

## Thought Provoking Cases in Anterior Segment

Abstract: Pharmaceutical treatment of anterior segment disease is an important part of optometric practice. We will discuss anterior segment entities that are often misdiagnosed or not optimally treated on initial presentation and give pearls on how to correctly diagnose and manage these conditions.

### SPK Won't Go Away!

Young healthy female patient presents with cloudy/blurry vision after re-fit into SiHy CL. Toxic keratitis suspected, but SPK would not resolve after CL discontinuation. Limbal Stem Cell Keratitis mechanism and treatment discussed.

- I. Case History
  - a. 28 year old white female
  - b. Blurry vision OD, progressive over last month
  - c. Biofinity sphere CL, Clear Care solution
- II. Pertinent findings
  - a. 20/50 OD, 20/20 OS
  - b. White and quiet eye
  - c. Diffuse SPK
  - d. SPK does not resolve with d/c CL and NPAT
- III. Differential diagnosis
  - a. Toxic keratopathy
  - b. Infectious etiology (viral, bacterial)
  - c. Inflammatory
- IV. Diagnosis and discussion
  - a. Limbal Stem Cell Keratitis is becoming more prevalent with stiffer lens materials
  - b. Chemical vs. mechanical mechanisms discussed
- V. Treatment and management
  - a. Self-limiting if CL wear is the cause.
  - b. Steroid intervention vs. benign neglect
  - c. Re-fit considerations: one-day, RGP
- VI. Conclusion
  - a. The patient had complete resolution of signs and symptoms with topical steroid intervention.
  - b. Pt. opted for one-day lens re-fit and infrequent wear.
  - c. Non-resolving SPK in a CL wearer is suggestive of limbal stem cell deficiency.

### No Pain, No Gain, but Can I Bill For It?

20 year old Asian female with two-day onset of bilateral red eyes presents with classic viral conjunctivitis. Betadine therapy implemented. This section will discuss pros and cons of betadine therapy and incorporation into clinical practice.

- I. Case History
  - a. A 24 year old Asian female presents bilateral red eyes x 2 days
  - b. Watery discharge
  - c. Vision normal
  - d. Pt. uncomfortable but no pain.
- II. Pertinent findings
  - a. Hyperemic conjunctiva

- b. 20/20 OD, OS
- c. Palpebral conjunctival follicles
- d. No corneal involvement
- III. Diagnosis and Treatment
  - a. Patient is diagnosed with viral conjunctivitis OU
  - b. Risks and benefits of betadine therapy discussed. Pt. opts for betadine therapy
- IV. Discussion
  - a. Betadine therapy off-label for adenoviral conjunctivitis
  - b. Pain management considerations
  - c. Steroid vs. NSAID prescriptions
  - d. Follow-up expectations
- V. Conclusion
  - a. Betadine therapy can be very effective in treating viral conjunctivitis
  - b. Patients can be uncomfortable following therapy. Topical NSAID helpful here.
  - c. Billing considerations

### The Bad Penny

28 year old white male presents with recurrent red eye over the past year. Antibiotic drops make the red eye go away, but it returns within a few weeks. Chlamydial conjunctivitis diagnosis and treatment is discussed.

- I. Case History
  - a. 28 year old white male
  - b. Recurrent red eye over the past year: today's is 6<sup>th</sup> episode
  - c. 1<sup>st</sup> episode in Thailand with unknown drop treatment
  - d. All other episodes were treated or self-treated with Tobramycin oph sol'n.
- II. Differential diagnosis
  - a. Bacterial conjunctivitis
  - b. Viral conjunctivitis
  - c. Allergic conjunctivitis
- III. Pertinent findings
  - a. 20/20 OD, OS
  - b. Conjunctival hyperemia
  - c. Large follicular response
  - d. Watery and mucous discharge
- IV. Diagnosis and discussion
  - a. The patient's presentation is suspicious for chlamydial conjunctivitis
  - b. Laboratory testing
  - c. Chlamydia is a STD, 75% females and 50% males are asymptomatic
  - d. 2/3 of patients with chlamydial conjunctivitis do not have concurrent genital disease
- V. Treatment and management
  - a. Oral antibiotic therapy
  - b. Public health considerations
  - c. Sexual partner considerations
- VI. Conclusion
  - a. Chlamydial conjunctivitis should be considered when a recurrent red eye presents with a large follicular response that improves with antibiotic treatment.
  - b. Oral antibiotics are necessary to eradicate the infection.

### The Head Scratcher

A 25 year old female presents with long-standing bilateral irritated eyes. She has discontinued an unknown soft contact lens. She is treated unsuccessfully with artificial tears. After a number of follow-up visits a diagnosis of Phthiriasis Palpebrarum is made and she is treated successfully.

- I. Case History
  - a. 25 Year old Brazilian female
  - b. Presents with 2 day onset of foreign body sensation OS>OD
  - c. Wears unknown soft contact lenses
  - d. Has discontinued wear
- II. Differential diagnosis
  - a. Contact lens related keratitis
  - b. Corneal dystrophy
  - c. Toxic keratitis
- III. Pertinent findings
  - a. 20/20 OD, OS
  - b. Diffuse punctate keratitis
  - c. Corneal microcysts
  - d. Lid inflammation
- IV. Diagnosis and discussion
  - a. The patient is diagnosed with Phthiriasis Palpebrarum.
  - b. Females lay 30 eggs
  - c. Eggs hatch in 6 days
  - d. Lifecycle is 3-4 weeks
- V. Treatment and management
  - a. Topical therapy is not appropriate for ocular infestation
  - b. Mechanical removal from lashes
  - c. Sexual partner considerations
- VI. Conclusion
  - a. Phthirus Pubis infestation of the eyelashes can be difficult to diagnose and manage.
  - b. Mechanical removal is the mainstay of treatment but topical and oral medications can play a role in eradicating these parasites.

## References

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