MAKING THE RIGHT CALL FROM TRIAGE TO TELEHEALTH

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DR.GERSON'S DISCLOSURE

- Presenter is on speakers panel/Consultant of Allergan, Abbvie, Apellis, Bausch + Lomb, Essilor, Eyepromise, Genentech,Iveric Bio, Maculogix, Optos, Oyster Point Pharmaceuticals, Regeneron, Visionix and VSP
- Presenter has NO financial interest in any products mentioned

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TOP TEN MALPRACTICE

- 1. Failing to listen to patients, spend adequate time with them, and communicate empathetically with them
- 2. Maintaining illegible or incomplete documentation
- 3. Failure to establish standards of conduct for office staff
- 4. Being inaccessible to patients
- 5. Failure to order and follow up on indicated tests or delay in ordering such tests
- 6. Failure to refer when appropriate, failure to track referrals, and failure to communicate with referring physician .
- 7. Inappropriately prescribing medications .
- 8. Improper care of patients during emergency situations .
- 9. Failure to obtain informed consent .
- 10. Allowing noncompliant patients to take charge

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CAUTION…

- American Academy of Pediatrics, showing there were 781 telephone treatment malpractice claims settled with an average payout of $269,000 between 1985 and 2004
- Diagnosing a patient over the phone implies a pre-existing relationship
- You get many patients who look like they have something simple, but only after being there and looking at them over time, they have something entirely different,

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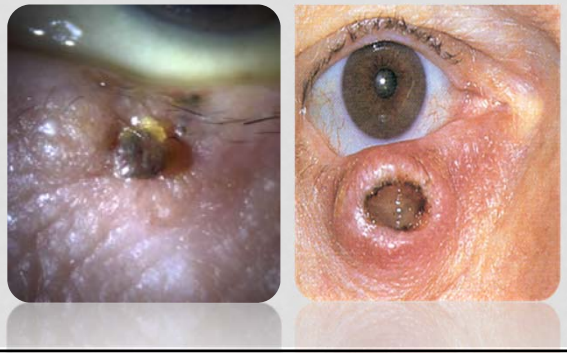
SOME PICS ARE GROSS!



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SOME PICTURES ARE JUST SCARY!

DR. DEREK CUNNIGHAM

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WE'VE ALL HAD FRIENDS CALL US WITH EYE PROBLEMS

Just a few nights ago, we were out with some friends, and one waited until the end of the evening, and then……

I'm wearing the lenses for one eye distance and one eye near, and I really like them. But, I think we may need to adjust one of them….

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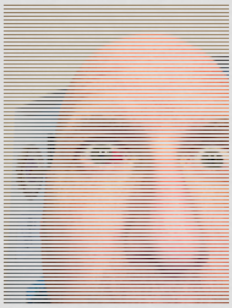
REAL LIFE CASE…FRIEND OF MINE



"Dad, there's blood in your eye, what's wrong?"

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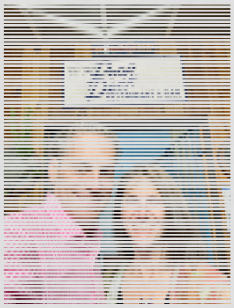
SORRY DAVE, BUT CAN'T TALK..



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HOW MANY OF YOU TAKE CALL?

- I am on call about 1of every 8 weeks
  - That is 6-7 weeks per year
- Probably go into office while on call about 3 times a year
- What warrants going in to see a patient after hours?

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CASE

MORE SELFIES

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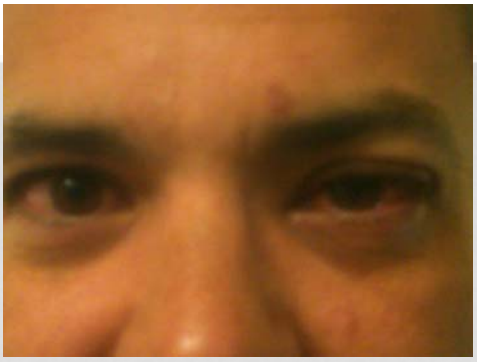

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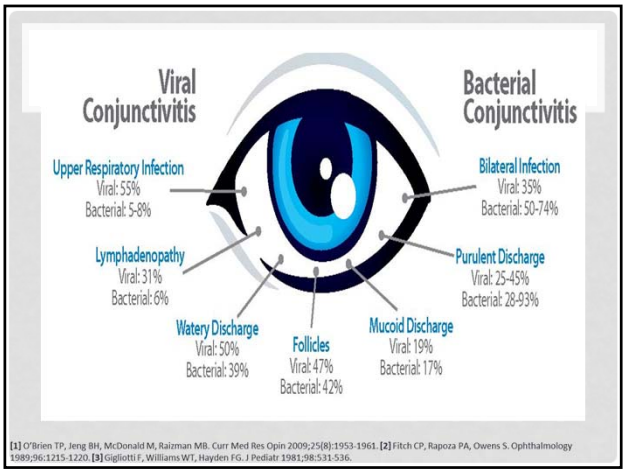

[1] O'Brien TP, Jeng BH, McDonald M, Raizman MB. Curr Med Res Opin 2009;25(8):1953-1961. [2] Fitch CP, Rapoza PA, Owens S. Ophthalmology 1989;96:1215-1220. [3] Gigliotti F, Williams WT, Hayden FG. J Pediatr 1981;98:531-536.

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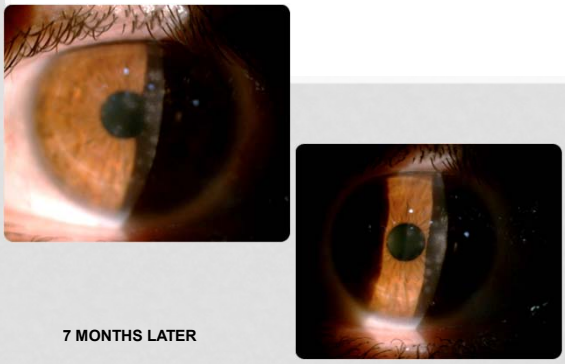

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VIRAL CONJUNCTIVITIS TREATMENT

- Supportive therapies
- Decontamination at home and hand washing
- Isolation
- Anti-viral therapy
  - No FDA-approved drugs specific for the treatment of Adenoviral conjunctivitis
  - Off-label applications for some currently available drug therapies: **Povidone Iodide** and **Ganciclovir (Zyrgan)**

NO ANTIBIOTICS REQUIRED!

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OFF-LABEL ADENOVIRAL TREATMENTS

Povidone Iodide (PVI)[1]

- PVI (0.8%) extinguishes infectivity of free Adenovirus after 10 minutes of exposure but is less effective against intracellular Adenovirus
- Isenberg et al found Povidone Iodide (1.25%) ineffective

Povidone Iodide (0.4%) – Dexamethasone (0.1%)[2]

- 9 eyes of 6 patients with confirmed Adenovirus enrolled
- 8/9 enrolled showed clinical resolution by day 4
- 6/6 patients with significant reduced DNA copies by day 5
- 5/6 culture positives with no infectivity by day 5

[1] Monnerat N, Bossart W, Thiel MA. Klin MonblAugenheilkd. 2006. 223(5): 349-352. [2] Pelletier JS, Stewart K, Trattler W, et al. Adv Ther, 2009. 26(8): 776-783.

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A MORE RECENT VIRAL CASE

- My eyes have been bothering me for about 10 days and some pulmonary symptoms
- First called PCP and was given topical antibiotics and po antibiotic
- Then went to urgent care and given po steroid and Zpack
  - Didn't help much
  - Told was COVID negative
- Then went to ER and was given AB ung
  - Blood work revealed viral infection but not COVID
  - About this time started developing rash and tongue spots

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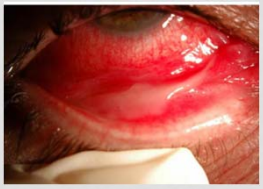
"THERE'S SOMETHING GROWING FROM MY EYE"



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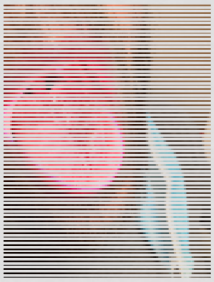
WHAT DO YOU THINK NOW?



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CASE

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SOME CASES HIT CLOSE TO HOME

"Mom, your eyes look funny"

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WHAT DO YOU NEED TO DO NOW?

- Pupil testing
  - Cocaine
  - Apraclonidine
- Imaging
  - MRI
  - MRA

- Horner's syndrome
  - Ptosis
  - Miosis
  - Anhidrosis (external carotid)
  - (sunken eye appearance)

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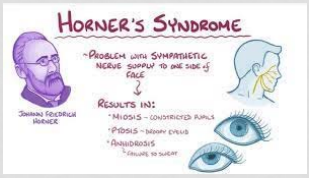
- Due to disorder of sympathetic activity
- Ipsilateral to symptoms



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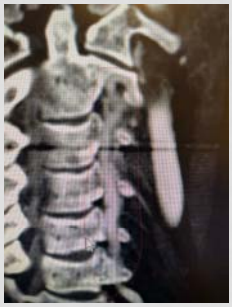
THE RESULTS..



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HORNER'S

- Treatment?
  - Surgical vs medical
- Source/location
  - First, second or 3rd order neuron
- Outcome potential
- What do we need to do?

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CASE

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MY EYE IS BLEEDING

- 89 yo w cc of red spot on eye
- Called office and requested visit vs telemedicine
- No changes to vision
- Wanting to get in same day for spot on eye

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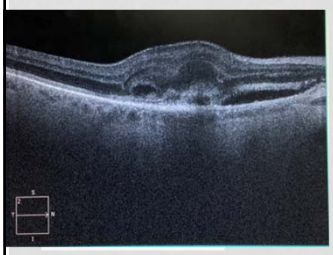
The eye really IS bleeding…



Va 2 mos previous 20/20 OU

Today: 20/150 OD and 20/20 OS
No symptoms

Referred to retina for treatment

Returned 6 mos later for routine exam and now 20/25

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FRONT AND BACK

- Existence of anterior segment condition does not prevent posterior segment pathology
- Sometimes patients don't know they have had change to vision….we need to ask!

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CASE

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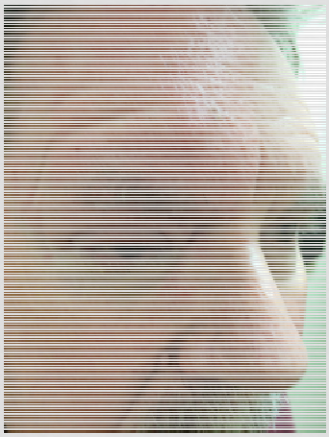

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WHAT YOU THINK DR.?

- ***Herpes Zoster Ophthalmicus***

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HERPES ZOSTER

- Nearly 1 Million Americans develop herpes zoster each year
- Herpes Zoster Ophthalmicus (HZO) accounts for up to 25% of presenting cases
- Over 50% incur ocular damage

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HUTCHINSON'S SIGN:

- Lesion on the tip of the nose
- Nasociliary branch of ophthalmic division of trigeminal nerve (V)
- Nasal means possibly ciliary (ocular) involvement

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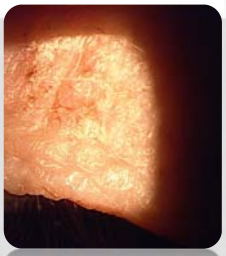
OCULAR FINDINGS:

- Conjunctivitis/Scleritis
- Pseudodendrites
- Neurotrophic keratitis
- Iritis
- Glaucoma
- ION, vein or artery occlusion
- Nerve Palsy



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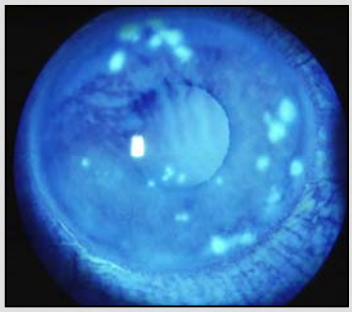
HERPES ZOSTER OPHTHALMICUS



Pseudodendrites

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IRIDOCYCLITIS AND HZO

- Most common and most often overlooked ocular complication (43%)
- Highly elevated IOP
- Study by Thean, Hall & Stawall *-clinical Ophthalmology Dec 2001*
- 56% of patients developed glaucoma!!

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TREATMENT: IRIDOCYCLITIS

- Pred Acetate 1% q1h or q2h
- Durezol (Difluprednate) 0.05% QID
- Lotemax Gel SM (Long term)
- Cycloplegia
  - Homatropine 5% bid
  - Cyclopentolate 1% bid

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ALSO ADDED MEDICATION TO LOWER THE IOP-IF NEEDED!

- Diamox 500 mg (non-sequels)
  - after asking about sulfa allergies and kidney problems
- Beta-blocker gtts
  - after asking about heart rate and breathing problems
- Iopidine/Alphagan

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TREATMENT OF HZO:

- Acyclovir 800 mg 5x/day
- Famvir 500 mg 3x/day or **Valacyclovir** 1000 mg 3x/day
- Advantages:
  - Easier to take 3x Vs. 5x
  - Decreased post-herpetic neuralgia, faster resolution of patient (Ormrod - *Drugs* June 2000)

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TREATMENT:

- When should you begin therapy?
- Prior to 72 hours proven for Acyclovir (HE Kaufman)
- Not as critical for Valacyclovir or Famvir* (Ormrod)

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TREATMENT:

- Duration?
- 7 days for most patients although newer studies suggest
  (Zaal - Am J or Ophthal. Jan 2001)
- 10 days for patients over age 66 due to shedding

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NEW!! SHINGRIX HZ VACCINE

- Approved October 2017
- non-live antigen, to trigger a targeted immune response, with a specifically designed adjuvant to enhance this response and help address the natural age-related decline of the immune system
- Shingrix is 97% effective against shingles for people between the ages of 50 and 69 and 91% effective for people 70 or older.
- It is 91% effective against postherpetic neuralgia for people 50 and older.
- These rates are based on evidence presented to the committee from clinical trials with over 38,000 total participants.

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NEW!! SHINGRIX HZ VACCINE

- recommended for healthy adults aged 50 years and older to prevent shingles and related complications
- recommended for adults who previously received the current shingles vaccine (Zostavax®) to prevent shingles and related complications
- the preferred vaccine for preventing shingles and related complications

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AAO RECOMMENDATIONS

- The AAO recommends vaccination for 50-59
  - Highest efficacy in this group
  - Decreasing age of disease onset
  - higher risk of ocular and systemic complications
  - Greatest number of cases
- Vaccination in this earlier age group would reduce the economic burden (work productivity) and morbidity

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CASE

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I THINK I HAVE PINK EYE

- 42-yo with "pink" eye
- h/o Ankylosing Spond. on injectable med that had stopped due COVID "coming"

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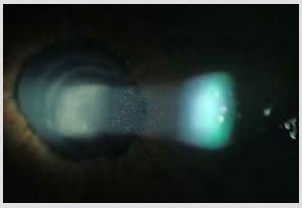
ANKYLOSING SPONDYLITIS

- 20/20 OU
- IOP 17/15
- K: fine KP's
- A/c: see image
- L: pigment clumps
- Macula: +FLR



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TREATMENT

- 1% prednisolone acetate
  - Dosage?
- Cycloplegic
- Return schedule?
- Return again…
- Follow-up 1 year later
  - Received COVID vaccine
  - Recurrence of anterior iritis

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CASE

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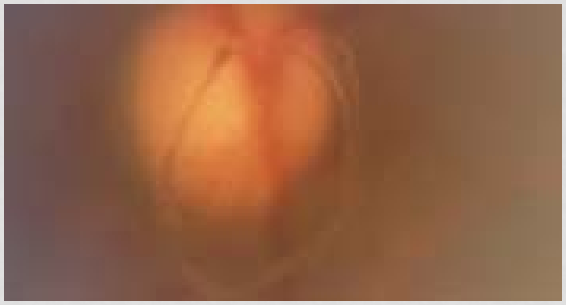
HELLO….MR. WIESS



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SO WHEN WOULD IT BE BEST TO BRING AN ACUTE PVD BACK?

- 8-26% acute PVDs have an associated RB/RD
  - **The chances of RB there after is <2-5%**
- AAO 2014 Guidelines: Depending on symptoms, risk factors, and clinical findings,
  - 1-8 weeks
- Rule of Thumb
  - Complicated PVD
    - MD in 2-4 weeks
  - Photopsia
    - 4-6 weeks
      - Double up visit: 2 w, 4w, 8w, 3 M…until done

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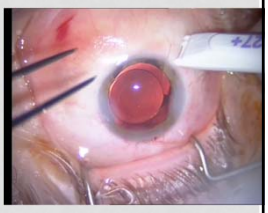
WHAT IS A FLOATERECTOMY?

- A vitrectomy to remove floaters
- Not a very common procedure
  - Same risk as any other vitrectomy
    - Likely higher risk for cataract since often young patients
  - Patient selection crucial



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LASER FLOATERECTOMY AKA: YAG VITREOLYSIS

- Not a new concept
- Study of 52 pts w PVD and Weiss ring[1]
- 54 vs 9% Symptom improvement
- 53 vs 0% near total improvement of Sx
- Based on NEI VFQ improvements in:
  - Overall vision, peripheral vision and role difficulties

Shah et al. YAG Vitreolysis w Floaters.JAMA ophth.

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CASE

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FLOATER

- CE 3yrs ago
- YAG 3 mos ago
- New floater and part of vision seems blurred on "the bottom part" and gotten worse over 2 days
- No flashes
- Is it a PVD?
- What is the urgency?

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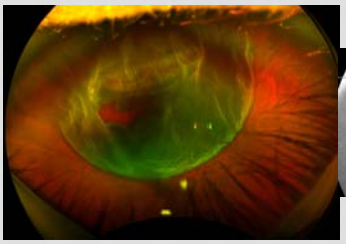
NOW WHAT?

- VA: OD: cf
- OS: 20/20



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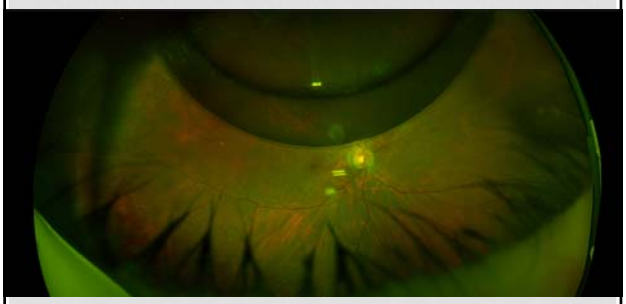
WHAT IS THIS??



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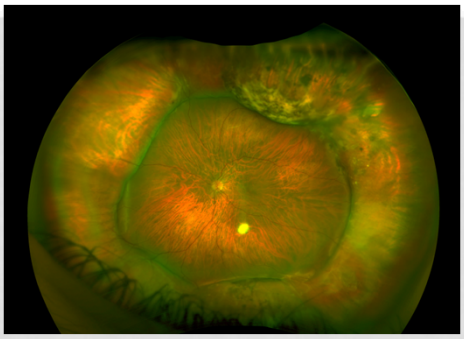
JUST A COOL IMAGE…



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CASE

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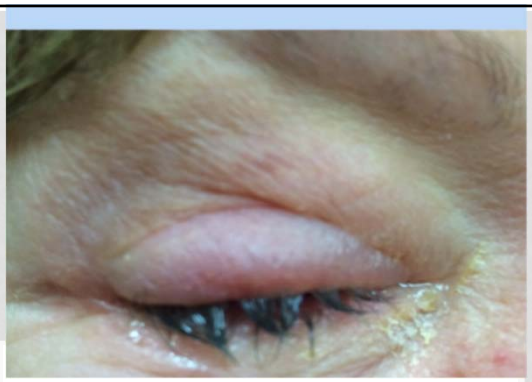

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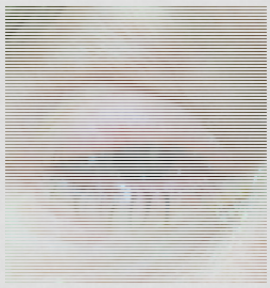
DIFFERENTIAL

- Allergic Conjunctivitis
- Bug Bite
- Bacterial Conjunctivitis
- Viral Conjunctivitis
- Preseptal Cellulitis
- Cellulitis
- Corneal Ulcer
- Foreign Body
- Hot tub
- Trauma



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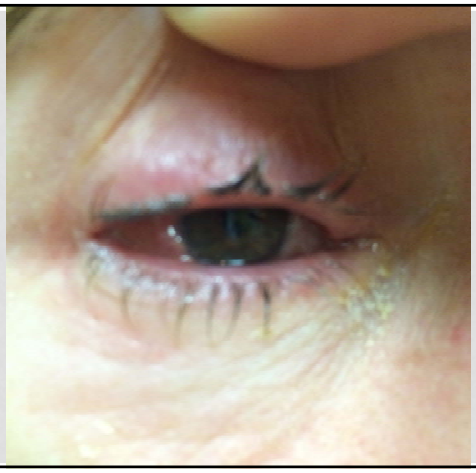

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3 TYPES OF EYE BURNS

- Alkali Burns: These burns involve high pH chemicals, and thus are the most dangerous. They are powerful enough to penetrate the eye, and cause damage to its vital inner components. In the worst cases, they can lead to conditions like cataracts and glaucoma and may cause vision loss or blindness.
- Acid Burns: Lower pH burns that are less serious than alkali burns, but still dangerous. These burns are unable to penetrate the eye, but still may cause significant damage to the cornea, with the potential to cause vision loss.
- Irritations: These burns are neutral in pH

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SYMPTOMS OF CHEMICAL BURNS

- Eye redness
- Eye irritation
- Eye pain
- Swelling of the eye
- Blurred vision
- Inability to open the eye
- Feeling of foreign objects in the eye

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TELEPHONE TRIAGE TIPS

- Irrigation process begins on site before the patient seeks care.
- Use shower or hose if outside work place
- Attempt to determine the type of chemical that entered the eye(s).
- Attempt to determine if the patient is wearing contact lenses. Irrigation should not stop in an effort to remove contact lenses.
- A minimum of 20 to 30 minutes before the patient is brought to the office.
- When the patient is ready to make the trip to the ER or office, remind them to bring the container that held the offending chemical. Important information may be obtained from the labeling.
- If the injury occurred in the workplace, ask the patient to bring the MSDS (material safety data sheet) if available.
- If the injury occurred where there is no or limited access to water for irrigation, refer them to the nearest emergency room or your office, whichever is closer.
- Assist with dispatching emergency services as needed.

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TREATMENT

- Assess the cornea and conjunctiva
  - Cornea intact-mild SPK
    - Prophylactic Antibiotic
    - Topical Steroid (Lotemax Gel)
    - Preservative Free Tears
    - Cycloplege for Pain
  - Cornea haze/Necrotic
    - All the above
    - Consider debridment
    - Sodium ascorbate drops (10%) Q1H while awake
    - Vitamin C-1000mg/day
    - Prokera

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CASE

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D.S. A PATIENT IN DISTRESS

- "I hate to bother you on a Saturday night but…
  - I have the start of a bump
- It's like the last time and I have an important event
- What can I do?"
  - Treatment:
    - Start warm compresses
    - Use massage
    - Let me know if it get's worse…..
- Day 2
  - I think it is worse….

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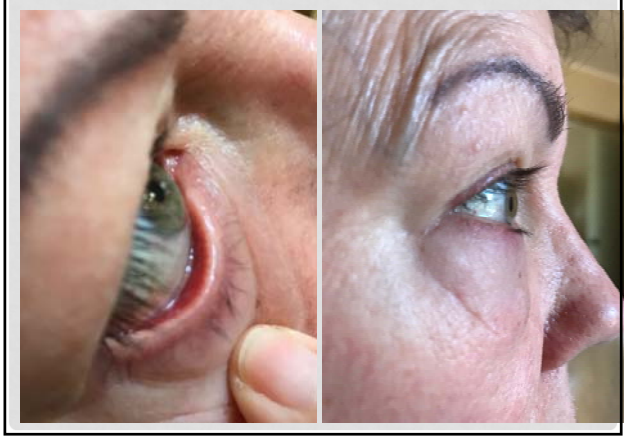

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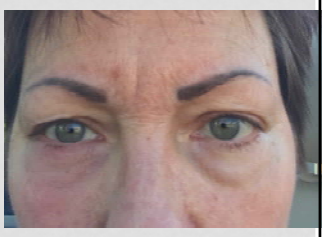
3 DAY

PATIENT REPORTS

- Still Red
- Mild Pain
- Vision is blurry

- Treatment:
  - Augmentin 500mg bid
    - #20 tabs
  - Tobradex Ung
  - Massage bid-tid
  - Bruder Mask bid-tid



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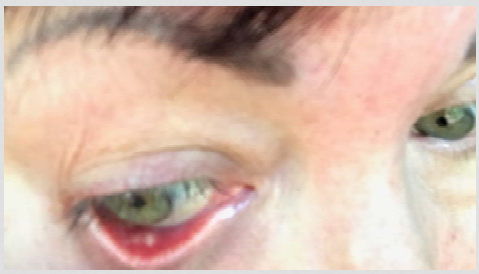
4 DAY



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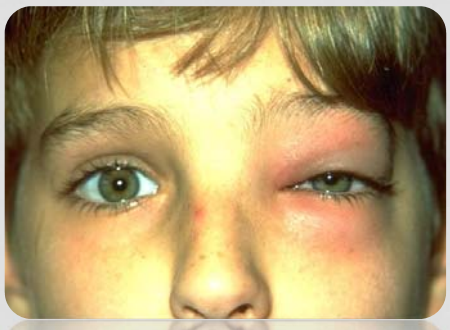

Preseptal cellulitis

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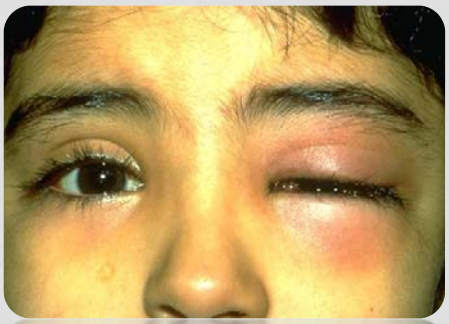

Orbital cellulitis

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ORBITAL CELLULITIS: SIGNS AND SYMPTOMS

- External signs: redness, swelling
- Motility impaired, painful
- ± Proptosis
- Often fever and leukocytosis
- ± Optic nerve: decreased vision, afferent pupillary defect, disc edema

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ORBITAL CELLULITIS: MANAGEMENT

- Hospitalization
- Blood culture
- Orbital CT scan
- ENT consult if pre-existing sinus disease

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ORBITAL CELLULITIS: TREATMENT

- IV antibiotics stat: Staphylococcus, Streptococcus, H. influenzae
- Surgical debridement if fungus, no improvement, or subperiosteal abscess
- Complications: cavernous sinus thrombosis, meningitis

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CONCLUSION

- Be cautious
- Know who you are talking to, looking at , make prudent decisions
- Err on the side of conservatism
- Think worse case scenario

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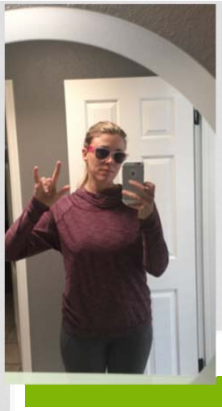


THANK YOU…

NOW GO TAKE A SELFIE…

83

NEW BLURRED VISION

- 86yo male
- Loss of vision OS 1 wk ago, sudden
- 20/20 OD and LP OS w APD OS

Any first thoughts?

- Hx: HTN: was hospitalized 9 mos ago w high BP, also had multiple TIA's
  h/o heart disease

84

NOW WHAT

85

WHAT'S REALLY IMPORTANT FOR THIS PATIENT?

86

WHAT'S THE MOST IMPORTANT THING TO DO WITH AN ACUTE ARTERY OCCLUSION?

- HINT: Not eye related!!
- THESE ARE SICK EYES IN SICK PEOPLE
- Study of 103 pts screened after CRAO
  - 37% critical carotid disease and acute stroke
  - 33% HTN emergency, 20% MI,
  - 25% surgical intervention, 93% medicine change[1]
- Immediate referral to ER/Stroke center and Diffusion weighted MRI
- 25% have stroke within the first week

1. Lavin et al: Stroke risk and risk factors in AO. AJO in press 9/18

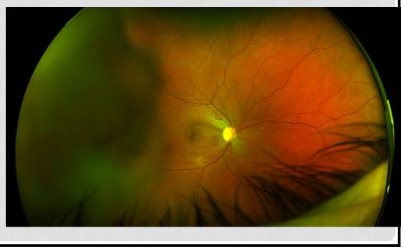
87

A MORE RECENT PATIENT

- 64yo Hispanic female
- Sudden LOV 5 hrs ago
- Good health

OD: NLP OS: 20/20

What else do you to know?



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