Essentials of Women’s Health
Hapuna Beach Prince Hotel, Hawaii
July 8, 2014

Vulvovaginal Disorders:
Photo Quiz

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- There are no relevant financial relationships with any commercial interests to disclose
- These painful lesions have been present for two weeks
- Which test would not be appropriate in the initial evaluation of the lesions:
  a. Herpes simplex culture of direct fluorescent antibody test
  b. Culture for Hemophilus ducreyi
  c. Serum VDRL
  d. Biopsy edge of the lesion
  e. All would be appropriate

Of the available options, optimal treatment of this condition is:
  a. Azithromycin 1 gram PO x1
  b. Doxycycline 100 mg BID x7d
  c. Benzathine penicillin 2.4 million units IM given once
  d. Acyclovir 400 mg PO TID given for 10 days
What is the diagnosis in this patient:

a. Recurrent genital herpes simplex  
b. Candidal vulvitis  
c. Primary genital herpes simplex  
d. Can’t tell without more information  

The test that should be used to confirm the diagnosis is  

a. No confirmatory test is necessary  
b. Cytology (Pap smear) of a lesional scraping  
c. Herpes simplex Type II serology  
d. Herpes simplex viral culture  

Which statement regarding recurrent herpes is true  

a. Episodic use of antivirals will reduce further recurrent episodes  
b. Treatment during the ulcer phase will shorten the outbreak  
c. Famciclovir and valacyclovir are alternative treatments but are 10-fold more expensive than ACV  
d. Acyclovir ointment applied 4 times a day is helpful
Vulvar Ulcer: Differential Diagnosis

- Genital Herpes
- Syphilis
- Chancroid
- “Tropical STD”: granuloma inguinale, LGV
- Behcet’s Disease: mouth, eye, genital ulcers
- Crohn’s Disease:
  - Knife-cut ulcers, GI-cutaneous fistulae
- Lichen planus, lichen sclerosus

HSV: Epidemiology

- HSV serotypes
  - HSV-1: 90% are oral lesions, 10% genital lesions
  - HSV-2: 90% are genital lesions, 10% oral lesions
- HSV serotypes in genital infections
  - Majority of genital infections caused by HSV-2
  - 15-30% of genital infections caused by HSV-1
  - 30-40% new cases of genital HSV caused by HSV-1
- Seroprevalence
  - HSV-1: 60-95% (80%) and HSV-2: 20-25%
  - 25-30% repro age women infected with genital herpes
Genital Herpes

• Natural history
  – Type specific antibodies 4-8 weeks after infection
  – Viral shedding most in prodrome, lesion stages
  – Intermittant asymptomatic cervical shedding
• Majority of HSV-2 infections are asymptomatic
  – Only 20% of HSV-2 seropositives have a clinical history of genital herpes
• Progression of lesions
  – Prodrome: hyperesthesia, itching, neuralgia, malaise
  – Vesicles → pustules → ulcer → crust → pink skin
  – Lesions shed virus until pink skin present

Genital Herpes: Viral Shedding

• 80-90% of infections unrecognized
• 95% of people with genital HSV-2 have intermittent subclinical shedding
  – Highest in 1st year after infection (25% of days), then declines; 4-6% of days for many years
  – Similar frequency in persons with and without recognized symptoms
  – Accounts for most HSV-2 transmission
  – Uncommon if genital herpes due to HSV-1
Genital Herpes

- **Primary Herpes**
  - Bilateral, widespread lesions
  - Systemic symptoms: malaise, myalgia, fever
  - Urinary retention common
  - Lesions clear in 10-14 days
  - HSV antibody negative
  - Likelihood of recurrent herpes outbreak
    - HSV-2: 50% recurrence rate
    - HSV-1: 10% recurrence rate

- **Recurrent Herpes**
  - Focal unilateral lesions, usually in same place
  - Few or no systemic symptoms
  - Lesions clear in 5-7 days
  - HSV antibody positive
Genital Herpes

• Non-primary First Episode (NPFE) herpes
  – First clinical outbreak of genital herpes with characteristics of recurrent herpes...either
    • 1st recurrence after prior asymptomatic case
      – Serology: HSV-1 or -2 positive
      – Genital culture positive for same type
    • Prior infection with HSV-1 (cross protection)
      – Serology: HSV-1 positive, HSV-2 negative
      – Genital culture or PCR HSV-2 positive

HSV: Organism Tests

<table>
<thead>
<tr>
<th>Test</th>
<th>Sensit</th>
<th>Specif</th>
<th>Cost</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCR</td>
<td>+4</td>
<td>+4</td>
<td>$$$$</td>
<td>Not in most labs</td>
</tr>
<tr>
<td>HSV culture</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>•ELVIS rapid</td>
<td>+3</td>
<td>+4</td>
<td>$$$</td>
<td>1 day; no typing</td>
</tr>
<tr>
<td>•ELVIS std</td>
<td>+3</td>
<td>+4</td>
<td>$$$</td>
<td>5 days; typing*</td>
</tr>
<tr>
<td>•Cytopathic</td>
<td>+3</td>
<td>+3</td>
<td>$$$</td>
<td>Phasing out</td>
</tr>
<tr>
<td>Herpes DFA</td>
<td>+2</td>
<td>+3</td>
<td>$$</td>
<td>Scrape; plate</td>
</tr>
<tr>
<td>Cytology</td>
<td>+1</td>
<td>+3</td>
<td>$$</td>
<td>Scrape; plate</td>
</tr>
</tbody>
</table>

* HSV typing is helpful for counseling regarding recurrence risk, but not for clinical management decisions
HSV-2 Diagnostic Testing

**Ulcerative lesion present**
- Herpes culture (ELVIS or cytopathic): early lesion
- DFA: must unroof lesion and scrape
- Cytology (Pap smear): late lesion

**Type-specific serology**
- Culture negative recurrent lesion
  - If seronegative, not due to genital herpes
- Suspect 1º herpes: initial testing negative and >6 wks prior
  - If seronegative, not due to genital herpes
- History suggestive of HSV but no lesions to test
  - If seronegative, not due to genital herpes

**Value of HSV-2 Serology in Couples**

<table>
<thead>
<tr>
<th>Partner POSITIVE</th>
<th>Patient POSITIVE</th>
<th>Patient NEGATIVE</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Recognize S/S</td>
<td>Recognize S/S</td>
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<tr>
<td></td>
<td>No prophylaxis</td>
<td>Prophylax partner</td>
</tr>
<tr>
<td></td>
<td>Condoms unnecessary</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Partner NEGATIVE</th>
<th>Patient POSITIVE</th>
<th>Patient NEGATIVE</th>
</tr>
</thead>
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<tr>
<td></td>
<td>Recognize S/S</td>
<td>No prophylaxis</td>
</tr>
<tr>
<td></td>
<td>Prophylaxis of patient</td>
<td>Condoms unnecessary</td>
</tr>
</tbody>
</table>

- Recognize S/S
- No prophylaxis
- Condoms unnecessary
Prevention of Genital Herpes

- ✓ partner HSV-2 serostatus; susceptible if negative
- Avoid intercourse/touch of lesions during outbreak
- Condoms will provide some degree of protection
- Patient treatment of during outbreak (or long term suppression) reduces shedding
- Daily prophylactic treatment reduces shedding
  - Incident HSV infection reduced by 1.7% over 1 year
    - 96.4% don’t seroconvert in absence of treatment
    - 1.9% seroconvert with treatment
  - NNT: 59 people to prevent one case/year

HSV-2 Serologic Screening

Should be generally offered
- HIV positive patients [B]
  - If HIV+, HSV-, increased risk of HSV acquisition
  - If HIV+, HSV+, increased risk of HIV transmission
- Partnerships with HSV-2 positive individual [B]
  - If patient is HSV-2 negative; consider partner anti-viral Rx or consistent condom use

Should not be generally offered
- Universal screening of asymptomatic individuals
  - In pregnancy [D]
  - In general population [D]
**HSV-2 Serologic Screening**

- At risk for STD/HIV (current STD or HR behavior), offer to *select* patients [C] if
  - Patient is motivated to reduce risky behavior
  - Patient is willing to use condoms or Rx consistently
  - Risk reduction counseling will be provided

- Arguments against screening
  - Limited evidence that counseling or Rx works
  - Limited evidence that condoms will be used
  - Little value if risk reduction counseling not given

**Genital Herpes and Antiviral Drugs**

- **Primary Herpes**
  - Shortens median duration of lesions by 3-5 days
    - Therefore, initiate within 6 days of onset
  - May decrease systemic symptoms
  - No effect on subsequent risk, frequency, or severity of recurrences

- **Recurrent Herpes**
  - Shortens the mean duration by 1 day
  - Initiate meds within 2 days of onset
    - Best to start with onset of prodromal symptoms
    - Patient should have supply of meds available
## CDC 2010: Treatment of Genital Herpes

<table>
<thead>
<tr>
<th></th>
<th>Acyclovir</th>
<th>Famiclovir</th>
<th>Valacyclovir</th>
</tr>
</thead>
</table>
| **Primary** (7-10 days) | • 400 mg TID  
                        • 200 mg 5 times/d | • 250 mg TID  | • 1 gram BID  |
| **Recurrent**    | • 800 mg TID x2d  
                        • 800 mg BID x5d  
                        • 400 mg TID x5d | • 1 gm BID x1d  
                        • 125mg BID x5d  
                        • 500 mg once, then 250 BID x2d | • 500mg BID x3d  
                        • 1 gm QD x5d  |
| **Suppression**  | • 400 mg TID  | • 250 mg BID  | • 0.5-1 gm QD |
| **Prophylaxis**  | • 400 mg BID** | • 250 mg BID  | • 500 mg QD   |

** Drug class extrapolation, based upon suppressive regimen  
Limited data on famciclovir use in pregnancy

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## Primary Syphilis
- Painless ulcer with “rolled edge”
- Single ulcer at point of infection
- Resolves in 4-6 weeks

*STD Atlas, 1997*
Secondary syphilis

Multiple chancre

Syphilis: Atypical Chancre

- 50% of genital chancre have atypical appearance
- Exrogenital chancre are larger
- Locations
  - Lips, tongue, tonsils
  - Breast
  - Fingers
Chancroid

Multiple painful chancres
May have inguinal adenopathy or buboes

Chancroid

- Due to *Hemophilus ducreyi*
- 10% also have syphilis or herpes
  - Co-factor for HIV infection
- Symptoms/ signs
  - One or more **painful** genital ulcers
  - Regional adenopathy; may suppurate (buboe)
- Lab: culture <80% sensitive; contact lab before sampling
- Treatment
  - Azithromycin 1 gram PO
  - Ceftriaxone 250 mg IM
- F/U in 7 days; treat partners within 10 days
Morphology of Genital Ulcer Disease

<table>
<thead>
<tr>
<th></th>
<th>Tender</th>
<th>Firm</th>
<th>Purulent</th>
<th>Incubation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herpes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>5 days</td>
</tr>
<tr>
<td>Syphilis</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>21 days</td>
</tr>
<tr>
<td>Chancroid</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>5 days</td>
</tr>
</tbody>
</table>

- This lesion is tensely fluctulent and moderately tender
- There is no redness or tissue induration
- The patient is afebrile
1. **The most likely diagnosis is:**
   a. Vulvar abscess
   b. Vulvar hematoma
   c. Hydrocoele of the Canal of Nuck
   d. Hematocolpos

2. **If vulvar hematoma, appropriate treatment is:**
   a. Incise outside of the hymeneal ring and evacuate
   b. Incise inside of the hymeneal ring and evacuate
   c. Observe for enlargement and evacuate only if expansion
   d. Avoid evacuation because of the risk of hemorrhage

**Management of Vulvar Hematoma**

- Almost all are due to straddle injuries
- **Initial management**
  - Pressure
  - Ice packs
  - Watchful waiting
- **Complex management**
  - Use if extreme pain or failure of conservative mgt
  - Incise inside hymeneal ring, evacuate clots
  - Pack with strip gauze, sitzbaths
This patient has a complaint of severe vulvar itching and pain to touch for one year

Which term is not a synonym for this condition
a. Lichen sclerosus
b. Squamous cell hypoplasia
c. Atrophic dystrophy
d. Kraurosis vulvae

Complaint of severe vulvar itching and pain to touch for one year

Which term is not a synonym for the diagnosis of this condition
a. Chronic reactive intertrigo
b. Squamous cell hyperplasia
c. Hyperplastic dystrophy
d. Neurodermatitis
ISSVD 1987: Vulvar Dermatoses

<table>
<thead>
<tr>
<th>Type</th>
<th>ISSVD Term</th>
<th>Old Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atrophic</td>
<td>Lichen sclerosus</td>
<td>• Lichen sclerosus et atrophicus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Kraurosis vulvae</td>
</tr>
<tr>
<td>Hyperplastic</td>
<td>Squamous cell hyperplasia</td>
<td>• Hyperplastic dystrophy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Neurodermatitis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Lichen simplex chronicus</td>
</tr>
<tr>
<td>Systemic</td>
<td>Other dermatoses</td>
<td>• Lichen planus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Psoriasis</td>
</tr>
<tr>
<td>Premalignant</td>
<td>VIN</td>
<td>• Hyperplastic dystrophy/atypia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Bowen’s disease</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Bowenoid papulosis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Vulvar CIS</td>
</tr>
</tbody>
</table>

ISSVD: International Society for the Study of Vulvar Disease

2006 ISSVD Classification of Vulvar Dermatoses

- No consensus agreement on a system based upon clinical morphology, path physiology, or etiology
- Include only non-Neoplastic, non-infectious entities
- Agreed upon a *microscopic morphology* based system
- Rationale of ISSVD Committee
  - Clinical diagnosis → no classification needed
  - Unclear clinical diagnosis → seek biopsy diagnosis
  - Unclear biopsy diagnosis → seek clinic pathologic correlation
2006 ISSVD Classification of Vulvar Dermatoses

<table>
<thead>
<tr>
<th>Path pattern</th>
<th>Clinical Correlates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spongiotic</td>
<td>Atopic dermatitis, allergic contact dermatitis, irritant contact dermatitis</td>
</tr>
<tr>
<td>Acanthotic</td>
<td>Psoriasis, LSC (primary or superimposed), (VIN)</td>
</tr>
<tr>
<td>Lichenoid</td>
<td>Lichen sclerosus, lichen planus</td>
</tr>
<tr>
<td>Dermal homogenization</td>
<td>Lichen sclerosus</td>
</tr>
<tr>
<td>Vesiculobullous</td>
<td>Pemphigoid, linear IgA disease</td>
</tr>
<tr>
<td>Acantholytic</td>
<td>Hailey-Hailey disease, Darier disease, papular genitocrural acantholysis</td>
</tr>
<tr>
<td>Granulomatous</td>
<td>Crohn disease</td>
</tr>
<tr>
<td>Vasculopathic</td>
<td>Apthous ulcers, Behcet disease, plasma c. vulvitis</td>
</tr>
</tbody>
</table>

Lichen Sclerosus: Natural History

- Most common vulvar dermatosis
- Bimodal ages: children, older women
- Cause: probably autoimmune
- Chronic, progressive, lifelong condition
- Most common in Caucasian women
- Can affect non-vulvar areas
- Squamous cell carcinoma of the vulva (SCCV)
  - 3-5% lifetime risk
  - 30-40% SCC of vulva develops with LS
Lichen Sclerosus: Findings

- **Symptoms**
  - Itching, burning, dyspareunia, dysuria

- **Signs**
  - Thin white “parchment paper” epithelium
  - Fissures, ulcers, bruises, or hemorrhage
  - Submucosal hemorrhage
  - Depigmentation (white) or hyperpigmentation in “keyhole” distribution: vulva and anus
  - Introital stenosis and loss of vulvar architecture
  - Reduced skin elasticity

“Early” Lichen Sclerosus

- Hyperpigmentation due to scarring
- Loss of labia minora
Lichen Sclerosus

- Fissures
- Thin white epithelium

“Late” Lichen Sclerosus

- Agglutination of clitoral hood
- Loss of labia minora
- Introital narrowing
- Parchment paper epithelium
68 year old woman with urinary obstruction

Labial agglutination over urethral meatus

Lichen Sclerosus: Treatment

• Biopsy mandatory for diagnosis
• Preferred treatment
  – Clobetasol 0.05% ointment QD x 4 weeks, then QOD x 4 weeks, then twice-weekly for 4 weeks
  – Taper to med potency steroid (or clobetasol) 2-4 times per month for life
  – Explain “titration” regimen to patient, including management of flares and recurrent symptoms
  – 30 gm tube of ultrapotent steroid lasts 3-6 mo
  – Monitor every 3 months twice, then annually
Lichen Sclerosus: Treatment

- **Second line therapy**
  - Pimecrolimus, tacrolimus
  - Retinoids, potassium para-aminobenzoate
- **Testosterone (and estrogen or progesterone) ointment or cream** no longer recommended
- **Explain chronicity and need for life-long treatment**
- **Adjunctive therapy**: anti-pruritic therapy
  - Antihistamines, especially at bedtime
  - Doxypin, at bedtime or topically
  - If not effective: amitriptyline, desipramine PO
- **Perineoplasty may help dyspareunia, fissuring**
Lichen Simplex Chronicus

- End-stage outcome of acute inflammation: eczema, infections, LS
- Occurs in women from 30 to 60 years of age
- Accentuation of skin markings
- Vulva is red or pink with overlying grey-white keratin layer

Lichen Simplex Chronicus = Squamous Cell Hyperplasia

- Irritant initiates “scratch-itch” cycle
  - Candida
  - Chemical irritant
  - Allergen
  - Lichen sclerosus
- Presentation: always itching; sometimes pain, tenderness
- Thickened leathery red (white if moisture) raised lesion
- In absence of atypia, no malignant potential
  - If atypia present, classified as VIN
L. Simplex Chronicus: Treatment

- **Removal of irritants or allergens**
- **Treatment**
  - Triamcinolone acetonide (TAC) 0.1% ointment BID x4-6 weeks, then QD
  - Other moderate strength steroid ointments
  - Intralesional TAC once every 3-6 months
- **Anti-pruritics**
  - Hydroxyzine (Atarax) 25-75 mg QHS
  - Doxepin 25-75 mg PO QHS
  - Doxepin (Zonalon) 5% cream; start QD, work up

Lichen Sclerosus + LSC

- “Mixed dystrophy” deleted in 1987 ISSVD System
- 15% all vulvar dystrophies
- LS is irritant; scratching causes LSC
- DDX: LS with plaque, candida, VIN
- **Treatment**
  - Clobetasol x12 weeks, then steroid maintenance
  - Stop the itch!!
General Vulvar Care Measures

• Wear loose fitting clothing
• 100% cotton underwear
  – Rinse underwear twice
  – Low irritant soap; no use of fabric softeners
• 100% cotton menstrual pads
  – www.gladrags.com
• Mild bathing soaps: Cetaphil, Kiss-My-Face, Basis
• Vulvar water rinse (or very soft toilet paper)
• Use vaginal lubricants: Replens, KY, Olive Oil

Rules for Topical Steroid Use

• Topical steroids are not a cure
  – Use potency that will control condition quickly, then stop, use PRN, or maintain with low potency
• Limit the amount prescribed to 15 grams
• Ointments are stronger, last longer, less irritating
• Show the patient exactly how to use it: thin film
• L. minora are steroid resistant
• L. majora, crural fold, thighs thin easily; get striae
• At any suggestion of 2º candidal infection, use steroid along with topical antifungal drug
Case Study

• 42 year old women with “dark bumps” on her vulva
• Initially noticed by her partner; finding confirmed by family practice doctor
• Bumps cause mild itching, but not severe
• Smokes 1 pack of cigarettes per day for 20 years
• Exam: multiple hyperpigmented papules

Genital Skin: Dark Lesions
(% are in women only)

• 36% Lentigo, benign genital melanosis
• 22% VIN
• 21% Nevi (mole)
• 10% Reactive hyperpigmentation (scarring)
• 5% Seborrheic keratosis
• 2% Malignant melanoma
• 1% Basal cell or squamous cell carcinoma
Vulvar Intraepithelial Neoplasia (VIN): Prior to 2004

- Due to infection with HPV 18 or LSC (no HPV)
- Graded I-III, based upon severity of atypia
- Symptoms: itching, burning, ulceration
- The mnemonic of the 4 P’s
  - Papule formation: raised lesion
  - Pruritic: itching is prominent
  - “Patriotic”: red, white, or blue (hyperpigmented)
  - Parakeratosis on microscopy

ISSVD 2004: Squamous VIN

- Since VIN 1 is not a cancer precursor; abandon the term
  - Instead, use “condyloma” or “flat wart”
- Combine VIN-2 and VIN-3 into single “VIN” diagnosis
- Two distinct variants of VIN
  - VIN, usual type
    - Warty type
    - Basaloid type
      - Mixed warty-basaloid
  - VIN, differentiated (simplex) type
Vulvar Intraepithelial Neoplasia

- **Risk of invasion**: greater if immunocompromised (steroids, HIV), >40 years old, previous lower genital tract neoplasia
- **Treatment**
  - Wide local excision: highest cure rate, esp hair-bearing
  - CO₂ laser ablation: best cosmetic result
  - Topical agents: imiquimod
  - Skinning or simple vulvectomy rarely used
- **Recurrence** is common (48% at 15 years)
  - Monitor @ 6,12 months, then annually
  - Smoking cessation may reduce recurrence rate
- **Prevention**: HPV-4 vaccine

White VIN
Hyperpigmented VIN

Vulvar Intraepithelial Neoplasia
Lichen Sclerosus with Scarring

Junctional Nevus
Vulvar Melanoma: ABCDE Rule

- A: Asymmetry
- B: Border Irrregularities
- C: Color black or multicolored
- D: Diameter larger than 6 mm
- E: Evolution
  - Any change in mole should arouse suspicion
  - Biopsy mandatory when melanoma is a possibility

Indications for Vulvar Biopsy

- Papular or exophtic lesions, except obvious condylomata
- Thickened lesions (biopsy thickest region) to differentiate VIN vs. LSC
- Hyperpigmented lesions (biopsy darkest area), unless obvious nevus or lentigo
- Ulcerative lesions (biopsy at edge), unless obvious herpes, syphilis or chancroid
- Lesions that do not respond or worsen during treatment
  - In summary: biopsy whenever diagnosis is uncertain
Tips for Vulvar Biopsies

- **Where to biopsy**
  - Homogeneous: one biopsy in center of lesion
  - Heterogeneous: biopsy each different lesions

- **Skin local anesthesia**
  - Most lesions will require ½ cc. lidocaine or less
  - Epinephrine will delay onset, but longer duration
  - Use smallest, sharpest needle: *insulin syringe*
  - Inject anesthetic s-l-o-w-l-y

- **Alternative:** 4% liposomal lidocaine (30 minutes) or EMLA (60 minutes) pre-op

- **Stretch skin; twist 3 or 4 mm Keyes punch back-and-forth until it “gives” into fat layer**
Tips for Vulvar Biopsies

- Lift circle with forceps or needle; snip base
- Hemostasis with AgNO3 stick or Monsels
- Separate pathology container for each area biopsied

The most likely diagnosis is:

a. Bartholin duct cellulitis
b. Bartholin duct abcess
c. Bartholin duct cyst
d. Gartner’s duct cyst
If this lesion is a Bartholins duct abcess, best initial treatment is:

a. Oral antibiotic therapy
b. Parenteral antibiotic therapy
c. I&D with placement of a Word catheter or gauze packing
d. Marsupialization

Bartholin Duct Conditions

• Bartholin duct and gland at 5, 7 o’clock cephalad (deep) to hymeneal ring
• Makes serous secretion to “lubricate” introitus
• If BG duct is transected or blocked, fluid accumulates
  – Non-infected: BD cyst
  – Infected: BD abscess or cellulitis
• Needle aspiration of fluid may aid in diagnosis
• All treatments are designed to drain and create a new duct
Bartholin Duct: Infectious Conditions

• Bartholin duct cellulitis
  – Most commonly due to skin streptococcus
  – Red induration of lateral perineum
  – No abscess cavity (fluctulence) palpated
  – Treat with PO cephalosporin, moist heat
  – Will either resolve or point as abscess
  – Treat immunocompromised women aggressively

• Bartholin duct abscess
  – Fluctulent abscess; pus with needle aspiration
  – Treatment
    • Incise and drain
    • Insert Word catheter x 6 weeks
  – Culture pus for gonorrhea
  – Cephalosporin if cellulitis; metronidazole if anaerobic
### Bartholin Duct: Non Infectious

- **Bartholin duct cyst**
  - Nontender cystic mass
  - Treat only if symptomatic or recurrent
  - Tx: marsupialize or Word catheter x 6 weeks
- **Bartholin duct carcinoma**
  - Most common in women over 40
  - Can be adenoca, transitional cell, or squamous
  - Firm non-tender mass at Bartholin gland
  - Suspect if BD cyst, abcess with mass after drainage

### Bartholin Gland: Infectious Conditions

- **Bartholin gland cellulitis**
  - Painful red induration of lateral perineum at 5 or 7 o’clock, but no palpable abscess
  - Most commonly due to skin streptococcus
  - Treatment: oral cephalosporin, moist heat
  - Will either resolve or point as abcess
  - Admit immune-compromised women (especially diabetics) for IV antibiotics and close observation
    - May develop necrotizing fasciitis
Bartholin Duct: Infectious Conditions

• Bartholin duct abscess
  – Usually due to Staph, but may contain anaerobes
  – Fluctuant painful abscess; if uncertain, needle aspiration will confirm pus
  – Treatment: I&D, then insert Word catheter for 6 weeks
  – Antibiotics usually not needed, unless
    • Cellulitis (cephalosporin)
    • Anaerobic smell with drainage (metronidazole)

BD Abscess: I&D

- Retract abscess laterally to select incision site... inside the hymeneal ring if possible
- Inject 3 cc. lidocaine
- 1 cm incision with #15 blade perpendicular to abscess
- Lyse loculations with clamp
- Irrigate cavity with saline
- Insert Word catheter; inflate until snug fit in abscess cavity
- Tuck nipple into vagina
Word Catheter: Correct Position