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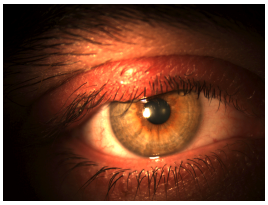
Title: Anterior Segment Grand Rounds... with a Twist

Abstract: Proper diagnosis requires knowledge of disease processes and analyzing objective data. Subjective data from the patient including history points and their willingness or ability to accurately convey key points can be challenging to a doctor. This lecture goes over three cases where one of those elements was the key to unlocking the diagnosis for uncommon anterior segment disease diagnoses.

Learning Objectives:

1. Understand the possible influence of kava on dry eyes
2. Understand limbal stem cell deficiency and its relationship with contact lens wear
3. Understand HSV conjunctivitis and key diagnostic features

The Answer is in Black Rock City



35 year old male presents with bilateral preseptal cellulitis and subsequent hordeola. Despite adherence to treatment, it is difficult to manage the patient's disease. Key case history is that patient drinks a large quantity of kava on a regular basis.

I. Case History: 35 y/o WM
   a. Bilateral lid swelling
   b. Crusting of eyes upon awakening
   c. Kava use
II. Pertinent Findings
   a. OD: internal hordeolum, central, tender to touch with overlying lid swelling
   b. OS: two hordeola, central and temporal (draining), tender to touch with overlying lid swelling
   c. OU: plugged meibomian glands, telangiectatic vessels, scurf
III. Differential Diagnosis
   a. Preseptal cellulitis
   b. Ocular rosacea
IV. Diagnosis and Discussion:
   a. Rosacea: Clinical Diagnosis
      i. Flushing
      ii. Persistant redness
      iii. Papules
      iv. Pustules
      v. Telangiectasia
   b. Rosacea subtypes

i. Erythematotelangiectatic
ii. Phymatous
iii. Papulopustular
iv. Ocular

c. Ocular Rosacea
i. 50% patients with cutaneous rosacea have ocular
ii. 5-30% have corneal findings
iii. 20% have ocular findings first

d. Etiology Rosacea
i. Not fully understood
ii. Immune system deficiency
iii. Microorganism, ex: demodex, H. pylori, S. epidermis
iv. Sun exposure
v. Genetics
vi. Inappropriate blood vessel function
vii. Common triggers

e. Treatment and management rosacea
i. Topical medication
ii. Systemic medications

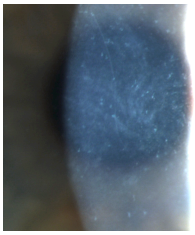
f. Kava
i. Polynesian drink historically used in rituals
ii. Mood elevator, relaxing
iii. Kava bars proliferating in US
iv. Not a controlled substance
v. Concern for hepatotoxicity
vi. Case reports in literature suggest a possible dry eye connection
vii. Kava dermatopathy: kani kani

V. Treatment and Management
a. Warm compresses, lid scrubs
b. Doxycycline antimicrobial dose then follow with low dose
c. Trial d/c kava

VI. Conclusion
a. Ocular rosacea can precede dermatological rosacea
b. Kava has been anecdotally linked to dry eyes, more research needed
c. Kava has been shown to have antianxiety effects

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 Deficiency mechanism and treatment discussed.

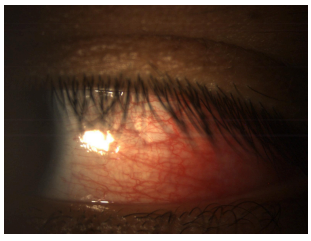


I. Case History
   a. 28 year old white female
   b. Blurry vision OD, progressive over last month
   c. Biofinity sphere CL, Clear Care solution
II. Pertinent findings
   a. 20/50 OD, 20/20 OS
   b. White and quiet eye
   c. Diffuse SPK
   d. SPK does not resolve with d/c CL and NPAT
III. Differential 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
   c. Clinical diagnosis vs. impression cytology
   d. Treatment options
      i. Lubrication
      ii. Topical steroid
      iii. Scleral lens
      iv. Autologous serum
      v. Amniotic Membrane
      vi. Surgical options

V. Treatment and management
   a. Self-limiting if CL wear is the cause and case is mild
   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.

Inconceivable

A young patient presents with sectoral redness and pain with overlying conjunctival staining. Differential diagnosis includes scleritis vs. episcleritis vs. HSV conjunctivitis vs. HSV scleritis.



1. Case History
   a. 20 y/o HM CC: red, painful OS
   b. Began as itch 1 week ago and is now painful

2. Pertinent Findings:
    a. VA 20/20 OD, OS
    b. No corneal staining
    c. Sectoral redness temporally with overlying staining
    d. Palpebral conj OS shows mild follicular response temporally
3. Differential Diagnosis and Discussion:
    a. Episcleritis
        i. Typically no symptoms
        ii. Overlying staining possible with nodule
        iii. Typically younger population 20-50 years
        iv. Blood vessels radial formation
        v. Can be associated with systemic disease
        vi. Treatment options include topical steroid
    b. Scleritis
        i. Typically painful
        ii. Older population 40-60 years
        iii. Basketweave appearance to blood vessels
        iv. Acuity possibly reduced
        v. Patients generally know their systemic associated disease at diagnosis
        vi. Treatments include oral anti-inflammatory medicines
    c. HSV Conjunctivitis
        i. Typicaly associated with keratitis or blepharitis
        ii. Can appear in isolation
        iii. Symptoms can range from mild to severe
        iv. Conjunctival staining can be dendritic
        v. Discussion of case reports found in literature
        vi. Treatment includes anti-virals
        vii. Discussion of study showing HSV conjunctivitis being misdiagnosed as EKC
    d. HSV associated scleritis
        i. Less common cause of scleritis
        ii. Treatment includes anti-virals
    e. Patient ultimately treated with oral antivirals and no steroids. Resolution of symptoms was swift.
4. Conclusion:
    a. HSV conjunctivitis is absence of lid or corneal disease is possible
    b. EKC is a common misdiagnosis
    c. Pain can range from non-existent to painful
    d. HSV is also a cause of infectious scleritis
    e. Case studies have shown that both HSV conjunctivitis and scleritis respond well to oral anti-virals

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