OPHTHALMOLOGIC PEARLS FOR THE NON-OPHTHALMOLOGIST

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A FEW OF THE AREAS WE WILL DISCUSS

• Red Eye
• Glaucoma
• Neuro ophthalmic tid bits
• Ophthalmic concerns in systemic disease
RED EYES... WHAT TO LOOK FOR

- Associated Symptoms
  - Pain
  - Light Sensitivity
  - Decreased Vision
  - Foreign Body Sensation
  - These usually will lead to a referral

- Drainage... is it clear or mucoid or purulent.
CONJUNCTIVITIS

• Bacterial vs. Viral
• Viral much more common, usually watery or mucoid discharge
  “Pink eye” most people c/o of lids matted shut when awakening and have URI symptoms a few days before, adenovirus most common
• Treatment: Warm compresses to clear lids from matter
• Artificial tears for symptom relief
• Can cover for super infection with broad-spectrum antibiotic
• 4th generation fluoroquinilone or polymixin/trimethoprim (polytrim)
• Aggressive hygiene i.e. hand washing to prevent further spread
VIRAL CONJUNCTIVITIS
CORNEAL ULCERS

• Common symptoms include FBS, light sensitivity/pain and redness without drainage

• Most commonly seen with contact lens use, particularly when sleeping in lenses (10x incidence with extended wear CL’s)

• Others include primary corneal ulcers, which are often bacterial, always, warrant an urgent referral if suspected

• Herpes Simplex keratitis can see a classic dendritic ulcer with NaFl staining; always refer, can be sight threatening.
HERPES SIMPLEX KERATITIS
CORNEAL/CONJUNCTIVAL FOREIGN BODIES

- History is key, most people know exactly when something entered their eye.

- You can try to irrigate it out but most are embedded, we never recommend the use of cotton swab to remove, more often than not they get pushed in deeper. If you can refer this is best, if you don’t have an available ophthalmologist use a 30g needle or a foreign body spud.

- Treat with antibiotic ointment after removal, I usually recommend erythromycin ung qid for 3-4 days.

- If mechanism is high velocity (i.e. grinding) then needs dilated eye exam to r/o intraocular FB, if no ophthalmologist available x-ray or CT to rule our metallic FB.
METALLIC FOREIGN BODY
CORNEAL ABRASION

- History should be present
- NaFl stain with a cobalt blue light will reveal de-epithelialized area
- Treat with erythromycin ointment or bacitracin ointment
- I recommend Ophthalmology follow up
- I normally don’t recommend patching
- Topical NSAID ok for pain
CORNEAL ABRASION
IRITIS

- Hallmark sign is photophobia
- Peri-limbal flush

- Can be associated with autoimmune disorders
- Most commonly seen with Sarcoid and HLA-B27 disease

- Can lead to cataracts and secondary glaucoma
- Also can be posterior with vitritis and retinitis

- Should always be referred to ophthalmologist
IRITIS
GLAUCOMA

- Just few pearls to know
- 95% of Glaucoma is Primary Open Angle Glaucoma
- Mostly treated with topical drops or in office Laser (Selective Laser Trabeculoplasty)
- Topical prostaglandin analog are first line then alpha agonist followed by beta-blockers and carbonic anhydrous inhibitors. Miotics are rarely used anymore.

**Acute Angle Closure**

- Emergent treatment needed with laser Peripheral Iridotomy
- Very distinct physical findings
  - Very Red Painful Eye
  - Hazy cornea
  - Fixed Mid dilated pupil
  - Hard to touch (compare to fellow eye)
ACUTE ANGLE CLOSURE
COMMON NEURO-OPTHALMIC PROBLEMS

• **Diplopia** - We double vision quite often
• Most commonly caused by vasculopathic etiologies associated with Diabetes or HTN
• CN III, CN IV, CN VI are all common
• Findings
  • **Third** nerve palsies present with ptosis, exotropia and decreased up and down gaze. If the pupil is enlarged or non-reactive that’s when aneurysm needs to be ruled out, especially in setting of severe headache.
  • **Fourth** nerve palsies will have vertical/oblique diplopia, patients can normally find a head position with tilt to relieve symptoms
  • **Sixth** nerve palsies present with esotropia and decreased abduction
  • The most common of three we see in our office.
CN VI PALSY --- ESOTROPIA IN PRIMARY GAZE
• **Diagnosis**
  - Clinical and if patient is Diabetic, HTN and elderly no need for full work up. If any other neuro signs or multiple cranial neuropathies are present then full neuro work up with imaging is warranted.

• **Treatment**
  - Typically vasculopathic nerve palsies are self-limited and resolve in 6-8 weeks
  - BP/BS control and treat symptoms by alternating pirate patch to avoid double vision
  - If ptosis is present and decreased lid function the patient will need artificial tears to lubricate when normal mechanism is affected.
SOME SYSTEMIC ISSUES WE COMMONLY SEE

- **Long Term Drug Monitoring**
  - **Hydroxychloroquine** –
    - Maculopathy resulting in permanent central vision loss
    - Cumulative dose dependent
    - We typically screen with dilated fundus exams every six months and
      Central visual field tests and OCT of the macula once a year.
  - **Gilenya**
    - Cystoid macular edema is a known side effect
    - Macular screening with exam and OCT recommended every 4 months while on medication
• **Diabetes**
  
  • Annual exams are necessary and increased frequency when retinopathy sets in. This topic will be covered in depth with another lecture during this meeting.

• **Flomax (Tamsulosin)**
  
  • This causes a phenomenon known as Intraoperative Floppy Iris Syndrome
  
  • Only in issue when a patient who has taken the drug undergoes intraocular surgery, typically most prominent during cataract extraction.

  • Very important for patients to be aware of that and notify their eye surgeon even if they only took the drug for a short time years ago. The iris atrophy never goes away and the iris dilator muscles don’t regenerate.
QUESTIONS AND OPEN FORUM:
THANK YOU

- If you have any questions not answered please feel to email me and I will do my best to answer any questions.

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