NEW APPROACHES FOR GENITOURINARY SYNDROME OF MENOPAUSE

Dr Marcus Carey
13 August 2016

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Genitourinary Syndrome of Menopause (GSM)

Background

The terms **vulvovaginal atrophy (VVA)** and **atrophic vaginitis** inadequate for describing the range of menopausal symptoms associated with physical changes of the vulva, vagina, and lower urinary tract associated with oestrogen deficiency

*Menopause, Vol. 21, No. 10, 2014*

**TABLE 1. Components used to develop new terminology**

<table>
<thead>
<tr>
<th>Anatomy</th>
<th>Descriptors</th>
<th>Problem</th>
<th>Life Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vagina</td>
<td>Vulvovaginal</td>
<td>Atrophy</td>
<td>Midlife</td>
</tr>
<tr>
<td>Vulva</td>
<td>Genital</td>
<td>Alterations</td>
<td>Aging</td>
</tr>
<tr>
<td>Labia</td>
<td>Gynecologic</td>
<td>Changes</td>
<td>Menopause</td>
</tr>
<tr>
<td>Vestibule</td>
<td>Reproductive</td>
<td>Condition</td>
<td>Puberty</td>
</tr>
<tr>
<td>Urethra</td>
<td>Sexual</td>
<td>Disease</td>
<td>Postmenopause</td>
</tr>
<tr>
<td>Bladder</td>
<td>Urogenital</td>
<td>Disorder</td>
<td></td>
</tr>
<tr>
<td>Genitourinary</td>
<td>Urinary</td>
<td>Deficiency</td>
<td></td>
</tr>
<tr>
<td>Urologic</td>
<td>Vaginitis</td>
<td>Syndrome</td>
<td></td>
</tr>
</tbody>
</table>

Terms in bold are the words selected by the panel to develop new nomenclature.

Genitourinary Syndrome of Menopause (GSM)

**Background**

Menopause-related genitourinary symptoms affect up to 50% of midlife and older women

GSM tends to be chronic and progressive and unlikely to improve over time

*Menopause, 2013;20: 888-902*

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*Menopause, 2013;20: 888-902*

Genitourinary Syndrome of Menopause (GSM)

**Background**

Women were at 4-fold greater risk of experiencing sexual dysfunction when VVA was present

The effect of VVA in a survey of 1,000 postmenopausal women:

- 64% reported painful sex,
- 64% described loss of libido,
- 58% avoid sexual intimacy

*Menopause 2008;15:661-666
Causes of GSM

Natural menopause
During the years leading up to menopause (menopause transition)
Surgical removal of both ovaries (surgical menopause)
After pelvic radiation therapy for cancer
After chemotherapy for cancer
As a side effect of breast cancer hormonal treatment

Causes of GSM

Menopause
(oestrogen deficiency)
versus
Urogenital Ageing
(tissue atrophy)

Exacerbating Factors

Smoking
   Reduces blood circulation, reduces the effects of estrogens, earlier menopause.
No vaginal births
No sexual activity
   Sexual activity increases blood flow and improves vaginal tissues elasticity

Symptoms of GSM

Vaginal dryness
Decreased lubrication with sexual activity
Discomfort or pain with sexual activity (dyspareunia)
Post-coital bleeding (PCB)
Decreased arousal, orgasm, desire
Irritation/burning/itching of vulva or vagina
Dysuria
Urinary frequency/urgency
Urinary incontinence
Shortening and tightening of the vaginal canal

Signs of GSM

Decreased moisture
Decreased elasticity
Labia minora resorption
Pallor/erythaemia
Loss of vaginal rugae
Tissue fragility/fissures/petechiae

Signs of GSM

Loss of hymenal remnants
Prominence of urethral meatus
Urethral eversion or prolapse
Introital retraction
Recurrent urinary tract infections
Vulvovaginal atrophy (VVA)

Possible differential diagnoses

Infection
- candidiasis, bacterial vaginosis, trichomoniasis, gonorrhea/chlamydia

Irritant or allergic vaginitis/vulvitis
- soaps, perfumes, powders, deodorants, panty liners/pads, urine, spermicides, latex condoms, semen, warming gels, lubricants, vaginal moisturizers, topical oestrogens

Vulvovaginal dermatoses
- lichen sclerosus, lichen planus, pemphigoid

Hypertonic pelvic floor muscle dysfunction
- (involuntary levator muscle contractions)

Vulvodynia/vestibulodynia
- VAIN, VIN
  - (vaginal and vulva intra-epithelial neoplasia)
Genitourinary Syndrome of Menopause (GSM)

Management
- Topical vaginal oestrogen (Vagifem, Ovestin)
- Lubricants and moisturizers
- Ospemifene (SERM)
- Pulsed CO₂ Laser (DEKA MonaLisa Touch)
- Surgery

PULSED CO₂ LASER FOR GENITOURINARY SYNDROME OF MENOPAUSE

Deka SmartXide 60 Watt Laser System

Deka SmartXide2 360°, 90°, Straight Probes

Deka SmartXide2 360° Probe
Clinical Results of MLT

<table>
<thead>
<tr>
<th></th>
<th>1-month Follow-up</th>
<th>4-week Follow-up</th>
<th>8-week Follow-up</th>
<th>12-week Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postmenopausal</td>
<td>10.1 ± 2.5</td>
<td>17.7 ± 4.5</td>
<td>33.3 ± 2.9</td>
<td>23.1 ± 1.9</td>
</tr>
<tr>
<td>Vaginal dryness (x, mean ± SD)</td>
<td>8.3 ± 2.1</td>
<td>3.5 ± 2.0</td>
<td>3.4 ± 2.7</td>
<td>2.7 ± 1.9</td>
</tr>
<tr>
<td>Vaginal itching (x, mean ± SD)</td>
<td>8.3 ± 3.0</td>
<td>5.5 ± 3.5</td>
<td>3.1 ± 2.8</td>
<td>1.8 ± 1.7</td>
</tr>
<tr>
<td>Dyspareunia (x, mean ± SD)</td>
<td>8.3 ± 2.8</td>
<td>5.7 ± 3.5</td>
<td>4.5 ± 3.8</td>
<td>3.5 ± 3.0</td>
</tr>
<tr>
<td>Dysharmony (x, mean ± SD)</td>
<td>8.3 ± 2.6</td>
<td>2.8 ± 1.9</td>
<td>2.0 ± 0.8</td>
<td>1.1 ± 1.1</td>
</tr>
</tbody>
</table>

Salvatore et al. 2014

Clinical Results of MLT

<table>
<thead>
<tr>
<th></th>
<th>First Laser Application</th>
<th>Second Laser Application</th>
<th>Third Laser Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postmenopausal</td>
<td>4.7 ± 1.4</td>
<td>2.6 ± 1.7</td>
<td>0.6 ± 0.7</td>
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Salvatore et al. 2014

Key Points of MLT

- Vulvovaginal atrophy (VVA) is a common condition with great impact on quality of life.
- Pulsed CO₂ laser is a novel treatment for VVA performed in an outpatient setting.
- Histological samples after pulsed CO₂ laser treatment show changes in the vaginal lamina propria (increased collagen production and extracellular matrix), as well as in the vaginal epithelium with restoration of new papilla and thickness increase.
- Vaginal dryness, dyspareunia, and all the VVA symptoms significantly improve after a cycle of three laser treatments.
- Improvement of VVA symptoms after pulsed CO₂ laser determines a better sexuality and quality of life.

Salvatore et al. Menopause 2015

Dyspareunia from Perineal Band
Genitourinary Syndrome of Menopause:
Conclusion

- GSM very common condition managed by appropriate conservative treatment (vaginal oestrogen preparations)
- Vaginal pulsed CO$_2$ laser therapy (DEKA MonaLisa Touch) for women non-responsive to or unable to use vaginal oestrogen
- Surgery for selected cases of GSM