Common Eye Conditions in Primary Care

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Objectives

- Review key aspects of an ophthalmic HPI
- Review key aspects of a basic ophthalmologic exam
- Apply principles above to common ophthalmologic cases

Reasons patients seek care

- Pain
  - "My eye is hurting"
- Vision change
  - "I've had a change in my vision"
- Appearance
  - "Something with my eye looks off"

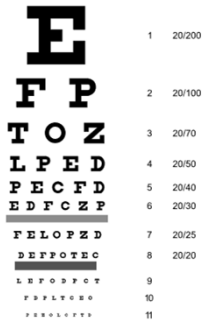
If more than 1 → more worried

History of Present Illness

- Inciting event: trauma, illness, none, etc
- Course: improving, worsening, waxing/waning
- Modifying factors: relieving or exacerbating
- Associated symptoms

Ophthalmology Vitals

- Visual Acuity (VA)
- Intraocular pressure (IOP)
- Pupils



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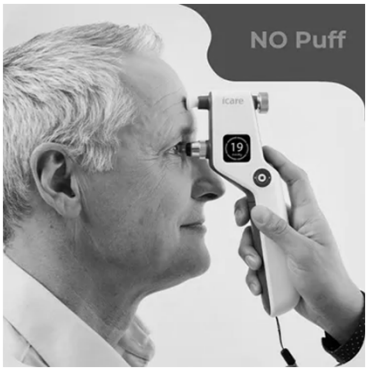

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Ophthalmology Exam

- Confrontational Visual Fields
- Extraocular movements
- Adnexa
- Conjunctiva/Sclera
- Cornea

Community Eye Health
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https://www.glenabbeyvision.ca/dry-eye-management

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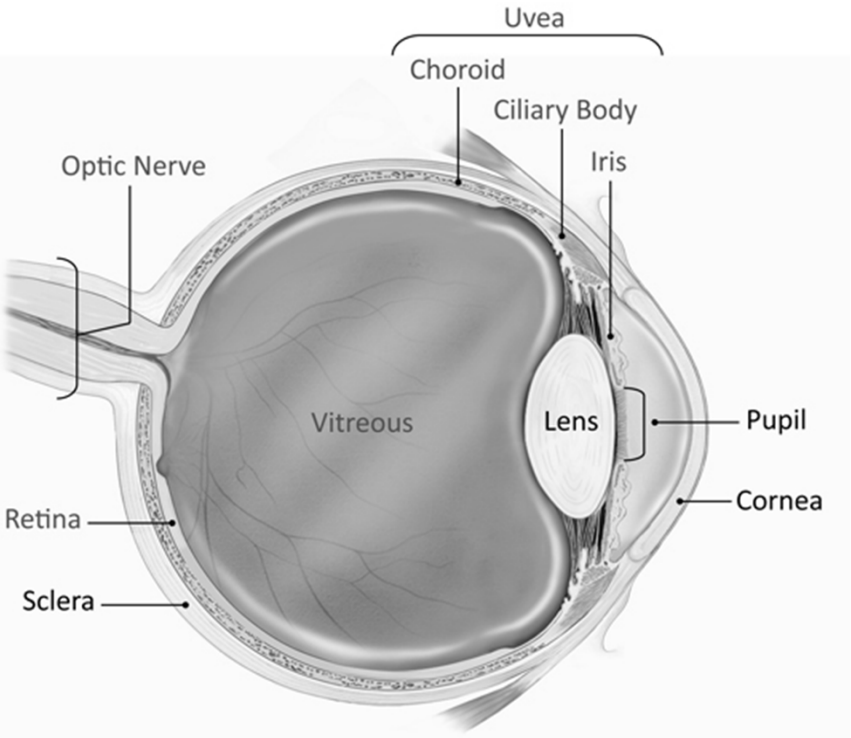

Anatomy and Physiology

Purpose: focus light at the retina (fovea)

- Refract: Tear film, cornea, lens
- Media: aqueous, vitreous
- Receive/process: retina, optic nerve

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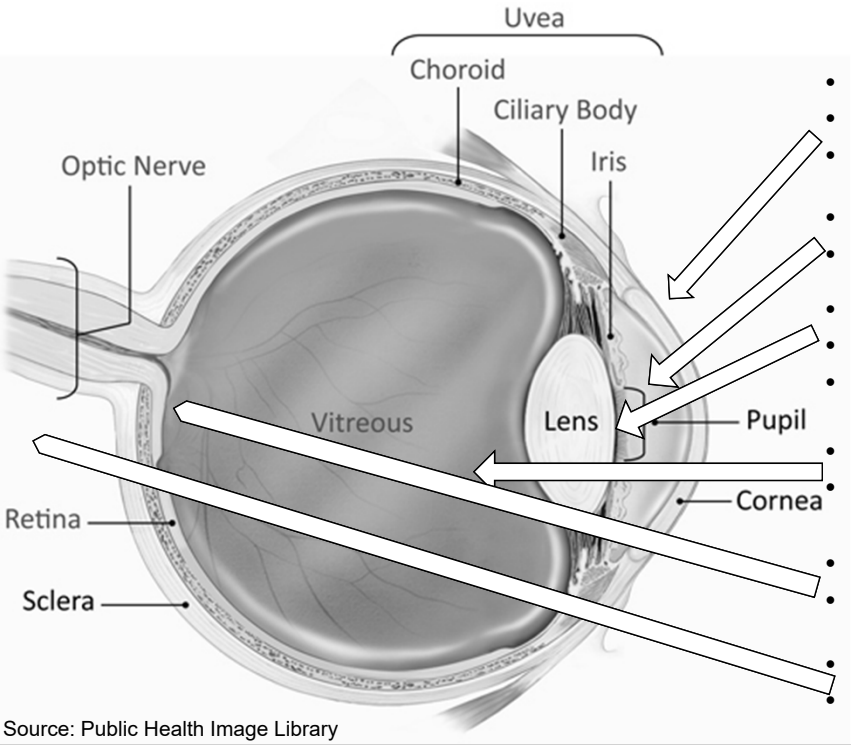

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Localizing Symptoms

- Improves with blinking, pinhole
- Variable day-to-day
- Tearing, discharge, redness

- Pain, consensual photosensitivity
- Haze

- Gradual, progressive
- Painless
- May improve with pinhole

- Floaters
- Typically painless

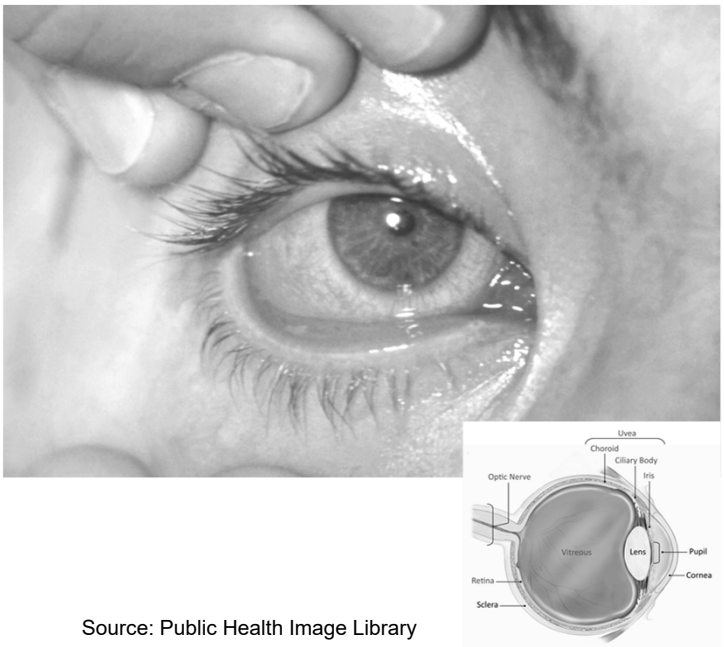
- Painless (unless optic neuritis)
- Sudden or gradual

- Proptosis (unless behind orbit)
- +/- Pain

Case 1: Infectious Conjunctivitis

- 3 days
- Tearing
- Redness
- Irritation

- Good vision
- Normal pressure
- Normal pupils



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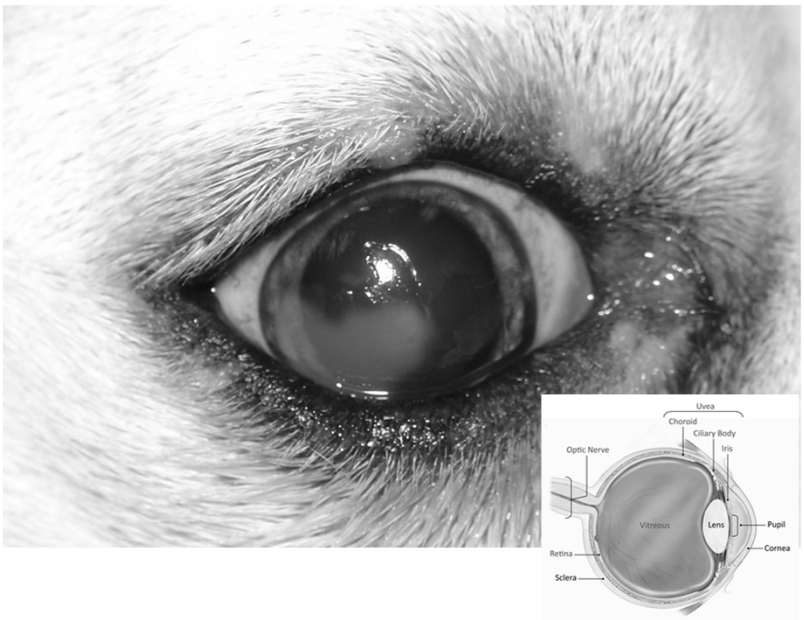
Management Tips

- Check for pre-auricular and submandibular lymphadenopathy
- Typically resolves without treatment
- Antibiotic drops if persistent or severe purulence
- Cold compresses + chilled artificial tears

Case 2: Corneal abrasion

- Trauma
- Tearing
- Photosensitivity
- Pain

- Variable vision
- Normal pressure
- Normal pupils



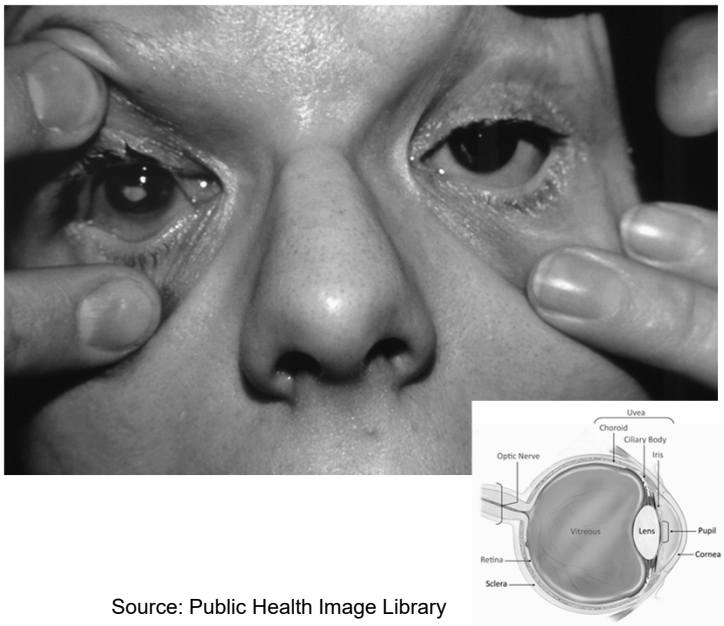
Management Tips

- Antibiotic ointment (erythromycin – cheap)
- NO topical anesthetic Rx
- Ibuprofen + Tylenol
- Resolves 2-3 days (quicker if young/healthy)

Case 3: Corneal ulcer

- Poor contact lens use
- Tearing
- Photosensitivity
- Pain

- Decreased vision
- Normal pressure
- Normal pupils



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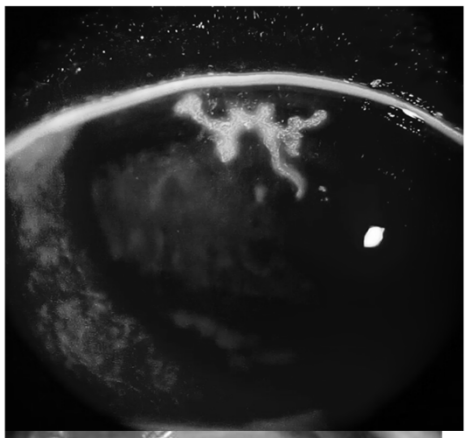
Management Tips

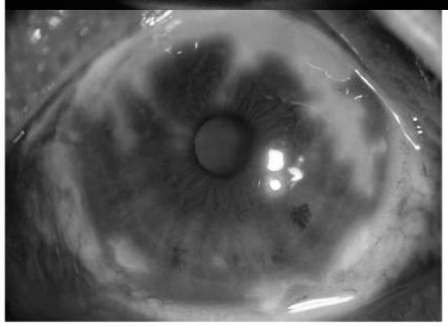
- Ophthalmology same day or next day
- Moxifloxacin + Polymyxin B Sulfate and Trimethoprim (Polytrim) drops every 1-2 hours while awake
- Contact lens hygiene education

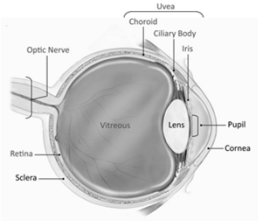
Case 4: Corneal ulcer

- No trauma or contact lens
- +/- cold sore history
- Irritation

- Variable vision
- Pressure may be high
- Normal pupils







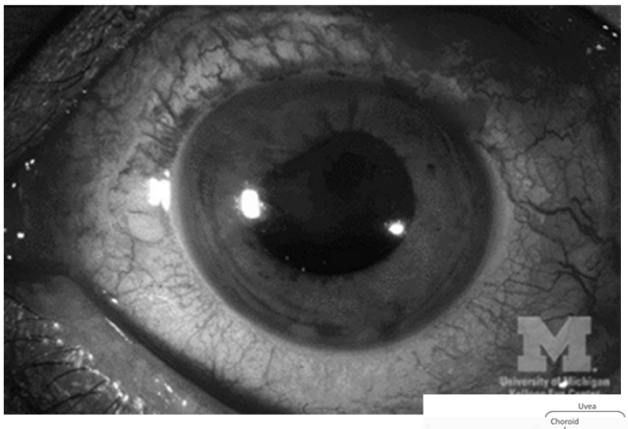
Management Tips

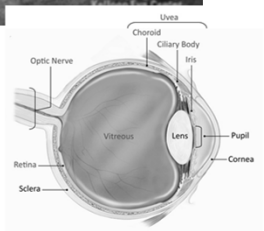
- Ophthalmology same day or next day
- Moxifloxacin 4 times daily
- NO steroid drops
- Valacyclovir1g TID or Acyclovir 800mg 5x daily

Case 5: Uveitis

- Spontaneous onset
- Pain
- Photosensitivity
- No tearing

- Decreased vision
- Variable pressure
- Irregular pupil





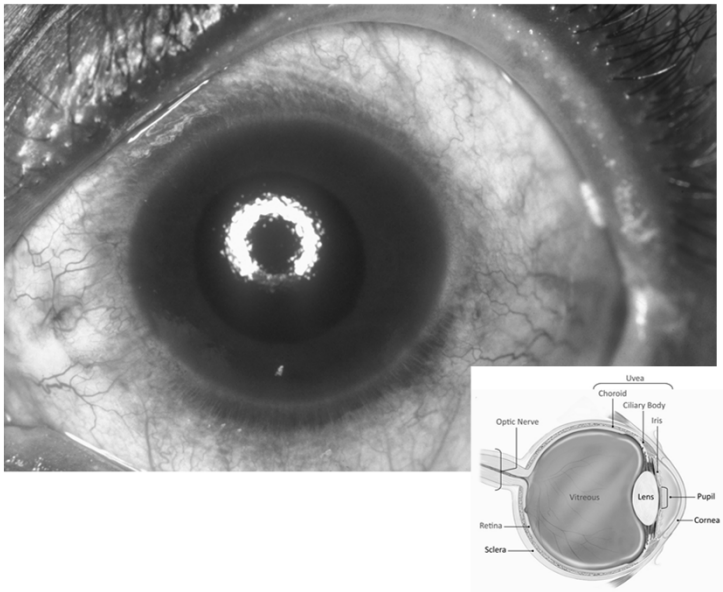
Management Tips

- Let vitals dictate urgency

Case 6: Acute Glaucoma

- Spontaneous onset
- Pain
- Headache
- No tearing

- Decreased vision
- High Pressure
- Minimally reactive pupil



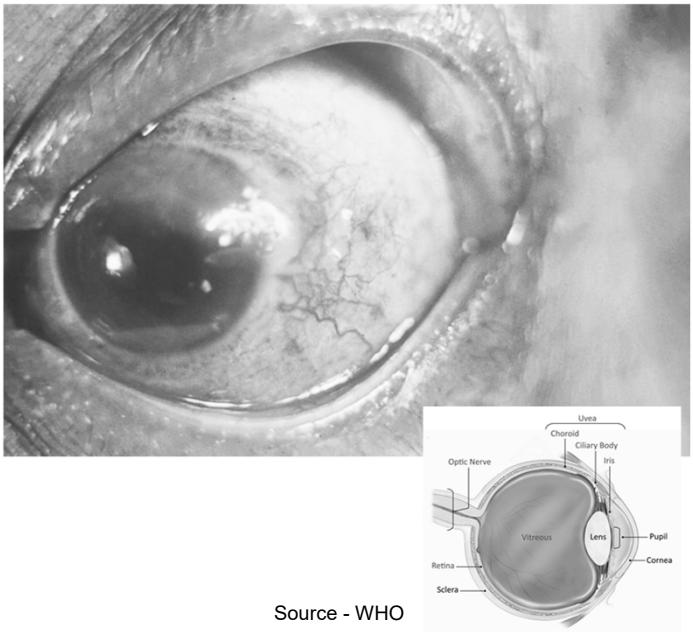
Management Tips

- Same day Ophthalmology or Emergency Department
- Timolol, Brimonidine, Dorzolamide, Latanoprost drops
- Acetazolamide (Diamox) 500mg

Case 7: Hyphema

- Trauma or Diabetes
- Pain
- Photosensitivity

- Decreased vision
- High pressure
- Minimally reactive pupil



Source - WHO

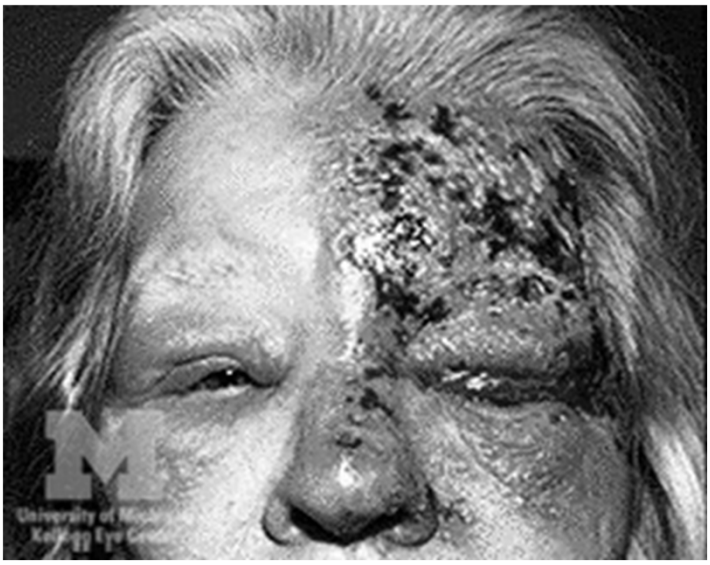
Management Tips

- Same day Ophthalmology or Emergency Department
- Shield over the eye
- Activity restrictions (no heavy lifting, bending over)
- No aspirin or NSAIDs

Case 8: Herpes Zoster Ophthalmicus

- Spontaneous onset

- Variable vision
- Variable pressure
- Variable pupils



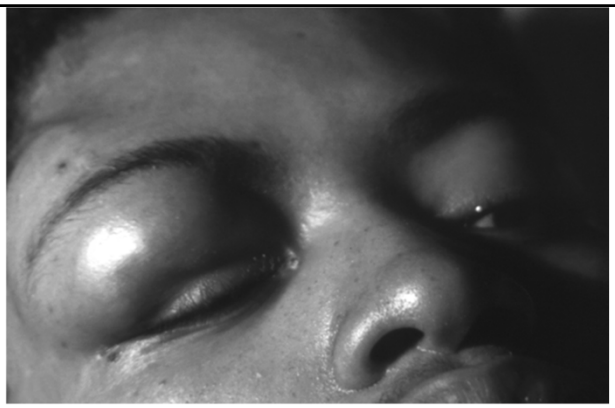
Management Tips

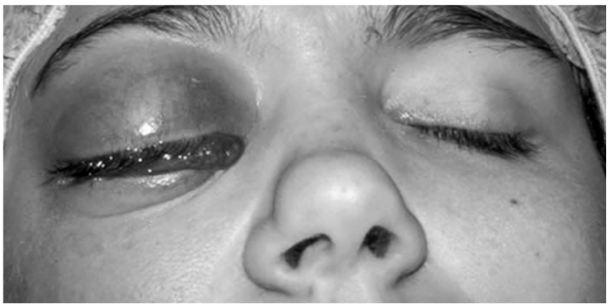
- Let vitals dictate urgency to see ophthalmology
- Zoster does what it wants
- Watch out for floaters
- Valacyclovir 1g 3x daily or Acyclovir 800mg 5x daily
- Avoid topical steroids

Case 9: Cellulitis

- Preseptal: trauma
- Orbital: cold/sinus infection

- Typically good vision
- Eye pressure
  - Preseptal: normal
  - Orbital: may be high
- Pupils
  - Preseptal: normal
  - Orbital: may have APD





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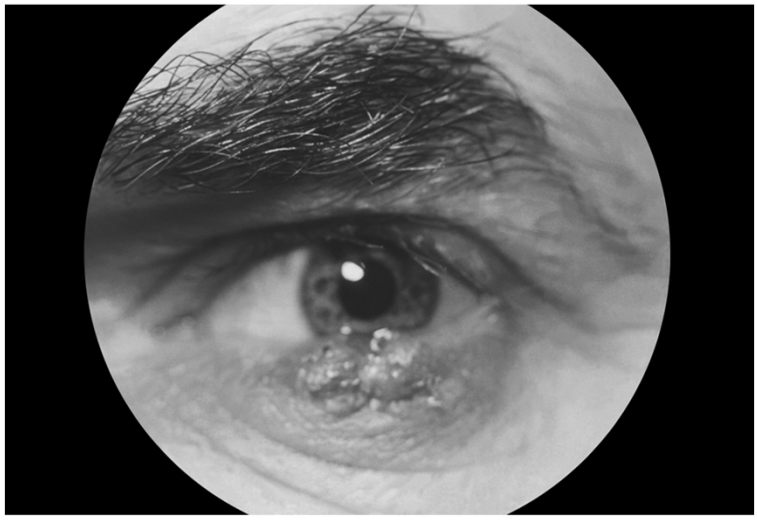
Management Tips

- Preseptal
  - Oral antibiotics for at least 48 hours (Augmentin +/- Bactrim)
  - Close follow-up, ok with primary care
- Orbital
  - Needs IV antibiotics, blood cultures, CT scan
  - Send to Emergency Department

Case 10: Eyelid Lesions

- Inflammatory/infectious
  - Chalazion
  - Hordeolum
- Benign
  - Papilloma
  - Inclusion cysts
  - Skin tags
- Malignant
  - Basal cell, squamous cell, etc.



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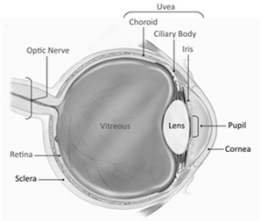
Tips

- Inflammatory lesions
  - Hot compresses frequently
  - Antibiotic/steroid ointment
  - Ophthalmology in 4-6 weeks
- Benign vs Malignant – concerning signs
  - Loss of eyelashes (madarosis)
  - Ulceration/bleeding
  - Growing

Case 11: Acute vision loss

- Painless
  - Ischemia (optic neuropathy, retinal artery/vein occlusion)
  - Retinal detachments
  - Cerebrovascular accident (CVA)
- Painful
  - Giant cell arteritis
  - Optic neuritis

Emergent Ophtho Eval
Stroke evaluation

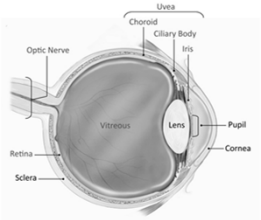


Source - WHO

Case 12: Flashes and floaters

- Vitreous detachment vs Retinal tear/detachment
  - “black spots”
  - “bright flashing white lights”
  - Unilateral, no headache
- Vitreous hemorrhage
  - Diabetes
  - “previous episodes”
  - “black or red floaters”
- Migraine with aura
  - “kaleidoscope”
  - “headache, light sensitive, nausea”
  - Bilateral, lasts several minutes to hours

Treat headache
Ophtho same day

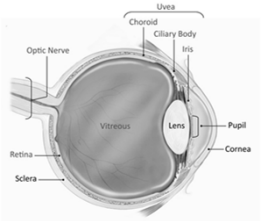


Source - WHO

Case 13: Acute Diplopia

- Weird eye → Orbit
  - Tumor
  - Cavernous sinus pathology (infection, blood clot)
- Normal eye → Brain
  - CVA
  - Tumor
  - Aneurysm
  - Giant cell arteritis

Emergent Ophtho/Neuro Eval
MRI Brain +/- Orbits wwo



Source - WHO

Summary

- Good history and exam (especially ocular vitals) → effectively and safely manage some ophthalmic problems and know when and how quickly to refer to ophthalmology or send to the emergency department