Cases of Non-Infectious Vulvovaginitis

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Up To Date – author

Almost all treatment for vulvar diseases is off-label and there is little evidence based data
Objectives

- Recognize 4 causes of Non-inflammatory Vaginitis
- Diagnose and treat these conditions

Conditions Associated with Inflammatory Vulvovaginitis

- Atrophic vaginitis
- Erosive lichen planus
- Pemphigus vulgaris
- Behçet’s disease
- Graft vs Host
- Toxic Epidermal Necrolysis
- Degenerating leiomyoma or endometrial polyp
- Allergic or Chemical vaginitis
- Traumatic
  - Foreign body, vesicovaginal fistulae
- Desquamative inflammatory vaginitis (DIV)
- Infection
  - Group A Streptococcus, Trichomonas Cervicitis
- Crohn’s (personal experience)
Main Causes of Non-Infectious Vulvovaginitis not Lichen Planus

- Graft vs Host Disease
- Drug Reaction - toxic epidermal necrolysis,
- Crohn’s Disease
- Desquamative Inflammatory Vaginitis (DIV)

28 year old lady has severe dysuria and vulvar burning for 6-8 months. She is not sexually active.

She had Hodgkins disease and treatment 8 years ago with hematopoietic cell transplantation that resulted in sclerosis eyes, mouth and esophagus.

Vaginal examination was very painful with severe inflammation
Vulvovaginal Graft vs Host Disease

VVGVHD

- occurs in ~50% to 60% of transplant patients
- No correlation with systemic GVHD
- may be no symptoms
- Onset may be late - up to 8 years
- Systemic immunosuppression does not prevent VVGVHD

Presentation of Vulvovaginal Graft Vs Host Disease (VVGVH)

- Pain, burning
- Dyspareunia
- Dysuria (vestibular)
- Purulent discharge
- Mucosal erosion
- Vulvar anatomic changes
- Adhesions, strictures, bands, complete obliteration

Looks like Erosive Lichen Planus

Vulvar Graft vs Host Vulvar Scarring
Post Hematopoietic Stem Cell Transplant
Vestibular Erosion

4 months post HSCT

6 months post HSCT

Closed Vagina

Treatment

- Intravaginal steroids - Clobetasol 0.05% or betamethasone 0.1% ointments 1 gm hs or compounded 10% HC vaginal cream 3 to 5 gms/hs and tapered
- Intravaginal or systemic estrogen
- Dilators or silicone vaginal ring (EST ring, Nuvaring or no hormone ring (take in and out weekly)
- Surgical intervention when needed
- Follow transplant patients carefully
17-year-old G0 presented with severe, generalized, erosive skin and genital mucosa.
She had just started treatment for seizures (phenytoin)

Rapid onset of a diffuse maculopapular purple rash
In 24 hours she had severe malaise, fever and blistering on skin (40% of BSA) and genital area with dysuria and a severely inflamed vagina.
Toxic Epidermal Necrolysis (TEN)

- A serious, life-threatening allergic skin rash to medication

Clinical:
- Severe pain
- Diffuse sloughing of skin and mucous membranes
- Severe conjunctivitis, stomatitis, esophagitis, bronchitis, vulvovaginitis
- Erythema Multiforme and Stephen Johnson Syndrome (SJS) are in a clinical spectrum affecting skin and mucous membranes and TEN is the most severe

- TEN involves detachment of >30% of the body surface area
  - Mucous membranes are involved in over 90 percent of patients.
  - Fatal in 40% cases

- SJS / TEN overlap describes patients with skin detachment of 10% to 30% of body surface area

- SJS is the less severe condition - <10% of the body surface

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**Drugs Causing EM, SJS, TEN**

- Allopurinol
- Anticonvulsants - phenobarbital, carbamazepine lamotrigine
- Antibiotics - sulfonamides, penicillin, fluoroquinolones
- Cardiovascular drugs - hydrochlorothiazide, furosemide, procainamide
- Nonsteroidal anti-inflammatory drugs (NSAIDs)
Management Toxic Epidermal Necrolysis

- Stop medication
- Multidisciplinary treatment in hospital - burn unit
- Manage infection, pain, fluids
- Cyclosporine
Management of Vagina Toxic Epidermal Necrolysis

- Examine the vulva and vagina (narrow speculum)
- If vagina involved, or disease close to vagina, start on daily vaginal dilation 5-10 min
- For vulva - start on clobetasol 0.05% ointment qhs
- For vagina - start 50 mg hydrocortisone (ii 25 mg suppositories qhs (insert after dilation) - see lichen planus treatment
- Continue daily vaginal dilation for 2 months (or longer if the vagina is not healed by 2 months)

42 year-old lady has chronic heavy vaginal, mucoid discharge with vulvar itching, irritation and dyspareunia for 3 years.

Many treatments for vaginitis have not helped. She was very upset and frustrated as she had see more than 10 physicians!

She had no other complaints.

Vaginal examination - heavy yellow green discharge and inflammation
Metastatic Vulvar Crohn’s Disease

- mucocutaneous vulvar and perianal involvement occurs in 25 to 30%
- Vulvar disease can precede GI disease in 25% for up to 3 to 4 years
- Edema, ulceration, chronic drainage, hypertrophic scarring, itching, pain, dysuria, dyspareunia

from Nina Madnani
Consider Vulvar Crohn’s Disease as Diagnosis

- Vulvar Swelling -
  Edema, diffuse swelling, lymphedema, lymphangiectasia, hypertrophic labia with pseudocondylomata
- Vulvar ulcers - “Knife cut” ulcers, aphthous ulcers
  Aphthous ulcers can precede GI disease for years
- Suppuration with hidradenitis suppurativa
- Perianal disease - perianal tags, swelling, fissures
- Fistulae
- Inflammatory vaginitis - Desquamative Inflammatory Vaginitis
  (personal experience)

Vulvar Crohn’s Disease

Commonly missed

Diagnosis: BIOPSY of GI tract or Skin

- May show diffuse lymphohistiocytic infiltrate and loose non-caseating granulomas
  (biopsy positive in 50% of cases)
- Often a clinical diagnosis
Aphthous Ulcers in Crohn’s Disease
Single, multiple +/- oral

Crohn’s
“Knife Cut” Ulcers
Treatment of Vulvar Crohn’s Disease

Control of bowel disease vital for anogential disease control

Systemic treatment:
- Metronidazole,
- prednisone, azathioprine,
- 6-mercaptopurine,
- TNF alpha inhibitors – infliximab, adalimumab, certolizumab pegol, natalizumab, ustekinumab

Topical treatment:
- Topical super potent corticosteroids
- Calcineurin inhibitors (tacrolimus)
- Treat vagina like erosive lichen planus

Intralesional: triamcinolone 3.3-10 mg/ml
• 49 year old perimenopausal lady has severe vulvar burning, vaginal discharge and dyspareunia for 6 months not responding to treatment for yeast (tests for Candida all negative)

• Topical estrogen not helping.

• Wet Prep - sheets of white cells and many parabasal cells

• Desquamative Inflammatory Vaginitis

and

• Perimenopausal Vulvovaginal Atrophy
Desquamative Inflammatory Vaginitis (DIV)

- Occurs in 8% of women presenting to a specialty clinic with chronic vaginitis symptoms
- More frequent in Caucasians
- Peak occurrence in perimenopause
- Diagnosis of exclusion - r/o atrophy
  - LP, cicatricial pemphigoid
- Etiology - ?


Desquamative Inflammatory Vaginitis (DIV)

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Signs</th>
<th>Wet mount and PH</th>
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<tbody>
<tr>
<td>Dyspareunia</td>
<td>Vaginal erythema</td>
<td>↑ Inflammatory cells</td>
</tr>
<tr>
<td>Discharge</td>
<td>Erythematous spots (petechia)</td>
<td>↑ Parabasal cells</td>
</tr>
<tr>
<td>Vaginal irritation</td>
<td>Purulent discharge</td>
<td>↑ PH</td>
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<tr>
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<td>Minimal vulvar involvement</td>
<td>Presence of abnormal flora</td>
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Trial of Rx with local estrogen deficiency

- Multi-mucosal erosive disease
  - Immunofluorescent biopsy
  - Erosive lichen planus
  - Cicatricial pemphigoid
  - Pemphigus vulgaris

- Trichomonas vaginalis

- Group A Streptococci

- Candida

Trial of treatment with local clindamycin or steroids

Desquamative inflammatory vaginitis
Desquamative Inflammatory Vaginitis
Symptoms and Signs

- Dyspareunia
- Vulva painful to touch
- Spotted rash vagina/cervix
- Purulent discharge
- Association - Crohn Disease
Desquamative Inflammatory Vaginitis (DIV)

Treatment -
• 2% clindamycin cream 4 to 5 grams (dosed by vaginal applicator) intravaginally once nightly 2-3 weeks and taper

• 10% hydrocortisone cream (compounded) 3 to 5 grams (use a vaginal applicator) intravaginally once nightly +/- 2% clindamycin for 2-3 weeks and tapered

• Recurrence common


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