Vulvar Diseases
What Do You Know?
AKA Your Diagnosis Is?

Test Your Knowledge of Various Vulvovaginal Conditions

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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
  • Resources for Providers University of Michigan

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?

A. HSIL
B. Melanoma
C. Molluscum contagiosum
D. None of the above
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 viruses exist that affect humans with disease?

A. 2  
B. 4  
C. 8  
D. 80
8 types

Extra credit:
Which is the type that causes shingles?

Herpesviruses

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<th>Name</th>
<th>Subfamily</th>
<th>Target cell</th>
<th>Latency</th>
<th>Transmission</th>
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<td>Gammaherpesviridae</td>
<td>Endothelial cells</td>
<td>Unknown</td>
<td>body fluids</td>
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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. Lymphangiomas
C. Lichen sclerosus
D. HSIL
Your Diagnosis Is?
Part 2

A. Lichen planus
B. Lymphangiomas
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
Skin Graft

No recent follow up - was doing well but only saw her 3 months out from surgery (multiple personality disorder)

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 myoma
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)
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 debridelements
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

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
Numerous nerve blocks do not work. She begs you to cut off her clitoris. You recommend:

A. Sacral nerve stimulator
B. Refer to another pain specialist
C. Resection of clitoris
Case Presentations

- ? two women with the same condition
26 y.o. with mucous cyst?
41 y.o. G2P2 c/o painful intercourse

Present for 3 years
Cyst was needle drained in the office
Grown since last visit and hurts with intercourse
Your Diagnosis Is?

A. Bartholin duct cyst
B. Gartner duct cyst
C. Skene duct cyst
D. Rectocele
Your Treatment Is?

A. Cyst wall biopsy with Kevorkian
B. Marsupialization of cyst
C. Excision of cyst
D. No treatment needed

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
32 y.o. G0 with painless vulvar irritation and erythema
• Vulvar irritation began in fall 2015 when she experienced new watery odorless discharge and her PCP noted whitening of the left perineum
• She went on to develop a "growth" of the left perineal region
• Initially treated with topical steroids. She also reports oral antibiotic regimen, which brought no significant improvement to her symptoms

• On January 12, 2016, patient underwent excision of the perineal lesion at an outside facility
  – Pathology demonstrated ulceration, pseudoepitheliomatous hyperplasia with rare squamous cells and multinucleated giant cells, an underlying polypoid granulation tissue
• On January 26, 2016, patient noted regrowth of the perineal lesion over the previous scar
What tests would you send?

VDRL  NR
RPR  NEG
Your Diagnosis?

Comparison to diagnosis of syphilis
Your Diagnosis?

• Cervical Cytology

CDC Public Health Image Library (PHIL)

- HSV PCR Pos 1 and 2
- HSV Serology Pos 1 and 2
- Biopsy
  Multinucleated Giant Cells
Prior to evaluation at U of M, treated with both oral acyclovir and oral valacyclovir with no improvement to her symptoms or to the perineal lesion.
What to do now?

Hospital Course

- HOD#0: Started on IV acyclovir, prednisone, fluconazole, ampicillin/sulbactam, and clindamycin
- MRI ordered
- ID consulted
Hospital Course Continued

• HOD#2:
  AFB – negative, HIV Ab/Ag screen – negative 3x, CD4 count - 272, RPR - non-reactive, HIV viral load – negative

• Allergy tests returned. Felt that prednisone would cause lymphopenia with a preferential decrease in CD4/CD8 and affect the ratio. CD19 is elevated which is a B cell maker and also an acute phase reactant. Hence, being elevated in the context of recent infection is not significant. Additionally her SPEP was also normal. This suggests her low T cell counts were most likely due to treatment with prednisone.

• IM penicillin

• Started imiquimod. Immunohematology consulted.
  – Ordered primary immunodeficiency flow cytometry to assess for B cell, T cell, and NK cell subsets, lymphocyte proliferation mitogens to evaluate for T cell function
March 25, 2016

July 20, 2016

Cidofovir, imiquimod
What to do Now?
Medication started July, 2016

Thalidomide

- Inhibits TNF-α, IL-6, IL-10 and IL-12 production
- Modulates the production of IFN-γ
- Enhances the production of IL-2, IL-4 and IL-5 by immune cells
- Inhibits NF-κB and COX-2 activity
- It increases lymphocyte count, costimulates T cells and modulates natural killer cell cytotoxicity
Additional Needs

- IUD prior to thalidomide
- OCPs

**Images:**
- March 25, 2016: Cidofovir, imiquimod
- July 20, 2016: Thalidomide started
Future Questions

• Should she be on an antiviral when she becomes pregnant?
• Additional workup?
Great Job!
Questions and Answers