Approach to the Patient with Vulvar Dermatitis

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October 2010

OBJECTIVES

• Know common causes of vulvar itch and vulvar rash
• Understand treatment of the common types of vulvar dermatitis/vulvar dystrophy
• Be familiar with guidelines for treatment of atopic dermatitis, and consider these guidelines when treating vulvar dermatitis
• Develop recommendations for your patients for good vulvar care
• Recognize risk factors and signs of vulvar dysplasia and vulvar cancer

Common Causes of Vulvar Itch

• Contact Dermatitis (irritant and allergic)
• Atopic Dermatitis (eczema)
• Candida
• Lichen Simplex Chronicus
• Lichen Sclerosus
• VIN, cancer
• Seborrheic Dermatitis
• Psoriasis
• Parasitic Infections

What does the HISTORY teach us?

• Ask about other dermatologic conditions. Patients often don’t offer this information in their past medical history.
• Ask about incontinence of urine and stool (urine is a very common irritant; patients rarely bring up stool leakage unless asked)
• Most women use potential irritants/allergens - wipes, fragrances, Vagisil, topical antibiotics, etc.
• Don’t take a history of yeast at face value. Many women are treated for yeast, but haven’t had documented yeast, so the history may not be reliable. Look at the records.
• If the itch is focal or unilateral, have a high suspicion for VIN or cancer
• Response to previous medications is not always helpful. Often the vehicle that the medication is in (not necessarily the drug) provided some relief. Likewise, some vehicles (e.g., cream) may cause burning, although the drug (e.g., steroid) might have been the right treatment.
Physical Exam

- Adequate lighting
- Note color (red vs white)
- Look for loss of normal architecture (lichen sclerosus)
- Look for characteristic scarring/agglutination of lichen sclerosus
- Recognize normal variants (papillomatosis, large/small labia, yellowish sebaceous cysts on inner labia minora, etc.)
- Speculum exam for mucosal involvement (lichen sclerosus does not enter the vagina)
- Examine closely for fissures - often associated with LS or chronic yeast, as well as with many dermatoses
- Vaginal wet mount/KOH for WBC, yeast, parabasal cells
- Have a magnifying glass/colposcope and vinegar available
- Look at oral mucosa (lichen planus), scalp (seborrhea, psoriasis), gluteal cleft and elbows (psoriasis), antecubital/popliteal fossae (eczema)

Think Fissures!

- Patients complain of dyspareunia, burning, “paper cuts”
- End result of dermatitis, candida, lichen sclerosus, atrophy
- Treat underlying condition. Always lubricate for sex (consider oil-based lubricant). Emollients liberally.

Contact Dermatitis

- 2 Types: Irritant and Allergic
- Both from contact with wide range of chemicals.
- ICD can be elicited in most people with a high enough dose of the offending agent (example: soap). Onset can be hours to days depending on strength of irritant.
- ACD is a delayed-type hypersensitivity reaction usually 10-14 days after first exposure or 1-7 days after repeat exposure (example: triple antibiotic ointment).
- Both may present with erythema, itching, swelling, burning. Vesicles or bullae more suggestive of allergic CD.
- Example: Bright red vulva in a woman who wears incontinence pads
  Treatment: she needs a water-repellent barrier between her skin and her urine and hopefully a treatment for incontinence

Potential Causes of Vulvar Contact Dermatitis

- Topical antibiotics, anti-fungals, corticosteroids
- Fragrances (feminine wash, bath products, etc)
- Urine, feces
- Plant compounds (calendula, tea tree oil, poison oak, poison ivy)
- Menstrual pads, adult diapers
- Detergents
- Vehicle of topical medications (propylene glycol, preservatives)
- Lidocaine, Benzocaine
- Vagisil (benzocaine and resorcinol)
- Wipes
Atopic Dermatitis (Eczema)

- Prevalence in U.S. is about 17%
- I suspect it is more common on the vulva than we realize
- Thought to be caused by impaired barrier function of the skin and increased water loss
- Dry skin results in pruritus, itch/scratch cycle, skin trauma resulting in inflammation
- Criteria for diagnosis (major features):
  - Intense itching
  - Characteristic rash in locations typical of the disease
  - Chronic or repeatedly occurring symptoms
  - Personal or family history of atopic disorders

Guidelines for Treatment of Atopic Dermatitis (from AAD)

- Topical steroids are the standard of care
  - Twice daily application no more effective than once daily
  - Long term intermittent use appears safe
  - Non-cutaneous side effects, such as impact on growth, bone density, need further study
- Emollients are a standard of care for prevention and maintenance
- Pimecrolimus and tacrolimus have been shown to reduce severity of AD, but long term (>1 year) safety is unanswered
- Limited evidence that short term use of topical Doxepin may reduce itch slightly, but sedation and contact dermatitis can complicate use
- Little evidence that antihistamines help
- Antiseptics and antibacterial agents don’t appear to help
- Evening primrose oil, fish oil and borage oil - majority of studies show no efficacy
- No evidence that pyridoxine, vitamin E, multivitamins or zinc help

Non-pharmacologic Intervention for AD (from AAD Guidelines)

- No consistent evidence supporting dietary restriction
- Psychotherapeutic interventions are supported by a small number of studies
  - Behavior modification/stress reduction (especially in group treatments) reduced steroid use
- Nursing education improves compliance
- UV therapy is well established for treatment of AD, but relapse occurs
- Dust mite reduction doesn’t appear to help
- Avoiding enzyme-enriched detergents doesn’t help
- No clinical trials of bath therapy (balneotherapy)
- “More clinical research is needed to adequately assess the role of hypnotherapy, acupuncture, massage therapy, and biofeedback therapy in the treatment of AD, although preliminary results are encouraging.”

Candidiasis

- Red, denuded glistening surface with a scaling, advancing border. Look for satellite pustules.
- Scrape the advancing border and do KOH
- Always look for (and treat) vaginal candidiasis
- Vulvar disease responds to topical over the counter azoles ( clotrimazole, miconazole) BID x 2 wks
Treat Vaginal Candidiasis

- Uncomplicated candidiasis has >80-90% cure rate with single dose (fluconazole) or short course local therapy (avoid one day vaginal treatments as they may cause more vulvar burning)
- For complicated (recurrent or non-albicans) cases, consider second dose of fluconazole 3 days after the first
- Fluconazole and other azoles are fungistatic, not fungicidal, so cultures may remain positive, and recurrences are common
- Boric acid vaginal capsules or suppositories can be used in complicated vaginitis. Boric acid can be fungicidal. Dose is 600mg vaginally daily x 14 days

Fluconazole for Cutaneous Candidiasis

- Triazole anti-fungal with 90% cure rate
- Highly orally bioavailable and levels persist in tissue (don’t dose daily)
- RCT supports weekly maintenance use for 6 months in recurrent VVC (Sobel, 2004)
- Recent evidence suggests reduced susceptibility (not resistance) of candida to fluconazole in women on long term maintenance (Shahid and Sobel, 2009)
- Pregnancy category C
- Risk of precipitating hypoglycemia in patients on oral hypoglycemics (not metformin)
- Risk of prolonged PT in pts on coumadin
- Can prolong QT
- Rare hepatic failure

Seborrheic Dermatitis

- Occurs where sebaceous glands common: Face, scalp (dandruff), eyebrows, skin folds
- On vulva - labia majora and mons involved, interlabial folds
- Pink-orange lesions, greasy scale, itch
- May be related to a yeast Pityrosporum ovale (Malassezia ovale), but not considered a fungal infection
- RCTs support topical ketoconazole (2% cream), use BID for 4 weeks, then intermittently
- Studies do NOT support oral antifungals
- RCTs support short term use of corticosteroids to control itch and erythema
- High response rates with placebo (emollient effect?)
- These RCTs were not on vulvar cases
Lichen Simplex Chronicus
(Squamous cell hyperplasia)

- End stage disorder that develops with chronic scratching
- Can develop in setting of LS, contact dermatitis
- “Itch-scratch” cycle
- May feel good to scratch
- Scratching at night is common
- On exam: Thickening (lichenification), pigment changes, fissuring, excoriation
- Biopsy

Treatment of LSC

- Stop itch-scratch cycle
- Remove irritants (physical, chemical, heat, friction, etc)
- Mid to high potency topical steroids
- Treat yeast, skin infection if present
- Bland emollients (a lot and often)
- Anti-pruritic measures (cold packs, etc.)
- Sedating antihistamines at night
- Intralesional steroids for resistant cases
High Grade VIN

- VIN 1/condyloma is not a cancer precursor
- High grade VIN includes VIN 2 and 2
- About 90% of high grade lesions are positive for HPV
- Incidence increasing, especially in younger (<50) women
- Associated with smoking
- Increased risk in HIV positive women
- Pruritus is most common complaint
- BUT, about half are asymptomatic
- May be multifocal - if VIN found, examine entire area with acetic acid and colposcope or magnifying glass
- Quadrivalent HPV vaccine (Gardasil) reduces VIN 2/3 (of any HPV type) by about 50 percent (approx 17,000 women followed for 4 years)
Lichen Sclerosus

- Chronic, progressive condition
- Etiology unknown
- Female to male ratio 10:1
- Pruritus is most common symptom
- Can occur at any age, mean age at diagnosis is 40 to 60
- Predilection for vulva and perianal area
- Can lead to vulvar scarring, dyspareunia, apareunia
- Doesn’t involve vagina
- Risk of SCCA of vulva in LS patients is < 4 - 5%
Lichen Sclerosus - Treatment

- Topical Clobetasol propionate 0.05% ointment once daily for 1 month, then every other day for one month. Then clobetasol or a lower potency steroid 1-2 times per week. Uncertain whether ongoing “maintenance” steroids needed vs reuse for flares/symptoms.
- Liberal bland emollients daily (this is very important)
- Stop irritants
- Regularly examine for steroid side-effects and for SCCA (initial follow-up at 3 months, then every 6-12 months).
- Advise patients to return for new lesion, new ulcer, new focal pruritus, etc.
- NO role for topical testosterone ointment
- Consider vaginal dilators in women who are not having vaginal intercourse, but wish to maintain introital caliber (10-15 minutes 2-3 days per week, well lubricated).
- Surgery is done on occasion if there is scarring preventing sex or other functions.
- Unclear if treatment with steroids reduces SCCA risk

Tacrolimus/Pimecrolimus for LS?

- Mostly case reports
- No RCTs
- There are some phase 2 trials (with no control or comparison group) which suggest efficacy
- Three current trials on clinicaltrials.gov:
  - Clobetasol vs progesterone, randomized double blind
  - Tacrolimus vs clobetasol, randomized double blind (Quebec)
  - Clobetasol vs pimecrolimus, randomized double blind (US, Dr. Goldstein and Novartis)
- Stay tuned for trial results

Lichen Planus

- Causes burning, dyspareunia more than itch
- Occurs more often in older women
- Can result in vaginal scarring (unlike LS)
- Look for shiny pink/purple patches near introitus
- Ask about history of oral LP (look for white lacy striae on buccal mucosa - Wickham’s striae)
- May be preceded/accompanied by desquamative inflammatory vaginitis (unclear if this is a precursor)
- Biopsy may be inconclusive, but helpful to rule out cancer, etc.
- Difficult to treat/cure
- Lichenoid drug eruption can look like lichen planus (many drugs implicated including beta blockers, imatinib, anti-TNF drugs, etc)
Lichen Planus Treatment
There are NO RCTs for Vulvar LP

• Vulvar care/protection - emollients, avoidance of irritants, etc
• Treat other infections if present - yeast, HSV, etc
• Ask about use of medications known to cause lichenoid reactions - betablockers, methyldopa, penicillamine, quinidine, NSAIDs and others
• Topical lidocaine ointment (5%), 4% cream (LMX), or jelly (2%)
• Topical steroids (clobetasol, betamethasone)
• Consider vaginal estrogen (vagifem 10mcg twice weekly) if atrophy present
• Tacrolimus/Pimecrolimus - not first line, minimal data
• Vaginal steroids for vaginal agglutination
• Vaginal dilators for vaginal agglutination

Psoriasis

• Presents with erythema, silver scale, fissuring
• May or may not itch
• Examine elbows and knees for plaques, although plaques are not as thick on vulva
• May involve scalp, gluteal cleft, umbilicus
• Ask about family h/o psoriasis
• Differential includes LSC, eczema, seborrheic dermatitis
• May be precipitated or worsened by drugs such as lithium, beta blockers, anti-malarials, NSAIDs
• Association with stress, infections, alcohol, smoking
• Often improves in pregnancy, may improve in summer

Topical Calcineurin Inhibitors:
Tacrolimus (Protopic) ointment
Pimecrolimus (Elidel) cream

• Indicated for SECOND LINE therapy for short term intermittent treatment of mod-severe atopic dermatitis
• Tacrolimus ointment 0.03% and 0.1% for adults, only 0.03% for age 2-15
• Pimecrolimus 1% cream (≥2yo)
• Apply BID sparingly, intermittently
• Short-term, limiting side effect is burning and itching
• Case reports of lymphoma and skin cancers (FDA black box warning)
• Do not use in immunocompromised pts or in < 2 yo children
• Do not use in the setting of viral (e.g., HSV, molluscum) or bacterial infection
• Pregnancy category C
• Not recommended for breastfeeding patients
Psoriasis

Clinical Features:
Bright red, symmetric, well-demarcated, scaling, possible fissuring
Pruritus and soreness
Look at elbows, scalp, and gluteal cleft

Psoriasis Treatment
• Stop irritants
• Good vulvar care
• Topical steroids - potency depends on severity
• Emollients
• Treat skin infection if present
• Treat yeast if present
• More severe cases may require systemic treatment and referral to dermatology
• Patient information at www.psoriasis.org

Scabies (Sarcoptes scabiei)
Caused by a tiny mite that burrows under the skin, causing a delayed-type hypersensitivity reaction thus intense pruritus

Scabies: Diagnosis and Treatment
• Try to identify with a magnifying glass
• Apply a drop of oil on the lesion, scrape the burrow with a 15 blade (avoid bleeding), examine under 40x magnification
• Treat with Permethrin 5% cream
• Treat household contacts
• Wash clothes, bedding, etc.
Pediculosis Pubis (Pubic Lice, Crabs)

Pubic lice are generally sexually transmitted and may be a marker for other STDs.
Eyelash nits are a manifestation of pubic lice
Small reddish-brown papules and excoriations
Treat with Permethrin 1% and hygiene
For eyelashes, white petrolatum for 10 days or remove with tweezers

"WHAT HELPS" - FOR PATIENTS

Cold packs help itching. For itching, apply a cold pack for 5 to 10 minutes to the area. You can use a blue gel pack that you keep in the refrigerator or freezer. If it is stored in the freezer, wrap it with a soft cloth first, and don’t leave it on too long!

Tub soaks. Soak in lukewarm (not hot) bath water with 4-5 tablespoons of baking soda to help soothe vulvar itching and burning. Or you can use Aveeno Oatmeal Bath treatments. Soak 1 to 3 times a day for 10-15 minutes.

Lubrication for sex: If you are using condoms, use a water-based lubricant like KY jelly, Astroglide or Slippery Stuff (available at Good Vibrations). If you are not using condoms, an oil such as olive oil, mineral oil, coconut oil, or Crisco works well for lubrication. (Oil can make condoms less effective!)

Emollients such as Vitamin A and D ointment (generic available), Aquaphor, Vaseline, or coconut oil can be soothing, prevent excessive drying of the skin and may help itching. Choose one, and if it doesn’t burn, consider using it a couple times a day or as needed. These are all available without a prescription (A and D in the baby aisle, Aquaphor in dry skin aisle, coconut oil in food stores such as Whole Foods).

websites and books for your patients

- www.issvd.org (see patient information)
- www.vaginismus.com
  - Great place to order vaginal dilators (much cheaper than medical suppliers)
- www.lichen sclerosus.org (UK site)
- http://patients.uptodate.com (search dermatitis, psoriasis, lichen sclerosus)
- http://clinicaltrials.gov

Bibliography

Candida:

General:
VIN:

Atopic Dermatitis:

Lichen Planus: