REVIEW ARTICLE

Hypoactive Sexual Desire Disorder (HSDD) in Women

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Abstract

Female sexual dysfunction is a less discussed entity, which is difficult to screen or identify and treat as compared to male sexual dysfunction like erectile dysfunction, which is easy to diagnose and treat. Postmenopausal females with decreased sexual desire can be improved moderately by testosterone therapy. Genito-pelvic dysesthesia (GPD) is poorly understood. Hence, it requires a multidisciplinary biopsychosocial approach to identify the condition and thereby managing it. Managing the end organ, neurologic, pharmacological, vascular and emotional components improve the morbidity of affected ones. This will somehow prevent the patients from distress and life threatening consequences. In present scenario direct communication followed by assessment and thereby formulating the essential guidelines for treatment is on emphasis. The gap is being tried to be narrowed by more studies in this field. Topical sildenafil ointment under trail phase 2b results-eagerly awaited, Flibanserin- an oral medication, bremelanotide- an injectable are new to this field. Also the hormonal therapy along with the cognitive behavioral therapy is on research and trying to decrease the suffering from sexual or arousal disorders in coming eras.

Keywords: Female sexual dysfunction, Genito-pelvic dysesthesia.

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Introduction

Female sexual health is always a subject of less concern and less investigated as compared to male sexual health. This has been commented by many authors as there is a lack of research on female sexual dysfunction when it is compared to male sexual health and dysfunction. There are multiple research publications on male sexual health and dysfunction. Due to lack of support and funding for women's sexual health along with the limited information, education, and communication, it is difficult to screen or identify and treat as compared to male sexual dysfunction like erectile dysfunction, which is easy to diagnose and treat. Due to limited data in the outdoor patient department, the clinical care in this regard becomes difficult. This untouched subject needs to be focused upon by the clinicians and data to be evaluated for improving the women's sexual health and dysfunctions.

Clinical Guidance For Treatment of HSSD Using Testosterone Therapy in Women by International Society For the Study of Women's Sexual Health (ISSWSH)

Hypoactive sexual desire disorder is a widespread condition affecting 12% and 53% of peri- and postmenopausal women, respectively. There are about 16 international researchers and clinicians who were convened for the clinical guidelines for the development of testosterone therapy for HSSD by ISSWSH in women. Recommended testosterone indications and treatment levels of testosterone and its formulations were measured, and for this consensus was established using modified Delphi method. Original research, reviews, meta-analysis, and clinical practice guidelines were used to imply the use of testosterone in women for managing HSSD. A Global Consensus Position Statement was published by delegates of 10 medical societies in 2019 regarding the use of testosterone therapy for women. Their statement was compiled after reviewing the literature on the testosterone effects on sexual dysfunction, breast health, cardiovascular, musculoskeletal, cognition, and mood as well as androgenic side effects and adverse events.[1]

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HSDD Diagnosis, Testosterone Formulations, and Sex Steroid Physiology

The Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV) an official manual of the American Psychiatric Association described HSDD as "persistent or recurrent deficiency or absence of sexual fantasies and desire for sexual activity with marked distress or interpersonal difficulty." The guidelines which authors noted mentioned that although the DSM-5 edition merged female arousal disorder with desire disorder into a single diagnosis, they used the DSM-IV definition as it had been the basis for the studies and literature reviewed. Transdermal patch was reviewed by US Food and Drug Administration (FDA) for the HSSD in women 10 years ago. FDA rejected the approval of testosterone transdermal patch for women, due to adverse effects on cardiovascular system

and risks of breast cancer (peripheral conversion of testosterone to estradiol based on the Women's Health Initiative which concluded that alone estrogen does not increase risk of breast cancer while it possess threat when combined with medroxyprogesterone acetate). The consensus guidelines studied the effects of sex steroids on the physiology and mechanism of action especially on the sexual function. They also studied the mood alterations in the women in peri- and postmenopausal age group.

Consensus Position and Recommendations

Baseline hormone testings are advised to rule out steroid hormones excess, and the baseline investigations to rule out liver disorders, renal disorders, metabolic testing, and lipid profile. Also, clinicians should exclude the other causes of reduced sexual desire, relationship issues, any another emotional stress, or dyspareunia.

According to randomized trial, in more than 30,000 women transdermal formulation of testosterone does not alter these biological levels. Postmenopausal female with decreased sexual desire can be improved moderately to the levels in premenopausal level by testosterone therapy. While the free and total testosterone levels by laboratory assays are not reliable as they have been calibrated for the men, there are no reliable indicators or any laboratory or diagnostic test to identify the HSSD. While one-tenth of the dose used for treating male hypogonadism is effective for reaching up to the levels of premenopausal testosterone in some females. This therapy is given for maximum 6 months, later on it is discontinued.

Testosterone in oral formulations, intramuscular injections, patches, and transdermal gels are FDA approved for treating male hypogonadism. As no long-term studies establishing safety are available, this is used as off label treatment therapy. Limited studies on the safety of testosterone therapy is informed to patients. One-tenth of dose is available for women.

Persistent Genital Arousal Disorder/ Genito-pelvic Dyesthesia

There is an another relatively rare sexual dysfunction called persistent genital arousal disorder, which is poorly understood in women. It is prevalent among 1–3% population. According to recent review of ISSWSH, there are five criteria used to define the persistent genital arousal disorder: the perception of genital arousal that is involuntary, unrelated to sexual desire, without any identified cause, not relieved with orgasm, and is distressing to the patient. The American College of Obstetricians and Gynecologists (ACOG) Practice Bulletin on Female Sexual Dysfunction does not mention this dysfunction, due to which it is difficult to diagnose and thereby treat this.[2] An another identity called compulsive sexual behavior disorder is defined by the International Classification of Diseases revision 11 as "a persistent failure to control intense, repetitive sexual impulses or urges." ISSWSH clearly delineated the PGAD/GPD and compulsive sexual behavior disorder. There is a considerable overlap with the symptoms like itching, tingling, pain, or burning the consensus panel considered both persistent genital arousal and GPD as a single syndrome, namely, PGAD/GPD.

Adverse Impact of PGAD/GPD

This disorder negatively affects mental health, sexual function, and ability to function in routine job. Mental disorder significantly affects a large population suffering from PGAD. This complex identity is a morbid condition, which comprises end organ pathology, peripheral nerve, spinal cord and central sensory processing malfunction, and significant psychological issues too. PGAD/GPD also may be associated with cauda equina pathology, spinal cysts, and withdrawal from selective serotonin reuptake inhibitors (SSRIs). Specific brain regions of patients like the paracentral lobule are identified by functional magnetic resonance imaging during clitoral stimulation and persistent genital arousal. In a survey, 54% of patients with PGAD reported suicidal ideation, compared with 25% of participants in a control group.

Evaluation and Management Recommendations of PGAD/GPD

For forming the diagnosis of PGAD/GPD, five areas are evaluated and managed accordingly: end organ pelvis and perineum (assess for pelvic floor tension myalgia, pudendal neuropathy, pelvic congestion syndrome, or pelvic arteriovenous malformation), cauda equina (evaluate for neurologic deficits related to cysts compressing S2–S3 nerve roots), spinal cord (serotonin and norepinephrine pathways modulate nociceptive sensory activity; either SSRI/ serotonin and norepinephrine reuptake inhibitor (SNRI) withdrawal or treatment could impact PGAD/ GPD based on their actions in the spinal cord and brain.

An integrated biopsychosocial model is made. Depression and anxiety are common comorbid mental health condition. History of sexual trauma may contribute to catastrophizing and the experience of distressing persistent genital sensations, either arousal or dysesthesia, with 46.7–52.6% of patients reporting childhood sexual abuse.[3]

PGAD/GPD is poorly understood, so it requires multidisciplinary approach for identifying the condition and thereby managing it. Involvement of the end organ, neurologic, pharmacological, vascular, and emotional components were to be looked upon. Here, biopsychosocial approach is required to treat the various sources of aberrant sensory processing, including end organ disease, neuropathic signaling, spinal cord pathways, and brain signal processing. These approaches will help understand this disorder and so it will be easy to prevent the patients from distress and life threatening consequences disorder in women with PGAD/GPD.

Present Scenario and the Forthcoming Opportunities for Patient Suffering from Sexual Dysfunction

Because of the significant deficit in the clinical approach for diagnosing sexual dysfunctions, it is difficult to manage the patients. Thereby, there is scarcity of guidelines and recommendations for managing these women. Nowadays, with the help of direct communication with women suffering from orgasmic disorders, an assessment and management are on progress. These are used to formulate the expert consensus guidelines. Also, ISSWSH is involved to cover this deficit by evidence-based studies after identifying and managing the women with sexual disorders and complains. These follows the available limited guidelines and consensus statements and applied by the female health professionals to diagnose the female sexual disorders.

Nowadays, many trials are undergoing to treat the female arousal disorder. Topical sildenafil ointment is under trail phase 2b, still the results are awaited eagerly. For premenopausal women with arousal disorders, nowadays two FDA-approved drugs are

used. Flibanserin is an oral medication (once a day) that requires abstinence from alcohol; bremelanotide is an injectable medication that can be used just prior to a sexual encounter.

According to ISSWSH guidelines, postmenopausal women with sexual disorders are treated by testosterone in form of transdermal patch formulation. Dose is reduced to one-tenth of which is used in androgen deficiency men while FDA approves no such therapy for postmenopausal women. However, due to variation in the availability of the hormonal products and no FDA approval for manufacturing/compounding products, the National Academies of Science, Engineering, and Medicine does not approve these formulations.

Conclusion

Hormonal therapy used for sexual or arousal disorders are to be discussed with patients in view of adverse effects and the side effects of the therapy. Current professional guidelines to be informed to patients. Another formulation of testosterone in form of cream, a 5 mg transdermal cream, i.e., one quarter of a mL, is used for achieving approximately premenopausal testosterone levels in serum.[4] The hormonal levels in blood/serum are to be assessed after 6 weeks of therapy as well as any complain or adverse effects are to be noted when its prescribed in postmenopausal women. While testosterone in the form of pellets and intramuscular injections causes abrupt high or low levels over time, the symptoms got rapidly fall and flared within time after implantations or injections being given. Due to short or early fading effects of these formulations, multiple doses are required to be given. Although even after knowing the few symptoms of sexual arousal or disorders in postmenopausal women, this subject is among the clinicians for research and such women will no longer suffer from this untouched syndrome in coming eras. While socially the cognitive behavioral therapy is given along the pharmacological therapy to handle the complex sexual dysfunctions among women and that's how the women's sexual dysfunction is treated by the multidisciplinary approaches.

References

1. Davis SR, Baber R, Panay N, et al. Global consensus position statement on the use of testosterone therapy for women. J Sex Med 2019;16:1331–1337. DOI: 10.1080/13697137.2019.1637079.
2. American College of Obstetricians and Gynecologists' Committee on Practice Bulletins—Gynecology. Female sexual dysfunction: ACOG Practice Bulletin clinical management guidelines for obstetrician-gynecologists, Number 213. Obstet Gynecol 2019;134:e1–e18. DOI: 10.1097/AOG.0000000000003324.
3. Leiblum S, Seehuus M, Goldmeier D, et al. Psychological, medical, and pharmacological correlates of persistent genital arousal disorder. J Sex Med 2007;4:1358–1366.
4. Fooladi E, Reuter SE, Bell RJ, et al. Pharmacokinetics of a transdermal testosterone cream in healthy postmenopausal women. Menopause. 2015;22:44–49. DOI: 10.1097/GME.0000000000000259.