What’s Up Down There: Identifying Common Vulvar Dermatology

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## Disclosures

<table>
<thead>
<tr>
<th>Caroline Hewitt, DNS, ANP/WHNP-BC</th>
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<tbody>
<tr>
<td>Commercial Interest</td>
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<tr>
<td>Nothing to disclose</td>
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Objectives

• Identify common vulvar dermatologic conditions
• Identify appropriate laboratory (culture, serum, biopsy) methods for diagnosis of common vulvar dermatologic conditions
• Develop appropriate management plan for common dermatologic conditions
• Recognize conditions which need referral to specialist
June

- June is a 33 year old female presenting with painful urination, “it burns like crazy when I pee, I had to pee in the bath this morning because it hurts so much when the pee touches my skin”. Her symptoms have been present for two days. She denies urinary frequency or urgency, fever, low back pain or hematuria. As an afterthought, she does mention that she had the flu last week.
June

- PMH unremarkable
- Meds none
- NKDA
- G2P1
- +SA, monog x 9 mos using IUD
But First

- Language
Descriptive language lesions

– Anatomic location and distribution
  • Generalized, localized

– Patterns and shapes
  • Linear, clustered, annular, arciform, geographic, serpiginous

– Types of lesions
  • Macules, papules, vesicles, nevi

– Color
Description of skin lesions

- Papule
- Macule
- Nodule
- Patch
- Vesicle
- Bulla
- Plaque
Classifying lesions

- Cancers
- Infectious
  - Viruses
  - Bacterial
  - Fungal
- Dermatitis
- Inflammatory disorders (infectious/non)
- Sebaceous gland disorders
- Infestations
Papule

• Small palpable circumscribed lesion
• <0.5cm
Macule

- Flat, circumscribed non-palpable lesion
Pustule

- Yellowish white pus-filled lesion
Nodule

• Large papule >0.5cm
plaque

- Large flat topped elevated palpable lesion
Patch

• Large macule
Vesicle

- Small fluid filled blister
Bulla

- A large fluid filled blister
What do you think?

• Polling Question Here
And this is what you saw
Differential Diagnosis

- Genital herpes
- Syphilis
- Vulvar pruritus with excoriation
  - Excoriated scabies
  - Fungal infection
  - Lichen Simplex Chronicus
  - Chemical sensitivity
  - Idiopathic
Herpes Simplex Virus

- Mucocutaneous infection with recurrences
- HSV-1
  - Mostly orolabial (cold sores, fever blisters)
  - Now 50–60% of initial genital herpes
- HSV-2
  - Causes >90% of recurrent genital herpes
  - Almost entirely genital
  - 10–50% age ≥30 are infected

Herpes Simplex
Herpes Simplex
Pathology

• The virus remains latent indefinitely
• Reactivation is precipitated by multiple known and unknown factors and induces viral replication
• The re-activated virus may cause a cutaneous outbreak of herpetic lesions or subclinical viral shedding
• Up to 90% of persons seropositive for HSV-2 antibody have not been diagnosed with genital herpes
HSV Testing Options

Virologic testing
- Culture
- NAAT (e.g., PCR)

Serologic testing
- ELISA
- POCT
- Western blot

Guidance for Testing

– Test all genital lesions
  • NAAT (preferred)
  • Culture (if NAAT unavailable)

– Serology
  • If NAAT and culture not performed or negative
  • Selected sexual partners
  • Selective screening of individuals at risk

Diagnostic Testing

- HSV culture of lesion
- Vaginal swab NAAT for gonorrhea and chlamydia
- Serologies for HSV, HIV, syphilis (RPR)
Interpretation of Lab Results

Virologic testing (culture or NAAT)
- Diagnosis; all genital ulcers should be tested
- Determine HSV type

SeroLogic testing
- Previous exposure
- Diagnosis
- Screening individuals at risk

Test Results

– HSV-2 IgG antibody positive (ELISA ratio, 4.4)
– HSV-1 serology negative
– HSV culture negative
– All other studies negative

Treatment of Recurrent Genital Herpes

– Suppression
  • Reduces frequency of outbreaks and viral shedding 70%-80%
  • Decreases transmission risk

– Self-initiated episodic therapy
  • May speed healing of outbreaks

CDC, MMWR, June 5, 2015, Vol. 64, No.3
**Therapy for Initial Outbreak Genital Herpes**

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Dosage Details</th>
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<tr>
<td>Acyclovir, 400 mg po</td>
<td>Three times a day x 7-10 days daily</td>
</tr>
<tr>
<td>Acyclovir, 200 mg po</td>
<td>Five times a day x 7-10 days daily</td>
</tr>
<tr>
<td>Valcyclovir, 1 gm po</td>
<td>Two times a day x 7-10 days daily</td>
</tr>
<tr>
<td>Famcyclovir, 250 mg po</td>
<td>Three times a day x 7-10 days daily</td>
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*CDC, MMWR, June 5, 2015, Vol. 64, No.3*
### Suppression Therapy for Recurrent Genital Herpes

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<th>Dosage</th>
<th>Administration</th>
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<tr>
<td>Acyclovir</td>
<td>400 mg po</td>
<td>twice daily</td>
</tr>
<tr>
<td>Valacyclovir</td>
<td>500 mg po</td>
<td>once daily</td>
</tr>
<tr>
<td>Valacyclovir</td>
<td>1 g po</td>
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*CDC, MMWR, June 5, 2015, Vol. 64, No.3*
Key Counseling Points

– Recurrences are likely for HSV-2, infrequent for genital HSV-1
– Transmission often occurs without symptoms
– Suppression therapy reduces recurrences and transmission risk for HSV-2
– Therapy does not cure infection

more…

Beauman JG. *Am Fam Physician*. 2005; CDC *MMWR*, June 5, 2015, Vol. 64, No.3
Key Counseling Points (continued)

– Preventing transmission:
  • Abstain from sex during outbreaks and prodromal symptoms
  • Condoms reduce transmission risk
  • Suppressive antiviral therapy reduces transmission risk by ~50%

– Partner should be informed and tested

– HSV-2, but not genital HSV-1, elevates risk of HIV if sexually exposed

CDC Guidelines on HSV 2 Serology

Appropriate for:
- Recurrent/atypical symptoms and negative cultures
- Clinical fit, no lab confirmation
- Partner with genital herpes

Consider for:
- STD visit, person with multiple partners
- Person with HIV
- MSM with risk for HIV
- Not indicated for
  - General screening

CDC, MMWR, June 5, 2015, Vol. 64, No.3
But what about those other differentials?
Lichen Simplex Chronicus
Candidiasis
Scabies
Scabies Treatment

Permethrin
- 1% cream rinse applied to affected areas and washed off after 10 minutes

OR

Pyrethrins with piperonyl butoxide
- applied to the affected area and washed off after 10 minutes

• CDC, MMWR, June 5, 2015, Vol. 64, No.3
Consider
Primary Syphilis—Labial Chancre

Source: CDC/ NCHSTP/ Division of STD Prevention, STD Clinical Slides
Primary Syphilis

• Primary lesion or "chancre" develops at the site of inoculation.

• Chancre
  – Progresses from macule to papule to ulcer;
  – Typically painless, indurated, and has a clean base;
  – Highly infectious;
  – Heals spontaneously within 3 to 6 weeks; and
  – Multiple lesions can occur.

• Regional lymphadenopathy: classically rubbery, painless, bilateral

• Serologic tests for syphilis may not be positive during early primary syphilis.
Serologic Tests for Syphilis

- Two types
  - Treponemal (qualitative)
  - Nontreponemal (qualitative and quantitative)
- The use of only one type of serologic test is insufficient for diagnosis
Nontreponemal Serologic Tests

• Principles
  – Measure antibody directed against a cardiolipin-lecithin-cholesterol antigen
  – Not specific for *T. pallidum*
  – Titers usually correlate with disease activity and results are reported quantitatively
  – May be reactive for life, referred to as “serofast”

• Nontreponemal tests include VDRL, RPR, TRUST, USR
Nontreponemal Serologic Tests (continued)

Advantages

• Rapid and inexpensive
• Easy to perform and can be done in clinic or office
• Quantitative
• Used to follow response to therapy
• Can be used to evaluate possible reinfection

Disadvantages

• May be insensitive in certain stages
• False-positive reactions may occur
• Prozone effect may cause a false-negative reaction (rare)
Treponemal Serologic Tests

• Principles
  – Measure antibody directed against *T. pallidum* antigens
  – Qualitative
  – Usually reactive for life
  – Titers should not be used to assess treatment response

• Treponemal tests include TP-PA, FTA-ABS, EIA, and CIA
Other Ulcerative Lesions

Granuloma Inguinale

Lymphogranuloma Venereum
Folliculitis

- Irritant: shaving
- Fungal: middle aged and older men (tinea)
- Bacterial:
  - Staphylococcus
    - No known risk factor
  - Pseudomonas
    - Bathing suits
    - Hot tubs

- Diagnosis
  - Clinical presentation
  - Culture

- Management
  - Bacterial: oral, topical antibiotics
  - Fungal: oral antifungal
  - Irritant: avoid shaving
    - Loose, cool clothing
    - Oral anti-inflammatory antibiotics
Furuncles

- Involves deeper follicle
- Red, painful nodules
- Rupture and drain
- More common in immunosuppression, diabetes
- Usually S. aureas
Carbuncles
Hidradenitis Supperativa
May

- 26 year old female present with a CC of, “I felt this bump in the shower this morning and I am really freaked out. It doesn’t hurt or anything but I got really scared when I went on the web to see what it might be”
- + SA monog x 3 mos. G3P1
- PMH unremarkable
- Meds OCP
- NKDA
And this is what you saw
Differential List

• EGW / HPV
• Syphilis (lata)
• Molluscum Contagiosum
• Lichen Planus
• Acrochordons
• Epidermal Cysts
• Benign Papillae
• Keratosis Pilaris
• Angiomas
• Neoplasm
Painless Bumps
Vulvar Warts

Source: Reprinted with permission of Gordon D. Davis, MD.
Diagnosis of Genital Warts

• Diagnosis is usually made by visual inspection with bright light.

• Consider biopsy when
  – Diagnosis is uncertain;
  – Patient is immunocompromised;
  – Warts are pigmented, indurated, or fixed;
  – Lesions do not respond or worsen with standard treatment; or
  – There is persistent ulceration or bleeding.
• Use of type-specific HPV DNA tests for routine diagnosis and management of genital warts is not recommended.

• Application of acetic acid to evaluate external genitalia is not routinely recommended due to its low specificity.

• Acetowhitening will occur at sites of prior trauma or inflammation.

• External genital warts are not an indication for cervical colposcopy or increased frequency of Pap test screening (assuming patient is receiving screening at intervals recommended by her healthcare provider).
General Treatment of Genital Warts

- Primary goal is removal of warts.
- If left untreated, genital warts may regress spontaneously or persist with or without proliferation.
- In most patients, treatment can induce wart-free periods.
- Currently available therapies may reduce, but probably do not eliminate infectivity.
- Effect of current treatment on future transmission is unclear.
General Treatment of Genital Warts-continued

- No evidence that presence of genital warts or their treatment is associated with development of cervical cancer.
- Some patients may choose to forgo treatment and await spontaneous resolution.
- Consider screening persons with newly diagnosed genital warts for other STDs (e.g., chlamydia, gonorrhea, HIV, syphilis).
Secondary Syphilis—Condylomata lata

Source: CDC/NCHSTP/Division of STD Prevention, STD Clinical Slides
Molluscum Contagiosum
Molluscum Contagiosum

- May be transmitted sexually
- Genitals, thighs
- Domed papules, may be umbilicated
- May be inflamed, pruritic
- Poxvirus
- Resolve spontaneously
- May use topical destruction, imiquimod
Lichen Planus

- Different clinical presentations
- Autoimmune disorder, cell-mediated
- Usually self-limiting
- Resolves in few years
Skin Tags (Acrochordons)

- Fibroepithelial polyps
- Soft, skin-colored/tan
- Inguinal folds, inner thigh, buttocks, rare on penis
- Not on modified mucus membranes
- Diagnosis: clinical
- Treatment: none needed
Benign Papillae
Epidermal Cysts

• Obstructed hair follicles that are distended with keratin
• White, skin colored, or yellow
• Occasional inflammatory response from keratin
• No treatment necessary
Keratosis Pilaris

- Common in children, disappears in 4th decade
- Clusters of papules
- Excess keratinization of outer hair follicles
- Noninfectious

Management
- Bath soaks/loofah
- Moisturizer
Cherry Angiomas & Angiokeratomas
Extramammary Paget’s Disease

- Primary or secondary forms
- Onset: usually >50
- More common in women
- 10-20% with underlying GU/GI malignancy
- Initial symptom: pruritus
- Presentation:
  - Well demarcated red plaque
  - Rough, scaling or moist surface
  - White thickened islands
  - Erosions
Painless Pigmented Lesions
Pigmented Nevus

• **Common nevi:** 90%
  - Tan, brown, even color

• **Dysplastic nevi**
  - Brown, asymmetry, speckling of color (with red, white, blue)

• **Atypical nevi**
  - Like common, but larger (>6 mm)
  - May have bumpy surface

• **Nevi associated with lichen sclerosis**
  - Black, smooth
  - Macule, papule, patch
Seborrheic Keratoses

- Sites: truck, genitals, lower limbs
- Sharply marginated
- Scale or waxy feel
- Cause unknown
- Biopsy to rule out malignancy
VIN & SCC
Intraepithelial Neoplasia

- Non-invasive but full thickness dysplasia
- Many types
  - HPV-related
  - Bowen’s disease: older
- Presentation
  - Well-demarcated plaques, scaling, hyperkeratosis
Intraepithelial Neoplasia

- Vulva, penis, scrotum
- Tan, brown, black
- History
- Biopsy for diagnosis
Intraepithelial Neoplasia

Bowen Disease/VIN/PIN
- Undifferentiated:
  - HPV 16, 18, 31, 33
  - 2/3 – full thickness
- Differentiated:
  - Lower 1/3 of epithelium
  - No HPV link

• Lesions may be accentuated with 5% acetic acid
• White, red, skin colored plaques
• Diagnosis: biopsy
• Management: surgical, imiquimod, laser
Questions?