Follicular Conjunctivitis - A Systematic Approach to Diagnosis

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September 7, 2014

What I Will Discuss....

• Acute Conjunctivitis
• Follicular Conjunctivitis

What I Will Discuss....

Follicular vs Papillary reaction

Follicles

• Nonspecific response to chronic irritation: mechanical, chemical, or microbial
• Aggregates of lymphocytes - 0.2 to 2 mm
• Larger in chlamydial disease
• Central part avascular
• Dilated blood vessels may surround the base

Follicles

• yellowish to grayish white, discrete, round elevations
• "Translucent grain of rice"

Follicles

• Follicles of the conjunctival fornices
  – less regularly spaced, larger
**Follicle Characteristics**

- Tarsal conjunctival follicles are well defined due to close adherence of the tarsus to the epithelial mucosa.

- Follicles do not appear in the neonatal period because the lymphoid system is immature.

**Folliculosis of Childhood**

- Not pathologic, but physiologic change of childhood and adolescence.

- No associated signs of inflammation.

- Condition is analogous to the lymphoid hyperplasia of tonsils in children.

**Papillae**

- Nonspecific signs of conjunctival inflammation.

- Dilated vascular core surrounded by edema.

- Vascular changes where fibrous septa anchor the conjunctiva to the underlying tarsus.

**Papillae**

- Limbal papillae in vernal keratoconjunctivitis (Horner-Trantas dots).
Papillae
- may reach large size (*giant papillary conjunctivitis*)

Follicles vs Papillae
<table>
<thead>
<tr>
<th>Follicles</th>
<th>Papillae</th>
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</thead>
<tbody>
<tr>
<td>Mainly lymphoid</td>
<td>Mainly vascular</td>
</tr>
<tr>
<td>Vascular surrounding</td>
<td>Central vascular core</td>
</tr>
<tr>
<td>More pale on surface, red at base</td>
<td>More red on surface, pale at base</td>
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Acute Onset- Follicular Response
Differential Diagnosis
1. Herpes Simplex, EBV
2. Viral-Adenovirus/EKC
3. Chlamydia
4. Toxic-topical medications
5. Molluscum
6. Pediculosis

Acute Follicular Conjunctivitis-HSV
- Hx of perioral cold sores
- Often recurrent
- Dendritic keratitis

Acute Follicular Conjunctivitis-Viral
- Most commonly adenovirus
- Recent URI or sick contacts
- Tender and palpable preauricular lymph node
- Pseudomembrane
- SEI of cornea
- Other virus
  - Coxsackie virus
  - Enterovirus

Acute Follicular Conjunctivitis-Chlamydia
- Inclusion conjunctivitis vs. trachoma
- Sexually transmitted
- Hx of vaginitis, cervicitis, urethritis
- SEI
  - Preauricular LAD
Acute Follicular Conjunctivitis-Toxic

- Toxic Follicular Conjunctivitis
  - Brimonidine
  - Miotics
  - Atropine
  - Epinepherine agents
  - Antivirals
  - aminoglycosides

Acute Follicular Conjunctivitis-Molluscum

- Molluscum Contagiosum
  - Waxy, elevated cutaneous noduls with umbilicated center
  - On or near lid margin leads to conjunctivitis from shedding of viral particles
  - Does not respond to topical meds
  - Requires excision or curettage of lesions

Acute Follicular Conjunctivitis-Pediculosis

Acute Onset-Follicular Response

Differential Diagnosis
1. Herpes Simplex, EBV
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3. Chlamydia
4. Toxic-topical medications
5. Molluscum
6. Pediculosis

Case Presentation

62 year old male
Contact lens wearer
2-3 day history of progressive worsening of:
  eyelids sticking together in the morning
  ocular irritation/discomfort
  watery d/c
  injection of the left eye

Case Presentation

- Some suggestion of symptoms in right eye as well
- Two children, both with recent URI
- Unable to wear contact lenses
Examination

• Tender palpable preauricular lymph nodes
• Hyperemia
• Pinpoint subconjunctival hemorrhages
• Punctate keratopathy
• Pseudomembrane
• Follicles!

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In Conclusion....

Ability to identify follicles in the setting of an acute conjunctivitis can help narrow the differential considerably

Thank you!

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