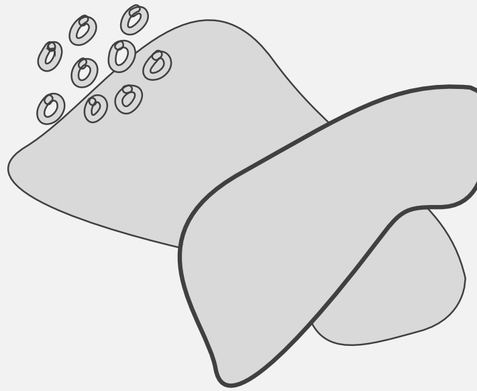
Common Eye Conditions
For CHO/SN

CONJUNCTIVITIS



INTRODUCTION

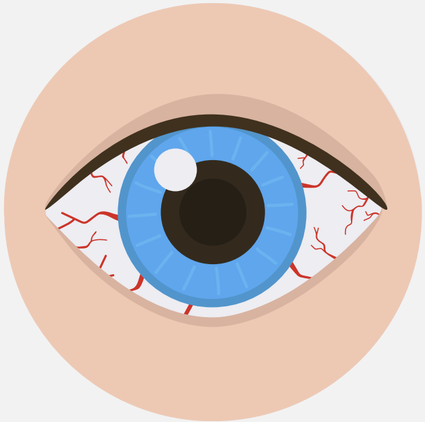
- Conjunctivitis is one of the most common eye diseases.
- Conjunctivitis is inflammation of the conjunctiva.
- It may be acute or chronic.

ETIOLOGY

- Most cases are due to viral or bacterial (including gonococcal and chlamydial) infection.

The mode of transmission of infectious conjunctivitis:
- usually direct contact via fingers, towels, handkerchiefs, etc. to the fellow eye or to other persons.

Other causes include:
- Keratoconjunctivitis sicca
- allergy
- chemical irritants
- Deliberate self-harm.



DIFFERENTIAL DIAGNOSIS OF CONJUNCTIVITIS

	Acute conjunctivitis	Acute anterior Uveitis (Iritis)	Acute angle closure glaucoma	Corneal trauma or infection
Incidence	Extremely common	common	Uncommon	common
Discharge	Moderate to copious	None	None	Watery or purulent
Vision	No effect	Often blurred	Marked blurred	Usually blurred
Pain	Mild	Moderate	Severe	Moderate-Severe
Conjunctival injection	Diffuse; more toward fornices	Mainly circumcorneal	Mainly circumcorneal	Mainly circumcorneal
Cornea	clear	Usually clear	Cloudy	Clarity change related to cause
Pupil size	Normal	Small	Moderately dilated	Normal or small
Pupillary light response	Normal	Poor	None	Normal
Intraocular pressure	Normal	Usually normal but may be low or elevated	Markedly elevated	Normal

CONJUNCTIVITIS

- Complaints- Pain ,Redness, discharge

- Examination- Congestion, Discharge, Normal Vision

- Medical Officer's Role- Topical antibiotic (Ciprofloxacin), Lubricants, analgesics, Review × 3-5 days- bacterial

Cold compresses reduce discomfort and topical antibiotics can be prescribed to prevent secondary bacterial infection. – Viral Conjunctivitis
Antihistamines, Mast Cell stabilizers, NSAIDS, Vasoconstrictors(Limited Role)
oral antihistamines e.g., loratadine 10 mg orally daily) maybe useful in prolonged atopic keratoconjunctivitis.
Patient Education-Very Important

- When to refer- decreased vision, neonatal conjunctivitis, no improvement after rx, corneal involvement

RED EYE

RED EYE WITHOUT VISION LOSS

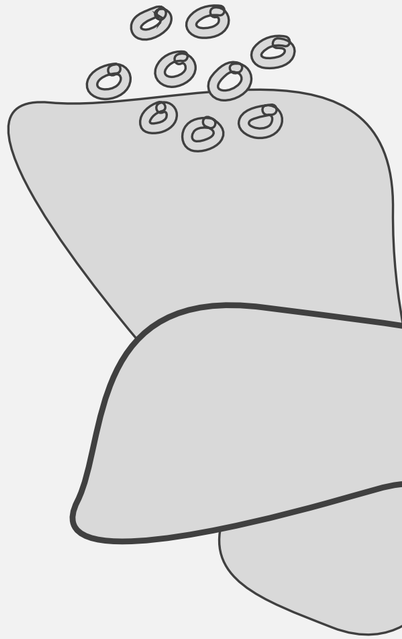
- Allergic conjunctivitis
- Bacterial conjunctivitis
- Viral conjunctivitis
- episcleritis
- Off visual Axis FB

RED-EYE WITH VISION LOSS

- acute anterior uveitis
- acute angle-closure glaucoma
- trauma/chemical burns
- corneal ulcer
- large corneal abrasion
- endophthalmitis

Unilateral v/s bilateral red eye

RED FLAGS (RED EYE)



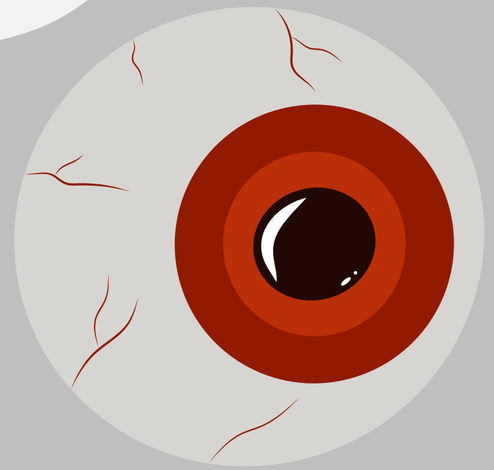
• Severe eye pain Severe photophobia Marked redness of one eye Reduced visual acuity (after correcting for refractive errors)

• Suspected penetrating eye injury

• Worsening redness and pain occurring within one to two weeks of an intraocular procedure (possible post-operative endophthalmitis)

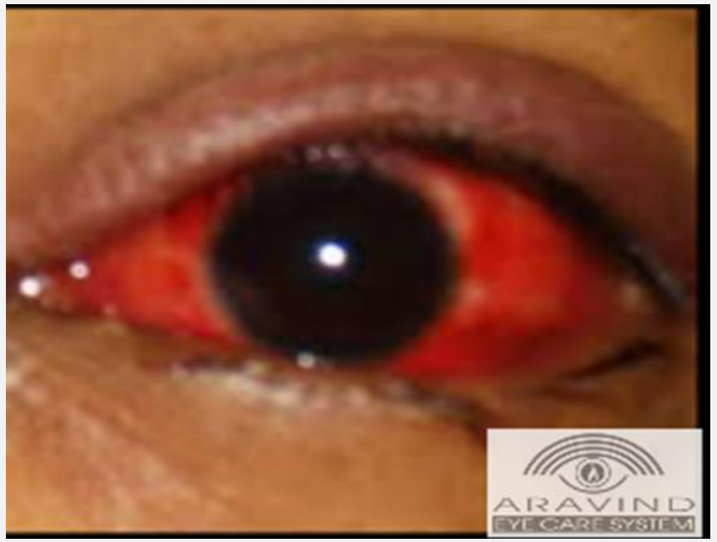
• Irritant conjunctivitis caused by an acid or alkali burn or other highly irritating substance, e.g. cement powder;

• Purulent conjunctivitis in a newborn infant (refer to a Paediatrician)

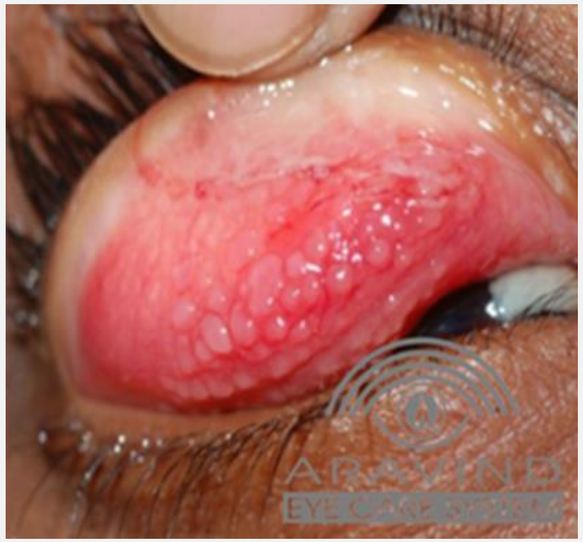


BACTERIAL V/S VIRAL V/S ALLERGIC

Bacterial

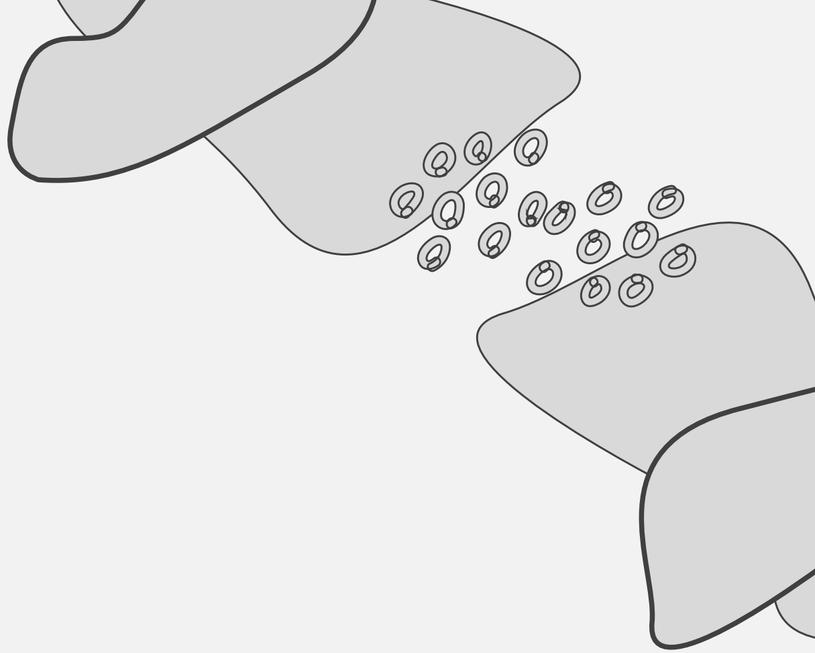


Viral



Allergic

BACTERIAL CONJUNCTIVITIS:
GONOCOCCAL CONJUNCTIVITIS:



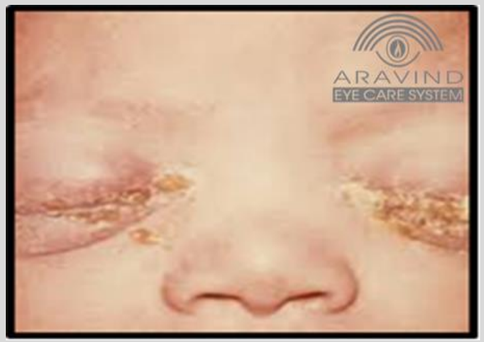
Gonococcal conjunctivitis is usually acquired through contact with infected genital secretions

typically causes the copious purulent discharge.

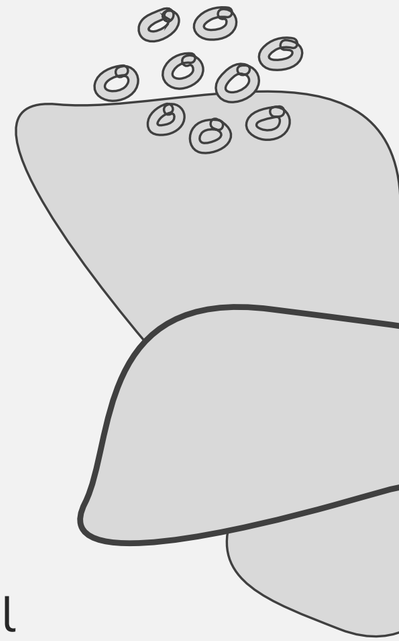
It is an ophthalmologic emergency because corneal involvement may rapidly lead to perforation.

Treatment:

- Other sexually transmitted diseases, including chlamydiosis, syphilis, and HIV infection, should be considered and excluded.
- A single 1 g dose of intramuscular ceftriaxone is usually adequate.
- Topical antibiotics such as erythromycin may be added.
- if gonococcal conjunctivitis is suspected the patient should be urgently referred to an ophthalmologist.

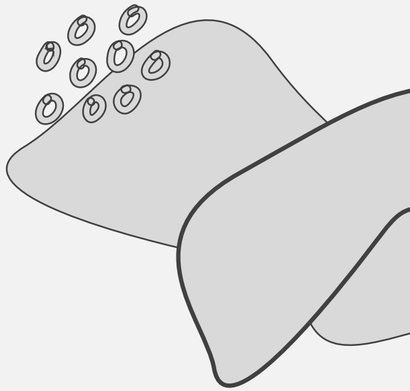


CHLAMYDIA KERATOCONJUNCTIVITIS : TRACHOMA



- Trachoma is one of the most common infectious causes of blindness worldwide.
- Complaints: Recurrent episodes of infection in childhood manifest
- Clinical Features- bilateral follicular conjunctivitis, epithelial keratitis, and corneal vascularization (pannus). Entropion, trichiasis
- Medical officer’s role - A single 1 g dose of oral azithromycin is the preferred drug.
- Improvements in hygiene and living conditions
- When to refer – to corneal scarring & entropion

DRY EYES (KERATOCONJUNCTIVITIS SICCA)



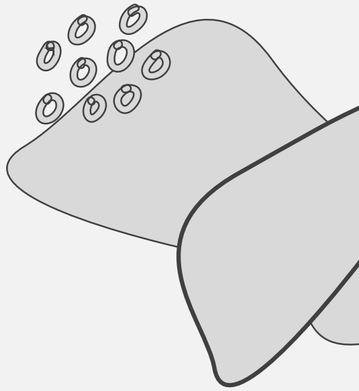
• Complaints-The patient complains of dryness, redness, or foreign body sensation, In severe cases, there is persistent marked discomfort, with photophobia, difficulty in moving the eyelids, and often excessive mucus secretion.

• Examination- marked conjunctival redness, loss of the normal conjunctival and corneal luster, epithelial keratitis that may progress to frank ulceration, and mucous strands.

• Medical officer's role- Prescribe can be treated with various types of artificial tears. The simplest preparations are physiologic (0.9%) or hypo-osmotic (0.45%) solutions of sodium chloride, which can be used frequently (three or four times a day).

• When to refer- If patient has severe symptoms are diagnosis is uncertain patient should be referred to ophthalmologist for assessment and further management.

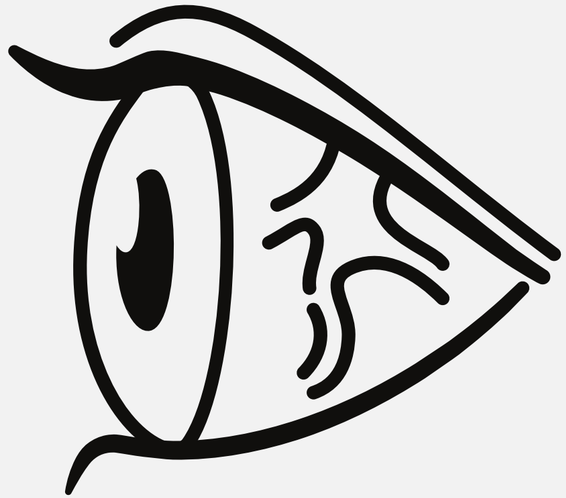
PINGUECULA & PTERYGIUM



Pinguecula and pterygium are often bilateral

- Complaints- growth with occasional redness

- Examination – pingecuale-yellow, elevated conjunctival nodule, more commonly on the nasal side, in the area of the palpebral fissure. Pingueculae rarely grow but may become inflamed (pingueculitis). Pterygium- fleshy, triangular encroachment of the conjunctiva onto the nasal side of the cornea. Rarely inflamed
Medical officer's role- small size – no treatment/simple lubricants, patient education



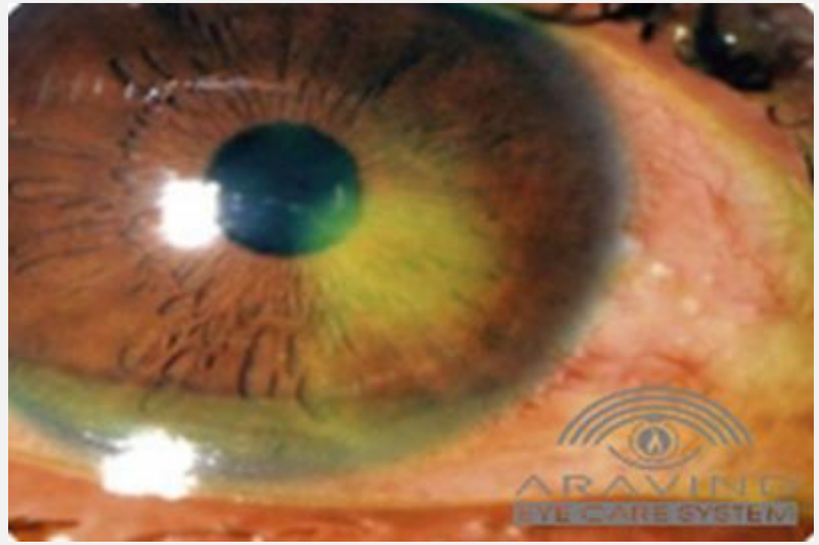
- Referral – inflamed, pterygium which is the large and encroaching visual axis, marked cylinder number, severe ocular irritation

CORNEAL CONDITIONS, UVEITIS

CORNEAL ABRASIONS

CLINICAL FEATURES:

- severe pain and photophobia.
- There is often a history of trauma to the eye, commonly involving a fingernail, piece of paper, or contact lens.

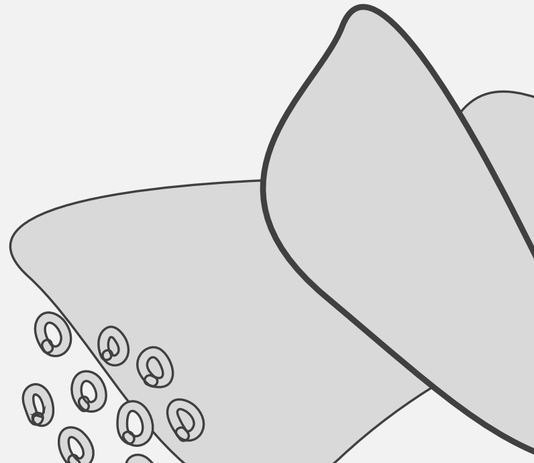


EXAMINATION-

- Visual acuity is recorded,
- and the cornea and conjunctiva are examined with light and loupe to rule out a foreign body.

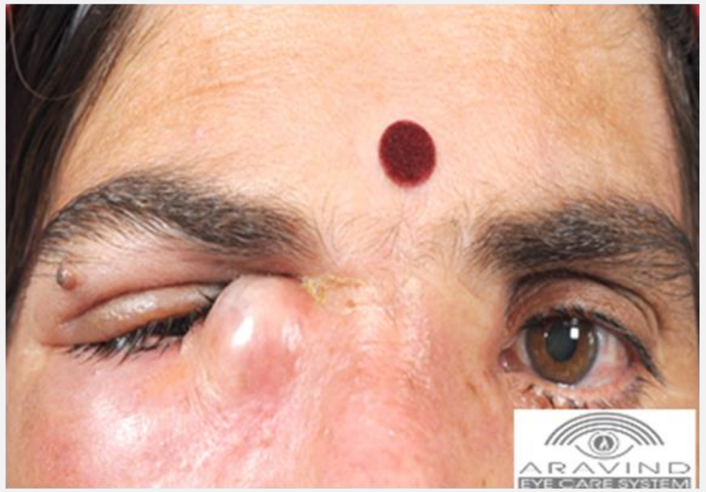
MEDICAL OFFICER'S ROLE

- bacitracin-polymyxin ophthalmic ointment,
- mydriatic (cyclopentolate 1 %), and
- analgesics either topical or oral nonsteroidal anti-inflammatory agents.
- Padding the eye is not required for small abrasions.
- When to refer- large abrasions, abrasions in visual axis

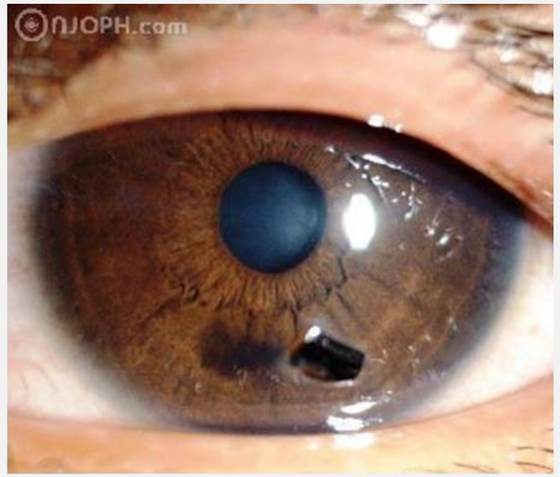


INFECTIOUS KERATITIS - RISK FACTORS

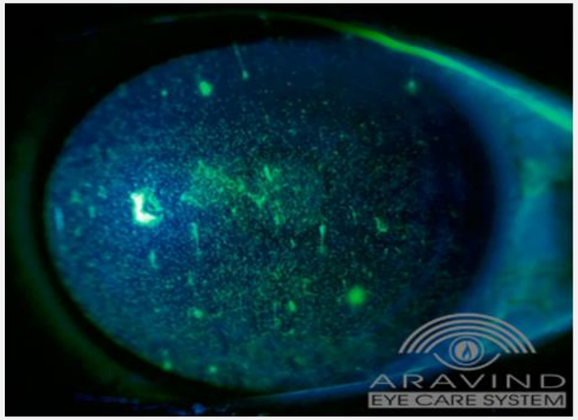
Ocular Trauma with Vegetative matter leads to Fungal Keratitis



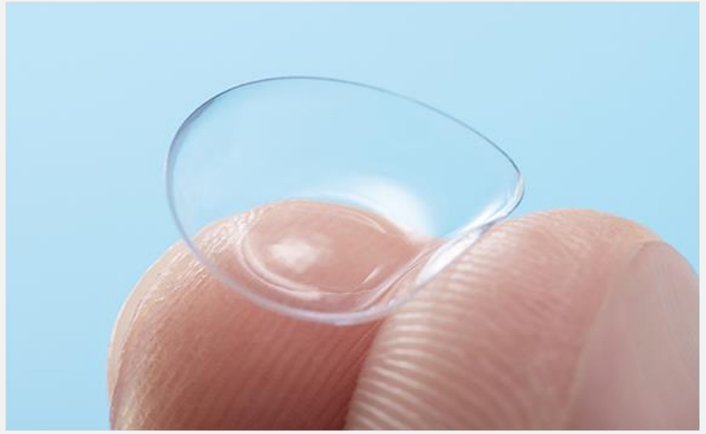
Chronic Dacryocystitis



Corneal Foreign Body Injury



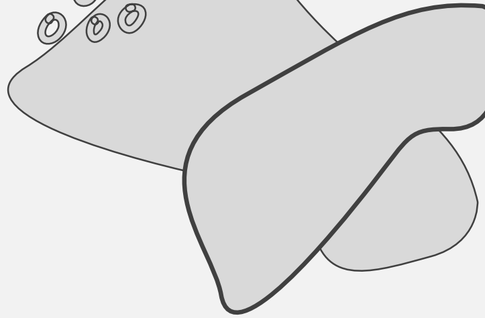
Dry Eye



Contact lens use

Topical Steroids Use

CORNEAL ULCER



- Complaints-pain, photophobia, tearing, and reduced vision.

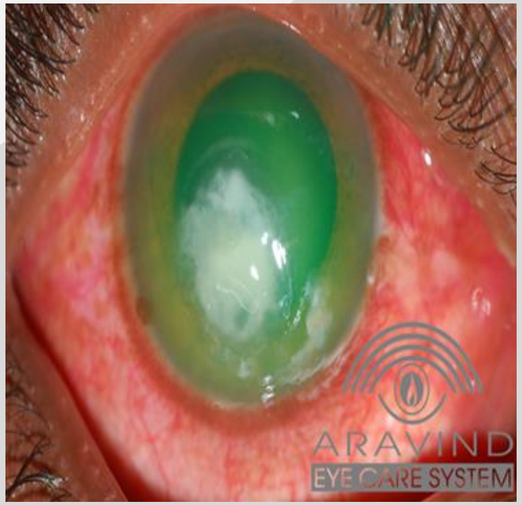
- Examination- red-eye, circumcorneal congestion, The corneal appearance varies according to the underlying cause.

- Medical officer’s role- urgent referral

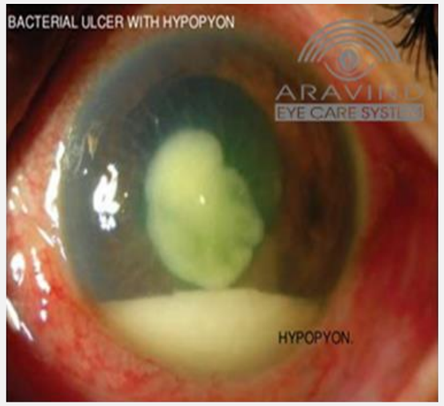
- Delayed or ineffective treatment of corneal ulceration may lead to devastating consequences with corneal scarring or intraocular infection.

- Prompt referral is essential.

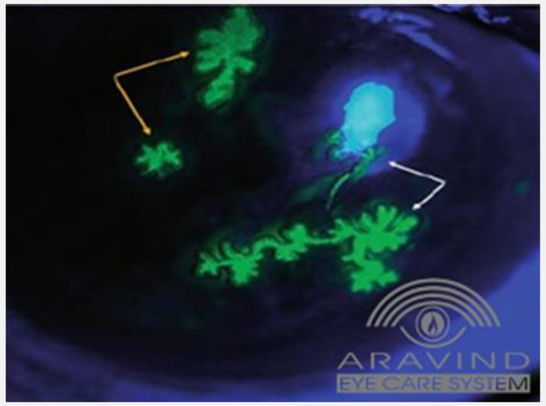
Any patient with acute painful red-eye and corneal abnormality should be referred emergently to an ophthalmologist.



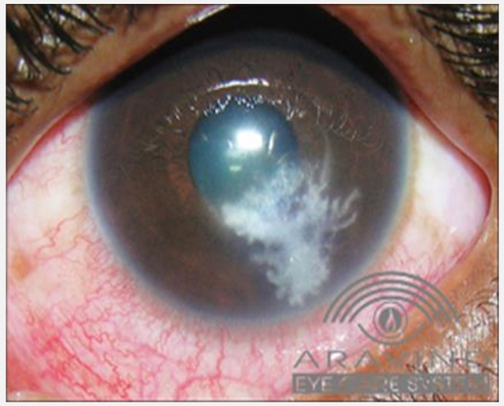
CORNEAL ULCER- URGENT REFERRAL



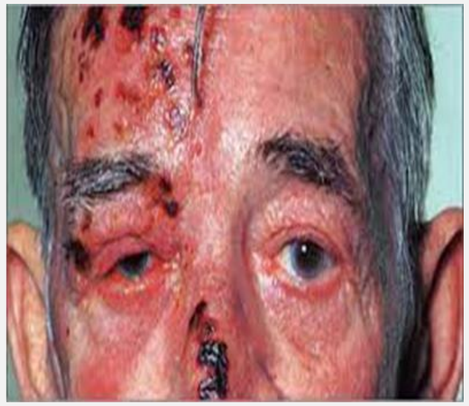
Bacterial



Viral



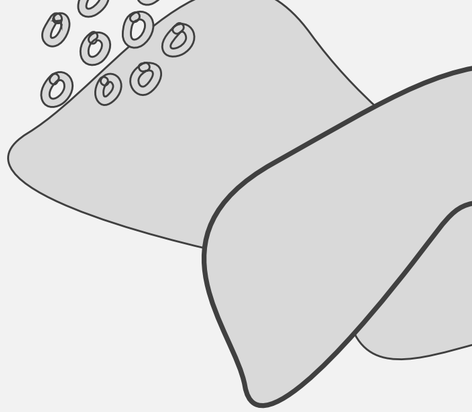
Fungal



HZO

Etiology:

Infectious Cause: most commonly due to infection by bacteria, viruses, fungi, or amoebae.

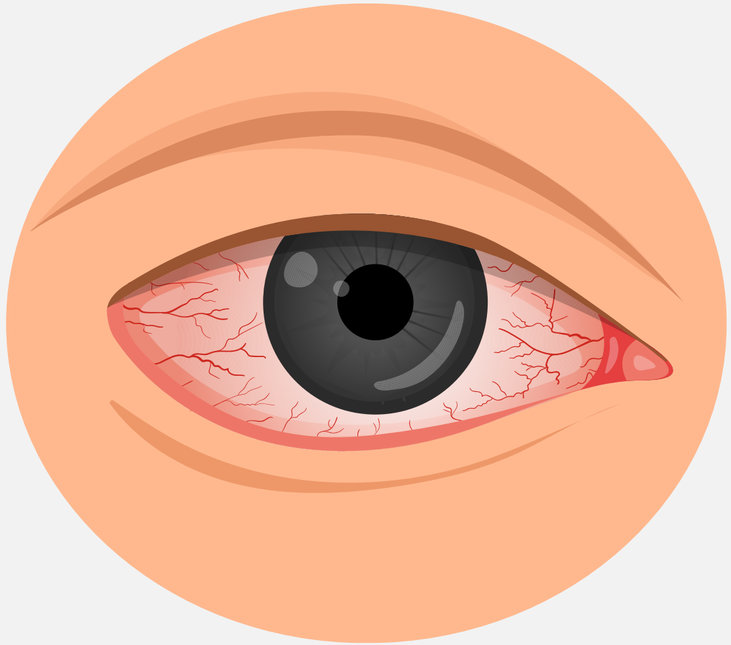


UVEITIS

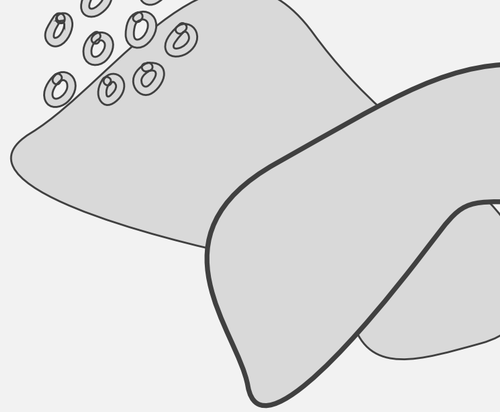
- Uveitis is usually immunologic but can also occur due to infective or neoplastic pathology.
- Types- acute or chronic

  -anterior, intermediate or posterior

  -granulomatous or non-granulomatous



UVEITIS : ANTERIOR UVEITIS

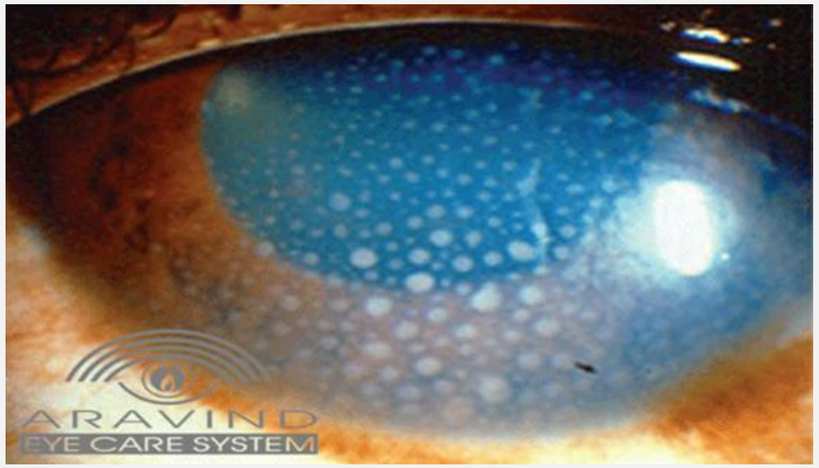


Complaints- pain , redness, decreased vision, recurrent episode

Examination- visual acuity, circumcorneal congestion irregular sluggish pupil, KPs may be visible on torchlight if large

Medical Officer's Role- analgesics, cycloplegic

Urgent referral

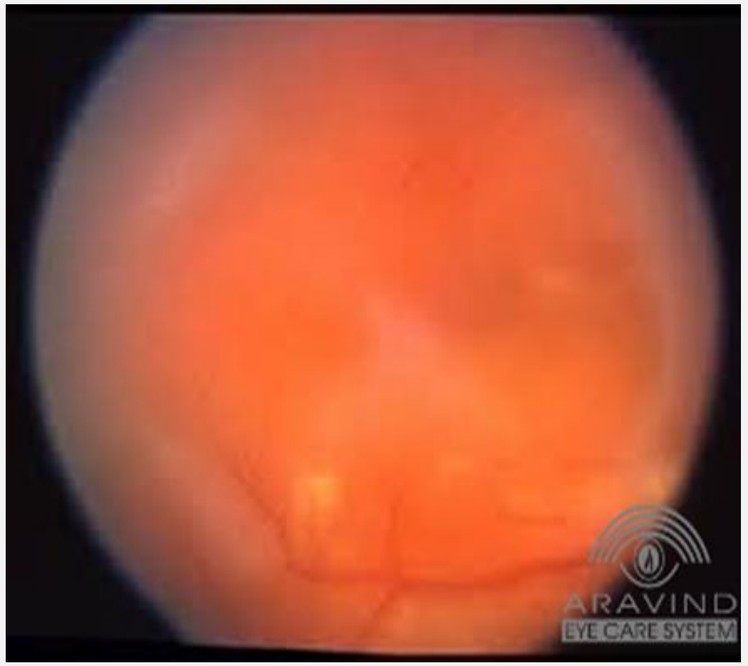


UVEITIS: POSTERIOR UVEITIS

- Complaints- b/gradual loss of vision, no pain/redness, recurrent

- Examination- visual acuity, normal pupil reaction, quiet eye

- Medical officer’s role-urgent referral



ACUTE ANGLE-CLOSURE GLAUCOMA

PRIMARY ACUTE ANGLE-CLOSURE GLAUCOMA:

Complaints- sudden onset of severe pain, redness decreased vision. severe cases-0 of headache & vomiting results from the closure of a preexisting narrow anterior chamber angle.

Examination- marked redness, cloudy cornea, fixed dilated pupil, digital IOP raised

Medical Officer's Role- analgesia, tab acetazolamide 250 mg 2 stat (after ruling out sulpha allergy)drop of pilocarpine

Urgent referral, educate about Rx of the fellow eye

DIFFERENTIAL DIAGNOSIS:

Acute glaucoma must be differentiated from conjunctivitis, acute uveitis, and corneal disorders Treatment

CHRONIC GLAUCOMA

Complaints- gradual progressive b/l painless loss of vision, colored haloes, ask for family history

Examination- VA, IOP -Schultz, direct ophthalmoscopy for cupping

Medical officer's role- referral for evaluation by an ophthalmologist

When to Refer: All patients with suspected chronic glaucoma should be referred to an ophthalmologist.

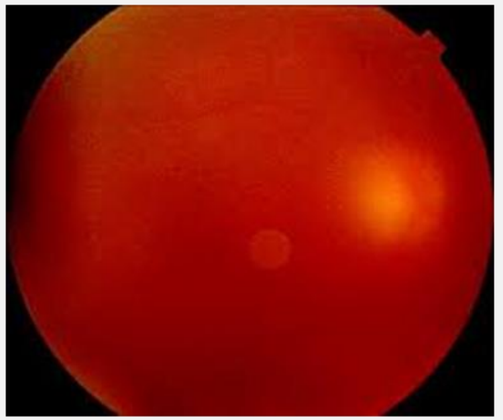
Patient education / screening-

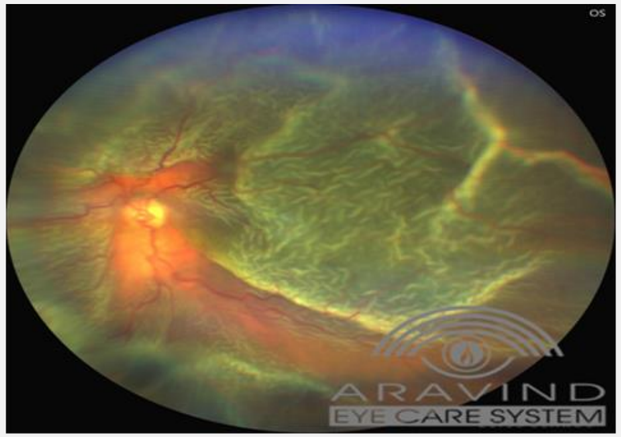
- individuals with an affected first-degree relative,
- persons who have diabetes mellitus.
- patients taking long-term corticosteroid therapy.
- Age > 40 years

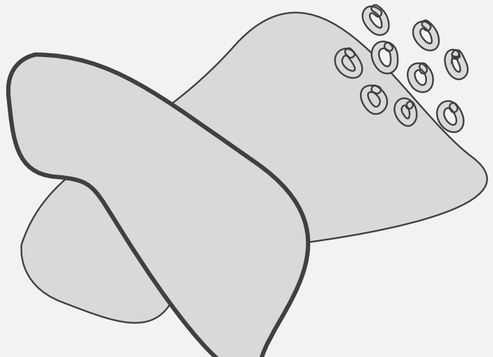
EYE CONDITIONS AFFECTING POSTERIOR SEGMENT OF EYE

NORMAL ANTERIOR SEGMENT & PUPIL & PAINLESS SUDDEN LOSS OF VISION

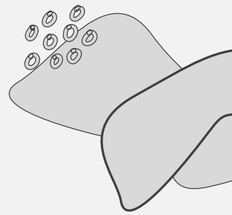
- Retinal detachment
- Vitreous haemorrhage
- Venous occlusions
- Arterial occlusions
- PCA territory stroke







NORMAL ANTERIOR SEGMENT & PUPIL & PAINLESS SUDDEN LOSS OF VISION

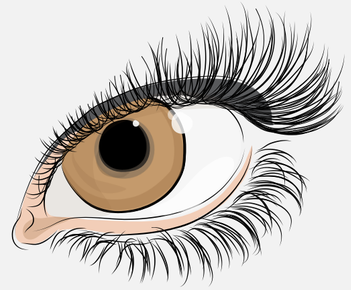


- Complaints- sudden painless loss of vision, floaters, the curtain in front of eye h/o DM, Htn, high myopia, smoking, etc.

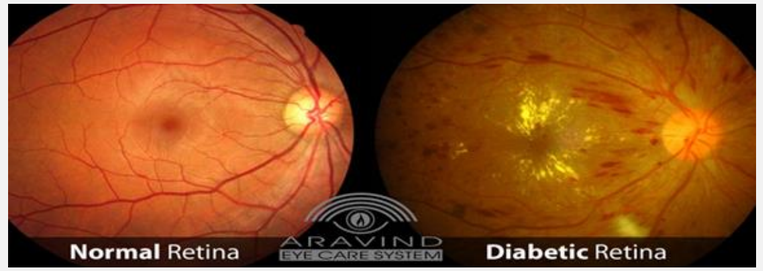
- Examination-decreased VA, normal pupil reaction, and anterior segment check bp and blood sugar- distant direct ophthalmoscopy-grey reflex/hazy media

- Medical officer's role- urgent referral to an ophthalmologist, education on lifestyle changes

Arterial occlusions- critical period is 6 hours, ocular massage referred emergently to an ophthalmologist on oxygen and making patient lie flat during transportation



NORMAL ANTERIOR SEGMENT &PUPIL & PAINLESS GRADUAL LOSS OF VISION



- ARMD
- Diabetic retinopathy
- Hypertensive retinopathy

Complaints- gradual age-related decrease in vision, h/o DM, smoking, family history, central loss of vision, distorted vision

Examination- VA, normal pupil and anterior segment

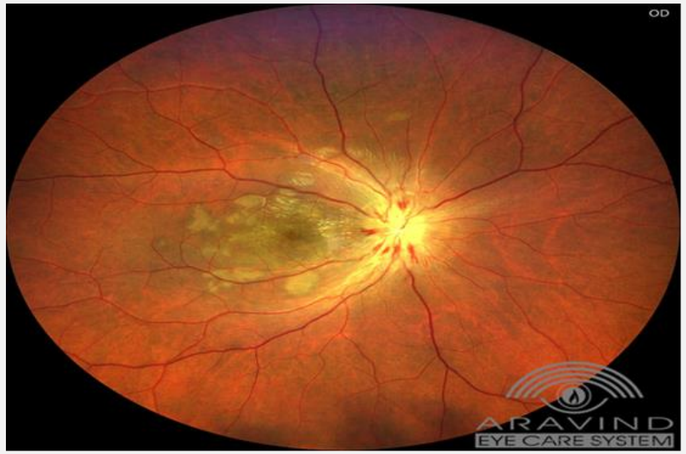
Role of Medical Officer- Patients suspected to have ARMD and diabetic retinopathy should be referred to an ophthalmologist for assessment and initiation of management.

Hypertensive retinopathy

ARMD

ABNORMAL PUPIL WITH SUDDEN PAINLESS LOSS OF VISION

- Optic neuritis
- Retrobulbar neuritis
- NAION
- AION

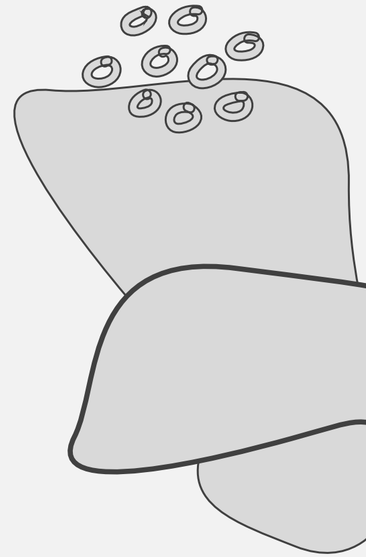


Optic neuritis

AION

Optic disc swelling-Papilledema

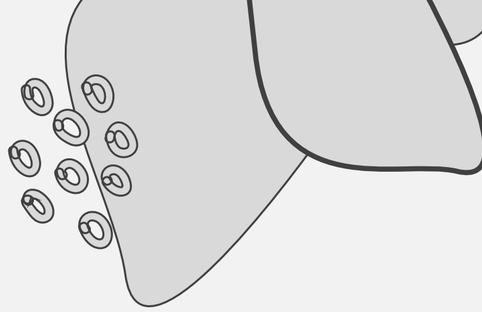
ABNORMAL PUPIL WITH SUDDEN PAINLESS LOSS OF VISION



- Complaints-sudden painless loss of vision, H/O HTN, DM smoking, headache, vomiting in papilledema, changes in color vision
- Examination- decreased VA, rapd, rest of as normal.
- Medical officer role-urgent referral to an ophthalmologist, neurologist referral for papilledema

Note- any patient with rapid needs to be urgently referred to ophthalmologist

TRANSIENT MONOCULAR VISUAL LOSS



Transient monocular visual loss is usually caused by a retinal embolus from ipsilateral carotid disease or the heart.

- Complaints- The visual loss is characteristically described as a curtain passing vertically across the visual field with complete monocular visual loss lasting a few minutes. A similar curtain effect as the episode passes (amaurosis fugax; "fleeting blindness").

- History- giant cell arteritis, hypercoagulable state, severe occlusive carotid disease.

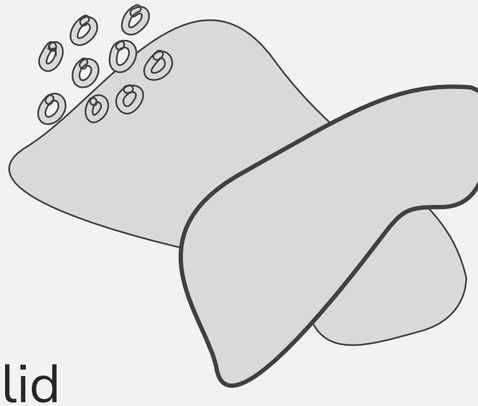
In young patients, a benign form of transient recurrent visual loss ascribed to choroidal or retinal vascular spasm can occur.

- Examination- VA may be normal, normal eye examination, check BP

- Role of medical officer- control BP, start aspirin, refer to ophthalmologist and cardiologist

MISCELLANEOUS CONDITIONS

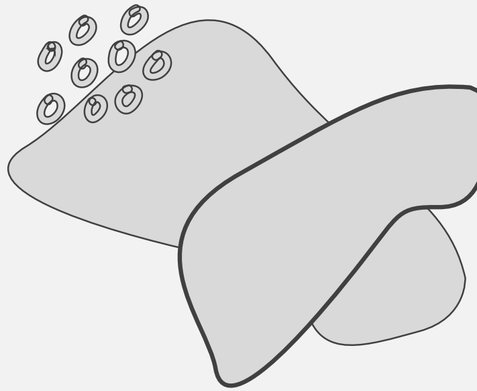
OCULAR MOTOR PALSIES



- **Complaints-** the recent onset of diplopia /squinting/drooping of the eyelid
- **Examination-** VA, pupil reaction, eom , ptosis
- **Medical officers role**

-Any patient with recent-onset isolated third nerve palsy, particularly if there is pupillary involvement or pain, must be referred emergently for neurologic assessment.

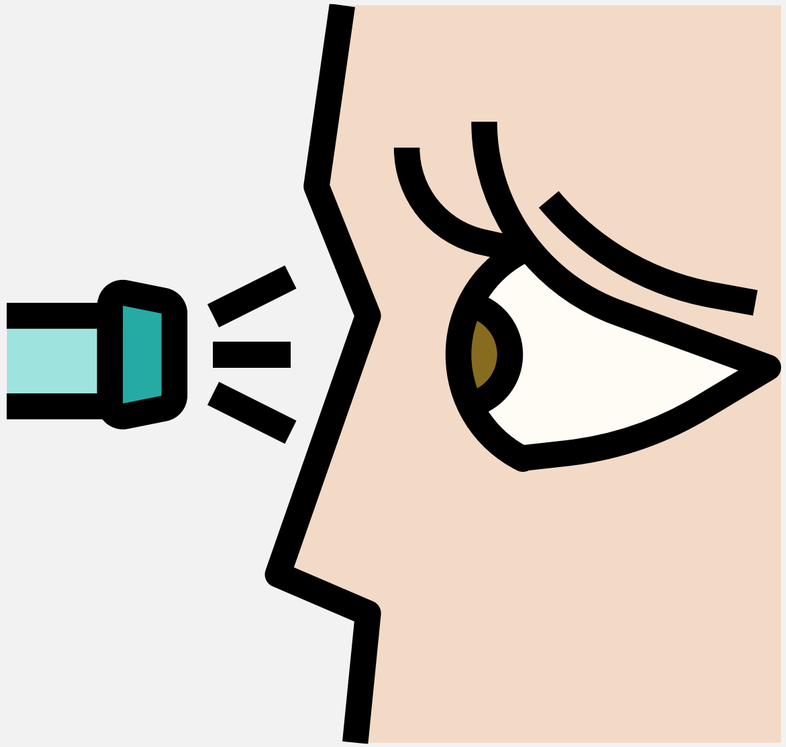
-All patients with recent-onset double vision should be referred urgently to an ophthalmologist or neurologist, particularly if there is multiple cranial nerve dysfunction or other neurologic abnormalities.



OCULAR MOTOR PALSIES

WHAT TO DO:

- Any patient with recent-onset isolated third nerve palsy, particularly if there is pupillary involvement or pain, must be referred emergently for neurologic assessment.



- All patients with recent-onset double vision should be referred urgently to an ophthalmologist or neurologist, particularly if there is multiple cranial nerve dysfunction or other neurologic abnormalities.

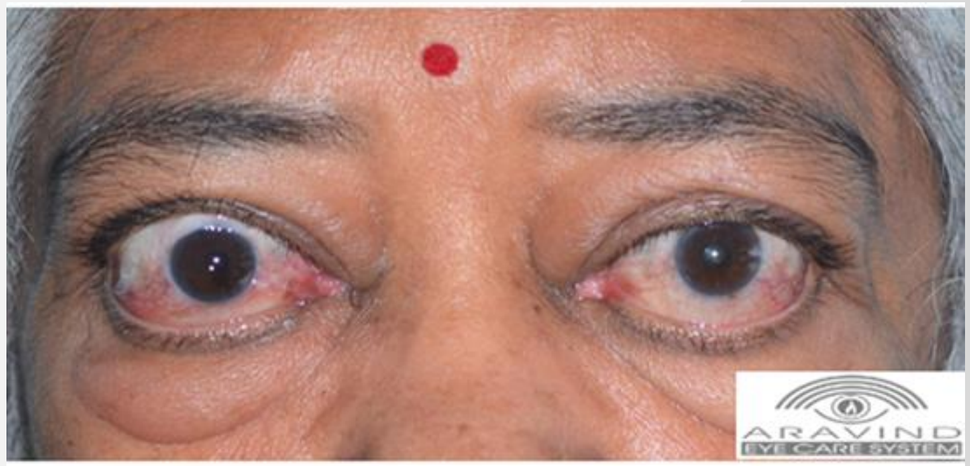
PROPTOSIS –FORWARD PROTRUSION OF EYE

- **Complaints-** forward protrusion of the eye, diplopia, foreign body sensation, grittiness
- **Causes-** hyperthyroidism, orbital tumors, pseudotumor orbit
- **Examination-** VA, EOM, proptosis, conjunctival congestion, and chemosis
- **Criteria for referral**

-Moderate to severe grave's disease

-Decreased vision

-Recent onset diplopia



ORBITAL CELLULITIS

- **Complaints-** fever, pain, proptosis, periocular swelling, diplopia

- **Examination-** VA, EOM , lid swelling, proptosis

- **What to do:** All patients with suspected orbital cellulitis must be referred emergently to an ophthalmologist.

RED FLAGS (URGENT REFERRAL)

- Sudden painless loss of vision – VH/RD/ retinal Vascular occlusions
- Sudden painful loss of vision- corneal ulcer/Acute acg /acute uveitis
- Normal pupil+ Sudden b/l painless loss of vision- PCA artery territory stroke
- Trauma-blunt/ penetrating/ chemical burns
- Hazy cornea
- Pupil-fixed dilated / rapd- ONH or Retinal disease
- Infant or child with leukocoria – retinoblastoma/congenital cataract
- Corneal Fb in the visual axis
- Recent intraocular surgery- decreased vision, pain , redness- endophthalmitis

Thank You