Noninfectious Inflammatory Vaginitis

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Disclosures/Conflicts of Interest

Hope K. Haefner, MD was previously on the advisory board of Merck Co., Inc.
Learning Objectives

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

– Diagnosis of noninfectious inflammatory vaginitis/desquamative inflammatory vaginitis (DIV)

– Differential diagnosis of noninfectious inflammatory vaginitis

– Treatment strategies for patients presenting with noninfectious inflammatory vaginitis on wet prep
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

Desquamative Inflammatory Vaginitis

Symptoms and Signs

- Dyspareunia
- Spotted rash vagina/cervix
- Purulent discharge
Desquamative Inflammatory Vaginitis (DIV)

D. Birenbaum MD collection
PH and Wet Mount Findings

- Vaginal pH greater than 4.5
- 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
<table>
<thead>
<tr>
<th></th>
<th>pH (3.0-4.5)</th>
<th>WBC</th>
<th>Parasbasals</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>Ni lactobacilli</td>
<td>Creamy, mucous, 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 to small</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>DIV</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>
Desquamative Inflammatory Vaginitis

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

First described in 1950’s

- Franken H, Rotter W. Geburtsh u Frauenh 1954;14:154

Desquamative Inflammatory Vaginitis

History

First described in 1950’s

- Franken H, Rotter W. Geburtsh u Frauenh 1954;14:154

Gray LA, Barnes ML. 1965

• 6/478 consecutive women with vaginal complaints had “reddened” vaginas and “numerous puss cells…with oval and round parabasal cells”.
• 2/6 had trichomonas
• 4/6 had DIV
Nyirjesy 2014 Obstet Gynecol

• Routinely perform vaginal bacterial cultures, looking for group A streptococci or S. aureus, and PCR for T vaginalis
What other conditions does DIV have a similar microscopic appearance to?
Inflammatory Vulvovaginitis

- Atrophic vaginitis
- Erosive lichen planus
- Pemphigus vulgaris
- Behçet’s disease
- Collagen vascular diseases
- Traumatic
  - Foreign body, vesicovaginal fistulae
- Allergic vaginitis
- Chemical vaginitis
- Infection
  - Group A Streptococcus, Trichomonas, Cervicitis
- Degenerating leiomyoma or endometrial polyp
- Idiopathic
Desquamative Inflammatory Vaginitis

Cytological changes identical to atrophic vaginitis

Atrophic Vaginitis

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

Responds well to estrogen
Rule Out Lichen Planus
Foreign Bodies
Proposed etiologies

- Immune mediated (autoimmune)
  (response to anti-inflammatory)
- Kallikrein-related peptidase
- Genetic link
- Bacterial infection
Desquamative Inflammatory Vaginitis

History

• Sobel et al. 2011-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%)
• Median 3 weeks (range 1-19 weeks) for first follow up visit
Both treatments dramatically relieved symptoms 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 treatment, and 15 (16%) partially controlled only
Therapy Options Clindamycin
(Adapted from Reichman and Sobel 2014)

Clindamycin 2% cream 5(g)
one applicator intravaginally qhs x 3 weeks
(consider 2 x per week x 2 months)
   Longer suppression time may be required

Clindamycin 200 mg vaginal suppository qhs
x 3 weeks
(consider 2 x per week x 2 months)
   Longer suppression time may be required
Therapy Options Clindamycin
(Adapted from Reichman and Sobel 2014)

Intravaginal hydrocortisone suppositories 25 mg intravaginal bid for 3 weeks (consider 3 x per week x 2 months)
   Longer suppression may be required

Intravaginal hydrocortisone cream 300 to 500 mg intravaginal qhs for 3 weeks (consider 2 x per week x 2 months for maintenance therapy, with gradual dose reduction if possible)
DIV Other Options

Combine clindamycin cream and hydrocortisone suppositories

Compound a high dose intravaginal corticosteroid and 2% clindamycin

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.
If not working, reconsider the diagnosis! (has estrogen been addressed?)

• May need to add estrogen

Current Thoughts on the Same vs. Different Conditions

• Desquamative inflammatory vaginitis is not a diagnosis in itself; it is a diagnosis of exclusion
• May be the presentation of a range of disorders with similar presentations
• Therefore no one treatment will work for all patients
The phone is neither a diagnostic nor a therapeutic tool....