Clinical and Experimental Obstetrics & Gynecology

Clin. Exp. Obstet. Gynecol. **2022**; 49(12): 265
https://doi.org/10.31083/j.ceog4912265

Editorial

Recent Research on the Treatment of Vulvar and Vaginal Atrophy

Ottavia D'Oria[1,*], Andrea Giannini[1], Donatella Caserta[2]

[1]Department of Medical and Surgical Sciences and Translational Medicine, Sapienza University, 00185 Rome, Italy
[2]Gynecology Division, Department of Medical and Surgical Sciences and Translational Medicine, Sant' Andrea University Hospital, Sapienza University of Rome, 00189 Rome, Italy
*Correspondence: ottavia.doria@uniroma1.it (Ottavia D'Oria)
Academic Editor: Michael H. Dahan
Submitted: 29 September 2022 Accepted: 30 September 2022 Published: 30 November 2022

Genitourinary syndrome of menopause (GSM) affects up to 50% of menopausal women via vulvovaginal atrophy (VVA), as well as urinary and sexual disorders, compromising quality of life (QoL) and sexual health. GSM is caused by the physiological decline in estrogen level, with reduced vascularization and blood flow and loss of vaginal tissue elasticity [1,2].

The Italian Atrophy of the vaGina in womAn in posT (AGATA) study confirmed that a clinical diagnosis of VVA (dyspareunia, dryness, mucosal irritation, itching, and dysuria) has a prevalence of 64.7–84.2% in the first 6 years of the onset of menopause. Several studies confirmed that VVA symptoms already begin during perimenopause and early post-menopause [3].

Several therapeutic options have been proposed for the relief of GSM symptoms, including both hormonal and non-hormonal treatment. Early intervention is recommended, especially when there are severe signs and symptoms of atrophy. Furthermore, the optimal treatment course must be as personalized as possible in light of the varying clinical and social factors of menopausal women.

Non-hormonal therapies, such as vaginal moisturizers and lubricants, can be a valid first choice for the improvement of sexual activity, particularly in combating itching, burning and dyspareunia, in those patients who are fearful or skeptical about hormone therapy [4,5]. Low doses of estrogen hormone therapy, in different formulations, remain the gold standard treatment for moderate to severe VVA and for those women who are not satisfied from the use of lubricants or moisturizers [6]. The prescription of topical estrogen is a controversial topic in women with history of breast cancer, hormone-sensitive cancer, and thromboembolism, making treatment alternatives necessary. Intravaginal testosterone as well as a new class of drugs, such as selective estrogen receptor modulators (SERMs), are valid alternative treatments of VVA [7]. Ospemifene 60 mg/day was the first non-estrogen therapy for women affected by vaginal atrophy and dyspareunia [8].

Over the last years, fractional CO_2 laser therapy has been an emerging, effective, and safe choice for women affected by VVA. Several studies confirm the efficacy and safety of CO_2 laser treatment with its improvements to blood flow in vaginal epithelium, muscle and collagen tone, and elasticity of the vaginal wall, and findings similar to a premenopausal state, restoring vaginal flora to premenopausal status with predominant lactobacilli [9–12]. The combined use of local estrogen and fractional CO_2 laser seems to be advantageous and effective, confirming a synergistic action [13]. Increased attention has been paid to gynecological cancer survivors, especially those who are young and/or with symptoms of VVA due to surgical or pharmacological menopause. Attention to sexual life and quality of life (QoL) is mandatory to the complete care of these cancer survivors. Breast cancer patients are the most representative; several studies confirmed the efficacy and safety of laser treatment on these cancer survivors.

For postmenopausal women under anti-estrogen therapy, the LAAVA pilot study showed a significant efficacy of three CO_2 laser sessions on symptoms of VVA, such as dryness, itch, burning, dysuria, and dyspareunia [14]. A recent summary of Royal College of Obstetricians and Gynecologists (RCOG) concluded that laser treatment could be a valid non-hormonal therapeutic choice for GSM treatment; however, uncertainties remain concerning its safety and long-term efficacy. Studies focused on laser efficacy present several limitations, including small sample size and lack of randomized controlled trial and short-term follow-up. Furthermore, the efficacy of laser treatment reduces with time, reverting to the baseline situation. Due of these limitations, the RCOG concluded that vaginal estrogen remains the gold standard for treating symptoms of GSM [15].

Signs and symptoms of VVA are very common between menopausal women, worsening their QoL and sexual health; the choice of a therapy depends on a variety of factors, such as patient preference and treatment effectiveness and safety. It is critical to act expeditiously and to adapt the personalized treatment to each woman, considering not only medical history, but anxieties and fears typical of this delicate stage of life.

Author Contributions

OD—conceptualization; AG and OD—writing original draft preparation; DC—visualization and supervision. All authors have read and agreed to the published version of the manuscript.

Ethics Approval and Consent to Participate

Not applicable.

Acknowledgment

Not applicable.

Funding

This research received no external funding.

Conflict of Interest

The authors declare no conflict of interest. OD and AG are serving as the Guest editors of this journal. DC is serving as one of the Editorial Board members. We declare that OD, AG and DC had no involvement in the peer review of this article and has no access to information regarding its peer review. Full responsibility for the editorial process for this article was delegated to MHD.

References

[1] Portman DJ, Gass MLS, Vulvovaginal Atrophy Terminology Consensus Conference Panel. 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. Menopause. 2014; 21: 1063–1068.

[2] Nappi RE, Palacios S, Bruyniks N, Particco M, Panay N; EVES Study investigators. The burden of vulvovaginal atrophy on women's daily living: implications on quality of life from a face-to-face real-life survey. Menopause. 2019; 26: 485–491.

[3] Palma F, Volpe A, Villa P, Cagnacci A. Vaginal atrophy of women in postmenopause. Results from a multicentric observational study: the AGATA study. Maturitas. 2016; 83: 40–44.

[4] Schiavi MC, Porpora MG, Vena F, Prata G, Sciuga V, D'Oria O, *et al*. Orally Administered Combination of Hyaluronic Acid, Chondroitin Sulfate, Curcumin, and Quercetin in the Prevention of Postcoital Recurrent Urinary Tract Infections: Analysis of 98 Women in Reproductive Age after 6 Months of Treatment. Female Pelvic Medicine & Reconstructive Surgery. 2019; 25: 309–312.

[5] De Seta F, Caruso S, Di Lorenzo G, Romano F, Mirandola M, Nappi RE. Efficacy and safety of a new vaginal gel for the treatment of symptoms associated with vulvovaginal atrophy in postmenopausal women: a double-blind randomized placebo-controlled study. Maturitas. 2021; 147: 34–40.

[6] Biglia N, Bounous VE, Sgro LG, D'Alonzo M, Pecchio S, Nappi RE. Genitourinary Syndrome of Menopause in Breast Cancer Survivors: are we Facing New and Safe Hopes? Clinical Breast Cancer. 2015; 15: 413–420.

[7] Simon JA, Goldstein I, Kim NN, Davis SR, Kellogg-Spadt S, Lowenstein L, *et al*. The role of androgens in the treatment of genitourinary syndrome of menopause (GSM): International Society for the Study of Women's Sexual Health (ISSWSH) expert consensus panel review. Menopause. 2018; 25: 837–847.

[8] Portman D, Palacios S, Nappi RE, Mueck AO. Ospemifene, a non-oestrogen selective oestrogen receptor modulator for the treatment of vaginal dryness associated with postmenopausal vulvar and vaginal atrophy: a randomised, placebo-controlled, phase III trial. Maturitas. 2014; 78: 91–98.

[9] Salvatore S, Pitsouni E, Grigoriadis T, Zacharakis D, Pantaleo G, Candiani M, *et al*. CO_2 laser and the genitourinary syndrome of menopause: a randomized sham-controlled trial. Climacteric. 2021; 24: 187–193.

[10] Di Donato V, D'Oria O, Scudo M, Prata G, Fischetti M, Lecce F, *et al*. Safety evaluation of fractional CO_2 laser treatment in postmenopausal women with vaginal atrophy: a prospective observational study. Maturitas. 2020; 135: 34–39.

[11] Donato VD, D'Oria O, Giannini A, Scudo M, Sher C, Fischetti M, *et al*. The Efficacy of Fractional CO_2 Laser in the Treatment of Genitourinary Syndrome of Menopause: a Large Prospective Observational Study. Clinical and Experimental Obstetrics & Gynecology. 2022; 49: 212.

[12] D'Oria O, Giannini A, Buzzaccarini G, Tinelli A, Corrado G, Frega A, *et al*. Fractional CO_2 laser for vulvo-vaginal atrophy in gynecologic cancer patients: a valid therapeutic choice? A systematic review. European Journal of Obstetrics & Gynecology and Reproductive Biology. 2022; 277: 84–89.

[13] Cruz VL, Steiner ML, Pompei LM, Strufaldi R, Fonseca FLA, Santiago LHS, *et al*. Randomized, double-blind, placebo-controlled clinical trial for evaluating the efficacy of fractional CO_2 laser compared with topical estriol in the treatment of vaginal atrophy in postmenopausal women. Menopause. 2018; 25: 21–28.

[14] Pearson A, Booker A, Tio M, Marx G. Vaginal CO_2 laser for the treatment of vulvovaginal atrophy in women with breast cancer: LAAVA pilot study. Breast Cancer Research and Treatment. 2019; 178: 135–140.

[15] Phillips C, Hillard T, Salvatore S, Cardozo L, Toozs-Hobson P; Royal College of Obstetricians and Gynaecologists. Laser treatment for genitourinary syndrome of menopause: Scientific Impact Paper No. 72 (July 2022): Scientific Impact Paper No. 72 (July 2022). BJOG: an International Journal of Obstetrics and Gynaecology. 2022. (in press)