Impact of Vulvovaginal Atrophy on Quality of Life and Sexuality

Michael L. Krychman MD
Executive Director of the Southern California Center for Sexual Health and Survivorship Medicine
Associate Clinical Professor, UCI Department of Gynecology Oncology
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Process of Aging

- Decline in physical health
- Decline in sexual activity
- Decline in desire
- Fear of sexual relations
- Dyspareunia and vulvar/vaginal atrophy

Manifestation of Estrogen and/or Androgen Loss: Symptoms Over Time

<table>
<thead>
<tr>
<th>Age (y)</th>
<th>Range of Estrogen secretion levels (pg/mL)</th>
<th>Short-term symptoms</th>
<th>Long-term symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>40-45</td>
<td>40-45</td>
<td>Hot flashes</td>
<td>Decreased sexual activity</td>
</tr>
<tr>
<td>50-55</td>
<td>50-55</td>
<td>++</td>
<td>++</td>
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<tr>
<td>60-65</td>
<td>60-65</td>
<td>+</td>
<td>+</td>
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<tr>
<td>70-75</td>
<td>70-75</td>
<td>+</td>
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</tbody>
</table>

Lila Nachtigall, M.D.
Discussing Urogenital Atrophy
Oncology Volume 13, 1999

"Among 2000 postmenopausal women in any given year:
20 will develop heart disease
11 will develop bone loss
6 will develop breast cancer
3 will develop endometrial cancer
But nearly 100% will develop urogenital atrophy."


Estrogen Decrease and Its Impact on Sexual Functioning

- Estrogen decrease impacts the integrity of the female reproductive tract tissues
- Dyspareunia
  - Decreased vaginal lubrication
  - Atrophic vaginitis
- Decreased blood flow to reproductive organs
  - Diminished vascongestion
  - Blood flow to the vulva (as measured by Doppler ultrasound velocimetry) increased by 50% when estrogen was administered to postmenopausal women

Estrogen Has Effects on All Tissue Components of the Vulvovaginal Area

- Epithelia (skin, vaginal)
  - Promotes epithelial maturation and proliferation
  - Maturation index relates to estrogen levels
  - Ratio of parabasal to intermediate to superficials cells
- Skin appendages
- Blood vessels
  - Increases vascularity and blood flow
- Nerves
- Specialized glands
  - Stimulates glandular secretions (e.g., Bartholin’s gland)
Perivaginal Blood Flow During Estrogen Replacement Therapy

![Graph showing blood flow values in women estrogen-deprived at baseline, and then administered conjugated estrogens.]

Vulvovaginal Changes Can Lead to Sexual Symptoms

- Vaginal dryness
- Dyspareunia
- Reduced or absent pleasure from direct genital stimulation
- Urinary symptoms
  - Urgency, frequency, and possibly incontinence
- Predisposition to vulvar, vaginal, and lower UTIs
- If atrophy severe
  - Vaginal shortening and narrowing
  - Possible introital stenosis
  - Prevents penetration or causes significant pain and/or bleeding from attempted penetration
- Possibly frequent sexual arousal and activity promotes genital health

What is Urogenital Atrophy (UA)?

- UA is a condition of associated tissue and organ deterioration/dryness
- UA is due to estrogen depletion and is associated with urinary and vaginal symptoms
- UA is chronic and progressive
- UA contributes to atrophic vaginitis (AV) and sexual dysfunction in women

Dyspareunia & Bladder Symptoms

Coital pain causes:
- Tightened, defensive myalgic pelvic floor
- Pelvic Floor Hypertonus
- Reflex inhibition of periurethral vascular arousal
- Mechanical urethral trauma

Clinical Symptoms of Urogenital Atrophy

- Urinary
  - Weak urinary stream
  - Recurrent UTI
  - Urge incontinence
  - Urgency
  - Frequency
  - Urethral caruncle (lesions)
  - Urethral erythema
  - Friable urethralm

Symptoms That May Accompany Urogenital Atrophy

- Urinary
  - Frequency
  - Urgency
  - Incontinence
  - Frequent UTI
  - Dysuria
- Vaginal
  - Dryness with dyspareunia
  - Burning
  - Occasional bleeding
  - Recurrent vaginitis or bacterial vaginosis
  - Itching
  - Pain
  - Vaginal pressure
  - Malodorous discharge

UTI = urinary tract infection.

References:

Pelvic Floor Hypoestrogenism

- Decreased connective tissue
- Decreased elastic tissue
- Increased fatty infiltration
- Cellular atrophy
- Nerve degeneration
- Reduced smooth muscle tone

What Do Patient Surveys Tell Us about VVA and QOL....

- Pfizer
  - ReVeal (Revealing Vaginal Effects at Mid Life)
  - Healthy Women

- NovoNordisk
  - VIVA (Vaginal Health Insight, Views and Attitudes)
  - CLiSER (Clarifying Vaginal Atrophy Impact on Sex and Relationships)

- Shionogi
  - REVIVE (Real Women’s Views of Treatment Options for Menopausal Vulvar/Vaginal Changes)

Healthy Women (2011)

- 56% of the postmenopausal women surveyed indicated they have experienced vaginal dryness.

  Among those women who reported experiencing vaginal dryness, 82% reported that their vaginal dryness is bothersome, with 20% reporting that their vaginal dryness bothers them either a lot or a great deal.

- 17% of women reported that their vaginal dryness did not bother them at all

ReVeal Survey (2008)

- Consisted of a phone survey among a representative sample of 1,006 PMW and an online survey of 602 HCP who treat postmenopausal women

  While most PMW surveyed recognized the importance of their sexual health, about 50% agreed that they refrain from talking about their sexual health/intimacy with others

  1/4 PMW surveyed experience dyspareunia at least sometimes.

  Even though it is painful, approximately 3/4 of these women engage in sex at least once a month, and one out of three engage in painful sex at least once weekly

Negative Impact On Sexual Health

But even if women are not discussing them, vaginal symptoms are having a negative impact on their sexual health.

- 63% who reported experiencing painful intercourse indicated that they avoid intimate situations because of their symptoms

- 78% who reported experiencing painful intercourse indicated their condition puts at least some strain on their sexual relationship with their partner

- 64% who reported experiencing vaginal dryness or 62% painful intercourse said they have learned to live with vaginal dryness/painful intercourse and have come to accept it
93% of the postmenopausal women surveyed who reported experiencing painful intercourse indicated they still engage in intercourse even though it is painful, 40% engaging in intercourse at least once a week. 73% said they engage in painful intercourse because of their partner. 80% report that vaginal dryness impacted sexual frequency. 70% are less sexual now as compared to before menopause.


Results:
- 28% percent of women did not tell their partners when they first encountered vaginal discomfort.
- Having sex less often (women: 58%, men: 61%), less satisfying sex (women: 49%, men: 28%), and putting off having sex (women: 35%, men: 14%) were the main effects of VA.
- Intimacy avoidance was attributed to painful sex (women: 55%, men: 61%) and women’s reduced sexual desire (women: 46%, men: 43%).

Conclusions:
- VA has an adverse emotional and physical impact on postmenopausal women and their partners.

VVA and Impact
VVA has a big impact on a woman’s relationship with her significant other (Husbands sometimes force their wives to seek medical help).
VVA is more about sexual intimacy than loss of youth
Some women deal with VVA by doing everything they can to avoid intimacy (e.g. waking up early before husband, intentionally putting themselves in situations that are not sexually inducing)
VVA takes away a woman’s sense of sexual spontaneity
VVA also affects women in partaking in physical activities, such as biking, walking and running
VVA also impacts a woman’s enjoyment of life and her temperament

Therapy Benefits
- Maintains lubrication through production and regulation of mucosal and glandular secretions
- Promotes organ and tissue integrity
- Mucosal and epithelial health
- Elasticity of connective tissues
- Smooth muscle function
- Blood flow and parenchymal perfusion
- pH control for flora-friendly environment
- Acidifies vaginal pH through uptake regulation of proton secretion via apical membrane of ectocervical epithelial cells

Is Local Really Local?
- Kendall et. al. cautions that vaginal estradiol is contraindicated in postmenopausal women on adjuvant aromatase inhibitors.
- Labrie et. al. demonstrate that even small doses of vaginal preparations resulting in significant systemic absorption through estrogen naive vaginas.
- Naessen et al showed that 7.5 ug/24h could improve the lipid profile and bone density without affecting the endometrium.
VVA: Medical Need That Is Not Fully Addressed

- Premenopausal women taking anti-estrogens or who have medical/surgical conditions that result in decreased estrogen levels are susceptible
  - Cancer
  - Chemo/radiation therapies
  - Surgery/Hysterectomy/Oophorectomy
- Breast cancer patients
  - 54% of patients on tamoxifen report sexual dysfunction
  - Increased incontinence and vaginal dryness, decreased sexual activity


Atrophic Vaginitis: Chronic and Progressive

- Early detection of signs and symptoms of vaginal atrophy is important
- VVA will likely worsen if left untreated
- Dyspareunia may lead to sexual dysfunction
- VVA impacts sexuality and QOL
- Treatment is considered efficacious and is well documented

ASK...You cannot treat a problem if you do not know that one exists...

TELL...Your health care professional cannot help you if he or she does not know there is a problem.