Sexual difficulties in the menopause

Key points

- Sexual difficulties can be life-long or recently acquired, but they are a common presentation at menopause.
- Hormones are rarely the only factor involved in desire-arousal problems.
- Declining sexual function correlates with falling oestradiol and not with testosterone.
- Available testosterone does not decline over the menopausal transition.
- Psychological and lifestyle issues always need to be addressed.
- Start by optimising oestrogen therapy.
- A trial of testosterone therapy may be appropriate for some women whose symptoms do not improve on MHT alone.
- Formulations of androgens for the treatment of male hypogonadism should never be used in women.

Sexual response and therefore sexual difficulty can refer to desire, arousal, orgasm or pain with intercourse. Although these are classified as separate elements in sexual response, they become inextricably linked when dysfunction occurs. A clinical history should attempt to define what may be the initiating and maintaining problems.

Low libido refers to diminished desire for sex. When clinically a problem it is referred to as hypoactive sexual desire disorder (HSDD). Low libido is the most common sexual concern reported by women and is often inseparable from diminished capacity to become aroused. More recently HSDD has been merged with female sexual arousal disorders and re-named 'female sexual interest-arousal disorder' (FSIAD), which remains primarily based on sexual desire (1). It is still reasonable to talk about HSDD or simply loss of libido. Other common sexual concerns for women include delayed / inability to achieve an orgasm and vaginal pain, often due to vaginal dryness.

Sexual difficulties can be life-long or recently acquired, but they are a common presentation at the menopause. They may also be situational (limited to certain types of stimulation, situations, or partners) or generalized.

Hormones are rarely the only factor involved in desire-arousal problems and other factors need to be identified and addressed (2). These might include relationship issues, psychological factors, side effects of common medications, such as antidepressants, or health issues such as diabetes. Women often say that the physical changes that occur with ageing and/or menopause make them feel more self-conscious about their body, particularly in relation to sex. Other changes in a woman's life, such as a partner's midlife issues (including erectile dysfunction), teenagers in the house or leaving home, and parents dying or requiring care will affect sexual function.

Longstanding sexual problems may be linked to past emotional abuse as well as sexual abuse. It may also be associated with religious or cultural factors. It is important to ask your patient about current and past sexual and emotional abuse.

For many women, decreased libido/lowered arousal is not seen as a problem in their lives. These issues only need to be addressed when they cause personal concern/distress. Nonetheless not all concerned women will feel confident to raise the issue of sexual problems. Therefore it is always useful to provide patients with the opportunity to do so by asking a general question such as "Do you have any concerns of difficulties related to sexual activity?"

A useful reference for both women and their partners is the book "Where Did My Libido Go?" by Dr Rosie King.

Hormones and sexual function

Oestrogen

Studies of sexual function over the menopausal transition have identified that declining sexual function correlates with falling oestradiol and not with testosterone, as well as with partner relationships (3). MHT containing oestrogen and progestin has been shown to improve sexual functioning and sexual thoughts, independent of its effect on vasomotor symptoms (4, 5).

The decline in oestrogen at menopause results in a reduction in vaginal secretions and in vaginal dryness, making intercourse uncomfortable or even painful. Management of this with a vaginal oestrogen preparation can reduce dryness and pain during intercourse (6). Non-hormonal vaginal moisturizers are an alternative but may be less effective. Lubricants can also help. Menopausal symptoms which result in sleep disturbance and fatigue, will also have an impact on a woman's libido (7-9). Systemic, oestrogen-containing MHT can improve sexual function, including libido (10, 11).

Testosterone

There is a physiological decline in testosterone with age that is unrelated to natural menopause (12). Ovarian testosterone production begins to decline from when women are in their mid twenties, so that by the time most women are in their forties their blood testosterone levels are half of what they were in their younger years. However, large cross-sectional studies across pre- and post-menopausal women have failed to find a significant correlation between serum testosterone and self-reported sexual function (13, 14). In women with intact ovaries and adrenals there is no such entity as "androgen deficiency" and this "diagnosis" should be avoided.

The menopausal ovary continues to produce androgens. Available testosterone (measured by the free androgen index) does not decline and even rises marginally over the menopausal transition (15). However, bilateral oophorectomy does cause an approximate 50% reduction in the level of testosterone, which may contribute to deterioration of sexual desire, particularly in younger women who undergo surgical menopause (12).

Treating sexual dysfunction

Psychology and lifestyle

- Ask about the relationship, particularly stresses and tensions in the relationship and the partner's sexual function. Possibly recommend relationship counselling
- Address general health issues, particularly factors that commonly cause fatigue such as iron deficiency and abnormal thyroid function
- Address lifestyle issues and ways of reducing fatigue and stress, including workplace stress
- Any depression or anxiety issues need to be dealt with.
- Some drugs, especially anti-depressants, can impair sexual responsiveness, although certain antidepressants such as agomelatine, bupropion and mirtazapine may have less effect. Discuss this with your patient and the prescribing doctor.
- Consider referral to a psychologist specialising in the management of sexual difficulties

Oestrogen

- Start with optimising oestrogen therapy
- Treat vaginal dryness with local oestrogen. Vaginal moisturisers and lubricants may also be effective but their action is temporary (16)
- Systemic oestrogen-containing menopausal hormone therapy (MHT): Studies suggest that maintenance of libido may require more oestrogen than elimination of vaginal dryness (3)
- Tibolone may be more effective in treating low libido than conventional MHT (17, 18) (see other AMS information sheets).
- Some forms of oral oestrogen such as MHT tablets or the oral contraceptive pill can reduce free testosterone by increasing SHBG, so a trial off the oral contraceptive pill or changing to a non-oral MHT should be considered if low libido/arousal is a problem.

Testosterone

- Endocrine Society Guidelines recommend against making the diagnosis of androgen deficiency in women (19).
- Endogenous testosterone levels do not predict response to therapy and not every woman with a low testosterone level has low libido.
- A trial of testosterone therapy may be appropriate for some women whose symptoms do not improve on MHT alone.
- A blood testosterone level should be measured prior to starting any testosterone therapy so that women with normal to high levels are not inappropriately treated
- There is evidence for short-term efficacy and safety of high physiological doses of testosterone treatment of postmenopausal women with sexual dysfunction due to hypoactive sexual desire disorder. (19)

- Formulations of androgens for the treatment of male hypogonadism should never be used
- Testosterone levels should be checked 3–6 weeks after initiation of therapy and every 6 months thereafter to assess for signs of excess dose or androgenic side-effects.
- Treatment should be ceased in women who have not responded to treatment by 6 months.
- Safety and efficacy data for testosterone therapy in women are not available beyond 24 months. The available evidence does not indicate any adverse cardiovascular or metabolic effect of transdermal testosterone therapy. The long-term safety of exogenous testosterone is unknown. In particular, the effects on heart disease and breast cancer are unknown.

Side effects of testosterone

The most commonly reported side effects are mild acne and increased hair growth, which indicate that the dose being used is too high. Less common side effects at low doses are weight gain and fluid retention. Serious side effects (rare at low doses) are clitoral enlargement and voice deepening and these can be permanent. No long term safety studies have been conducted.

Who should not use testosterone?

Women who are being treated for hormone related acne, excess body hair or balding (androgenic alopecia) should not use testosterone. Testosterone should not be used by women who have been diagnosed with a hormone dependent cancer, such as breast cancer. Professional singers should also not use testosterone due to the rare but irreversible effect on the voice.

Testosterone formulations appropriate for use in women

The only form of testosterone potentially appropriate for use in women available in Australia is a TGA registered 1% testosterone cream available from Western Australia by mail order on a private prescription. It is applied daily to the skin of the upper thigh/ lower torso daily. The dose should be titrated according to effects and blood levels. Although a 2% strength is available, it is for use in men and results in testosterone levels approaching the male range and thus it should not be used by women. Compounded testosterone formulations have unreliable constituent strength and should not be used.

Phosphodiesterase inhibitors

Because the physiological mechanisms for genital arousal in men and women are similar, several studies exploring the efficacy of phosphodiesterase type 5 inhibitors (PDE5i), in particular sildenafil, v placebo have been conducted. There is significant heterogeneity between studies and many are very small numbers. The largest study by Basson et al found no subjective difference in sexual function between placebo and sildenafil. However, smaller studies in subgroups have found improved arousal with PDE5i in women with spinal cord injury, and improvement in orgasm with PDE5i in patients on SSRI antidepressant medication (20, 21).

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