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Treatment Options for Vaginal Atrophy: What Do the Newer Studies Show?

As women enter the menopausal age, hormones start declining, and without therapy, symptoms of menopause become exacerbated. With this hormone loss, the vaginal epithelium becomes atrophic and physiological lubrication is reduced. This can lead to physical discomforts such as vaginal dryness, irritation, itching, burning, dyspareunia, all which can lead to decreased libido, causing sexual distress both to the patient and her partner.

Conventional treatments include intravaginal conjugated estrogen or estradiol; however, other studies have provided compounders with alternative choices. Vaginal moisturizers can improve the balance of intracellular fluids in the vaginal epithelium. Vaginal lubricants have more of a short-term action as they act as a mechanical barrier between the vaginal epithelium and the external environment, improving the dryness related to sexual activity.

In 2008, Constantino and Guaraldi published a study that utilized a vaginal suppository containing hyaluronic acid sodium salt 5 mg, vitamin E acetate 1 mg, and vitamin A palmitate 1 mg. Dosing was a suppository intravaginally every night for 14 nights, then tapering to every other night for 14 nights. Of 150 women, 126 women completed the study in full. The study assessed efficacy of the study medication

in the areas of burning, itching, dyspareunia, inflammation and irritation. Results showed that any symptom that was reported as severe initially was resolved to either mild or absent at the end of four weeks.¹

Hyaluronic acid helps to form an extracellular water film, which moisturizes the skin, maintaining a water balance aiding in skin elasticity. It also facilitates the healing process and tissue regeneration. Vitamin E, which has antioxidant properties, also acts as an

anti-inflammatory and healing agent. Vitamin A has been shown to increase the function of the immune local cells and the epithelium of the vagina. *Compounding hyaluronic acid in combination with vitamins A and E in an intravaginal cream (suppositories are difficult to compound with hyaluronic acid) provides an alternative for patients who cannot use hormones. Vitamin E intravaginal cream or suppository can be used in addition.*

Chollet et al evaluated the safety and efficacy of a vaginal suppository compound for vaginal atrophy. Estriol 1 mg and

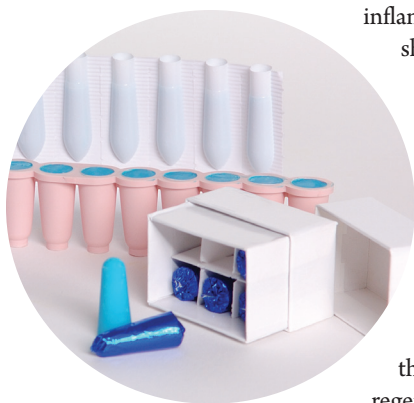
progesterone 30 mg was given daily for two weeks, then three times weekly for a total of six months. In a study group of 19 women, results showed improvement in vaginal pH, vaginal dryness, and libido. Follow-up endometrial biopsies were performed, and no hyperplasia or carcinoma were noted at six months of treatment. Serum estriol concentrations were taken at baseline, pre-insertion of the dose, five hours post-dose, at week two, and at months three and six. What is interesting to note is that the estriol serum level did not differ statistically from baseline to pre-insertion dose, at week two, or months three or six, suggesting that estriol has minimal systemic accumulation, as reflected in the study.

Serum progesterone levels increased at all time points, with a median serum level that was less at month six when compared at month three. Also, pre-insertion serum levels were higher at week two than at month three, indicating that absorption of intravaginal progesterone 30 mg dose during maintenance phase does not gradually increase. Side effects noted were early vaginal spotting (which resolved, no recurrence), and vulvar and vaginal irritation.²

Although many groups have stated their positions regarding the use of **progestin** in women with a uterus while taking estrogen, Chollet et al mentions that other studies utilizing unopposed intravaginal estrogen had increased endometrial thickness. While the patient population was small in the estriol and progesterone intravaginal study, it confirms that the medications were well tolerated, and endometrial hyperplasia did not occur at these doses of hormones.²

Lastly, dehydroepiandrosterone (DHEA) has been studied for libido and sexual dysfunction in postmenopausal women. Intravaginal doses studied include 3.25 mg, 6.5 mg, and 13 mg versus placebo. A parameter of this study considered the benefit of intravaginal DHEA on vaginal atrophy, dryness, and itching. Results showed that at the end of 12 weeks, all three doses had an equal benefit on vaginal dryness and no adverse events were reported. On the domain of arousal lubrication, the 13 mg dose achieved the best score, although all three doses showed tremendous benefit at 12 weeks.³ Serum steroid levels were evaluated in a separate study and found to be within the normal postmenopausal range.⁴

The Constantino and Guaraldi study provides a non-hormonal treatment for some women, in addition to intravaginal vitamin E. These studies provide great marketing material for practitioners, and you can obtain them from PubMed (www.ncbi.nlm.nih.gov/pubmed/) for a fee. DHEA, progesterone and estriol can be compounded in an intravaginal cream or suppository to meet your patients' needs.



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