Female sexual disorders
Treatment options in the pipeline

Few FDA-approved treatments exist for female sexual disorders, but a number of options are on the horizon.

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Female sexual problems are best conceptualized from a biopsychosocial perspective that includes biological, psychological, sociocultural, and interpersonal factors. Treatment also follows a biopsychosocial model and options include psychotherapy, pharmacotherapy, physical therapy, and complementary approaches alone or in combination.

This article focuses on emerging treatment options for female sexual disorders. Currently, only 2 treatment options for female sexual complaints are approved by the US Food and Drug Administration: 1) The Eros clitoral stimulator, approved in 2000 for female sexual arousal disorder (FSAD); and 2) conjugated equine estrogen, approved in 2008 for treatment of moderate to severe dyspareunia.

Most of the research and development currently under way in this area is focused on pharmacologic options for treatment of hypoactive sexual desire disorder (HSDD)—the most prevalent female sexual disorder. Treatments primarily involve both steroid hormone and neurohormone mediators. The table provides a glossary of terminology related to female sexual disorders discussed in this article.

Central brain studies have shown that serotonin, norepinephrine, and dopamine are implicated in sexual function. Dopamine agonists and central melanocyte-stimulating hormone (MSH) analogs also are currently being investigated as possible mediators of female sexual function. In addition, estrogen therapy (ET) and testosterone replacement continue to be common treatments in female sexual medicine for vulvovaginal health and HSDD in postmenopausal women, respectively.

Take-home message

- Promising treatments are on the horizon for helping patients with female sexual disorders. Ob/Gyns can play a key role in devising the best options for women with these disorders.

Clinicians and patients, however, are still somewhat hesitant to use ET, even locally, because of concerns about systemic risks of local ET. Off-label use of systemic testosterone for HSDD is associated with similar concerns. The following is an overview of investigational treatments of female sexual disorders, including drugs currently in phase 2 or 3 clinical trials and a thermal therapy.

Flibanserin

Flibanserin is a 5-HT(1A) agonist/5-HT2 antagonist for treatment of HSDD. Phase 3 pivotal trials have shown it to be effective, with mild adverse effects including nausea, dizziness, fatigue, and sleeplessness.

In a recent phase 3 trial in premenopausal

women with HSDD, Katz and colleagues found that flibanserin 100 mg at bedtime was associated with clinically meaningful and significant improvement in the number of satisfying sexual events (SSE) and the sexual desire domain of the female sexual function index (FSFI).[1] Significant differences also were demonstrated between treatment and placebo on the secondary endpoints of the Female Sexual Distress Scale-Revised total (FSDS-R total) and distress associated with low desire (FSDS-R item 13). In a trial of postmenopausal women with HSDD, flibanserin 100 mg at bedtime also was associated with clinically meaningful and significant improvement. The coprimary endpoints were SSE and sexual desire (FSFI-desire domain). Secondary endpoints for distress (FSDS-R total) and distress associated with low sexual desire (FSDS-R item 13) improved compared with placebo.[2-4] To date, flibanserin has been studied in trials involving approximately 11,000 women.

Lybrido and Lybridos

Lybrido and Lybridos are novel combination drugs that are in development for treatment of HSDD. Lybrido combines testosterone with a phosphodiesterase inhibitor (PDE5 inhibitor) and Lybridos combines testosterone with a 5HT(1A) agonist (buspirone). Lybrido is designed for women with HSDD and low motivation, theorized to be a result of a relatively insensitive system for sexual cues. Testosterone is believed to improve desire, whereas the PDE5 inhibitor works to increase genital sensitivity. Because Lybrido is administered sublingually, the time of peak concentration of the PDE5 inhibitor coincides with the 4-hour delay in behavioral effect of testosterone.

Lybridos is designed for women with HSDD who also have sexual inhibition. Testosterone increases sexual motivation, and buspirone counters the sexual inhibition mechanism in the prefrontal area of the brain. As with Lybrido, administration of Lybridos is sublingual. The time frame for the pharmacologic effects of the buspirone coincide with the behavioral window for testosterone administration.[5,6]

LibiGel

LibiGel is a low-dose (300 µg) gel formulation of topical testosterone in development for treatment of HSDD in postmenopausal women. In recent phase