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Sex and perimenopause

Background

Sexual difficulties are common across the female lifespan, increasing at midlife. Although changing hormone levels at menopause may contribute to the development of female sexual dysfunction, other factors, including relationship issues; psychological wellbeing; physical wellbeing; and medication use, such as antidepressants, need to be taken into consideration. The most common sexual difficulties reported by women across the perimenopause include dyspareunia, diminished desire, arousal capacity and difficulty in achieving orgasm.

Objective

This article summarises female sexual dysfunction in the perimenopausal woman, and discusses advice the general practitioner can offer women and possible treatment options.

Discussion

Many women experience loss of libido, reduced desire, difficulty in achieving orgasm and dyspareunia during their late reproductive and perimenopausal years. It is important that a woman is assessed in the context of her personal circumstances, partnership status, sexual experiences and cultural expectations. Management options range from informative discussions through to counselling and therapeutic intervention.

Keywords: menopause; libido; sexuality

CPD

The World Health Organization has defined sexual health as 'a state of physical, emotional, mental and social wellbeing related to sexuality; it is not merely the absence of disease, dysfunction or infirmity'. Surveys conducted across a range of cultures demonstrate that the vast majority of women believe sexual activity to be important[1] and it has been shown higher levels of physical pleasure in sex are significantly associated with higher levels of emotional satisfaction.[2]

There are several key messages that emerge from studies reporting sexual behaviour across the menopause. First, women continue to engage in sexual activity for a multitude of reasons, but not necessarily driven by their own desire, and that the frequency of sexual engagement is often a poor measure of a woman's sexual wellbeing. Second, we need to be mindful that sexuality is a significant dimension for women irrespective of relationship status, such that the evaluation of sexual wellbeing should not be limited to women in established relationships. Furthermore, although 'sex is everywhere', it is easy to overestimate the knowledge women have of their own sexuality and of sexual behaviours.

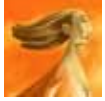
Although education *per se* is not an absolute indicator of sexual knowledge, the general practitioner can often provide basic sex education, which can improve a woman, and her partner's, sexual wellbeing.

Common midlife sexual difficulties

The most common sexual difficulties experienced by women at midlife include:

- loss of interest in sex
- inability to relax
- dyspareunia
- arousal difficulties, and
- anorgasmia.[3]

Approximately 10–15% of perimenopausal women report no sexual desire, and less than 5% of perimenopausal women report never, or almost never, experiencing arousal.[4] About 20% of perimenopausal women report occasional dyspareunia, with 5% experiencing this problem on most occasions. One large longitudinal study of women transiting the menopause observed that frequency of masturbation



increased in early perimenopause but decreased in postmenopause.[4] This may be related to the increase in vaginal pain during intercourse experienced by women in the perimenopausal years. Women with vaginal dryness are more likely to experience dyspareunia, arousal difficulties, more frequent masturbation and less physical and emotional sexual satisfaction. An important observation is that despite the reduction in desire and increase in pain observed across the menopausal transition, the frequency of sexual activity does not seem to change.

It is important that all causes of dyspareunia are considered when assessing a woman presenting with sexual pain, notably:

- vaginal dryness
- vaginismus
- vestibulitis, and
- vulvodynia.

Twenty to 30% of women report an inability to orgasm during sexual intercourse.[5] This can be lifelong (ie. never achieved orgasm) or acquired (ie. achieved orgasm in the past but is no longer able), generalised or situational, or due to physical, psychological, or combined factors. Common causes of anorgasmia are listed in *Table 1*.

Nonhormonal factors that contribute to sexual difficulties

Sexual difficulties at midlife are more common among women who are highly educated, in a significant relationship, experiencing poor personal health, have concurrent urinary incontinence, have depression, or who have a past history of sexual abuse.[3] Home, work or relationship stress may be a factor for some women. Bereavements, economic problems, retirement, children leaving home, divorce and personal illness, or illness of their partner or close relative, can be related to sexual impairment during the perimenopause.[6] A change in a partner's sexual function, which may be diminished or enhanced by medication, may alter the dynamics and sexual functioning in a relationship. Poor body image and loss of self esteem due to weight gain often contributes to a woman's reluctance to engage in sexual activity.

Impaired sexual function is a common feature of depression. It may also be due to incomplete treatment of the depression or to antidepressant therapy. Female sexual dysfunction (FSD) is most frequently reported by women using selective serotonin reuptake inhibitor (SSRI) therapy,[7,8] the most commonly used antidepressants by Australian women. Most frequently presenting as loss of libido, arousal difficulties or delayed orgasm/anorgasmia, sexual dysfunction due to SSRI therapy may not be a pressing issue for women during their early phase of treatment. However, in long term treatment, patients are generally well and anything that interferes with sexual functioning presents a problem and may contribute to noncompliance. The overall incidence of antidepressant related FSD is in the order of 55%, with SSRIs and venlafaxine having the most adverse effects.[8]

Women who have undergone hysterectomy with preserved ovaries are not more likely to experience sexual difficulties, however women who experience a surgical menopause are more likely to have sexual problems than naturally menopausal women.[9]

Table 1. Common causes of anorgasmia

- Relationship issues
- Past sexual abuse
- Chronic disease – cardiovascular disease risk: hypertension, peripheral vascular disease, smoking, diabetes; multiple sclerosis; renal failure
- Urinary incontinence
- Psychotrophic medications: antidepressants (up to one-third of women on SSRIs) antipsychotics and mood stabilisers
- Pelvic disorders – postsurgery, irradiation, trauma

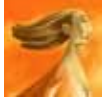
Hormonal factors that influence sexual function

The menopausal transition is characterised by fluctuating oestrogen levels, irregular menstrual cycles, and often a random mixture of oestrogen excess and oestrogen deficiency symptoms. Therefore one week a woman might be experiencing mastalgia and heavy bleeding and the next, experiencing vasomotor symptoms, sleep disturbances and anxiety as a consequence of oestrogen insufficiency. These hormonal changes will have substantial impact on the woman's sexual interest and capacity to become aroused and/or achieve orgasm. Vaginal atrophy is a consequence of postmenopausal oestrogen insufficiency,[10] but as oestrogen levels are generally sustained until the final menstrual period, most perimenopausal women remain unaffected. During the perimenopause, women often complain of the vaginal dryness in relation to sexual activity. Rather than being due to oestrogen insufficiency, this is a sign of failure to be aroused and lubricate. In this setting, treatment with vaginal oestrogen does not address the problem.

In contrast to the decline in oestrogen following menopause, testosterone levels do not change abruptly across the menopause transition, but fall progressively with age from the midreproductive years.[11] Studies of testosterone therapy have not been conducted in perimenopausal women. However, treatment of women in their late reproductive years and in postmenopausal women with testosterone has been associated with increased arousal and vaginal lubrication and reduced dyspareunia.[12] Testosterone levels arise from ovarian testosterone production and conversion of adrenal dehydroepiandrosterone (DHEA) to testosterone in the target tissues.

Contraception

As contraception is advised until a woman is 12 months postmenopause, many women continue to take the oral contraceptive pill (OCP) through their late reproductive years and across the menopause transition. By suppressing ovulation, the OCP will suppress ovarian testosterone production and increase sex hormone binding globulin (SHBG), therefore markedly reducing free testosterone levels.



As the production of the other primary tissue source of testosterone, DHEA, also declines with age,[11] perimenopausal women are more susceptible to symptoms of testosterone depletion with OCP use. Whereas use of the OCP may not have caused a woman to experience diminished desire and arousal earlier in life, it may do so during the late reproductive years/perimenopause.

The vaginal hormonal contraceptive ring also increases SHBG and has the same effect on testosterone levels as the OCP. Long acting progestin contraception and the levonorgestrel releasing intrauterine system have little or no effect.

The need to treat female sexual dysfunction

Female sexual dysfunction impacts adversely on self esteem, quality of life, mood and relationships with sexual partners.[7,13] It is associated with significantly lower health related quality of life. Furthermore, sexual desire within a relationship is a key determinant of the quality of the nonsexual aspects of the relationship. Both men and women reporting a discrepancy between their own and their partner's sexual desire have lower relationship satisfaction[14] and individuals in sexually inactive marriages report less marital happiness.[2] Other relationship issues such as poor communication between partners, ongoing anger and resentment and feeling undervalued may also impact on libido and lower sexual satisfaction in relationships. It is not uncommon for loss of sexual desire to cause affected women profound distress, regardless of whether she has withdrawn from sexual interactions or has chosen to continue to engage to maintain a level of intimacy despite her loss of desire.

Assessment of sexual concerns

It is important that a woman is assessed in the context of her personal circumstances, partnership status, sexual experiences and cultural expectations. It should not be assumed that a woman is experiencing adequate sexual stimulation, both physical and emotional.

Medical history needs to include general medical, obstetric and urogynological details and the use of all medications, both prescription and nonprescription. A medical examination should include a full genital and pelvic assessment including assessment of sensitivity in women presenting with loss of sensitivity or pain disorders.

Laboratory investigations should only be done as indicated and might include exclusion of factors causing fatigue (iron deficiency, thyroid dysfunction and hyperglycaemia). Measurement of oestradiol and FSH may be useful in establishing menopausal status in hysterectomised women, but are mostly uninformative.[15] There is no point measuring any reproductive hormones in women taking the OCP. If testosterone therapy is to be considered total testosterone and SHBG should be measured and a free testosterone level calculated by the laboratory. Abnormally high testosterone or low SHBG levels can be found when androgen excess is not expected. Urodynamic studies may help with the diagnosis of urinary incontinence and pelvic floor dysfunction.

Table 2. Managing women presenting with sexual dysfunction

- Biopsychological assessment
  - current personal circumstances
  - partner status
  - employment
  - sexual experiences
  - adequacy of sexual stimulation, both contextual and physical
  - health history, medications, drug/alcohol use
- Medical examination including genital and pelvic examination particularly for loss of sensitivity or pain disorders
- Address current circumstances
  - relationship issues: consider referral for relationship counselling
  - sexual health knowledge, ie. individual and partner's understanding of anatomy and sexuality and whether the women is experiencing sexual stimulation: consider referral for sexual counselling
- Address psychological factors
  - body image and self esteem
  - experience of sexual abuse/trauma
  - negative attitudes, inhibitions and anxieties, cultural and religious beliefs
- Identify and manage health related factors
  - mental health
  - physical health
  - medication side effects particularly antidepressants and antipsychotics
  - partner's mental and physical health
- Consider testosterone therapy

Management of sexual dysfunction

A simple management approach is outlined in *Table 2*. Many women link their loss of desire to specific lifestyle circumstances, such as lack of privacy due to adult children still at home. Simply discussing these issues, and possible strategies to overcome them, can result in substantial improvement for the woman. Current circumstances and psychological factors impacting on sexual function need to be addressed. Physical comorbidities, such as urinary incontinence, need to be identified and managed.

Perimenopausal women are more vulnerable to depression and the side effects of antidepressant medication need to be managed. Women may need to be counselled about alcohol excess. A trial off the OCP is worthwhile in affected women. The levonorgestrel impregnated intrauterine device provides an excellent contraceptive alternative for perimenopausal women, reducing menstrual loss, and can provide uterine protection if early postmenopausal oestrogen therapy is required.

A subset of women will benefit from testosterone therapy.[12] Testosterone can be administered as a subcutaneous implant or as a transdermal 1% cream. (The latter is approved in Western Australia

for use in women.) Testosterone administered in appropriate doses for women has minimal side effects and is usually related to a mild increase in hair growth in androgen sensitive areas of the body. Importantly, the use of compounded testosterone products can result in unpredictable and sometimes very high testosterone levels, and testosterone products approved for men should not be prescribed to women as masculinisation can occur.

Large randomised controlled trials have shown that testosterone therapy will improve desire, arousal, frequency of orgasm and sexual satisfaction in both pre- and post-menopausal women.[12,16] No specific profile will help identify a woman most likely to benefit, other than that testosterone therapy has been shown to be ineffective in women with SHBG levels above the upper limit of normal. A woman with relationship difficulties or depression should not be excluded from a trial of testosterone therapy, as sexual dysfunction may be the cause of these other problems, not a consequence.

Whether SSRI associated sexual impairment will respond to testosterone therapy is not known, as this has not been investigated. Currently the Women's Health Research Program of Monash University in Melbourne (Victoria) is recruiting women with SSRI associated FSD to a large randomised placebo controlled trial investigating transdermal testosterone therapy as a potential treatment for SSRI associated sexual dysfunction in women.

The main indications for a trial of testosterone therapy are a past history of satisfactory sexual wellbeing and loss of desire and/or arousal for which a woman seeks treatment. Contraindications to a trial of testosterone include hormone dependant cancer, conditions associated with androgen excess such as acne, hirsutism and androgenic alopecia and an elevated SHBG. Unless a GP is experienced with testosterone therapy, specialist referral is indicated.

Summary of important points

- Sexual function concerns are common among perimenopausal women.
- Oestrogen fluctuation, but not oestrogen deficiency, may contribute to sexual difficulties during the perimenopause.
- The mainstay of management is identifying and managing contextual issues, depression and side effects of antidepressant therapy, and as indicated, a trial of testosterone therapy.

Resource

The Women's Health Research Program at Monash University: www.med.monash.edu.au/medicine/alfred/womenshealth/.

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