin increased monthly SSEs (MD = 0.40; 95% CI, 0.12 to 0.68; $P = .004$) and slightly increased scores on the Female Sexual Function Index (FSFI), which is scored from 2 to 36, with scores of 26 or lower indicating overall risk of sexual dysfunction (standardized MD = 0.30; 95% CI, 0.03 to 0.57; $P < .001$). Women who took flibanserin also had increased dizziness (RR = 3.15; 95% CI, 1.78 to 5.57; NNH = 15), somnolence (RR = 6.02; 95% CI, 2.73 to 13.28; NNH = 14), and nausea (RR = 2.12; 95% CI, 1.20 to 3.72; NNH = 26). In an unpublished study, 748 naturally menopausal women with HSDD were enrolled in an RCT to assess the safety and effectiveness of flibanserin, 100 mg nightly, vs. placebo for 24 weeks. Flibanserin increased the risk of dizziness (RR = 1.81; 95% CI, 0.94 to 3.50; NNH = 35), somnolence (RR = 3.19; 95% CI, 1.46 to 6.95; NNH = 22), and nausea (RR = 1.31; 95% CI, 0.68 to 2.52; NNH = 80).

A 2015 systematic review of studies on the safety and effectiveness of DHEA supplements in peri- and postmenopausal women identified 28 RCTs (n = 1,273).[3] Only two of the studies included women with HSDD, and only one of these evaluated DHEA as a treatment for HSDD.[4] The study included 26 naturally postmenopausal women (average age: 54) who received DHEA, 50 mg twice daily, or placebo for six weeks.[5] An analysis of variance was performed to compare baseline arousal and satisfaction scores with those at the end of the study. Women who received DHEA had increases in average FSFI arousal scores (0.86 out of 6 points; F = 4.23; $P < .05$) and average FSFI satisfaction scores (0.7 out of 6 points; F = 5.47; $P < .05$). No statistically significant adverse events were reported.

Recommendations from Others

An evidence-based guideline from the International Society for the Study of Women's Sexual Health states that off-label use of flibanserin and transdermal testosterone significantly improves sexual desire in women with HSDD.[6] Mindfulness-based treatment methods (e.g., cognitive behavior therapy) have also been studied for the treatment of HSDD. However, the studies of these methods that were reviewed for the guideline did not focus specifically on postmenopausal women. A task force including members from the Endocrine Society, the American College of Obstetricians and Gynecologists, the European Society of Endocrinology, the American Society for Reproductive Medicine, and the International Menopause Society recommends consideration of a three- to six-month trial of transdermal testosterone in postmenopausal women with HSDD.[7] The North American Menopause Society similarly suggests considering a trial of testosterone in postmenopausal women with HSDD who do not have another etiology for their symptoms.[8]

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