PHARMACOTHERAPY IN FEMALE SEXUAL DYSFUNCTION: IS THERE A MAGIC PILL?

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OBJECTIVES: To conduct a review of the existing literature regarding the established treatments for female sexual dysfunctions (FSD) and the novel pharmacological approaches that have been studied as well its clinical effectiveness.

BACKGROUND

Women experience sex differently from men. Women may not follow a linear model when it comes to their sexual response. By proposing a more realistic model of sexual response, Basson introduced a new concept of emotional intimacy and emphasized the influence of biopsychosocial factors in women’s sexuality, allowing a more comprehensive and effective approach to female sexual dysfunction (FSD).

The scientific push towards newer and better treatment approaches for FSD is relevant since female sexual complaints are common and the prevalence of FSD is about 30%. The Diagnostic and Statistical Manual of Mental Disorders (DSM) categorizes female sexual dysfunctions in three categories: sexual interest/arousal disorders, orgasmic disorders and pain and penetration disorders. But these three main categories are not exclusive and women often complaining of more than one difficulty. This poses a demanding challenge to the clinician/therapist when it comes to treat sexual dysfunctions or problems. Health care professionals should retain that not all female sexual complaints are psychological and there are some pharmacological options, although they still have scarce practical implementation. However, treatment should always be tailored to each woman’s particular needs, following the principles of a multidisciplinary and holistic approach.

MATERIAL AND METHODS: We performed an online literature search using the Pubmed database platform. A total of thirty-one articles were included.

RESULTS

We present the results from a categorical standpoint by organizing the evidence collected of each treatment in regards to each diagnostic category of FSD: interest and arousal disorder, pain and penetration disorders and orgasmic disorder.

The pharmacological approaches that have been studied for female sexual interest/arousal disorder are described in table 1, highlighting the clinical benefits, safety concerns and other notes regarding drug development and evidence.

Most treatments for pain and penetration disorders include use of topical agents such as lidocaine (also used via injectable administration), estradiol, nitroglycerin and even topical solutions with amitriptyline and anticonvulsants. Antidepressants as amitriptyline and other tricyclic antidepressants, duloxetine or venlafaxine, and anticonvulsants as gabapentin, pregabalin, topiramate or lamotrigine have been used orally. However, the majority of pharmacological treatment options for genital pain and penetration disorders are not evidence-based, with some patients experiencing symptomatic relief but not complete resolution of their complaints.

In most cases, there are no pharmacological options targeting orgasm disorders. Bupropion and Sildenafil have been among the most commonly tested agents but with conflicting results.

TABLE 1 – PHARMACOLOGICAL TREATMENTS FOR FEMALE SEXUAL INTEREST/AROUSAL DISORDER

PHARMACOLOGICAL TREATMENTS	CLINICAL BENEFITS	SAFETY CONCERNS/OTHER NOTES
TESTOSTERONE PATCHES	On sexual desire, responsiveness, orgasm and overall sexual satisfaction in natural menopausal women and surgically estrogen-repleted women	Breast cancer, insulin resistance and metabolic syndrome Limited efficacy in premenopausal women
ESTROGENS	Benefits vulvo-vaginal atrophy and relieves vaginal dryness and dyspareunia in postmenopausal women	Direct benefit to arousal? Efficacy in premenopausal women?
TIBOLONE	On sexual desire, arousability and improvement of vaginal lubrication in postmenopausal women	Limited evidence
DHEA (INTRAVAGINAL)	On desire, arousal and lubrication in pre and postmenopausal women	Inconclusive evidence
SILDENAFIL	On SSRI-associated FSD May be helpful in comorbid DM, MS and spinal cord injuries	Inconsistent results
ALPROSTADIL	Some evidence on arousal	Limited evidence
BUPROPION	On SSRI-associated FSD as add-on Efficacy on non depressed women with FSD?	Limited evidence
FLIBANSERINE	Modest increase in the frequency of sexually satisfying events and sexual desire	Lack of safety data regarding combining flibanserine with certain medications (eg. antidepressants)
BREMALANOTIDE	Increase in satisfying sexual events	Under development Less efficient than Flibanserine?
TESTOSTERONE+SILDENAFIL	for women with low sensitivity to sexual cues	Inspired by the dual control model Under development May be a more personalized form of treatment?
TESTOSTERONE+BUSPIRON	for women more inclined to sexual inhibition	
BP101	Under development	
D-CYCLOSERINE		

CONCLUSIONS

Some pharmacological options are available for FSD treatment and might be useful in selected patients. However, there is no “magic pill” that can solve female sexual dysfunctions due to its complex and multifactorial nature posing a demanding challenge to the clinician. The absence of established pharmacological options for FSD treatment arises as an opportunity to discuss non-pharmacological options with patients and to promote further basic and clinical research in this field.