

Red Eye

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Introduction

■ Relevance

◆ Red Eye

- Frequent presentation to GP
- Must be able to differentiate between serious vision threatening conditions and simple benign conditions

Basics

◆ Red Eye

- Refers to hyperemia of the superficially visible vessels of the conjunctiva, episclera, or the sclera
- Caused by disorders of these structures themselves, or of adjacent structures like the eyelids, cornea, iris, and ciliary body



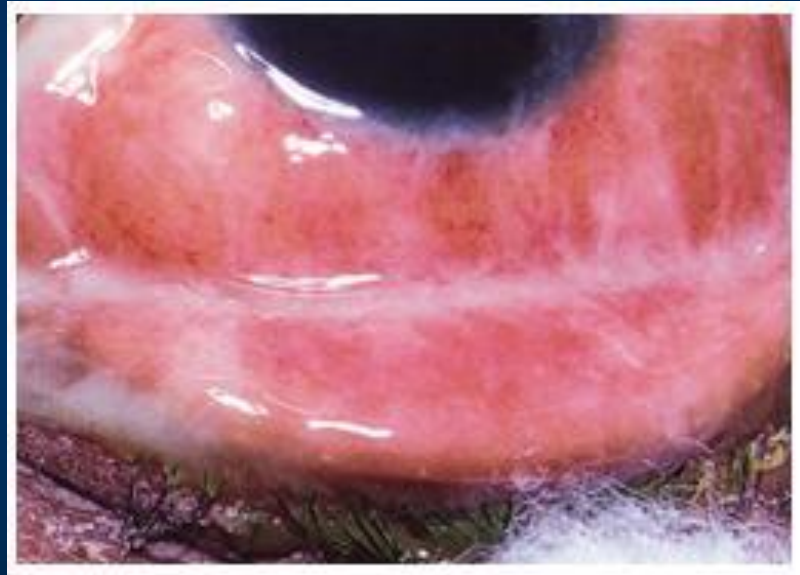
Differential diagnosis of red eye

- Conjunctival
 - Blepharoconjunctivitis
 - Bacterial conjunctivitis
 - Viral conjunctivitis
 - Chlamydial conjunctivitis
 - Allergic conjunctivitis
 - Toxic/chemical reaction
 - Dry eye
 - Pinguecula/pterygium
- Lid diseases
 - Chalazion
 - Sty
 - Abnormal lid function
- Corneal disease
 - Abrasion
 - Ulcer
- Foreign body
- Dacryoadenitis
- Dacryocystitis
- Masquerade syndrome
- Carotid and dural fistula
- Acute angle glaucoma
- Anterior uveitis
- Episcleritis/scleritis
- Subconjunctival hemorrhage
- Factitious



Blepharitis

- Adults > children
- Inflammation of the lid margin
- Frequently associated with styes
- Meibomian gland dysfunction
- Lid hygiene, topical antibiotics, and lubricants are the mainstays of treatment



Bacterial Conjunctivitis

- Both adults and children
- Tearing, foreign body sensation, burning, stinging and photophobia
- Mucopurulent or purulent discharge
- Lid and conjunctiva maybe edematous
- Streptococcus pneumoniae, Haemophilus influenzae, and staphylococcus aureus and epidermidis
- Conjunctival swab for culture
- Topical broad spectrum antibiotics

Viral Conjunctivitis

- Acute, watery red eye with soreness, foreign body sensation and photophobia
- Conjunctiva is often intensely hyperaemic and there may be follicles, haemorrhages, inflammatory membranes and a pre-auricular node
- The most common cause is an adenoviral infection
- No specific therapy but cold compresses are helpful





Allergic Conjunctivitis

- Encompasses a spectrum of clinical condition
- All associated with the hallmark symptom of itching
- There is often a history of rhinitis, asthma and family history of atopy
- Signs may include mildly red eyes, watery discharge, chemosis, papillary hypertrophy and giant papillae
- Treatment consist of cold compresses, antihistamines, nonsteroidals, mast cells stabilizers, topical corticosteroids and cyclosporine



Chlamydial Conjunctivitis

- Usually occur in sexually active individuals with or without an associated genital infection
- Conjunctivitis usually unilateral with tearing, foreign body sensation, lid crusting, conjunctival discharge and follicles
- There is often non-tender preauricular node
- Treatments requires oral tetracycline or azithromycin

Dry Eye

■ Symptoms

- Burning or foreign body sensation
- Tearing
- Usually bilateral

■ Etiology

- Idiopathic
- Collagen vascular diseases
- Conjunctival scarring
- Infiltration of the lacrimal gland
- Vitamin A deficiency

■ Treatment

- Artificial tears

Pterygium



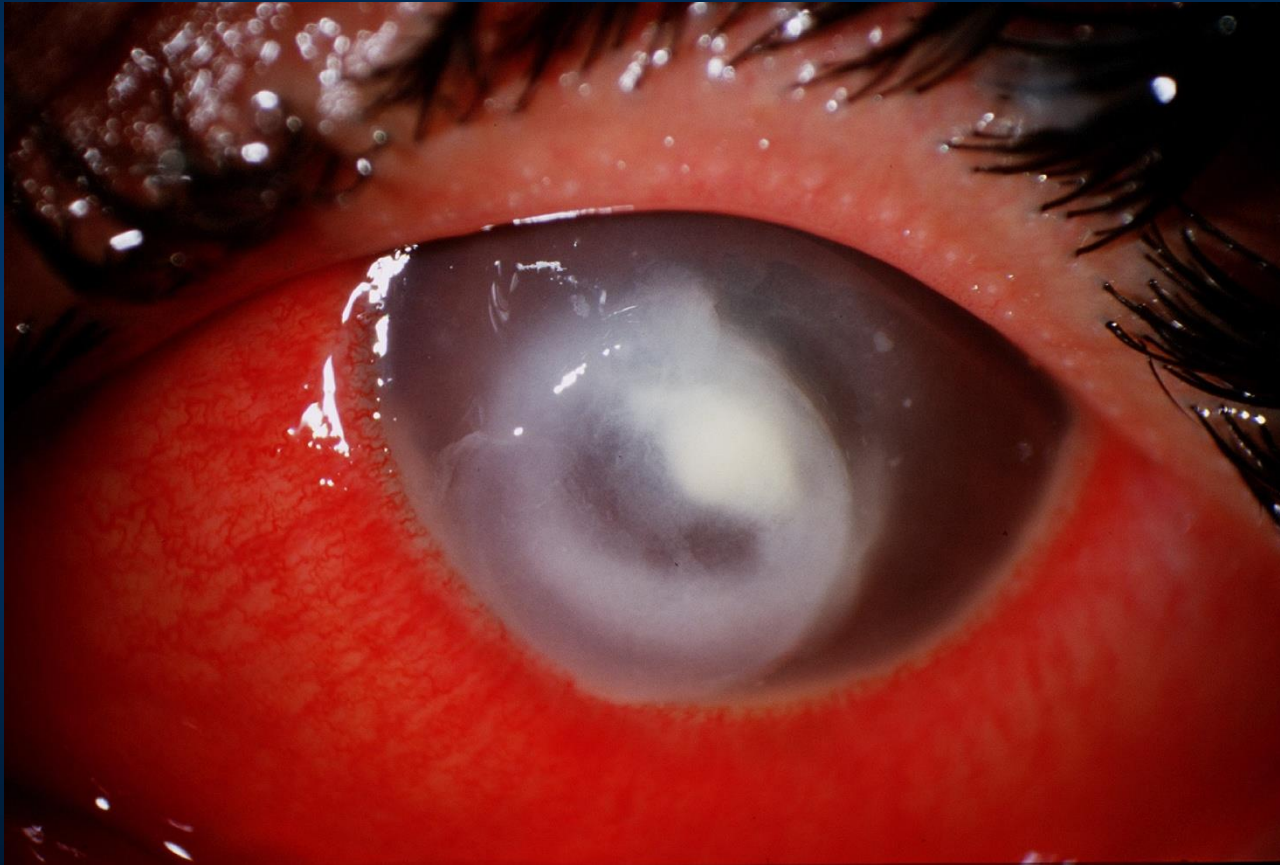
Ectropion



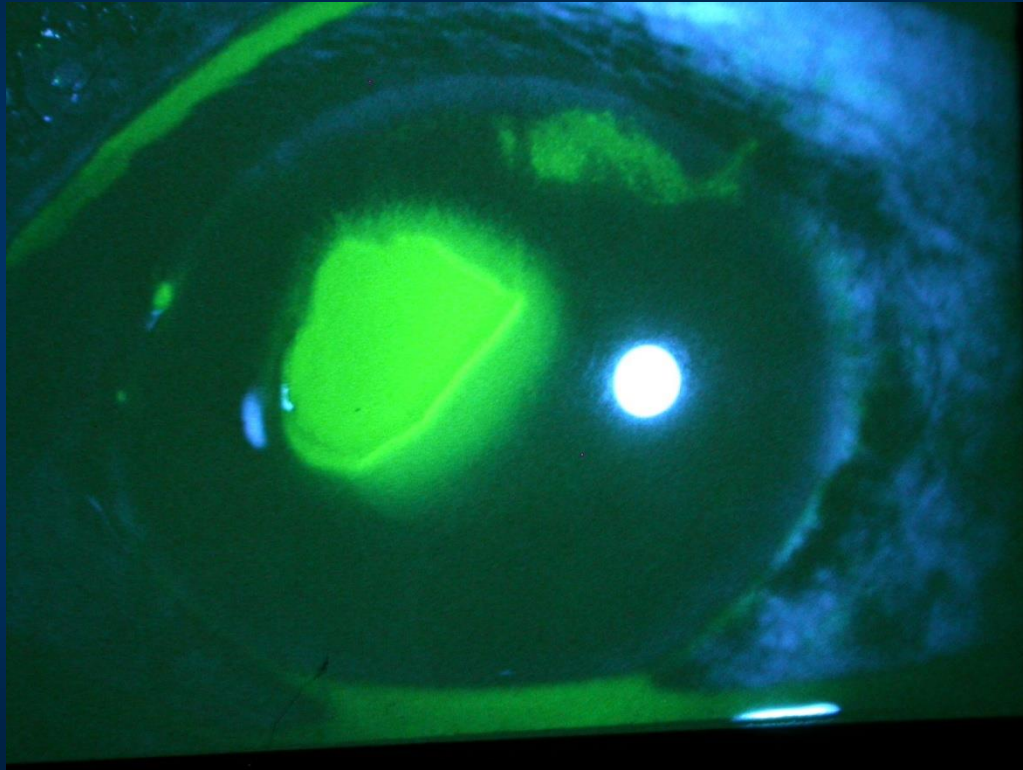
Trichiasis



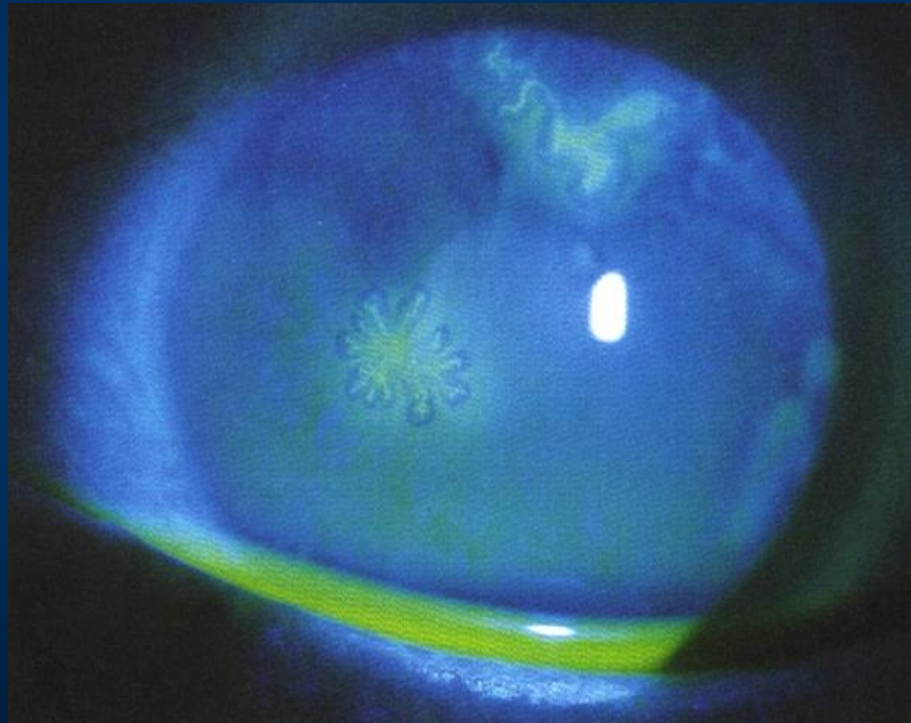
Infectious keratitis



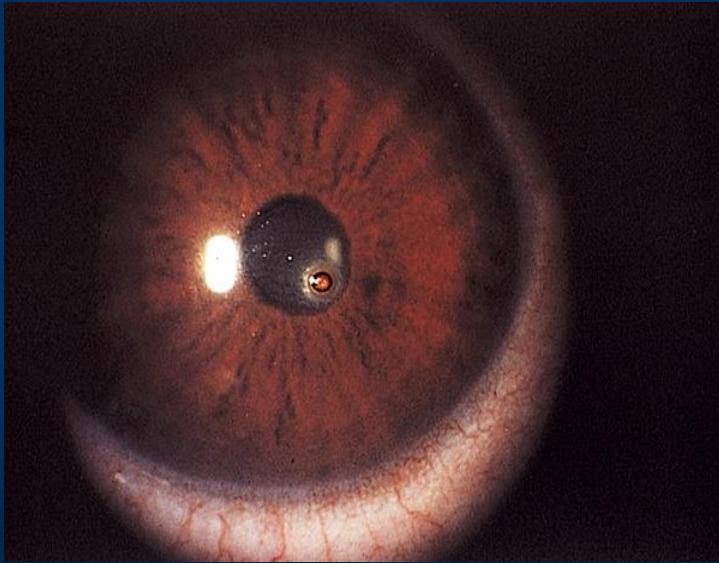
Corneal abrasion



HSV dendrites



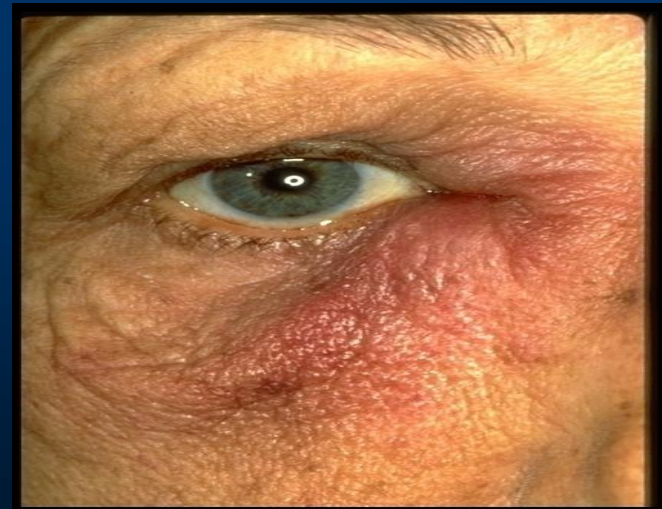
Foreign Body



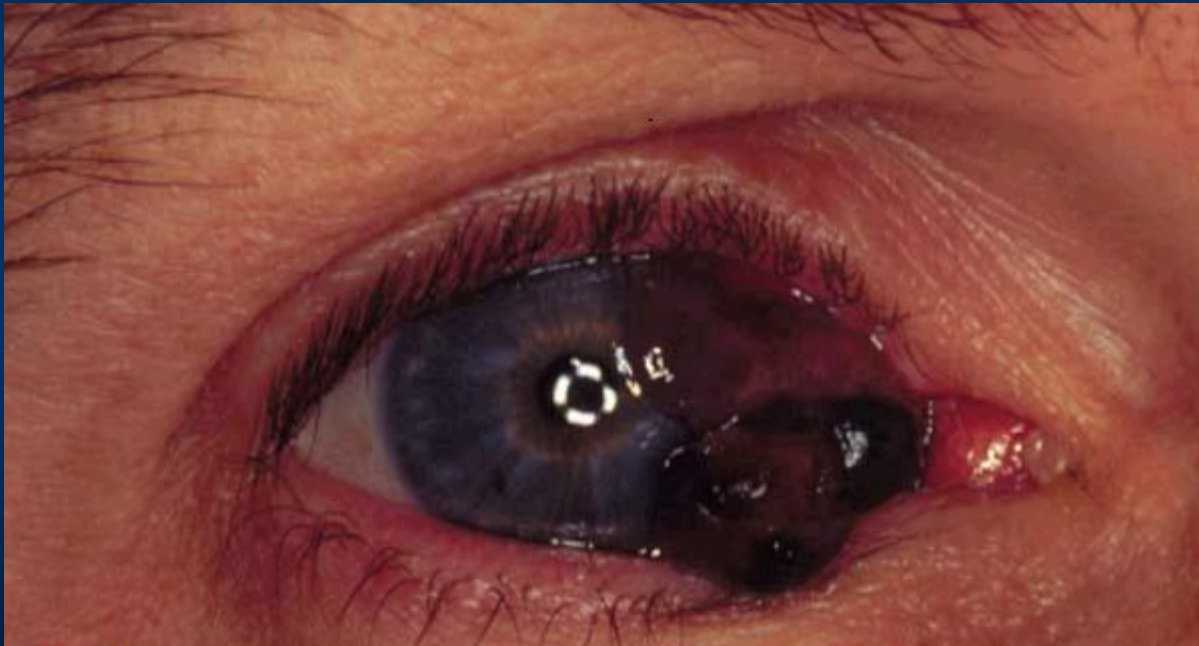
Nasolacrimal Obstruction

■ Can lead to Dacryocystitis

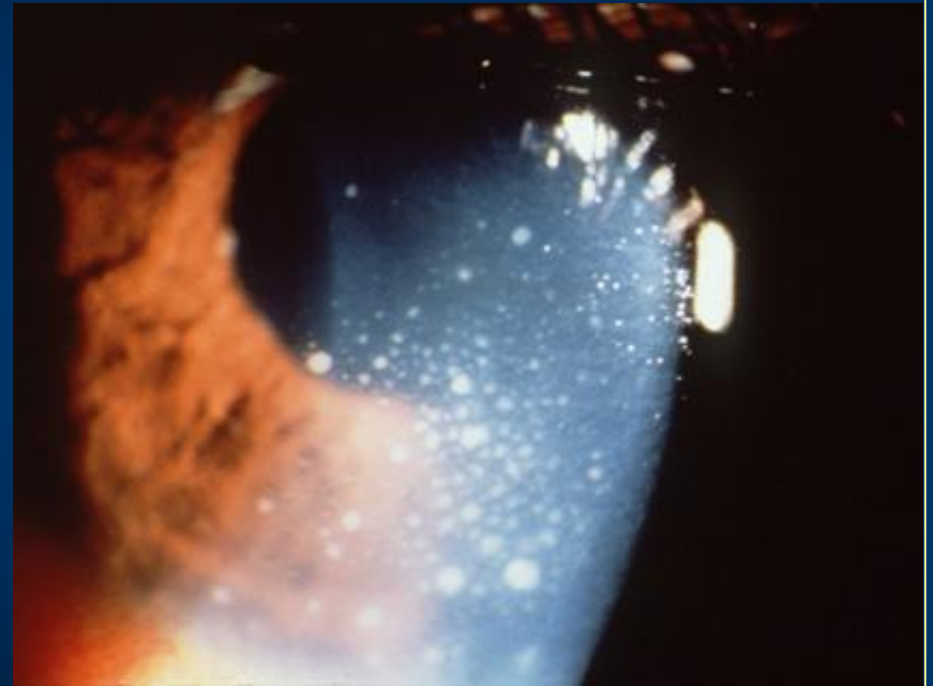
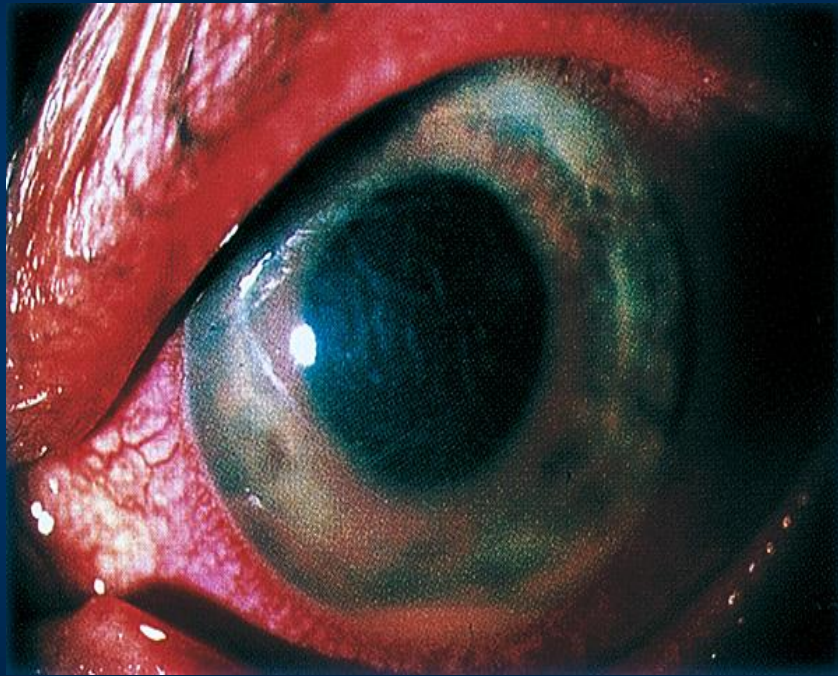
- Pain, redness, and swelling over the innermost aspect of the lower eyelid, tearing, discharge
- Organisms
- Staphylococci, streptococci, and diphtheoids
- Treatment
 - Systemic antibiotics
 - Surgical drainage



Conjunctival tumor

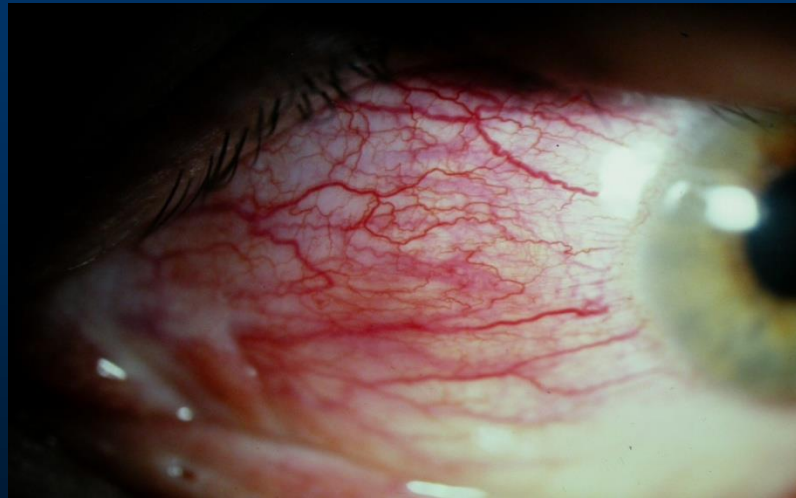


Iritis



Episcleritis

- Episcleritis
 - Can be localized (sectorial) or diffuse redness
 - Often asymptomatic
 - Usually self limited
 - Treatment is topical or systemic NSAIDs



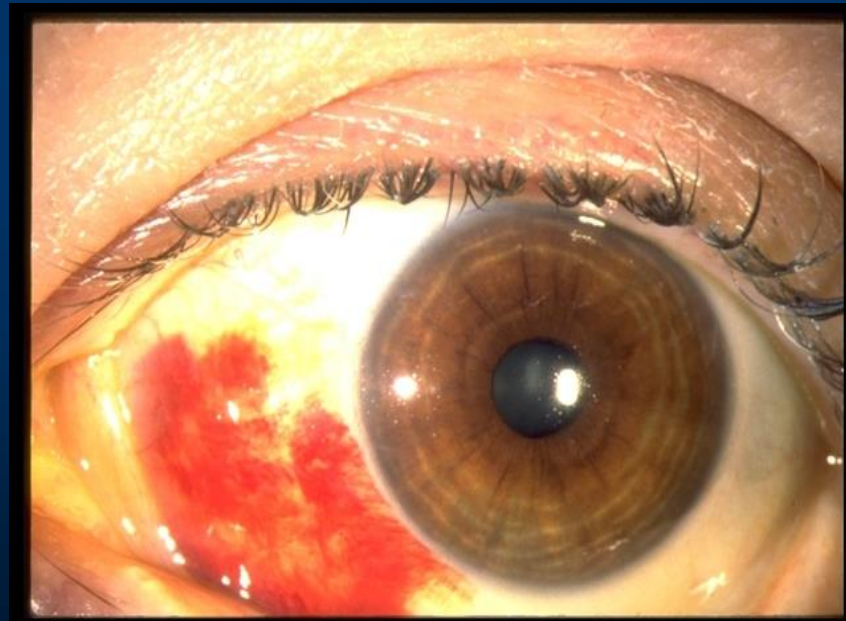
Scleritis

- Pain which maybe severe with tenderness, tearing and photophobia
- Maybe localized, diffuse or associated with nodules
- Can result in scleral necrosis (scleromalacia perforance)
- 30 to 60 % may have an associated systemic diseases
 - RA
- May need systemic steroid



Subconjunctival Hemorrhage

- Usually asymptomatic
- Blood underneath the conjunctiva, often in a sector of the eye
- Etiology
 - Valsalva (coughing or straining)
 - Traumatic
 - Hypertension
 - Bleeding disorder
 - idiopathic



Red Eye Treatment Algorithm

- History
 - Trauma
 - Contact lens wearer
 - Severe pain/photophobia
 - Significant vision changes
 - History of prior ocular diseases
- Exam
 - Abnormal pupil
 - Ocular tenderness
 - White corneal opacity
 - Increased intraocular pressure

YES

Refer urgently to
ophthalmologist

Is it conjunctivitis?

■ History

- Itching
- Exposure to person with red eye
- URTI
- Past history of conjunctivitis
- Discharge with morning crusting
- Exposure to drugs

■ Signs

- Discharge
- Lid and conjunctival edema
- Conjunctival redness
- Preauricular lymph node
- Facial or eye lid vesicles

Thank you