Vulvovaginal Disorders

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Disclosures/Conflicts of Interest
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• Advisory Board Prestige Consumer Health Care, Inc.
Learning Objectives

At the conclusion of this activity, the participant should be able to:

1. Identify the clinical features of various vulvovaginal conditions
2. Learn tips on medical treatments for some frustrating vulvovaginal conditions
3. Become familiar with surgical procedures for vulvovaginal conditions

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
Make Your Selection

A  B  C  D

Test Format
The image shown represents which vulvar condition?
Test Format
The image shown represents which vulvar condition?

A  Erosive lichen planus
B  Paget’s disease
C  Eczematous dermatitis
D  None of the above

Beef Tongue
Question

A patient with vulvar/buttock whitening that is symmetric and has no loss of the labia minora most likely has:

A. Lichen sclerosus
B. Lichen planus
C. Vitiligo
D. Graft versus host disease

Lichen Sclerosus and Vitiligo
What is a Lichen?

Lichen Sclerosus
Clinical Findings
Symptoms

- Often asymptomatic
- Most common symptom is pruritus
  - Can be severe, intolerable
  - Can interfere with sleep
  - Pruritus ani

Other Symptoms

- Burning
- Soreness
- Dysuria
- Dyspareunia
- Apareunia
- Pain with defecation
- Constipation (children)
Signs

- Hypopigmentation
- Ivory white papules or plaques
- Cigarette paper appearance
- Cellophane-like sheen to surface
- Hour glass-figure of eight appearance
- Patchy or generalized
  - Vulva, perineum, perianal
  - No vaginal involvement

Signs
Secondary Changes

- Fusion of labia minora
- Scratching yields open areas causing erosions
- Urinary retention
- Tearing
Cigarette Paper Appearance

Figure of Eight – Hour Glass
Office Procedures

Biopsy (4 mm)

Histopathology

Thinned epidermis +/- hyperkeratosis

Band of homogenized collagen

Lymphocytic infiltrate under the band
Treatment of Lichen Sclerosus

- Superpotent steroid ointment (clobetasol propionate 0.05%)
  - Twice daily in a thin, invisible film for 1 month then daily for two months
  - Maintain twice weekly Class 1 VERSUS
  - Decrease steroid dose

Steroid Medications

Clobetasol propionate ointment 0.05%
Sig: apply to vulva bid x 1 month, then qd x 2 months Disp: 30 gms

Triamcinolone acetonide ointment 0.1%
Sig: apply to vulva qd to bid Disp: 80 gms

Consider decreasing gradually to triamcinolone acetonide ointment 0.025% qd to bid
Intralesional Triamcinolone

40 mg max on entire vulva


Intramuscular Triamcinolone

1 mg per kg (up to 80 mg max) into gluteus muscle
Surgical Treatment

• Limited role (high rate of recurrence)
• Surgical division of mucosal adhesions helpful in clitoral phimosis, introital narrowing
Other Treatments for Lichen Sclerosus

- Hydrodissection with reverse V plasty technique
- Cryosurgery
- Ultrasound therapy
- Use of split thickness skin grafts or full thickness skin grafts
- Release of urethral strictures (oral mucosa grafts)
- Use of acellular human dermal allograft
- Role of adipose derived mesenchymal cells and platelet rich plasma in tissue regeneration
- Stem cell lift
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34 y.o woman with 6 yr history recurrent boils

- She brings cultures which have shown group B streptococcus, klebsiella, MRSA, and enterococcus at various times
- Improves briefly with antibiotics
- Her mother has similar lesions and lives with her
- She is frightened because ID provider feels she may have HIV, and she is refusing testing
Your Diagnosis Is?

A Hidradenitis suppurativa
B Evolving polymicrobial infections in patient with undiagnosed HIV
C Job’s syndrome (hyper IgE syndrome)
D Gardner’s syndrome
Which of the following about hidradenitis is NOT true

A. HS is also called inverse acne
B. Obesity is associated with HS
C. Rotating broad spectrum antibiotics are important for control of infection causing HS without producing resistance
D. HS has been reported to be associated with both apocrine and eccrine glands

Hurley’s Criteria for HS Staging

**Stage I:** abscess formation, single or multiple, without sinus tracts and cicatrization/scarring

- 70%

**Stage II:** recurrent abscesses with sinus tracts and scarring, single or multiple, widely separated lesions

- 26%

**Stage III:** diffuse or almost diffuse involvement, or multiple interconnected tracts and abscesses across the entire area

- 4%
Stage I

Axilla

Right inguinal crease

Stage II
Stage III

Hidradenitis Suppurativa Therapy

- Weight loss
- Stop smoking
- Chronic anti-inflammatory antibiotics
  - Takes about 3 months for benefit
  - Doxycycline or minocycline 100 bid
  - Clindamycin 150 bid with probiotics
  - Trimethoprim sulfamethoxazole DS bid
Hidradenitis Suppurativa Therapy

- Intrallesional triamcinolone acetonide 10/cc, about .2 cc into new cyst
- Perhaps hormonal therapy – OCP, spironolactone)
- TNF alpha blockers; adalimumab (Humira) 40 mg SQ weekly
- Surgery
  - Removal of individual cysts or en bloc
  - Unroofing cysts and sinus tracts
Split Thickness Skin Grafts
4 Months After Skin Grafts

2 Years After Surgery
Question 1

I see patients with chronic vaginitis

A. Yes

B. No
Question 2

I like to see patients with chronic vaginitis

A. Yes
B. No

Vaginal discharge in lactating dairy cattle in New Zealand
## pH and Wet Mount

<table>
<thead>
<tr>
<th></th>
<th>pH (3.0-4.5)</th>
<th>WBC</th>
<th>Parasbasals</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>

### Causes for Elevated Vaginal pH

- Menses
- Heavy cervical mucus
- Semen
- Ruptured membranes
- Hypoestrogenism
- Desquamative vaginitis
- Trichomoniasis
- Bacterial vaginosis
- Foreign body with infection
- Streptococcal vaginitis (group A)
A 49y.o. G4P2 presents for consultation of chronic vulvar pruritus and irritation. Her vaginal pH is 4.0.
Her most likely diagnosis is:

A. Trichomonas  
B. Candida glabrata  
C. Candida albicans  
D. Bacterial vaginosis

Candida albicans KOH

Candida glabrata on Cornmeal-Tween 80 agar:  
Small, compacted blastoconidia with no pseudohyphae formed
She is doing well for 12 months then returns with discomfort. A culture reveals Candida glabrata.

Candida glabrata responds best to:

A. Oral fluconazole
B. Boric acid per vagina
C. Intravaginal metronidazole
D. Terconazole (Terazole®)
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°
- Merck Number: 11,1336
Before Treatment

After Treatment
Candida Glabrata

• Low vaginal virulence
• Rarely causes symptoms, even when identified by culture
• Exclude other co-existent causes of symptoms and only then treat for C. glabrata

She gets 4 yeast infections a year. Does she qualify for the diagnosis of having recurrent Candida infections?

A. Yes
B. No
The definition of recurrent Candida infections requires a minimum of how many infections per year

A. 2  
B. 3  
C. 4  
D. 5  

A 45 y.o. G2P1 presents with complaints of vulvar pruritus. It awakens her at night. A yeast culture was negative. She has been intermittently treated without success with Class 1 topical steroids for over a year.
Your Diagnosis Is?

A. High grade squamous intraepithelial lesion
B. Herpes
C. Lichen simplex chronicus
D. Lichen sclerosus
These Statements are True about LSC except:

A. It is often secondarily infected
B. It is associated with HIV
C. It commonly reoccurs
D. It is associated with atopic dermatitis, psoriasis, and contact dermatitis
For Severe Itch-Scratch Cycle

Oral steroids (short term)
Cefadroxil 500 mg po bid x 7 days
Amitriptyline for a week or 2 (25 mg, increase to 50 mg if needed) vs.
Hydroxyzine (25 to 50 mg po qd to qid prn)
White cotton gloves

Subcutaneous Steroid Injections

Intramuscular Steroid Injections

- Triamcinolone acetonide intramuscular
- 1 mg/kg up to 80 mg IM
- This can be repeated monthly up to 3 total doses to get a severe condition under control

Vestibulodynia and Vestibulectomy
Vestibulodynia
Important Thoughts Prior to Surgery

• Failed treatment algorithm
• Rule out vaginismus
• Determine area to excise
• Undermining posterior and lateral vaginal walls
Classic Closure Technique

Classic Closure Technique
V to Y Flaps
V-to-Y Flap

V-to-Y Flap
Double V-Y Flaps
Double V-Y Plasty

Start the closure by suturing the two straight margins together in the center the defect using simple interrupted sutures
Double V-Y Plasty
Place sutures on both ends of the newly joined central island

Double V-Y Plasty
Place two additional corner sutures at the tips of the triangular flaps and use simple interrupted sutures to finish closing the incisions
A 86 year old woman complains of vulvar soreness and itching that has recurred in the last year.

CHF, recent stroke, DVT

She thinks she had a problem like this 10 years ago but has no records. Topical steroids had made no difference.

A biopsy is performed.
Your Diagnosis Is?

A. Lichen sclerosus
B. VIN differentiated
C. Lichen planus
D. Extramammary Paget’s

Recurrent Paget’s Disease
Which treatment do you **not** recommend for her recurrent Paget’s?

A. Triamcinolone ointment  
B. Laser therapy  
C. 5% imiquimod cream  
D. Wide local excision
What is the rate of primary Paget’s disease of the vulva being associated with an underlying adenocarcinoma?

A. 1% to 25%
B. 26% to 50%
C. 51% to 75%
D. 76% to 100%
Surgery for Primary Paget’s

Summary