The impact of genitourinary syndrome of menopause on continence

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Most women approaching the menopause are only too aware of the possibility that they can look forward to mood swings, hot flushes, night sweats and reduced libido (Sassarini and Lumsden, 2015). What is not always so commonly appreciated is the effect of the hormonal changes on the woman’s urogenital tract.

Oestrogen receptors are found in abundance in the urethra and urinary bladder, vagina and structures of the pelvic floor (Alperin et al, 2019). As the woman’s oestrogen levels decline, the epithelial cells of the vagina also degenerate, with the loss of elastin, collagen and subcutaneous fat, all of which affect the integrity and robustness of the vulvovaginal tissues. Objectively, the woman may experience dryness, irritation and skin tightness in and around the vagina. In years gone by this phenomenon was known as ‘atrophic vaginitis’. The term described the external physiological signs of oestrogen deficit, but failed to effectively articulate the full spectrum of genitourinary symptoms that evidence now shows are comitant with menopause.

In order to reflect the greater understanding of the effects of oestrogen withdrawal on the urogenital tract, the Vulvovaginal Atrophy Terminology Consensus Conference Panel agreed in 2014 to adopt the term genitourinary syndrome of menopause (GSM) (Portman et al, 2014):

‘Members of the consensus conference agreed that the term genitourinary syndrome of menopause (GSM) is a medically more accurate, all-encompassing, and publicly acceptable term than vulvovaginal atrophy.

GSM is defined as a collection of symptoms and signs associated with a decrease in estrogen and other sex steroids involving changes to the labia majora/minora, clitoris, vestibule/introitus, vagina, urethra and bladder. The syndrome may include but is not limited to genital symptoms of dryness, burning, and irritation; sexual symptoms of lack of lubrication, discomfort or pain, and impaired function; and urinary symptoms of urgency, dysuria and recurrent urinary tract infections.’

Evidence has shown that about 7 in 10 women have symptoms of GSM, but only 7 in 100 women will attain effective treatment (Nappi and Kokot-Kierpa, 2012).

Effects on continence

Urological complications of GSM (Box 1) may include reduced blood supply to the bladder trigone, leading to irritative bladder symptoms (Ghandi et al, 2016). The correlation of overactive bladder symptoms with increasing age in women evidences this effect well (Ellsworth et al, 2013). Similarly, decreased vitality, plumpness and plasticity of the urogenital tissues increase the risk of stress incontinence by affecting urethral support. Urinary frequency, urgency and nocturia can have a huge impact on quality of life for many women.

Another significantly troublesome effect of GSM on continence is the increased likelihood of urethral and vaginal prolapse. As the vulvovaginal skin tightens and retracts, the urethral meatus may begin to expose the delicate inner urethral lining, which then becomes highly irritated causing pain and bleeding as a urethral caruncle develops (Hum and Dytoc, 2017). Urethral prolapse is a risk factor for voiding difficulties, as is the converse presentation where the urethral meatus retracts into the anterior vaginal wall. Cystocele, urethrocele and rectocele again increase the risk of voiding difficulty, along with that of recurrent urinary tract infection (UTI) from the resultant post-void residual.

The aetiology of recurrent urinary tract infection in postmenopausal women is, of course, multifactorial. Not only does the presence of retained stale urine provide a reservoir for infection, but the protective effects of vulvovaginal oestrogenisation are lost.

These effects include a reduction in the acidity of vaginal fluid and with it the population of healthy Lactobacillus bacteria. As the environment increases in pH, the bacteria that are are usually kept in check by competition with Lactobacillus are allowed to proliferate, causing infection and irritation (Ghandi et al, 2016). Furthermore, devascularisation of the area further inhibits the woman’s innate immunological response to infections, making them much harder to clear up without intervention. Interestingly, cigarette smokers are more likely to develop GSM, possibly due to microvascular changes of the urogenital structures (Sousa, 2017).

Identifying GSM in practice

Understandably, many women feel embarrassed to discuss their vulval and genitourinary symptoms with healthcare providers and, consequently, to seek help. This is compounded by the fact that menopause is universally viewed as a natural and inevitable event. However, the fact that it is inevitable does not mean it is OK for a women to suffer the secondary effects.

Careful questioning and examination can help identify women who have symptoms of GSM in many clinical settings. Continence nurses have a particularly important role in facilitating discussions about vulvovaginal symptoms in relation to continence, but any nurse caring for a woman who is postmenopausal with continence problems can help her patient to overcome the barriers of embarrassment and shame in order to seek effective treatment.
Useful screening questions may include asking the patient if she experiences any problems of the vulval or vaginal skin. Dryness or soreness, itching, burning or irritation may all indicate that GSM is a feature of the patient’s presentation. Women undergoing aromatase inhibitor therapy, chemotherapy, radiation or some surgical treatments for breast cancer, or gynaecological cancers, are particularly vulnerable to developing vulvovaginal symptoms relating to GSM (Lester et al, 2015).

Physical examination findings include pale vaginal mucosa, shrinking of labia or tightened and shortened vaginal introitus, making internal examination difficult or impossible (Box 2). Some cases of GSM may be so severe that labial fusion makes full examination impossible. Cases such as these should be screened carefully for lichen sclerosus and malignancy.

Treatments for GSM

The benefits of topical oestrogen therapy, including creams, rings and pessaries, are well documented and can offer reliable symptomatic relief for women. Their use in mitigating recurrent UTI has increased in popularity, in addition to aiming to reduce bladder and pelvic pain. It is an incorrect assumption that women taking systemic oestrogen therapy (hormone replacement therapy [HRT]) cannot have topical oestrogens concurrently. These women may safely be prescribed topical oestrogen therapy. Historically, there has also been concern regarding the safety of topical oestrogens in women who have had breast cancer. Currently, the only explicit situations in which topical oestrogens should be avoided are ‘...active breast cancer and also undiagnosed vaginal or uterine bleeding’ (Williams and Lustberg, 2019). Because the amount of active ingredient absorbed systemically is so tiny, the absolute risk of increased circulating oestrogen remains very small.

Although topical oestrogens continue to provide the mainstay of treatments for GSM, other treatments may prove useful in combating GSM. These include prasterone, which applied to the vagina assists in the synthesis of oestrogen to relieve vaginal tightness and shrinkage. Ospemifene is an oral medication that has found some success in treating some symptoms of GSM, but this is not appropriate for women who are at high risk of, or who have had, breast cancer.

A range of other non-hormonal topical treatments such as lubricants and lidocaine-containing preparations may also provide symptomatic relief. Laser vaginal treatments that promise restoration of healthy vaginal tissues by promoting collagen growth may prove useful in time, but these are not yet available in NHS care settings.

Conclusion

Much progress has been made in recent years in the overall understanding of the menopause and its broad-reaching effects on women. By, essentially, rebranding the urogenital effects as ‘genitourinary syndrome of menopause’ the aim is to enable health professionals to more readily identify reversible bothersome symptoms and offer treatment, where possible.

It is hoped that, in so doing, health professionals may also convey to all women that they no longer need suffer in silence with embarrassing and debilitating menopause-related continence problems. BJN


