Genitourinary Syndrome of Menopause

KEY POINTS

- Vaginal, vulval and urinary tract symptoms around the time of menopause are caused by falling ovarian hormone levels
- These symptoms are common- affecting between 40% and 90% of menopausal women. Urinary incontinence develops in up to 50% of postmenopausal women
- Many older women are embarrassed about genitourinary symptoms and the clinician may need to inquire directly about such symptoms
- There are a number of safe and effective treatments which can help vulval, vaginal and urinary symptoms- both on and off prescription
- Due to an increased risk of genitourinary pathology in women in this age group it is important that any new or worsening symptoms are fully investigated- such as pain, post-menopausal bleeding, malodorous vaginal discharge, dysuria or haematuria

- Genito-urinary symptoms are associated both with the hormonal changes occurring at menopause and with ageing.[1] Unlike vasomotor symptoms, which for most women improve over time, urogenital symptoms often persist throughout postmenopausal life and tend to worsen as the women age.
- Embarrassment, or the perception that these symptoms are inevitable or untreatable, may prevent many women from raising them with their clinician.
- Genitourinary Syndrome of Menopause (GSM) was previously known as atrophic vaginitis or vulvovaginal atrophy (VVA). The new terminology was adopted in 2014 since it was acknowledged that VVA did not cover any of the changes seen in the urinary system and did not apply specifically to menopausal women.[2] However, the older terms of VVA and 'atrophic vaginitis' are still commonly used in practice.
- Changes in vaginal and urethral health occur with both natural and surgical menopause, as well as after treatments for hormonally dependent cancers.

Changes in the Vulva

- The vulva has numerous receptors for both oestrogens and androgens. As levels of both fall around menopause, structural and functional changes may occur in the vulval tissues. As underlying collagen support is lost with age, the vulval skin appears paler and thinner. The labia minora and the clitoris may appear smaller. There is variable narrowing of the introitus, and the pubic hair becomes sparser and coarser. The local glands produce less secretions leaving the skin drier and more susceptible to local trauma.

Changes in the Vagina

- Similar structural changes occur within the vagina. On speculum examination the vaginal epithelium may appear thin, pale and less corrugated. The vaginal skin is more easily traumatised, particularly with penetrative sex, and in more severe cases scattered petechial haemorrhages may be visible on speculum examination[3] This can lead to vaginal bleeding. A narrow introitus, decreased vaginal lubrication, slower arousal and a less distensible vaginal may result in dyspareunia.[3]
- During the reproductive years, the glycogen in the vaginal cells is converted by the vaginal lactobacilli into lactic acid, maintaining an acidic pH. Lower levels of estrogen after menopause cause a fall in the glycogen produced by the vaginal epithelial cells and the vaginal pH rises. This change in pH advantages other vaginal flora, previously present in only small numbers. Some menopausal women will report an increase in their vaginal discharge, which they describe as irritating or malodorous.[3]

Changes in the Lower Urinary Tract

- Post-menopausal women are at increased risk of urinary frequency, urethritis and urinary tract infection.
- Urinary incontinence affects 30–60% of perimenopausal and postmenopausal women.[4]
- The urethral skin may prolapse at the entrance to the urethra causing a urethral caruncle. These may cause dysuria, bleeding and less commonly pain.

Incidence of Urogenital Symptoms of Menopause

- Genitourinary Syndrome of Menopause is estimated to affect 40-90% of postmenopausal women, with the incidence increasing with age. It is also reported during perimenopause, with one study suggesting an incidence of up to 19% in women aged 40-45. [5,6,7,8,9]

- Studies suggest that the use of vaginal oestrogen in peri and post-menopausal Australian women is around 4.5 to 7.8%.[10,11]
- 27% of women still experience vaginal symptoms when using systemic hormone therapy.[12]

Impact of Menopausal Urogenital Symptoms

In a 2013 survey of over 3000 women with menopausal vulvovaginal symptoms in the United States[13]

- 85% of partnered women reported 'some loss of intimacy.
- 59% indicated that their symptoms detracted from enjoyment of sex.
- 47% indicated interference with their relationship.
- 29% reported a negative effect on sleep.
- 27% reported a negative effect on their general enjoyment of life.

Management of Menopausal Urogenital Symptoms

- Ideally, all older women with symptoms suggestive of GSM should be examined to exclude other causes of genital symptoms, such as dermatitis, sexually transmitted infections, Lichen Sclerosis, Lichen Planus and vulval neoplasia.

General Vulvovaginal Care

- Advise the woman to quit smoking- since smoking reduces oestrogen levels even further.
- Safer sex practice and screening for sexually transmitted infections remain considerations for women of any age who are not in a mutually monogamous relationship.
- Advise the use of underwear made of natural fibres.
- Limit the time spent, wearing tight-fitting underwear, pantyhose/tights, jeans or trousers as this may lead to sweating and skin irritation.
- Limit time in damp or wet swimming costumes or exercise clothing.
- Wash clothing with non-perfumed or low-allergenic washing products.
- Avoid using fabric softeners and consider double-rinsing underwear in clear water if symptoms persist.
- Avoid the use of feminine hygiene sprays, perfumed wipes and douching.
- Avoid scented panty-liners and toilet paper.
- Avoid shaving or waxing the genital area, particularly if irritation is present.
- Gently wash the skin of the genital area with plain water only. Soap alternatives are gentler on older skin and soap, liquid soap, bubble baths and shower gels are best avoided. Always pat dry as opposed to rubbing.

- Mild symptoms of vulval itching and discomfort may respond to the gentle application of a cool dilute solution of bicarbonate of soda (1/2 teaspoon in 1L of water) which is then softly patted dry. Women should be advised if symptoms fail to settle, they should seek further clinical advice.
- Daily application of a small amount of a bland emollient, such as petroleum jelly, to the vulva may act as a useful barrier to potential local sensitisers.

Non- hormonal options- Moisturisers and Lubricants

- Regular use of vaginal moisturisers, such as polycarbophil gel or hyaluronic vaginal gel 0.2% may help relieve general vulvovaginal dryness.[13,14,15]
- Lubricants may be useful for sexual activity. Water-based lubricants are the most commonly used in Australia. Unfortunately, they are rapidly absorbed by drier skin and may quickly lose their slipperiness. Silicone lubricants remain slippery for longer and one study suggests a preference for these by older Australian women.[16]
- Oil-based lubricants, either pure oils or commercially made combinations, are another option for improving lubrication during sexual activity. They cannot however safely be used with latex condoms.

Vaginal Oestrogen Preparations

- The vaginal oestrogen options currently available in Australia contain oestriol (available as cream and vaginal ovules) or oestradiol (available as vaginal tablets). These preparations are listed on the Pharmaceutical Benefits Scheme, but with limited repeats available.
- There is no need for progestogen when vaginal oestrogens are used in recommended dosages as the amount absorbed systemically is insufficient to induce endometrial thickening.[17]
- Vaginal oestrogens can safely be used in addition to systemic menopausal hormone therapy if vaginal symptoms persist.
- There is evidence of a reduction in rates of urinary tract infection in women using vaginal estrogen preparations.[18]
- Nightly use of the preparation is recommended for 2 weeks, then a maintenance dose of 2-3 times a week. It may take 8 weeks of treatment to achieve maximal effect.
- **No** studies have demonstrated there is a breast cancer link with the use of vaginal estrogen. Concerns remain about the safety of topical vaginal oestrogens in breast cancer survivors. Lubricants and moisturisers are still the first choice. Although current

RANZCOG clinical guidelines[19] suggest that after a consultation with an oncologist, vaginal oestrogen therapy is a reasonable therapeutic option for the control of urogenital symptoms in breast cancer survivors. Oestriol is preferred to oestradiol since it cannot be metabolised into more potent oestrogens such as oestradiol or oestrone. Therefore, it confers a theoretical advantage. However, there is no clinical outcome data to support the superior safety of one preparation over another.

Dehydroepiandrosterone (DHEA)

- DHEA is a hormone produced mainly by the adrenal glands and has weak androgenic and weak oestrogenic activity.
- Studies of a topical vaginal DHEA preparation (prasterone 6.5 mg) indicated significant improvement in vaginal dryness, vaginal pH and dyspareunia [20, 21] and it is now indicated for the treatment of moderate to severe menopausal vulvovaginal symptoms in Australia.
- A waxy ovule is inserted nightly into the vagina with an applicator or finger. As only small amounts of the active intracellular metabolites pass back into the circulation, testosterone and oestradiol remain within the normal range for post-menopausal women.
- Vaginal DHEA is **NOT** currently indicated or approved for breast cancer survivors in most countries.

Ospemifene 60mg

- Ospemifene is an orally administered SERM used in the treatment of vulvovaginal atrophy in menopausal women. It has the same contraindications as oestrogen and is currently not available in Australia.

Fractional carbon dioxide laser

- An Australian double-blind RCT concluded that for women with postmenopausal vaginal symptoms, treatment with fractional carbon dioxide laser (vs sham treatment) did not significantly improve vaginal symptoms over 12 months. [22]

Genitourinary Syndrome of Menopause remains an underdiagnosed and undertreated condition in Australia. An understanding of both the aetiology of this common condition and the range of effective treatment options available can assist clinicians to improve the quality of life of older women in this country.

Revised July 2024

References

1. Bachmann G. Urogenital ageing: an old problem newly recognized. Maturitas 1995;22(Suppl): S1-S5

2. Portman DJ, Gass ML. Genitourinary Syndrome of Menopause: New Terminology for Vulvovaginal Atrophy from the International Society for the Study of Women's Sexual Health and The North American Menopause Society. Journal of The Sexual Medicine. 2014

3. Naumova I, Castelo-Branco C. Current treatment options for postmenopausal vaginal atrophy. Int J Womens Health. 2018 Jul 31; 10:387-395

4. Ptak M, Brodowska A, Ciećwież S et al. Quality of Life in Women with Stage 1 Stress Urinary Incontinence after Application of Conservative Treatment-A Randomized Trial. Int J Environ Res Public Health. 2017 May 30;14(6):577

5. Nappi RE, Palacios S, Panay N et al. Vulvar and vaginal atrophy in four European countries: evidence from the European REVIVE Survey. Climacteric. 2016 Apr;19(2):188-197

6. Nappi RE, Kokot-Kierepa M. Women's voices in the menopause: results from an international survey or vaginal atrophy. Maturitas. (2010) 67:233–238

7. Kingsber SA, Krychman M, Graham S et al. The women's EMPOWER survey: identifying women's perceptions on vulvar and vaginal atrophy and its treatment. J Sex Med. (2017) 14:413–24

8. Nappi RE, Seracchioli R, Salvatore S et al. Impact of vulvovaginal atrophy of menopause: prevalence and symptoms in Italian women according to the EVES study. Gynecol Endocrinol. (2019) 35:453–459

9. Alvisi S, Gava G, Orsili I, Giacomelli G, Baldassarre M, Seracchioli R, et al. Review: vaginal health in menopausal women. Medicina. (2019) 55:615

10. Worsley R, Bell RJ, Gartoulla P et al. Low use of effective and safe therapies for moderate to severe menopausal symptoms: a cross-sectional community study of Australian women. Menopause. 2016 Jan;23(1):11-17

11. Gartoulla P, Worsley R, Bell RJ et al. Moderate to Severe Vasomotor and Sexual Symptoms Remain Problematic for Women Aged 60 to 65 Years. Menopause. 2015;22(7): 694-701

12. Notelovitz M. Urogenital aging: Solutions in clinical practice. Int J Gynaecol Obstet. 1997;59 (suppl 1): S35–S39

13. NAMS. Management of symptomatic vulvovaginal atrophy: 2013. Menopause 2013; 20:888–902

13. Nachtigall LE. Comparative study: Replens versus local estrogen in menopausal women. Fertil Steril. 1994 Jan;61(1):178-80

14. Van der Laak JAWM, de Bie LMT, de Leeuw H et al. The effect of Replens® on vaginal cytology in the treatment of postmenopausal atrophy: cytomorphology versus computerised cytometry. J Clin Pathol. 2002;55(6):446 –451

15. Stute P. Is vaginal hyaluronic acid as effective as vaginal estriol for vaginal dryness relief? Arch Gynecol Obstet. 2013 Dec;288(6):1199-201

16. Hickey M, Marino JL, Braat S et al. A randomized, double-blind, crossover trial comparing a silicone-versus water-based lubricant for sexual discomfort after breast cancer. Breast Cancer Res Treat. 2016 Jul;158(1):79-90

17. Simunić V, Banović I, Ciglar S et al. Local estrogen treatment in patients with urogenital symptoms. Int J Gynaecol Obstet. 2003 Aug;82(2):187-97

18. Rozenberg S, Pastijn A, Gevers R et al. Estrogen therapy in older patients with recurrent urinary tract infections: a review. Int J Fertil Womens Med. 2004;49(2):71-4

19. RANZCOG. Clinical Guidance: Managing menopausal symptoms. 2020. https://ranzcog.edu.au/wp-content/uploads/Managing-Menopausal-Symptoms.pdf

20. Archer DF, Labrie F, Bouchard C et al. VVA Prasterone Group. Treatment of pain at sexual activity (dyspareunia) with intravaginal dehydroepiandrosterone (prasterone). Menopause. 2015 Sep;22(9):950-63

21. Labrie F, Archer DF, Bouchard C et al. et al. Prasterone has parallel beneficial effects on the main symptoms of vulvovaginal atrophy: 52-week open-label study. Maturitas 2015; 81(1): 46-56

22. Li FG, Maheux-Lacroix S, Deans R, et al. Effect of Fractional Carbon Dioxide Laser vs Sham Treatment on Symptom Severity in Women With Postmenopausal Vaginal Symptoms: A Randomized Clinical Trial. JAMA 2021; 326.