Triaging Ocular Complaints

• Painful Eye/Red eye
  – +/-blurry vision
  – +/-visual loss
  – +/-floaters
  – +/-fevers

• If any of the above findings exist, pt is likely to have a more urgent/emergent eye problem and therefore requires increased level of acuity.

• Visual Acuities (MUST BE PERFORMED ON ALL PTS WITH EYE COMPLAINT)
  – Objective baseline measurement
  – Comparison (OD vs OS)
  – Include with or without correction
Triaging Ocular Complaints

• Periorbital swelling
  – Surrounding eye redness
  – i.e periorbital cellulitis
    • Commonly seen in children
    • Requires IV antibiotics and admission
    • Complications: CNS infection (meningitis, epidural abscess, subdural empyemas, brain abscess), orbital involvement (cellulitis, abscess), Cavernous sinus thrombosis, Toxic shock syndrome, Eschar formation leading to scarring
Triaging Ocular Complaints

• Facial Symmetry
  – Proptosis
  – Facial droop
  – Consider Bells Palsy/CVA
Ocular Emergencies

• Vision loss
• Closed-angle glaucoma
• Retinal Detachment
• FB
• Orbital Fracture
• Corneal Abrasion/Lacerations
• Chemical Burn
• Central Retinal Artery Occlusion
• Ruptured Globe
• Retrobulbar hematoma
Acute Painless Visual Loss

• Diff Dx:
  – CVA
  – Central Retinal Artery Occlusion
  – Central Retinal Vein Occlusion
  – Wet Macular Degeneration
  – Vitreous Hemorrhage
The Red Eye

• Dilation of blood vessels in the eye
• Differential Diagnosis
  – Blepharitis
  – Canaliculitis
  – Conjunctivitis (viral, bacterial, allergic)
  – **Corneal Inflammation/Infection**
  – Dacryocystitis
  – Episcleritis
  – FB
  – Iritis
  – Keratoconjunctivitis
  – **Narrow-angle glaucoma**
  – Pterygium
  – Scleritis
  – Subconjunctival hemorrhages
Blepharitis

- Inflammation of the eyelids usually involving the lid margins
- Often associated with conjunctivitis
Canaliculitis

• Characterized by a mildly red eye
• Usually unilateral
• Slight discharge that can be expressed from the canaliculus
Conjunctivitis

• Vascular dilation
• Cellular infiltration
• Exudation
• 3 types
  – Allergic
  – Viral
  – Bacterial
Corneal Infection

- Decreased visual acuity
- Photophobia
- Severe pain
- Opacification of the cornea
  (OPHTHALMIC EMERGENCY)
Dacrocystitis

- Localized pain, edema, erythema over the lacrimal sac at the medial canthus
- Usually unilateral
- Often purulent drainage
Episcleritis

- Differentiated from the injection of the more superficial conjunctival vessels and from the deeper scleral vessels.
- Unlike Conjunctivitis, the inflammation tends to be limited to an ISOLATED PATCH
- Hx of recurrent episodes is common
- Mild to moderate tenderness over the area of injection
Iritis

• Perilimbal flush due to dilation of the radial vessels
• Compared to conjunctivitis, in which the intensity of the vascular engorgement decreases toward the limbus
• +/- decreased visual acuity
• Usually unilateral
Subconjunctival Hemorrhage

• May occur spontaneously
  – i.e. If pt is on anticoagulants
• Or secondary to trauma
  – i.e. Increased pressure: singing, screaming etc
• May appears as a flat thin Hemorrhage or a thicker collection of blood
Hyphema

- Mostly due to trauma.
- Postinjury accumulation of blood in the anterior chamber
- The agent producing a hyphema is usually projectile
- Spontaneous hyphemas are rare.
  - i.e. secondary to neoplasms, vascular anomalies, neovascularization such as from DM, ischemia
Chemosis

- Cornea is recessed and the conjunctiva is swollen
- Due to allergic reaction.
- Treat with antihistamines
Narrow(Closed) Angle Glaucoma

• Severely painful red eye
• Haloes around light are common
• >50 years and older
• IOP elevated
• Nausea, vomiting common
• Reduced visual acuity
• Immediate referral to optho
Retinal Detachment

- Separation of the “neurosensorvory layer” of the retina from the underlying choroid and retinal pigment epithelium
- “Black curtain coming down over visual field”
- Bright flashes of light
- Retina needs to be replaced onto underlying nourishing layers.
- Urgent/emergent complaint
Chemical Burn

- A TRUE OCULAR EMERGENCY
- Test pH
- IRRIGATE, IRRIGATE, IRRIGATE
  - 30 minutes using IV NS or LRs with morgan’s lens.
- Morgans lens alternatives
  - Use the tubing and tape over pt’s eye.
- Acid vs Alkali
  - Alkali causes necrosis. Will destroy vessels and denature collagen (Lipophilic- so it absorbs into the eye more easily, causing more damage)
    - i.e household cleaners (bleach), fertilizers
  - Acid also causea necrosis. Less common
    - i.e sulfuric acid (automobile batteries), industrial cleaners
Ruptured Globe

- Occurs from penetrating trauma to cornea or sclera
- Extravasation of the intraocular contents
- May lead to irreversible vision loss or Endophthalmitis
- S/S: pain, decreased vision, hyphema, “tear drop” pupil, severe subconj hemorrhage
- Management: immediately place an eye shield to protect eye from further manipulation
- **DO NOT PERFORM TONOLOGY**
Central Retinal Artery Occlusion

- Caused by an emboli to the retinal artery (leads to an ocular stroke)
- s/s: extremely sudden, acute unilateral PAINLESS vision loss
- Ocular exam: Cherry red spot on fundoscopic exam (cilioretinal artery will maintain perfusion of macula, so the macula appears pink and healthy against the ischemic retina)