Vulvar Diseases
What Do You Know?

Test Your Knowledge of Various Vulvovaginal Conditions

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San Diego, California
ACOG 2017
Disclosures/Conflicts of Interest

Hope K. Haefner, MD was previously on the Advisory Board of Merck, Co. Inc.

Off label use of multiple medications discussed
Additional Information

https://medicine.umich.edu/dept/obgyn/patient-care-services/womens-health-library-center-vulvar-diseases/resources-providers

• or search Google for the University of Michigan Center for Vulvar Diseases Information on Vulvar Diseases

• Click on Center for Vulvar Diseases

• Click on Information for Regarding Vulvar Diseases
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 irritation. 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)
- **Hidradenitis suppurativa**—a disease of the armpits and vulva, with pus filled pockets of fluid
- **Bartholin cysts**—fluid filled cysts at the base of the entrance way

During your first visit to the center, you will see a physician or nurse practitioner for diagnosis and development of a treatment plan. Throughout treatment, you will meet with experts from various disciplines to best meet your specific needs.

In addition to medical treatment, we also connect many patients to additional services, which may help with your condition, including sex therapy and physical therapy.

**Health Library**
- Vulvodynia
- Patient Education Booklet
- Resources for Providers

**Contact Information:**
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 irritation. Some patients are unable to accept sexual penetration due to muscle spasms and tenderness. Other conditions associated with vulvar pain include:

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**Contact Information:**
15th World Congress on Menopause, Prague, September, 2016

- Vulvodynia Causes and Management (PPT PDF)

IPPS Meeting, Chicago, October, 2016

- Disorders Associated with Vulvar Pain (PPT PDF)

Vanderbilt, Nashville, February, 2017

- The Latest in Vulvar Dermatoses (PPT PDF)
- The Latest in Vulvar Dermatoses - Handout (PDF)
- Your Diagnosis Is (PPT PDF)
- Your Diagnosis Is - Handout (PDF)
- Current State of Vulvodynia (PPT PDF)
- Current State of Vulvodynia - Handout (PDF)

ASCCP/IFCCP, April, 2017

- Cases: Your Diagnosis Is (PPT PDF)
- Cases: Your Diagnosis Is - Handout (PDF)

ISSVD Houston, March, 2017

- Your Diagnosis Is (PPT PDF)
- Your Diagnosis Is - Handout (PDF)
Course Objectives

At the end of this course, the participant should be able to:

• Identify the clinical features of various vulvar and vaginal conditions
• Become familiar with a variety of treatments for skin diseases
Gross and histologic images
Test Format
The image shown represents which vulvar condition?
Test Format
The image shown represents which vulvar condition?

A. Vulvar intraepithelial neoplasia
B. Melanoma
C. Molluscum contagiosum
D. None of the above
Case Presentation

38 y.o. G1P1, with clitoral mass increasing in size for the past 28 years

- Enlargement at clitoral location noted at her last delivery 3 years ago

- Past workup by an endocrinologist included a MRI of her adrenals/kidneys and a testosterone work up which were negative
S100 Confirmatory Staining
Your Diagnosis Is?

A. Sarcoma
B. Lipoma
C. Plexiform schwannoma
D. Normal clitoral tissue
Case Presentation

76 y.o. hx of vulvar irritation and lichen sclerosus added onto clinic for new onset of severe pain in her vulvar area

Intense burning pain over her vulva and buttock

Primary MD saw her 2 days previously-recommended that she use warm or cold compresses and topical lidocaine
Your Diagnosis Is?

A. Aphthous ulcers
B. Shingles
C. HSV 2
D. Erosive lichen planus
How many different types of herpes exist that affect humans with disease?

A. 2
B. 4
C. 8
D. 80
<table>
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<tr>
<th>Type</th>
<th>Name</th>
<th>Subfamily</th>
<th>Target cell</th>
<th>Latency</th>
<th>Transmission</th>
</tr>
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<tbody>
<tr>
<td>1,2</td>
<td>HSV</td>
<td>Alphaherpesvirinae</td>
<td>mucoepithelia</td>
<td>neuron</td>
<td>contact</td>
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<td>3</td>
<td>VZV</td>
<td>Alphaherpesvirinae</td>
<td>mucoepithelia</td>
<td>neuron</td>
<td>contact or</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>respiratory</td>
</tr>
<tr>
<td>4</td>
<td>CMV</td>
<td>Betaherpesvirinae</td>
<td>epithelia monocytes lymphocytes</td>
<td>monocytes lymphocytes</td>
<td>contact congenital transplantation</td>
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<tr>
<td>5</td>
<td>EBV</td>
<td>Gammaherpesvir.</td>
<td>B lymphocyte</td>
<td>B lymphocyte</td>
<td>saliva</td>
</tr>
<tr>
<td>6,7</td>
<td>HLV</td>
<td>Betaherpesvirinae</td>
<td>T lymphocyte</td>
<td>T lymphocyte</td>
<td>Respiratory</td>
</tr>
<tr>
<td>8</td>
<td>KSHV</td>
<td>Gammaherpesvir.</td>
<td>Endothelial cells</td>
<td>Unknown</td>
<td>body fluids</td>
</tr>
</tbody>
</table>

http://en.wikipedia.org/wiki/Herpesviridae
How many people in the US develop shingles?

A. 1 out of every 3 people
B. 1 out of every 4 people
C. 1 out of every 5 people
D. 1 out of every 6 people
• Reduce the risk of developing shingles and the long-term pain from post-herpetic neuralgia (PHN) by getting vaccinated (age 60 years)

• Antiviral medicines—acyclovir, valacyclovir, and famciclovir to shorten the length and severity of the illness

• Analgesics (narcotics, gabapentin), wet compresses, calamine lotion, and colloidal oatmeal baths
A 45 y.o. healthcare worker presents to clinic with a painful finger.
Your Diagnosis Is?

A. Herpetic whitlow
B. Flexor tenosynovitis
C. Cellulitis
D. Felon
In children, herpetic whitlows are more likely to be:

A. HSV 1
B. HSV 2
62 y.o. woman with vulvar irritation. First noted lump on vulva in 2011. It grew and she underwent a biopsy.
Your Diagnosis Is? Part 1

A. Lichen planus
B. Lymphangiomomas
C. Lichen sclerosus
D. HSIL
Your Diagnosis Is? Part 2

A. Lichen planus
B. Lymphangiomomas
C. Lichen sclerosus
D. HSIL
They can become black in color. The theory behind this color change is secondary to:

A. Association with diabetic skin changes
B. Premalignant changes (compound nevi)
C. Scar changes from frequent rupture
D. Hemorrhage
Skin Closed with Interrupted Sutures

Doing well

No recurrence for 1.5 years; recently seen with two 1.5 mm areas of recurrence
No recent follow up- was doing well but only saw her 3 months out from surgery (multiple personality disorder)
Case Presentation

A 49y.o. G4P2 presents with chronic vulvar pruritus and irritation. Her vaginal pH is 4.0. She has had 3 other identical episodes this year.
<table>
<thead>
<tr>
<th>Condition</th>
<th>pH (3.0-4.5)</th>
<th>WBC</th>
<th>Parabasals</th>
<th>Features</th>
<th>Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>3.0-4.5</td>
<td>Few or none</td>
<td>no</td>
<td>NI lactobacilli</td>
<td>Creamy, mucous, white</td>
</tr>
<tr>
<td>Yeast</td>
<td>3.0-4.5</td>
<td>no</td>
<td>no</td>
<td>Hyphae Spores (400x)</td>
<td>Curdy</td>
</tr>
<tr>
<td>Bacterial Vaginosis (Amsel Criteria)</td>
<td>&gt;5.0</td>
<td>No to small</td>
<td>no</td>
<td>Clue Cell</td>
<td>Yellow, grey w/ odor</td>
</tr>
<tr>
<td>Trichomoniasis</td>
<td>&gt;5.0</td>
<td>yes</td>
<td>maybe</td>
<td>Motile trich</td>
<td>Green, yellow, bubbly</td>
</tr>
<tr>
<td>DIV</td>
<td>&gt;5.0</td>
<td>yes</td>
<td>yes</td>
<td>Mixed bacteria, absent or reduced lacto</td>
<td>yellow</td>
</tr>
<tr>
<td>Atrophic Vaginitis</td>
<td>&gt;5.0</td>
<td>likely</td>
<td>yes</td>
<td>Scant cells, few bacteria</td>
<td>Scant, dry</td>
</tr>
</tbody>
</table>
Culture Positive for Candida Glabrata

- Low vaginal virulence
- Rarely causes symptoms, even when identified by culture
  - 50% of the time non-albicans yeast is an innocent bystander and is not causing the patient’s symptoms
  Nyirjesy 2016
- Exclude other co-existent causes of symptoms and only then treat for C. glabrata
Other Antifungals
Boric Acid

- Puratronic, 99.99995% (metals basic)
- Formula
  - $\text{H}_3\text{BO}_3$
- Formula Weight
  - 61.83
- Form
  - Crystalline Powder
- Melting Point
  - $170.9^0$
- Merck Number
  - 11,1336
Boric Acid Capsule or Suppository
PER VAGINA

Fill 0-gel capsule halfway (600 mg)
For treatment of acute infection; insert *per vagina* qhs x 14 days
For prevention of recurrence; insert *per vagina* twice weekly

**KEEP AWAY FROM CHILDREN**
**CONTRAINDICATED IN PREGNANCY**
Does she qualify for the diagnosis of recurrent Candida

A. Yes
B. No
Yeast/Candida iphone App

Contributors

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Vulvovaginal Candidiasis

CANDIASIS
- General Information
- Simple Candida
- Recurrent Infections
- Treatment by Type
- Pregnancy Considerations

INFORMATION
- Wet Mount Examples
- Clinical Images
- Patient Information
- About
Yeast Culture/Speciation Results

Candida albicans
Candida glabrata
Candida parapsilosis
Candida tropicalis
Candida lusitaniae
Trichosporon
Saccharomyces cerevisiae
Candida kefyr
Candida dubliniensis

There are limited data on some of the treatment regimens. The compounded medications generally are suggestions to consider when other agents are not working. The compounded medications are generally used for resistant strains of Candida.
### Yeast Culture/Speciation Results

- *Candida albicans*
- *Candida glabrata*
- *Candida parapsilosis*
- *Candida tropicalis*
- *Candida lusitaniae*
- *Trichosporon*
- *Saccharomyces cerevisiae*
- *Candida kefyr*
- *Candida dubliniensis*

There are limited data on some of the treatment regimens. The compounded medications generally are suggestions to consider when other agents are not working. The compounded medications are generally used for resistant strains of *Candida*.
Candida lusitaniae

Topical creams can be irritating; vaginal tablets or suppositories may be less irritating. One-day products may be more irritating than longer-use products.

Ketoconazole is not included in this list due to the availability of more efficacious and less toxic medications.

Use as directed by package labeling. All pharmacies may not carry all products. The creams and suppositories are often oil-based and might weaken latex condoms and diaphragms.

### Oral

**Fluconazole**

Additional information on drug interactions with fluconazole can be obtained in the CDC Guidelines [http://www.cdc.gov/std/tg2015/candidiasis.htm](http://www.cdc.gov/std/tg2015/candidiasis.htm)

In pregnancy, fluconazole is not to be used, instead use topical creams for treatment.

Recurrence:
150 mg oral tablet every 3 days for three times, then 150 mg orally weekly for up to six months

At times, other dosing may be required such as 100 mg oral tablet every 3 days for three times (day 1, 4, and 7), then 100 mg orally weekly for up to six months; or 200 mg oral tablet every 3 days for 3 times (day 1, 4, and 7) then 200 mg orally weekly for up to six months.

If fluconazole cannot be used, (liver disease, Steven's-Johnson syndrome, or side effects such as headaches or nausea) consider:
- Boric acid
- Maintenance creams for recurrent yeast

**Itraconazole**

In pregnancy, itraconazole is not to be used, instead use topical creams for treatment.

100mg oral tablet daily for 2 weeks, then twice weekly for up to 6 months.

### Topical

**Clotrimazole**

Clotrimazole 1% vaginal cream: 1 applicatorful per vagina nightly for 7 nights

Clotrimazole 2% vaginal cream: 1 applicatorful per vagina nightly for 3 nights
Miconazole 7 day cream 2% (100 mg per dose)
  • One applicatorful per vagina nightly for 7 nights

Miconazole 7 day cream 2% (100 mg per dose) plus miconazole nitrate cream 2%
  • One applicatorful per vagina nightly for 7 nights
  • Miconazole nitrate 2% cream to the vulva twice a day for up to 14 days

Miconazole 3 day cream, suppository, ovule 4% (200 mg per dose)
  • One applicatorful, suppository or ovule per vagina nightly for 3 nights

Miconazole 3 day cream, suppository, ovule 4% (200 mg per dose) plus miconazole nitrate cream 2%
  • One applicatorful, suppository or ovule per vagina nightly for 3 nights
  • Miconazole nitrate 2% cream to the vulva twice a day for up to 14 days

Miconazole 1 day insert (ovule) (1200 mg per dose) plus miconazole nitrate cream 2%
  • One insert (ovule) per vagina for one day or night
  • Miconazole nitrate cream 2% cream to the vulva twice a day for up to 14 days

Miconazole nitrate topical 2% cream to the vulva twice a day for up to 14 days

For some recurrent infections, consider using Miconazole 2% vaginal cream: 1 applicatorful per vagina nightly for 14 nights, followed by 1 applicatorful twice weekly for up to six months.

**Compounded**

**Boric acid suppositories**

In pregnancy, boric acid is not to be used, instead use maintenance creams for recurrent yeast.

Vaginal boric acid suppositories 600 mg per vagina for 14 nights; If recurrent, consider suppression after retreatment with twice weekly boric acid 600 mg per vagina.

Boric acid capsules can be FATAL if swallowed/taken orally.
ERYTHEMA FROM CANDIDA INFECTION OF SKIN OVERLYING SACRUM
PATIENT INFORMATION

What are the symptoms of Candida (yeast) infection?
These are the symptoms of vaginal candida infection:
- genital itch - this is the most common symptom of thrush. Itching is especially worse before your period;
- soreness or burning inside (in the vagina) during or after sex;
- abnormal discharge – that can be thick and white or sometimes it can seem normal;
- a change in the smell of your vaginal secretions;
- redness and inflammation of the outside (vulva);
- soreness or discomfort on urination (peeing);
- pain - particularly if the infection occurs a number of times or hasn’t been treated properly; and
- small white spots on the vaginal wall or curds in the discharge.

How is it diagnosed?
A diagnosis of vaginal Candida infection is often made based on a number of things including your symptoms, physical examination, examination of vaginal secretions under the microscope and vaginal culture. However, there are many other conditions of the vagina and vulva that have symptoms in common and even associated with Candida, so if there is doubt about the diagnosis, or when it is recurrent, it is essential that your healthcare provider takes a vaginal swab for laboratory testing before treatment is started.
Case Presentation

83 y.o. woman with vulvar pain

• Symptoms worsened by urination and tight clothing as well as sitting for long periods of time

• No dysuria or trouble urinating

• Firmness to palpation
Your Diagnosis Is?

A. Urethral diverticulum
B. Urethral prolapse
C. Urethral polyp
D. Urethral cancer
Urethral Diverticulum
Urethral Myoma
Urethral Prolapse
Urethral Polyp
Urethral Cancer
Urethral cancer is more common in women than men

A. True
B. False
Urethral cancer is more common in African Americans than in Caucasians

A. True
B. False
The most common histologic type of urethral cancer is:

A. Transitional carcinoma
B. Squamous cell carcinoma
C. Adenocarcinoma
D. Melanoma
The usual initial treatment for urethral cancer is:

A. Radiation therapy
B. Surgery
C. Chemotherapy
D. Laser ablation
Cystoscopy
21-year-old gravida 2, para 1 at 19 weeks gestational age was admitted 3 weeks ago for left lower extremity swelling and infection from a “spider bite”

• She had multiple debridements of the region but, as her infection did not seem to be improving, she was transferred to our institution
Your Diagnosis Is?

A. Spider bite
B. Abscess
C. Burn wound
D. Soft tissue infection and necrotizing fasciitis
Necrotizing Fasciitis

• Necrotizing fasciitis is a deep infection of the subcutaneous tissue resulting in destruction of fascia and fat, but may spare the skin.
Necrotizing Fasciitis

• Also known as hemolytic streptococcal gangrene, Meleney ulcer, synergistic gangrene, and Fournier gangrene (when localized to the scrotum and perineal area)
Soft tissue infection

Necrotizing fasciitis
True or False
In patients with necrotizing fasciitis, the pain is out of proportion to the injury noted

A. True
B. False
Diagnosis

- Clinical: fever, pain out of proportion to skin findings
- Lab abnormalities non-specific, may see leukocytosis >15k with left shift, elevated lactate, creatinine kinase, and creatinine
- On x-rays, CT scan and MRI presence of gas in the fascial planes highly specific, but not very sensitive
Necrotizing Fasciitis

- Type I (polymicrobial i.e. more than one bacteria involved)
- Type II (due to hemolytic group A streptococcus, staphylococci including methicillin resistant strains/MRSA)
- Type III (gas gangrene, e.g. due to clostridium)
- Other: Marine organisms (vibrio species, Aeromonas hydrophila considered Type III in some reports) and fungal infections (candida and zygomecetes, type IV in some reports)
Treatment

• Early debridement
• Broad antibiotic coverage, including anaerobes, directed ultimately against gram stain and culture results
• Return to OR for further debridements
Treatment (cont.)

• Shock: appropriate management with aggressive IVF and ICU management

• IVIG: can be used to neutralize circulating streptococcal toxins and super antigens, and clostridial toxins

• Hyperbaric oxygen: not commonly used, but may be effective adjunct associated with 35% decrease in mortality (no randomized controlled trials)
Diabetic Patient Age 34
Cardiac Arrest
Case Presentation

85 y.o. woman presents with vulvar discoloration
• No itching or pain
• Biopsy performed
Your Diagnosis Is?

A. Seborrheic keratosis
B. LSIL
C. HSIL
D. Squamous cell carcinoma
HPV

Non -enveloped double stranded DNA virus

Genome of 8000 base pairs encoding 2 protein types

Late proteins: L1 and L2 (from viral capsid) 
EXPRESSED ONLY DURING INITIAL INFECTION

Involved in packaging of the virus

Early proteins: E 1,2,4,5,6,7
EXPRESSED THROUGHOUT ITS LIFE CYCLE

Regulate the replication of viral DNA
Anogenital HPV Infection

- Over 180 HPV types; approximately 40 infect the anogenital region
- Anogenital HPV are divided in two groups
  - Low risk: HPV 6,11
  - High risk: HPV 16,18 (31, 33, 35, 45, 51, 52, etc.)
- Many HPV infections are not associated with visible lesions; long latency is possible
- Incidence has been gradually rising over the last 50 years
  - But it is now falling (however, only in younger individuals) due to vaccine protection
Phylogenetic Tree: Anogenital HPV Types

Low-risk HPV types

High-risk HPV types

LSIL (HPV Effect)

Spiked (acuminate) warts were recognized as abnormalities of the genitalia in ancient Greece and Rome.
HPV Types Causing Genital Warts

Low-risk HPV types
Your Treatment Is?

A. Trichloroacetic acid
B. Imiquimod
C. Laser therapy
D. No treatment, just monitor
Recommended Regimens for External Anogenital Warts (i.e., penis, groin, scrotum, vulva, perineum, external anus, and perianus)

**Patient-Applied:**
- **Imiquimod** 3.75% or 5% cream
- **Podofilox** 0.5% solution or gel
- **Sinecatechins** 15% ointment

**Provider–Administered:**
- Cryotherapy with liquid nitrogen or cryoprobe
- Surgical removal either by tangential scissor excision, tangential shave excision, curettage, laser, or electrosurgery
- **Trichloroacetic acid** (TCA) or **bichloroacetic acid** (BCA) 80%–90% solution
Silk Touch Laser
Hand held device
Laser Fumes

• Mask protection
• CDC STD Treatment Guidelines
## STD Treatment Guidelines Tables: Health Care Workers

<table>
<thead>
<tr>
<th>Author/Citation</th>
<th>Study Design</th>
<th>Population, Sample Size, Methods</th>
<th>Outcome Measures</th>
<th>Summary Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abramson Arch Otolaryngol Head Neck Surg 1990</td>
<td>Cross-sectional</td>
<td>7 patients w/ laryngeal papilloma 1 had suction tip applied directly to papilloma 6 had tip held above during laser therapy and smoke collected into phosphate buffered saline collection trap 5/6 then had suction tip placed onto papilloma and plume collected</td>
<td>HPV detected via Southern blot</td>
<td>No HPV detected unless contact made directly with papilloma 2 samples had HPV DNA via Southern blot (not using sensitive techniques, laryngeal papilloma also with low copies of viral DNA compare to EGW)</td>
</tr>
<tr>
<td>Andre J Am Acad Dermatol 1990</td>
<td>Case series</td>
<td>3 patients treated by CO2 laser for EGW Biopsies obtained from warts and plumes collected in buffered saline, DNA extracted</td>
<td>Presence of HPV6 by blot hybridization</td>
<td>2/3 patients had HPV6 DNA detected in both the lesion and laser plume</td>
</tr>
<tr>
<td>Bergbrant Acta Derm Venereol 1994</td>
<td>Cross-sectional</td>
<td>19 physicians performing electrocoagulation of EGW, 11 physicians CO2 laser of EGW</td>
<td>Presence of HPV DNA 6, 11, 16, 18, or 33 via PCR pre and post procedure</td>
<td>No conjunctival HPV noted Post Electrocoagulation Nasolabial: 2/19 to 6/19 post-procedure Nostril: 0/19 to 3/19 post-procedure</td>
</tr>
</tbody>
</table>
Case Presentation

35 y.o. woman complains of severe burning on entire vulva

• She is unable to have intercourse
• She is unable to wear pants
Pain noted in red/pink area below
Using the Current Terminology, Your Diagnosis Is?

A. Localized vulvodynia
B. Generalized vulvodynia
C. Vulvar dysethesia
D. Genital retraction syndrome
Pain noted in red/pink area below
Using the Current Terminology, Your Diagnosis Is?

A. Localized vulvodynia
B. Generalized vulvodynia
C. Vulvar dysethesia
D. Somatoparaphrenia
Definition of Vulvodynia

International Society for the Study of Vulvovaginal Disease (ISSVD)

Chronic discomfort
Burning
Stinging
Irritation
Rawness
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
2015 Consensus Terminology and Classification of Persistent Vulvar Pain and Vulvodynia

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)

a The factors are ranked by alphabetical order.
Etiologies

Topical review

Vulvodynia: Current state of the biological science

Ursula Wesselmann a,b, Adrienne Bonham c, David Foster c,*

a Department of Anesthesiology/Division of Pain Management, University of Alabama at Birmingham School of Medicine, Birmingham, AL, USA
b Department of Neurology, University of Alabama at Birmingham School of Medicine, Birmingham, AL, USA
c Department of Obstetrics and Gynecology, University of Rochester School of Medicine and Dentistry, Rochester, NY, USA

Sept. 2014
Not tender; no area of vulva described as area of burning

Alternative diagnosis
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
She is 5 foot 4 inches and 300 pounds. She is concerned about the potential weight gain with tricyclics. She cannot remember to take anything more than twice a day. What would you consider for her pain?

A. Amitriptyline
B. Gabapentinin
C. Topiramate
D. Percocet
Case Presentation

68 y.o. woman complains of severe pain on her clitoris. The pain never ceases. She says it is an 8/10.

• She has tried topical medications (15 total), oral medications (amitriptyline, desipramine, nortriptyline, gabapentin, pregabalin, topiramate, lamotrigine, physical therapy, biofeedback, TENS units, hypnotherapy, acupuncture, etc.)
She begs you to cut off her clitoris. Your recommend:

A. Ilioinguinal genitofemoral nerve block
B. Pudendal nerve block
C. Topical lidocaine
D. Resection of clitoris
Nerve Blocks

Pudendal

Genitofemoral

Ilioinguinal

Ganglion impar
Genitofemoral and Ilioinguinal Nerve Blocks
Genitofemoral and Ilioinguinal Nerve Blocks
Case Presentations

- Two women with the same condition
26 y.o. with Mucous Cyst Excision
Summary

When patients do not respond to therapy

- Reconsider the diagnosis
- Check for infection - fungal, bacterial, HSV
- Consider contact dermatitis to a medication, over washing, etc.
- Evaluate for carcinoma
Great Job!
Questions and Answers