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Maintaining sexuality in menopause

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Abstract

Sexual health in the menopause is a medical challenge because the progressive decline of sexual hormones interacts with the aging process and many psychosocial stressors modulate vulnerability for sexual symptoms (low sexual desire, poor arousal and lubrication, dyspareunia, orgasmic dysfunction and lack of satisfaction). In clinical practice, a coordinated approach is needed to optimally manage the risk for developing female sexual dysfunction (FSD), especially when chronic conditions are present. Biomedical and psychosocial interventions include general education, recognition of signs and symptoms, promotion of health, attention to the partner and individualization of treatment. Counselling to overcome personal and relational difficulties should be always combined with hormonal and non-hormonal strategies to maximize biological signals driving the sexual response. By enhancing women's abilities to cope with sexual changes at midlife, health care providers may significantly optimize healthy aging and partnership.

Keywords

Androgens, counselling, estrogens, female sexual dysfunction, hypoactive sexual desire disorder, partner, vulvo-vaginal atrophy

Introduction

Menopause is an individual experience depending on the vulnerability of the woman's brain and body to endocrine changes occurring at midlife. Indeed, not every woman develops symptoms and diseases related to the menopause because genetic disposition, personal history, life-style, health care and socio-cultural environment play also a very important role.[1,2] Sexuality represents no exception to this statement and the individual experience of sexual symptoms in menopause (low sexual desire, poor arousal and lubrication, dyspareunia, orgasmic dysfunction and lack of satisfaction) is influenced by several factors, ranging from significant decline of estrogen and androgen production to intrapersonal and interpersonal factors.[3] Premenopausal sexuality, age and type of menopause, physical and mental health, life-events and socio-cultural issues, as well as quality and duration of the relationship and general and sexual health of the partner, are relevant determinants of the sexual response around the age of 50 years.[4–7]

Sexuality is an essential component of healthcare of women at any age because sexual dissatisfaction and psychological general well-being are tightly linked.[8,9] Moreover, the interest in continuing sexual activity is a component of life satisfaction and successful aging.[10] While the majority of postmenopausal European and US women reported it was important to them to maintain an active sex life,[11,12] the frequency of sexual intercourse declined over time as a consequence of age, menopause, diseases and partner availability.[12–14] However, a significant proportion of middle-aged and older women still engages in satisfying sexual activity,[14] but more than one-third report some problems with sexual function.[15,16]

In spite of the multidimensional nature of sexuality in menopause, postmenopausal women with positive scores for female sexual dysfunction (FSD) have almost four times more likely vulvo-vaginal atrophy (VVA) in comparison with those women not reporting sexual symptoms.[17] In addition, hypoactive sexual desire disorder (HSDD) is significantly more present in surgical menopausal women.[18] Collectively, these

Research Centre for Reproductive Medicine, Obstetrics and Gynecology Unit, IRCCS S. Matteo Foundation, Department of Clinical, Surgical, Diagnostic and Pediatric Sciences, University of Pavia, Pavia, Italy

Corresponding author:
Rossella E Nappi, Obstetrics and Gynecology Unit, IRCCS Policlinico San Matteo, University of Pavia, Piazzale Golgi 2, 27100 Pavia, Italy.
Email: renappi@tin.it

data confirm that sexual hormones have a vital role in preserving the biological substrate of the sexual response[19,20] and any attempt to help women to cope with postmenopausal sexual symptoms should always include early recognition of the signs related to estrogen and androgen changes and adequate counselling on hormone therapy (HT), taking into account the individual risk-benefit profile.[21] In addition, health care providers (HCPs) should promote preventive strategies across the spectrum of conditions influencing sexual attitudes and behaviour, as indicated by very recent recommendations to optimally manage midlife health.[22]

In here, we aim at summarizing the main steps to maintain sexuality in the clinical practice of menopause, based on the lessons learned from the most relevant literature and daily personal experience with women consulting for climacteric symptoms.

A coordinated approach to sexuality in menopause

The complex nature of women's sexuality poses particular challenges to HCPs across the menopausal transition and beyond because the progressive decline of sexual hormones interacts with the aging process and many psychosocial stressors modulate vulnerability to sexual symptoms. An integrated view is needed to address the multitude of factors involved in the risk for developing FSD and to identify preventive and/or early intervention strategies to promote healthy sexuality and partnership in women at midlife.[23] Table 1 reports very simple steps to combine biomedical and psychosocial interventions in the management of sexual symptoms in menopause.

Table 1. A coordinated approach to manage sexual symptoms in menopause.

General education	• Awareness • Permission to discuss • Basic counselling
Recognition of signs and symptoms	• Being proactive • Pelvic examination to identify VVA • Interview/questionnaires for HSDD
Promotion of health	• Lifestyle recommendations • Prevention of diseases
Attention to the partner	• General and sexual health • Feelings and quality of relationship
Individualization of treatment	• Hormonal strategies • Non-hormonal compounds • Psychosocial intervention

General education

Epidemiological and clinical data[24–26] support the notion that women may not be aware that menopause brings about some progressive changes potentially associated with the occurrence of sexual symptoms. Moreover, several barriers to 'break the ice' about sexual issues in routine consultations for menopausal complaints have been identified between HCPs and women.[27] In the 'women's voices in the menopause' international survey,[24] 77% of the interviewees believed that women were uncomfortable discussing vaginal discomfort, whereas in the VIVA international survey[25] almost half of women reported experiencing vaginal symptoms for three years or longer, without seeking medical care, because of the taboo nature of vaginal problems. A previous online survey in the UK,[28] conducted via a dedicated menopause website, highlighted that many women with vaginal symptoms had not spoken about these to HCPs and were therefore untreated.

Obermeyer et al.[26] found that in the context of menopause practice, it is easier to discuss symptoms, such as hot flushes and night sweats, which are more obviously related to menopausal endocrine changes. Indeed, in spite of the high prevalence of changes in sexual desire (41%) and of vaginal dryness (35%), only 7% and 20% of women, respectively, consulted their HCPs for these symptoms.[26] That being so, it is of paramount importance to be proactive by offering a basic counselling to give permission to discuss sexual issues and to provide essential information.[29] Inadequate training, constraints of time, personal attitudes and beliefs that sex is not a priority for middle age and older women are the main reasons of HCPs for not being proactive.[30] When HCPs do not display a positive attitude to discuss sexual health, there is a tendency to underestimate the impact of sexual symptoms on quality of life and to overlook potential treatment strategies.[31,32] General education has the aim to empower women by giving them knowledge on the anatomy and physiology of the female body during the sexual response and on the possible changes with age, menopause and life circumstances. In addition, it provides information on the frequency of sexual problems in both sexes, by dispelling myths and taboos on female and male sexual attitudes and behaviours, in order to help postmenopausal women to recognize their own needs and to communicate within the couple.[27,29]

Recognition of signs and symptoms

Sexual symptoms may present in many different ways with varying levels of distress depending on the interaction of psychological and contextual factors with the neuroendocrine and neurovascular components of sexual response and behavior.[33] Sexual hormones are

the major drivers of women's sexual functioning during the entire reproductive life span and menopause is a turning point in which the effects of both estrogen and androgen deprivation may become evident with multi-systemic implications, including tissues deputed to sexual function.[34] Serum estrogen levels drop markedly after menopause, whereas androgens decline with age and dramatically decrease after ovarian surgery.[34] They contribute to a different extent in the manifestation of FSD and the most important issue in clinical practice is to recognize endocrine-related sexual concerns in a timely fashion in order to establish early diagnosis and appropriate treatment.[35,36]

Vaginal pain, dryness and discomfort and reduced sexual desire are the most common sexual symptoms associated with the climacteric syndrome, and their prevalence is difficult to determine because most of the data rely on self-reported ratings and vary according to age, type of menopause, sexual activity and socio-cultural background.[3,13,37,38] VVA is an objective, chronic, age-dependent condition resulting from estrogen deficiency that can be easily suspected when women report symptoms such as dryness, itching, irritation, burning, dyspareunia and other urinary complaints.[39] Over time, genital arousal (sensation, vasocongestion and lubrication) is significantly impaired and women with VVA who are sexually active may develop hypertonic pelvic floor with secondary vaginism triggered by avoidance, anxiety and loss of sexual desire because of the anticipation of coital pain.[40] HCPs may easily establish a connection between sexual pain disorders and VVA by accurate pelvic examination as extensively described previously.[41,42] To support the clinical diagnosis of VVA, laboratory tests may be used, such as an evaluation of vaginal pH and the vaginal maturation index, to document a deprived estrogen vaginal epithelium.[43]

A strong degree of comobidity between VVA and low sexual desire has been detected[44] suggesting that HSDD may be secondary to sexual pain disorders. On the other hand, the diagnosis of primary HSDD, which is defined by a decrease in sexual desire that causes marked personal distress and/or interpersonal difficulty,[45] is mostly based on validated clinical interview and self-administered questionnaires[35,46] and it is more frequent in iatrogenic premature menopause.[47] Indeed, HSDD is part of the so-called androgen insufficiency syndrome, but androgen assays are presently not considered a standard of practice for diagnosis.[36,48] Low androgens may inflect the neuroendocrine balance which modulates desire, mental arousal and satisfaction at central level[49] and may also be implicated in the modulation of peripheral arousal and vaginal lubrication by influencing genital tissue.[48,50] Androgens have a role in many areas of women's health, and other signs of their insufficiency beyond sexual desire should be identified in the practice of menopause to make a reliable diagnosis.[51] That being so, early recognition and effective treatment of VVA and HSDD may enhance sexual health and quality of life of women and their partners.

Promotion of health

The first governing principle of the IMS recommendations in 2011[52] is that any therapeutic intervention for maintaining the health of peri- and postmenopausal women should be part of an overall strategy including lifestyle recommendations regarding diet, exercise, smoking cessation and safe levels of alcohol consumption. Indeed, physical and mental health are essential components of sexual health. The third Princeton Consensus Conference[53] focused on the association between cardio-metabolic risk factors and women's sexual health, reporting that women with metabolic syndrome/obesity had more FSD than those without and treatment of metabolic syndrome/obesity improves sexual function. In addition, cardio-metabolic risk factors, diabetes and coronary heart disease were associated with more FSD, but no data supported that FSD is a predictor of future cardiovascular events in women as is evident in men.[53] In a cohort of peri- and postmenopausal women with urinary incontinence (UI), increased body mass index (BMI) early in menopause was a risk factor not only for UI, but also for FSD. Arousal, orgasm, lubrication and satisfaction showed an inverse significant correlation with BMI, whereas it was not accounted for by desire and pain domain scores.[54] Moreover, a recent meta-analysis confirmed a reciprocal link between depression and obesity[55] and the same result has been shown in women with type 2 diabetes.[56] Given the evidence that mood disorders are one of the most important comorbid conditions of FSD,[4,7,57] it is plausible that also weight gain and obesity at menopause may be risk factors for poor sexual functioning. Selective serotonin reuptake inhibitors (SSRIs), which constitute 70–80% of antidepressant prescriptions, are associated with secondary FSD in 35–70% of users,[58] and their use, if possible, should be prevented in menopause. In the PRESIDE study (more than 31,000 women aged over 18 years in the US),[59] many medical conditions were positively associated with HSDD and other FSD, including depression, thyroid problems, anxiety and UI. In particular, coital UI should be uncovered because of its very negative impact on sexuality.[60] Chronic diseases also interfere indirectly with sexual function, by altering relationships and self-image and causing fatigue, pain, disfigurement, and dependency.[61] While there is poor consensus on the effect of hysterectomy (eventually

associated with removal of the ovaries) on sexual response depending on the pre-existing clinical, sexual and emotional situation,[62] breast surgery is considered a major insult to the sense of femininity with severe bio-psycho-social consequences on sexual desire, arousal and sexual pleasure.[63] Even abdominal-pelvic surgery for malignancies has a strong impact on women's sexual function, as well as any systemic disease and other surgeries that challenge the perception of physical and mental well-being.[64] Sexual consequence of breast and gynaecological malignancies are not only related to the type, stage and prognosis of the disease, but are mainly the result of treatment modalities, which include surgery, radiation and chemotherapy.[64] The consequences of early menopause may be enormous, especially in younger women and when any type of HT is contraindicated.[65]

Attention to the partner

The definition of FSD comprises the presence of sexual symptoms associated with personal and relational distress,[66] underlining the importance of considering sexual health in the context of the couple. Presence of a sexual partner, partner's age and health, length of the relationship and, most importantly, feeling towards the partner have a critical impact on women's sexual functioning in midlife.[4,5] Indeed, having a partner is strongly related to sexually related personal distress in women with low sexual desire.[67] In addition, women with HSDD have more negative patterns of partner interactions.[68] On the other hand, dyspareunia is generally less reported later in life mainly because older women are less likely to still have a spousal or other intimate relationship[13] and sexually related personal distress declines with age.[69] In addition, a very recent survey (CLOSER)[70] indicates that evaluation of men's attitudes regarding VVA affecting their postmenopausal partners may lead to better understanding of the impact of VVA on sexual intimacy and may help couples to address the consequences of vaginal discomfort with their HCPs. A significant increase in partner's sexual problems is evident throughout the menopausal transition, and changing the sexual partner may be considered a positive conditioner of sexual activity and response for menopausal women.[4,5] Institutionalization of the relationship, desexualization of roles and over-familiarity are, indeed, relevant risk factors for decline in sexual desire and, by acknowledging the impact of long-lasting relationship on sexuality, partners may revitalize their union.[71] It is also important to bear in mind that sexual performance of the male partner may affect the clinical relevance of FSD and vice versa.[72,73] Thus, a monocular vision of women's sexual health, without taking into account quality of life and sexual satisfaction of the partner and the eventual use of drugs to treat erectile dysfunction, is misleading.

Individualization of treatment

The therapeutic management of FSD in the menopause is multifaceted and should include the combination of pharmacological treatments able to maximize biological signals driving the sexual response, and individualized psychosocial therapies in order to overcome personal and relational difficulties.[19–23,74–76] There is currently a paucity of pharmacological interventions to specifically treat FSD. HT tailored on women's needs and expectations should be prescribed in the absence of contraindications and in accordance with the most recent international guidelines.[22,52] Systemic HT may be effective, when sexual symptoms are part of the climacteric syndrome, with some peculiar effects on sexual response depending on the combination of different estrogens and progestogens.[19,75] However, when VVA plays a major role in the occurrence of sexual pain disorders and/or is the sole consequence of menopause, local estrogen therapy is the first-line treatment for the maintenance of uro-gynecological and sexual health.[19,21] Low-dose intravaginal estrogen (estrogen, estriol and promestriene) preparations have been shown to be safe and effective, without causing significant proliferation of the endometrium or increase in serum estrogen levels beyond the normal postmenopausal range.[42,77,78] Every woman may be also helped to alleviate VVA by prescribing non-hormonal treatments, such as ccommercial vaginal moisturizers and lubricants with different characteristics.[42] In addition, physical therapy including pelvic floor exercises, medical devices and other activities to learn new sexual expertises are useful alone or in association with other treatments to ameliorate uro-genital health.[79] Other potential non-hormonal treatments to relieve HSDD may involve neuroactive compounds which act on the balance of neurotransmitters with a prosexual effect.[80,81] Plant-derived and herbal remedies are a very popular alternative to medical treatments, but the real effectiveness in improving FSD is not proven.[82] Among hormonal therapies specifically studied in postmenopausal women with FSD, tibolone is a synthetic steroid classified as a selective tissue estrogenic activity regulator (STEAR), available for prescription in postmenopausal women in a variety of countries worldwide.[83] It acts differently, as an estrogen, an androgen and a progestogen, in multiple tissues and organs and it has been shown to be effective in improving mood and sexual desire and in enhancing genital circulation.[84,85] In a randomized controlled

clinical trial conducted in postmenopausal women with FSD, tibolone showed a greater effect over transdermal estradiol-norethisterone therapy on sexual function after 24 weeks, as measured by the Female Sexual Function Index (FSFI) score, with a significant increase in responsiveness to partner-initiated sexual activity.[86] The efficacy of systemic DHEA as a treatment for FSD has been investigated with no clear benefits,[87] whereas the intravaginal use of DHEA is promising in the treatment of sexual symptoms associated with VVA.[87] A series of double-blind, randomized, placebo-controlled studies examined the efficacy and safety of a transdermal testosterone (T) patch (300 mcg) in postmenopausal women with HSDD and the T patch was approved in Europe for surgically menopausal women with HSDD on concurrent estrogen therapy.[23,47] However, T replacement therapy is still a matter of debate with guidelines and position statements reporting different conclusions because of the lack of long-term safety data.[52,89,90] Moreover, androgen manufacture in the UK and other European countries has recently stopped, and at present it is only possible to prescribe male T products at lower doses tailored for use in women. Finally, ospemifene, a selective estrogen receptor modulator (SERM) with unique estrogen-like effects in the vaginal epithelium, has been approved and it is available in the US market for the treatment of dyspareunia associated with VVA.[91]

It is of paramount importance to underline that any kind of therapeutic intervention should be closer as possible to the occurrence of sexual symptoms in order to avoid the vicious circle of FSD. Indeed, comorbidity among sexual symptoms in menopause is common,[92] and even symptoms having a strong organic basis may need psycho-social intervention over time because of the progressive impairment of self-esteem and relationship.[93] Psycho-educational programmes and cognitive reconstruction have been proved highly effective in menopause, namely after gynaecological and breast cancers,[94,95] and such techniques are both for the individual woman and for the couple.

Conclusions

In conclusion, the maintenance of sexual health in menopause is a fundamental part of women's health care at midlife. HCPs should include a brief assessment of sexual changes associated with menopause and a basic counselling on elemental strategies to overcome potential sexual problems in the routine consultation. Then, appropriated treatments should be tailored for the individual woman in the context of her personal bio-psychosocial profile to optimize healthy aging and partnership.

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