Desquamative Inflammatory Vaginitis

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Disclosures

Hope K. Haefner, MD is on the advisory board of Merck Co., Inc.
Written Information Available:

University of Michigan Center for Vulvar Diseases (Google)

http://obgyn.med.umich.edu/patient-care/womens-health-library/vulvar-diseases

Then, click on Information on Vulvar Diseases
Learning Objectives

At the end of this lecture, the participant will gain knowledge on the:

- Diagnosis of desquamative inflammatory vaginitis
- Differential diagnosis of conditions associated with desquamative inflammatory vaginitis
- Treatment strategies for patients presenting with inflammatory cells on wet prep
### Conditions Associated with Inflammatory Vulvovaginitis

- Atrophic vaginitis
- Traumatic
  - Foreign body
- Allergic vaginitis
- Infection
  - Streptococcal, Amebic, Herpes
- Erosive lichen planus
- Pemphigus vulgaris
- Behçet’s disease
- Collagen vascular diseases
- Degenerating leiomyoma or endometrial polyp
- Idiopathic

### Desquamative Inflammatory Vaginitis (DIV)

- Occurs in 8% of women presenting to specialty clinic with chronic vaginitis symptoms

Desquamative Inflammatory Vaginitis (DIV)

D. Birenbaum MD collection

Desquamative Inflammatory Vaginitis

- Previous terms
  - Exudative or membranous vaginitis
  - Hydrorrhea vaginalis
  - Serofibrinous allergic dysregulative colpitis
Desquamative Inflammatory Vaginitis

History

• First described in 1950’s
  – Franken H, Rotter W. Geburtsh u Frauenh 1954;14:154
Desquamative Inflammatory Vaginitis
Symptoms and Signs

• Dyspareunia
• Spotted rash vagina/cervix

DIV Signs (cont.)
PH and Wet Mount Findings

• Vaginal pH greater than 4.5 (typically 5.5+)
• Purulent vaginal discharge
  – (PMNs/epith > 1:1 in at least 4 hpfs on wet prep)
• Increase parabasal cells (>10% total)
• Loss of normal vaginal lactobacilli
An important condition to rule out when considering DIV is:

1. Gonorrhea
2. Syphilis
3. Mobiluncus
4. Trichomonas

Desquamative Inflammatory Vaginitis

Rule out Trichomonas

D. Birenbaum MD collection
<table>
<thead>
<tr>
<th></th>
<th>pH (3.0-4.5)</th>
<th>WBC</th>
<th>Parabasals</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>Nil lactobacilli</td>
<td>Creamy, mucousy, 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</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>Inflammatory</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>

**Etiology ?**

Unknown

**Proposed etiologies**

- Autoimmune disorder(s)
- Diminished estrogen
- Vitamin D deficiency
- Microbial pathogen(s)
- Genetic link
DIV Treatment

- 2% clindamycin cream (i applicator) per vagina qhs x 14 (could use suppositories) versus
- 25 mg hydrocortisone suppository per vagina qhs x 14 (could use foam)

Murphy R SO Dermatol Ther 2004;17(1):47-9
Sobel Obstet Gynecol 2011; 117 (4): 850

Recurrence/Maintenance

- Repeat successful regimen after verifying diagnosis
- May require long term hydrocortisone suppository (25 mg) twice weekly or greater
- May need to add estrogen and/or clindamycin, or alternate treatments

Recurrent DIV or Resistant DIV

• Combine 2% clindamycin (i applicator) with one hydrocortisone suppository (25 mg) per vagina every other night (it is easier for patients to use these agents together rather than alternate days).

• For difficult DIV: Hydrocortisone 100 mg/gram in clindamycin 2% emollient cream base. Insert 5 gram (applicator full) per vagina every other night x 14 doses. This needs to be made at a compounding pharmacy.

Desquamative Inflammatory Vaginitis History

• Sobel et al.-retrospective study of 130 patients dx with DIV between 1996 and 2007 (98 charts qualified for review)

• Mean age was 48.6 years (plus or minus 10.2 years)

• 50% were postmenopausal
Sobel et al. 2011
Intravaginal Treatment

• 2% clindamycin used in 53 women (54%)
• Hydrocortisone used in 45 women (46%)
  – 10% hydrocortisone 3-5 grams qhs (39 pts) or cortisone supp (6 pts) 25 mg per vagina bid
• Median 3 weeks (range 1-19 weeks) for first follow up visit

Sobel et al. 2011, cont.

• Both treatments dramatically relieved sx in 86% of patients
  – Treatment discontinued (median 8 weeks) in 53 pts (63.1%)
    – 17 (32%) relapsed within 6 weeks
    – 23 (43.4%) relapsed within 26 weeks
  – At 1 year, cure in 25 patients (26%), 57 (58%) asymptomatic but remained on maintenance rx, and 15 (16%) partially controlled only
Desquamative Inflammatory Vaginitis

**History**

- Cytological changes identical to atrophic vaginitis


Atrophic Vaginitis

pH > 4.5, increased WBC’s, loss of glycogenated cells

Responds well to estrogen
Foreign Bodies

Rule Out Lichen Planus

Pemphigus Vulgaris
Cicatricial Pemphigoid

Degenerating Endometrial Polyp or Leiomyoma
Areas Associated with Vaginal Discharge
Lacking Information

Lactobacillus

Cytolytic vaginosis

Lactobacillus

*Lactobacillus*, also called Döderlein's bacillus

Symptoms of yeast (itching)
Cottage cheese discharge
Produced by antifungal therapy
Lactobacillus

Wet mount
Elongated lactobacilli
Noninflammatory

Treat with Amox/clavulanate or doxycycline or Ciprofloxacin

L Edwards, MD collection
Lactobacillus Treatment

Treat with Amox/clavulanate or doxycycline or Ciprofloxacin
Cytolytic Vaginosis

Symptoms of yeast – itching
Cottage-cheese discharge
Most common cause of vaginitis at Cibley/Cibley vaginitis clinic

Cytolytic Vaginosis

Wet mount
Cytoplasms (naked nuclei of epithelial cells, appear like lymphocytes unless seen under phase microscopy)
Noninflammatory
Increased lactobacilli
Treat with baking soda douches
Sodium Bicarbonate

Sitz bath: Mix 2-4 tablespoons of baking soda in 2 inches of bath water (any temperature). Sit in the tub twice daily for 15 minutes each time. Take sitz bath 2-3 times in the first week of treatment, then 1-2 times weekly (as needed) to prevent recurrences.

Douche: Mix 1-2 teaspoons of baking soda in 1 pint of warm water. Gently douche 1-2 times weekly as needed.


Current Thoughts on the Same vs. Different Conditions

• DIV is not a diagnosis in itself, and may be the presentation of a range of disorders with similar presentations
• Therefore no one treatment will work for all DIV