Graziottin A.
Urogenital atrophy: advantages of local administration of estrogens
Abstracts of the 13th World Congress on the Menopause, Roma, Italy, June 8-11, 2011, Climacteric, vol. 14, suppl. 1, June 2011, p. 216

Urogenital atrophy: advantages of local administration of estrogens

Alessandra Graziottin, M.D.
Director, Center of Gynecology and Medical Sexology
H. San Raffaele Resnati, Milano, Italy
www.alessandragraziottin.it

Background

Urogenital aging is a multisystemic process, involving all the components of genital tissues, leading to microscopic and macroscopic anatomic changes. Functional consequences of urogenital aging affect vaginal ecosystems, sexual and bladder function, the tonus and competence of the levator ani, the anatomic relationships of genital organs, predisposing/precipitating genital (uterine/vaginal) prolapse. Genital aging becomes relevant after the menopause, for the precipitating effect of estrogen loss. Estrogens are the etiological answer to vaginal aging: however concern about systemic absorption prevents many physician from prescription.

Aim

Pathophysiology, diagnosis and treatment of genital aging, with focus on:

1) Vaginal aging;
2) Sexual consequences of genital aging;
3) Effect of topical estrogens (promestriene) in modulating urogenital atrophy and maintaining a better genital and sexual health.

Method

Review of the literature and clinical experience.

Results

Vaginal aging translates into anatomic and functional changes. The neurotransmitter Vasoactive Intestinal Peptide (VIP) stimulates the neurogenic transudate production, typical of vaginal sexual arousal. Estrogens are powerful “permitting factors” for VIP, while androgens are “permitting factors” for the Nitric Oxide (NO), that stimulates the neurogenic congestion of the clitoral and vestibular bulb corpora cavernosa, and partly of the vagina. The reduction in vaginal lubrication is one of the most common complaints of postmenopausal women. When the plasma estradiol concentration is below 50 pg/mL (the normal range in fertile women being 100-200 pg/mL) vaginal dryness is increasingly reported. Physiological studies indicate that after menopause the vaginal pH increases from 3.5-4.5 to 6.0-7.39 owing to decreased glycogen production and metabolism to lactic acid, with modification of the vaginal ecosystem, and an average reduction of vaginal secretions of 50%.

Sexual consequences of genital aging include genital arousal disorders, with vaginal dryness, contributing to dyspareunia, orgasmic difficulties and secondary loss of sexual desire. In epidemiological surveys, arousal disorders are complained of by 19-20% of premenopausal women, up to 39-45% of postmenopausal sexually active subjects. Post-coital cystitis, that appears 24-72 hours after the intercourse, is worsened by genital aging. The parallel aging of the

pelvic floor may precipitate the consequences of delivery-related damages, with worsening stress, urge or mixed incontinence which may affect sexuality for fear or leaking during thrusting (stress incontinence) or at orgasm (urge incontinence).

Effect of topical hormones: vaginal treatment with estradiol, estriol or promestriene restores the vaginal trophism, normalizes the ecosystem, improving the quality of vaginal lubrication in resting and aroused conditions, reduces urge incontinence and post-coital cystitis and vulnerability to dyspareunia (but may predispose to candida infections in vulnerable women). Promestriene has no systemic absorption, thus representing the first choice in women where estrogens are contraindicated (after breast cancer (BC) or in women at high risk for BC) and/or in women who cannot or do not want to take estrogens with systemic absorption.

Conclusions

Urogenital aging is precipitated by the menopausal loss of sexual hormones. Topical estrogens offer a range of anatomic and functional benefits with minimal risks. Promestriene, which has only local activity, is the first choice when absolute safety and efficacy are desidered.