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Review Article

Menopause and Sexuality

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Abstract

Menopause is defined as the permanent cessation of menstruation resulting from loss of ovarian follicular activity. It is a natural event occurring, on average, at the age of 5 1.3 years. Natural menopause is a retrospective clinical diagnosis based on 12 months of amenorrhea from the woman's last menstrual period. Sexuality is an important part of women's health and women's quality of life in all stage of life including during menopause. Many factors can affect women's sexual life, including biological, psychological, and socio-cultural factors. Menopause follows various changes in every aspect including physiologically and psychologically, and this raises various problems, one of which is related to the fulfillment of sexual needs. It follows that a multidimensional approach to the management of sexual issues is of particular importance in menopause. Female sexual dysfunction (FSD) defined as any sexual complaint or problem resulting from disorders of desire, arousal, orgasm or sexual pain that causes marked distressed or interpersonal difficulty[11]. Declining levels of sex steroids (estrogens and androgens) during menopausal transition, also play a major role in the impairment of sexual response. Treatment should be individualized.

Key words – sexuality, menopause, female sexual dysfunction

Introduction

Menopause is defined by The National Institute for Health and Care Excellence (NICE) as a biological stage in a woman's life when menstruation stops permanently due to the loss of ovarian follicular activity. It occurs with the final menstrual period and is usually diagnosed clinically after 12 months of amenorrhea. Menopause brings numerous bio-psychosocial changes, such as vasomotor, genitourinary, musculoskeletal, sexual problems and psychological, which consequently reduce quality of life and sexual satisfaction[1]. Most symptoms worse with advancing menopause status.

WHO predicts that there will be a menopause explosion in 2030 with around 1.2 billion women aged over 50 years. Most of them (about 80%) live in developing countries. The population of postmenopausal women is increasing by about three percent every yea[r2]. WHO defines sexuality as "a central aspect of being human throughout life that encompasses sex, gender identities and roles, sexual orientation, eroticism, pleasure, intimacy and reproduction. Sexuality is experienced and expressed in thoughts, fantasies, desires, beliefs, attitudes, values, behaviors, practices, roles and relationships. While sexuality can include all of these dimensions, not all of them are always experienced or expressed. Sexuality is influenced by the interaction of biological, psychological, social, economic, political, cultural, legal, historical, religious and spiritual factors."

Decreased sexual desire, decreased vaginal lubrication, anorgasmia, and dyspareunia are the major changes that occur in sexual function in menopausal women[5]. Female Sexual Dysfunction (FSD) is one of the distressing conditions that affect many women worldwide. Sexual dysfunction is not a single entity but a group of various

adverse conditions including low sexual interest, arousal, orgasm, and satisfaction, and pain that leads to sexual dysfunction among women[6]. The prevalence of female sexual dysfunction varies from 68%-86% 11. In a study of women aged 40-69 years of age, 71% reported they were sexually active[33]. In this age group common sexual complaints include loss of desire, decrease frequency of sex, dyspareunia, vaginal dryness, dysfunction of male partner, social conditions and interpersonal stresses.

Declining levels of sex steroids (estrogens and androgens) play a major role in the impairment of sexual response; however, psychological, relational changes related with aging, interpersonal stress and an increase in metabolic and cardiovascular comorbidities should also be taken into account for developing sexual related issues in menopause.

Considering treatment options first-line therapeutic strategies for menopause-related sexual dysfunction aim at addressing modifiable factors, hormonal and non-hormonal, local and systemic treatment options are currently available. Treatment should be individualized, taking into account the severity of symptoms, comorbidities, compliance, potential adverse effects and personal preferences.

Pathophysiology

Multiple physiological changes that occur during the menopausal transition result from reduced ovarian reserve, defined by reduced numbers of gonadotropin-responsive follicles[12]. There is a reduction in circulating estrogen.

In late perimenopausal women there is increased level of follicular stimulating hormone (FSH), decreased inhibin B, and irregularly short and long menstrual cycle lengths. Until the time of the last menstrual period (LMP), estradiol levels are equally variable in perimenopausal women. By the time of the LMP, women enter a persistent state of hypogonadism and hypergonadotropism (elevated FSH and LH). After estradiol falls, estrone, primarily generated by the aromatization of androgens, becomes the main circulating estrogen,[1,12,23]. Compared with estradiol, serum androgen levels demonstrate a steady but less dramatic decline. The less dramatic fall in serum androgens is related to the decrease in sex hormone binding globulin (SHBG) associated with hypoestrogenism.

Total testosterone decreases with increasing age, although free testosterone increases towards post menopause owing to decreasing SHBG. Levels of dihydroepiandrosterone sulphate (DHEAS), a precursor to both estrogens and androgens, decrease with increasing age but are not associated with menopause status.

Physiological changes at menopause and their effect on sexuality

Hormones affect sexual arousal through various mechanisms including affecting sensory perception, central as well as peripheral nerve transmission and discharge, and peripheral blood flow. Impairment of these mechanisms can lead to diminished sexual responsiveness, dyspareunia, decreased sexual activity, decline in sexual desire, and sexual aversion[23].

Decreasing estrogen affects the integrity of female reproductive tract tissues by decreased vaginal secretions. Decreased vaginal lubrication and atrophic vaginitis result in dyspareunia. Decreased blood flow to the reproductive organs and hypoestrogenism results in progressive ischemia, thinning of the barrier layers of skin and mucous membrane tissue, loss of subcutaneous fat, and a shrinking introitus. The role of androgens in the female sexual response is particularly unclear and controversial. Suggested symptoms of androgen deficiency in women include decreased libido, fatigue and a reduced sense of wellbeing.[2]. A post-

menopausal patient's experiences of persistent dyspareunia, postcoital bleeding, delayed or absent lubrication, and delayed or absent orgasm affect her motivation for sexual intercourse. Pain can cause vaginismus, a conditioned response to painful coitus.

Not only the hormonal changes but also the psychological issue like lack of sexual relations due to physiologic change may then be further complicated by the effect of this condition on the marital relationship. Decline in sexual relations may lead to further decline in coitus and further deterioration of the marital relationship.

Menopause related sexual dysfunction assessment

Assessing sexual dysfunction is not easy. The complex interplay between the types of factors that predispose, precipitate and maintain sexual dysfunction requires further studies[1,27].

Interventions for menopausal women seeking an improvement in quality of sexual life

Interventions for menopausal women who report concerns with their sexual wellbeing fall into two broad categories: Psychological interventions aimed at treating the psychosocial and relationship factors that impact on quality of sexual life and Non- hormonal and/or Hormonal pharmacological treatments that are aimed at 'correcting' menopausal hormonal deficiencies.

Management

Many factors influence sexual dysfunction, both biological and psychological, in postmenopausal women. Problems related to the physiological change in body, mind, and interpersonal relationships involved by sexual function is a complex and dynamic process. Management based on addressing many factors including comorbid medical conditions, drugs and impact on quality of life, emotional needs and quality of interpersonal relationships.

Conservative approach

First-line therapeutic strategies for menopause-related sexual dysfunction (SD) include sexual education and counselling the woman and addressing modifiable factors[34]. Providing information on normal sexual functioning, emphasizing the role of motivation, the importance of adequate sexual stimulation and the influence of age and relationship length often facilitates positive sexual behavioral changes. Involving the partner in counselling may be helpful in order to modify negative communication patterns, to address partner's SD or to modify partner's pressure or demanding behavior for sex which helps to have a healthy understanding and relationship.

Common modifiable risk factors, such as mood disorders, use of antidepressants, sedentary lifestyle, endocrine disorders (hyperprolactinemia, hypothyroidism/hyperthyroidism, diabetes mellitus), gynecological and urological infections or diseases should be adequately investigated and addressed.[35]. Pelvic floor physiotherapy and use of dilators and vibrators may be suggested for local symptoms like vaginal dryness and dyspareunia.

Secondarily, psychological interventions including behavior therapy, cognitive behavioral therapy (CBT), sex therapy and mindfulness therapy has been developed to treat hypoactive sexual desire disorder (HSDD), arousal and orgasmic problems in women, independent of menopausal status[14].

Non-hormonal management

The following are the non-hormonal therapeutic options needed to treat sexual dysfunction in postmenopausal women.

1. Vaginal moisturizers and lubricants. Vaginal moisturizers (e.g., polycarbophil, hyaluronic acid, and pectin-based moisturizers), when used regularly (at least twice a week), can provide an effective non-hormonal approach to relieve symptoms of vaginal atrophy[14].

   Moisturizers have the ability to retain and accumulate water, which is then released locally resulting in increased hydration, thus mimicking physiological vaginal secretions. This provides a quick relief of local symptoms, especially dryness. It is intended for chronic maintenance to replace vaginal secretions. Also, its favor cellular repair and helps in restoring genital tissues' integrity.

   Lubricants are specifically designed to reduce friction during coitus, increasing comfort and reducing dyspareunia. Usually they are based on oils, glycerin or silicone.

2. Laser therapies

   Carbon dioxide and erbium: YAG laser therapy for GSM is a relatively recent approach based on local stimulation aimed at increasing the production of collagen in order to improve the elasticity and functionality of the vaginal wall[14].

   Laser use is limited by the lack of data on long-term safety and efficacy and comparing laser therapy with estrogen therapy and control.

Hormonal Treatments

1. Vaginal estrogen therapy
   Post-menopausal women with genitourinary syndrome of and no other menopausal symptoms, local estrogen therapy is recommended and has been the treatment of choice for decades[18].

   Local estrogen preparations are effective in restoring vaginal and urethral epithelium thickness, pH and vaginal microbiota composition. Also, it improves sexual genital arousal and orgasmic function by increasing genital blood flow and reducing dryness and dyspareunia.

2. Ospemifene and Tissue-Selective Estrogen Complex (T-SEC)

   Ospemifene is used for the treatment of moderate to severe dyspareunia associated with vaginal atrophy in postmenopausal women14,18. Ospemifene has a risk of developing vasomotor symptoms about 7.2%. Besides that, it can also increase the risk of cardiovascular disease due to arterial and venous thrombosis and thromboembolism.

The tissue-selective estrogen complex (T-SEC) is a pairing of conjugated estrogen (CEE) combined with the SERM bazedoxifene (BZA), developed with the aim of improving vasomotor symptoms and vulvovaginal atrophy and preventing bone loss. Recent trials have suggested a significant improvement of vulvovaginal symptoms and dyspareunia and an increase in the percentage of surface cells with a reduction of parabasal cells.[36].

Conclusion

Sexual health and function are essential components in the care of menopausal women. And it is considered to be an important part of their life and they strongly desire to maintain a healthy sexual life. Sexual dissatisfaction and dysfunction are highly prevalent in postmenopausal women. The risk of acquiring a comorbidity, medications and interpersonal stresses that adversely affects sexual satisfaction and function. So, health care providers should be proactive and routinely query menopausal patients about their satisfaction with sex and their sexual functioning. If sexual dissatisfaction or dysfunction is suspected, then a full medical and social history with focused question about factors that affect sexual function should be undertaken. Discovering the etiology

and identifying modifiable factors that influence sexual function will help define appropriate treatment. Increased recognition by health care providers and validation of patient concerns as well as expanded discussions about sexual dysfunction with patients and counselling the patients may offer an opportunity for effective intervention and improve the quality of life for affected women.

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References

1. Kate JE, Kevan RW. Quality of sexual life and menopause. Journal of women's Health, 2019; 5:385-396.

2. Vidia RA, Prima DR, Irwan TR et al. Factors affecting sexual life of menopausal women: Scoping Review. European Journal of Public Health Studies, 2021; 4:38-52.

3. James A Simon. Identifying and treating sexual dysfunction in postmenopausal women: the role of estrogen. J Womens Health (Larchmt), 2011; 20(10):1453-65.

4. Harder, Helena, Rachel ML, Lesley JM, Usha J, Ian J, Valerie A et al. Sexual functioning in 4,418 postmenopausal women participating in UKCTOCS: a qualitative free-text analysis. The journal of The North American Menopause Society, 2019; 26:1100-1009.

5. Mohammad AA, Nusrat EM, Sanjana BA, Shakila S, Imran HM, Shirin SJ, Wharesha S, Koustuv D, Mohammad DHH et al. Status of female sexual dysfunction among postmenopausal women in Bangladesh. BMC Women's Health, 2022; 22:401.

6. Azadeh T, Zahra T, Mohammad E, Ali M et al. Prevalence and associated risk factors for sexual dysfunction among postmenopausal women: a study from Iran. Women's Midlife Health, 2021; 7:10.

7. Jan L Shifren. Patient education: Sexual problems in women (Beyond the Basics). UpToDate, 2022.

8. David AK, Sheryl AK, Thomas R, Philip C, Cynthia FC, Christopher LD et al. Sexual function and distress in postmenopausal women with chronic insomnia: exploring the role of stress dysregulation. 2019; 11:141-153.

9. Kate M, Nick P et al. Managing low sexual desire in women. SAGE journals, 2011; 1-4.

10. Wendy W, Yonah K, Michel F et al. SOGC CLINICAL PRACTICE GUIDELINE. Guideline No. 422d: Menopause and Sexuality, 2021; 43:1334-1341.

11. Victoria K, Swati J et al. Female sexual dysfunction. The Obstetrician & Gynecologist. 2022; 24:12-23.

12. Kimberley T, Judi Chervenak, Genevieve NP et al. Menopause and Sexuality. Endocrinol Metab Clin N Am, 2015; 44:649–661.

13. The Lancet. Menopause: a turning point for women's health. 2022; 10:373.

14. Irene S, Elisa M, Vincenza DS, Linda V et al. Sexual Health in Menopause. Journal of Medicina, 2019; 55:559.

15. Mohammad H, Mansureh G, Parvin Rezaei, Shokouh KA, Ehsan HS, Rahim AS et al. Sexual Function and Factors Affecting Menopause:A Systematic Review. Journal of Menopausal Medicine, 2019; 25:15-27.

16. Soheila N, Masoumeh S, Fahimeh RT et al. Factors affecting sexual function in menopause: A review article. Taiwanese Journal of Obstetrics & Gynecology, 2016; 55:480-487.

17. Lorraine D, Philippe L, Henry B, Janet G et al. Sexuality. The American Journal of Medicine, 2005; 118:59S– 63S.

18. Muhammad FGS, Azmeila S, Sitompul ANR, Siregar MEAG et al. Literature Review: Menopause and Sexual Disorders. Open Access Macedonian Journal of Medical Sciences, 2021; 9(T3):298-304.

19. Janet MT. Women's Sexual Concerns After Menopause. The Journal of the American Medical Association, 2007; 297(6):664.

20. Zahra BK, Fatemeh JK, Yalda DM, Mahmood A et al. The impact of menopause on sexual function in women and their spouses. African Health Sciences, 2020; 4:1979-1984.

21. Simon JA, Davis SR, Althof SE, Chedraui P, Clayton AH, Kingsberg HA et al. Sexual well-being after menopause: An International Menopause Society White Paper, 2018; 415-427.

22. Majid M, Farzaneh M, Khadijeh AS et al. Some Determinants of Sexual Satisfaction Among Postmenopausal Women in Shiraz City, Iran: A Cross-Sectional Study. Jentashapir J Health Res, 2019; 10(2):e92191.

23. Jeanne LL. Management of Libido Problems in Menopause. The PERMANENTE journal, 2000; 4:29-33.

24. Nicolas Z, Denis J, David T, Pierre S, Christine R et al. Sexuality and Menopause, a Belgian Study. Advances in Sexual Medicine, 2011; 1:1-4.

25. Meeta M, Sharmila M, Tanvir T, Seema S, Jyoti S, Neelam A, Roya O, Maninder A, Joshi SA et al. Effects of Menopause on Sexual Function in Indian Women: A McCoy's Questionnaire-Based Assessment, Journal of Mid-life Health, 2021; 12:144-153.

26. Magdalena DG, Jolanta D, Bogdan M et al. Sexual Dysfunction in Menopausal Women. Sex Med, 2019; 7:472-479.

27. Claudia M, Antoine E, Florica S, Andreea CV, Aida P, Mihai D, Mihaela P, Marina RA, Oana ML et al. Menopause and sexuality. Romanian Journal of Medical Practice, 2021; 16:86-93.

28. Somayeh A, Minoo S, Samira R et al. The relationship between sexual performance and attitude toward menopause in postmenopausal women referred to health centers of Torbat Heydariyeh in 2017. Iranian Journal of Aging, 2020; 14:510-519.

29. Kevan W, Margaret R, Geoff H, Richard A, Pierre MB, Mike C, David G, Philip K, Tim T, Tom T, Frederick W et al. Guidelines on the management of sexual problems in women: the role of androgens. British Society for Sexual Medicine, 2010; 1-10.

30. Irwin G,Jeanne LA. Practical Aspects in the Management of Vaginal Atrophy and Sexual Dysfunction in Perimenopausal and Postmenopausal Women. The Journal of sexual Medicine, 2005; 2:154-165.

31. John EB. Managing female sexual dysfunction. Fertility and sterility, 2013; 100:905-915.

32. Rupesh R, Geetu P, Shazia K, Sajal G, Ashok A, Craig DZ et al. Female sexual dysfunction: classification, pathophysiology, and management. American Society for Reproductive Medicine, 2007; 88:1273-1284.

33. Addis IB, Stephen KVDE, Christina LWF, Eric V, Jeanette SB, David HT et al. Sexual activity and function in middle-aged and older women. Obstet Gynecol, 2006; 107(4):755-64.

34. Clayton AH, Irwin G, Noel NK, Stanley EA, Stephanie SF, Brooke MF, Sharon JP, James AS, Linda V, Kristin C, Susan RD et al. The International Society for the Study of Women's Sexual Health Process of Care for Management of Hypoactive Sexual De-

sire Disorder in Women. Mayo clinic, 2018; 93:467-487.

35. Clayton AH, Vignozzi L. Pathophysiology and medical management of hypoactive sexual desire disorder. In Textbook of Female Sexual Function and Dysfunction—Diagnosis and Treatment; Goldstein I, Clayton AH, Goldstein AT, Kingsber SA et al. Eds.; Wiley Blackwell: Oxford, UK, 2018; 59–100.

36. Pinkerton JV, Stanczyk FZ. Clinical effects of selective estrogen receptor modulators on vulvar and vaginal atrophy. Menopause 2014; 14:309–319.