The Current State of Vulvodynia

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Ann Arbor, Michigan
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Disclosures

• I have no financial relationships to disclose related to this topic
Learning Objectives

At the end of this presentation, the participant will:

• Understand the current classification system for vulvar pain (2015 Consensus Terminology and Classification of Persistent Vulvar Pain)
• Explore the various causes of vulvodynia
• Gain knowledge on the treatments utilized for localized and generalized vulvodynia

Written Information Available:

University of Michigan Center for Vulvar Diseases (Google)

Then, click on Information on Vulvar Diseases
University of Michigan Center for Vulvar Diseases

There are many reasons for seeing a vulvar disease specialist. University of Michigan Center for Vulvar Diseases, treating vulvar disease is only part of the solution. Our multidisciplinary approach to all women’s health issues includes treatment options to education and counseling to meet every individual’s needs.

The Center for Vulvar Diseases was created in 1993 to better serve and treat women with diseases of the external genitalia. Our center is one of only a handful of clinics that specialize in treating these conditions. We focus on the multidisciplinary approach to help patients improve their health.

This team approach allows us to provide a higher intensity of care and expertise to women who have already demonstrated a resilient and chronic illness on an unusual vulvar condition.

Many women experience different forms of vulvar pain, including vulvodynia. Vulvodynia is pain on the lips of the vulva or upon intercourse with a normal appearing vulva. It is a burning, stinging sensation. Some patients are unable to accept sexual penetration due to muscle spasms and tenderness. Other conditions associated with vulvar pain include:

- Lichen sclerosus or lichen planus – chronic inflammatory skin disorders
- Vulvar intraepithelial neoplasia – a precancerous condition, often associated with a virus, the human papilloma virus (HPV)
- Herpes zoster – a disease of the nerves and skin, with pus-filled pockets of fluid
- Bartholin’s cysts – fluid-filled cysts at the base of the vestibule

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SOGBA Argentina, NY, December, 2015

- Surgery for Vestibulodynia (PPT PDF)
- References - Surgery for Vestibulodynia (PDF)
- Vulvodynia (PPT PDF)
- Vulvodynia Handout (PDF)
- Clinical Aspects of HPV Infection (PPT PDF)

ASCCP, New Orleans, April, 2016

- Puzzling Cases (PPT PDF)
- Post Test (PPT PDF)
- Comparison of Diagnostic Testing for Trichomonas (PDF)
- Costs/Methods of Detecting T. Vaginalis (PDF)

ACOG, Washington DC, May, 2016

- Your Diagnosis Is (PPT PDF)
- Vulvar Diseases: What Do You Know? (PPT PDF)
- Vulvar Diseases: What Do You Know - Handout (Word PDF)
- Erosive and Ulcerative Diseases of the Vulva - Edwards (PPT PDF)

ACOG District XII, Orlando, August, 2016

- Update on Vulvar Dermatology (PPT PDF)

IPPS Meeting, Chicago, October, 2016

- Disorders Associated with Vulvar Pain (PPT PDF)
Definition of Vulvodynia

International Society for the Study of Vulvovaginal Disease (ISSVD)

Chronic discomfort
Burning
Stinging
Irritation
Rawness

8.3% of women have vulvodynia

By age 40 years, 7-8% in Boston and Minneapolis/St. Paul reported vulvar pain consistent with vulvodynia.


**Diagnosis of Vulvodynia**

Define disease
- Cotton swab test
Not tender; no area of vulva described as area of burning

Alternative diagnosis

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**Diagnosis of Vulvodynia**

Define disease
- Cotton swab test
- Vulvoscopy?
Various Terms Utilized for Vulvar Pain Prior to 2003

- Essential vulvodynia
- Dysesthetic vulvodynia
- Vulvar vestibulitis syndrome
- Vulvar dysesthesia (generalized or localized)
- Provoked vulvar dysesthesia
- Spontaneous vulvar dysesthesia

CONTROVERSY!
Localized

April 2015

2015 Consensus terminology and classification of persistent vulvar pain

Jacob Bornstein MD, MPA, Andrew Goldstein MD, and Deborah Coady MD
for the consensus vulvar pain terminology committee

From the International Society for the Study of Vulvovaginal Disease (ISSVD),
the International Society for the Study of Women's Sexual Health (ISSWSH),
and the International Pelvic Pain Society (IPPS)

Support from the National Vulvodynia Association
### 2015 Consensus Terminology and Classification of Persistent Vulvar Pain and Vulvodynia

A. Vulvar pain caused by a specific disorder*
   - Infectious (eg, recurrent candidiasis, herpes)
   - Inflammatory (eg, lichen sclerosus, lichen planus, immunobullous disorders)
   - Neoplastic (eg, Paget disease, squamous cell carcinoma)
   - Neurologic (eg, postherpetic neuralgia, nerve compression or injury, neuroma)
   - Trauma (eg, female genital cutting, obstetric)
   - Iatrogenic (eg, postoperative, chemotherapy, radiation)
   - Hormonal deficiencies (eg, genitourinary syndrome of menopause [vulvovaginal atrophy], lactational amenorrhea)

B. Vulvodynia—Vulvar pain of at least 3 months’ duration, without clear identifiable cause, which may have potential associated factors

The following are the descriptors:
   - Localized (eg, vestibulodynia, clitorodynia) or Generalized or Mixed (Localized and Generalized)
   - Provoked (eg, insertional, contact) or Spontaneous or Mixed (Provoked and Spontaneous)
   - Onset (primary or secondary)
   - Temporal pattern (intermittent, persistent, constant, immediate, delayed)

* Women may have both

### Appendix: Potential Factors Associated with Vulvodynia

- Comorbidities and other pain syndromes (e.g., painful bladder syndrome, fibromyalgia, irritable bowel syndrome, temporomandibular disorder; level of evidence 2)
- Genetics (level of evidence 2)
- Hormonal factors (e.g., pharmacologically induced; level of evidence 2)
- Inflammation (level of evidence 2)
- Musculoskeletal (e.g., pelvic muscle overactivity, myofascial, biomechanical; level of evidence 2)
- Neurologic mechanisms
  - Central (spine, brain; level of evidence 2)
  - Peripheral: neuroproliferation (level of evidence 2)
- Psychosocial factors (e.g., mood, interpersonal, coping, role, sexual function; level of evidence 2)
- Structural defects (e.g., perineal descent; level of evidence 3)

* The factors are ranked by alphabetical order.
Etiologies

Theories on Etiologies

- Embryologic derivation
- HPV
- Oxalates
- Hormonal changes
- Chronic inflammation
- Altered immuno-inflammatory process/genetics
- Nerve pathways

Sept. 2014
Theories on Etiologies

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Hormonal Changes  
Controversy!

Eva LJ, MacLean AB, Reid WM, Rolfe KJ, Perrett CW  
American Journal of Obstetrics & Gynecology.  
2003;189:458-61


For women aged <50 years of age, OC use did not increase the risk of subsequent vulvodynia
Polymorphisms of the Androgen Receptor Gene and Hormonal Contraceptive Induced Provoked Vestibulodynia
Goldstein et al. 2014

• Risk of developing CHC-induced vestibulodynia may be due to lowered free testosterone combined with an inefficient androgen receptor that predisposes women to vestibular pain

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Genetics

- Inflammatory response
  - Candida
    - Mannose binding lectin
  - NALP3 expressed in macrophages
- Neurotransmitters
  - Guanosine triphosphate cyclohydrolase (GCH1)
- G protein coupled-receptors
  - Melanocortin-1 receptor
- Neuroinflammatory (cytokines)
  - Interleukins (IL)
- MicroRNA
- New thoughts
  - Dectin 1
  - Familiality

Theories on Etiologies

- Embryologic derivation
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Question 3

The nerve which supplies the major portion of the vulva is the
1. Ilioinguinal nerve
2. Genitofemoral nerve
3. Perineal nerve
4. Pudendal nerve

Pudendal Nerve

Originates from S2, S3, and S4 foramina
Vulvodynia Management

Evaluating Vulvodynia Patients
A Team Approach
Tender, or patient describes area touched as area of burning

Yeast culture negative or inadequate relief with antifungal rx

1. Vulvar care measures
2. Topical medications
3. Oral medications
4. Injections
5. Physical therapy
6. Cognitive and behavioral therapy

Vulvar Care Measures
No soap on the vulva
Shower heads for rinsing and…
Cool Gel Packs
Zinc Oxide Ointment

• Zinc Oxide Ointment Helps treat and prevent diaper rash
• Dries the oozing and weeping of poison ivy, poison oak, and poison sumac
• Protects chafed skin associated with diaper rash and helps protect from wetness

Vaginal Lubricants

Replens
Astroglide
KY Liquid
Probe
Slippery stuff
Jo Premium
… etc.
Topical Anesthetics

- 5% Lidocaine (Xylocaine®) ointment safe, effective short-term symptom relief for vestibulodynia (pre-intercourse)
  - Benzocaine (Vagisil®) not recommended; it is a sensitizing agent, causing rebound vasodilation and pain
- Doxepin (Zonalon®)
- Topical amitriptyline 2% with baclofen 2% in WWB (water washable base)- squirt ½ cc from syringe onto finger and apply to affected area WWB. Apply qhs with increase not to exceed tid
- Topical ketamine 2%, topical gabapentin 6%, topical baclofen 2% in WWB. Apply qhs with increase not to exceed tid

Oral Medications
Tricyclic Antidepressants

- Useful for neuropathic pain syndromes such as postherpetic neuralgia and vulvar dysesthesia
- Doses for pain management less than for depression
  - Tricyclics
  - SSRI’s
  - SSNRI’s (venlafaxine, duloxetine)

Tricyclic Antidepressants

Amitriptyline or desipramine
- Advise regarding rationale
- Start at low dose two hours before bedtime and increase up to 150 mg, until comfortable, or intolerable side effects
- No more than one drink of ETOH per day
- Advise slow benefit
Tricyclic Medications

Adverse effects
- Drowsy (amitrip > desip) or
- Jittery (desip > amitrip), tachycardia
- Dry mouth, eyes
- Increased appetite
- Constipation

Other Antidepressants

- Venlafaxine (Effexor)
- Duloxetine (Cymbalta)
Anticonvulsants and Pain Control

The role of anticonvulsant drugs in the treatment of neuropathic pain is evolving and has been clearly demonstrated
- Gabapentin
- Pregabalin
- Topiramate
- Tiagabene
- Lamotrigine

Gabapentin

- 64% of 152 generalized vulvodynia patients improved by 80% in a retrospective chart review

Pregabalin

- Retrospective chart review of 28 women on pregabalin for vulvodynia.
  - 12 reported improvement averaging 62%
  - 10 discontinued due to AEs
  - 4 had no improvement
  - 2 with vestibulodynia had not tested their pain

Aranda J, Edwards L: presented at the 2007 ISSVD World Congress

Anticonvulsants and Pain Control

The role of anticonvulsant drugs in the treatment of neuropathic pain is evolving and has been clearly demonstrated

- Gabapentin
- Pregabalin
- Topiramate
- Tiagabene
- Lamotrigine
Oral Pain Medications

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- Drug Interactions

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1/11/2017
Specific Point Tenderness

- Bupivacaine / triamcinolone acetonide injections
  - Bupivacaine (0.25% or 0.5%) and triamcinolone acetonide (Kenalog®)
  - Draw up triamcinolone acetonide (Kenalog®) first (40 mg/cc) (can use up to 40 mg steroid in single dose per month). CAUTION ON PERINEUM AND SMALL AREAS. Combine with Bupivacaine (large area use 0.25%; small area use 0.5%) Inject into specific area or use as a pudendal block
  - Can be repeated monthly
  - 50% efficacy

Nerve Blocks

- Pudendal
- Genitofemoral
- Ilioinguinal
- Ganglion impar
Pudendal Nerve Blocks

Originates from S2, S3, and S4 foramina

Genitofemoral and Ilioinguinal Nerve Blocks
Genitofemoral and Ilioinguinal Nerve Blocks

Ganglion Impar Block
Surgical Treatment
V to Y Flaps
New Thoughts and Trends
Novel Therapeutic Approaches

Chemodenervation

Over 1900 reports of botulinum toxin for pain
  Minimizes vaginismus-relaxes levator ani muscles

Medline search August 29, 2016

Chemodenervation
Bulbocavernosus
Neuromodulation

- Peripheral subcutaneous stimulation
- Sacral nerve stimulator
  - Modulation of efferent signals to spinal cord
  - Refractory pain in distribution of specific nerve root (S3 or S4)

Acupuncture

Acupuncture Today 2001;2:1,16.
Reports on hypnosis for vaginismus/vestibulodynia

Newer Treatments/Less Commonly Used

<table>
<thead>
<tr>
<th>Rejoice trial (Yuvexxy)</th>
<th>Enoxaparin injections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milnacipran (fibromyalgia)</td>
<td>Fibroblast cream (Neogyn)</td>
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<tr>
<td>Leukotriene receptor antagonist</td>
<td>Passiflora incarnata attenuation (rats)</td>
</tr>
<tr>
<td>Topical nitroglycerin</td>
<td>Laser treatments</td>
</tr>
<tr>
<td>Topical capsaicin</td>
<td>Motor cortex stimulation (central)</td>
</tr>
</tbody>
</table>
Sex Med 2016;13:572e590

Two Recent Vulvodynia Updates

Stockdale CK, Lawson H. 2013 Vulvodynia Guideline Update

ACOG Persistent Vulvar Pain Committee Opinion Number 673 September, 2016.
General Measures

Written material/handouts
- Patient education regarding the nature and prognosis of vulvodynia
- National Vulvodynia Association
  www.nva.org or 301-299-0775

Online teaching program on chronic vulvar pain  http://learn.nva.org

Oceans of Lotions, Potions, and Notions
No “One Simple Cure”

The Human Dimension