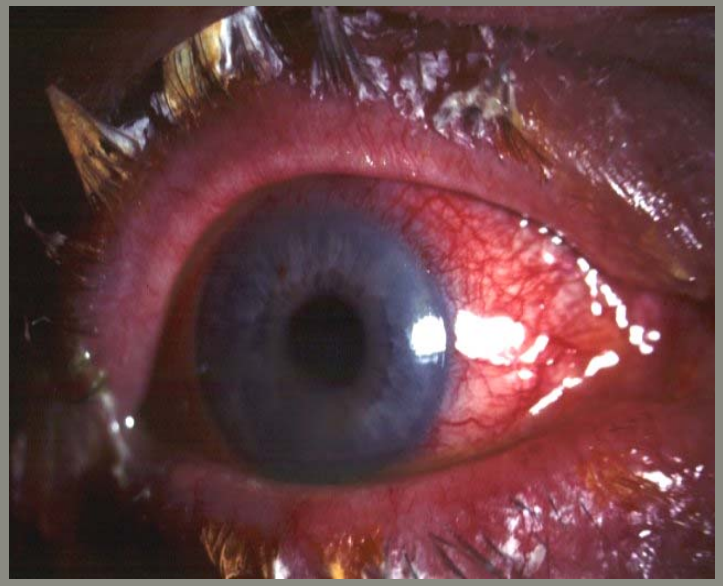
The Red Eye

GP Update 2010 - Mr Vaughan Tanner



www.tanner-eyes.co.uk

Reading

Royal Berkshire Hospital

Dunedin Hospital

Windsor

Prince Charles Eye Unit

Princess Margaret Hospital

The Red Eye

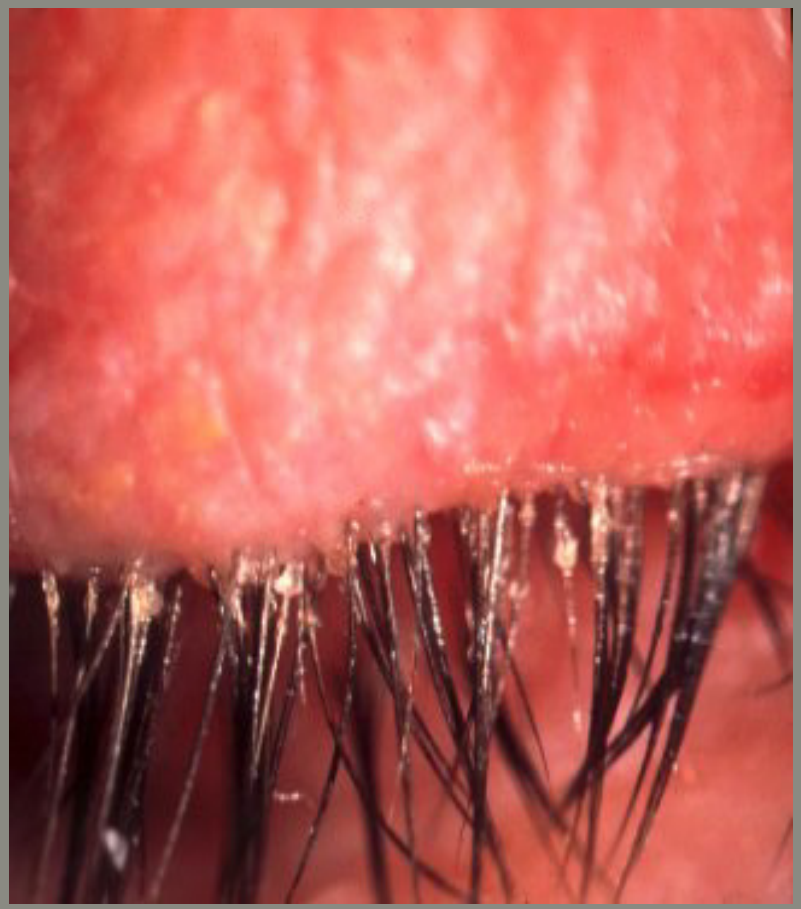
- Lids
- Conjunctiva
- Sclera
- Cornea
- Uveitis
- Glaucoma
- Others

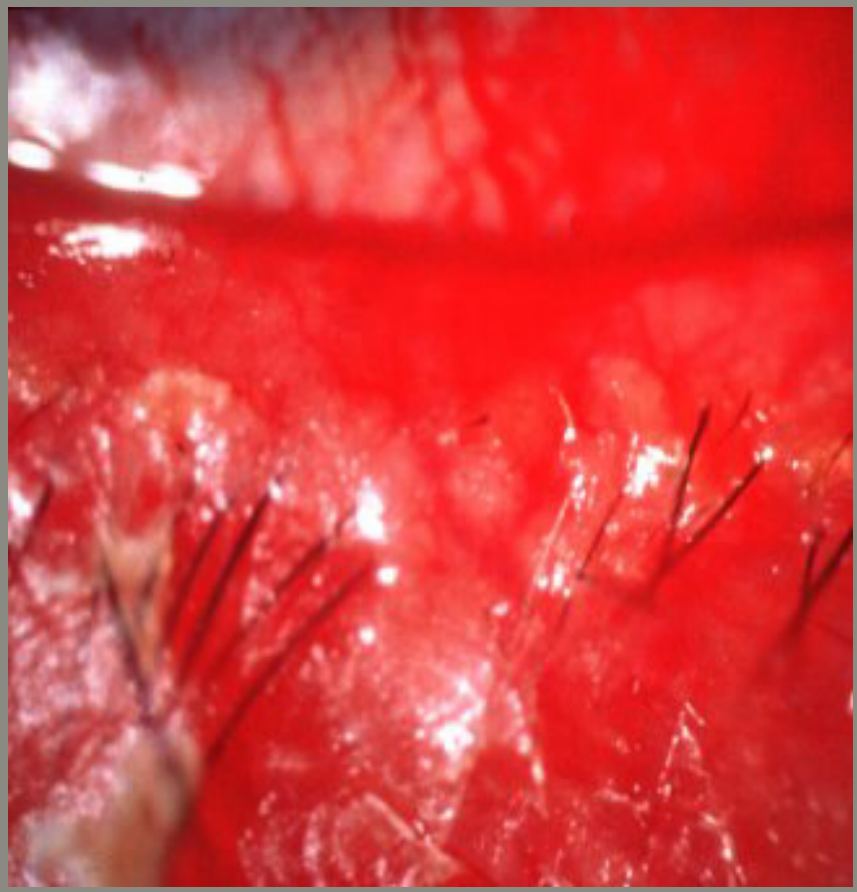
Duration ?

Is it painful ?

Is vision decreased ?

Staphylococcal blepharitis



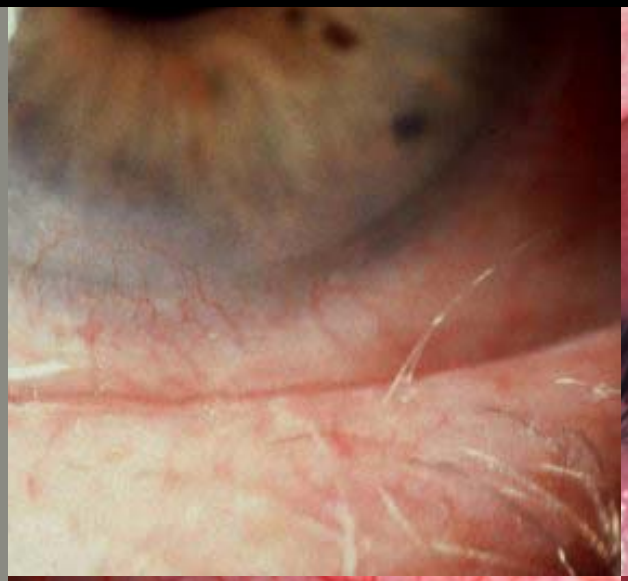


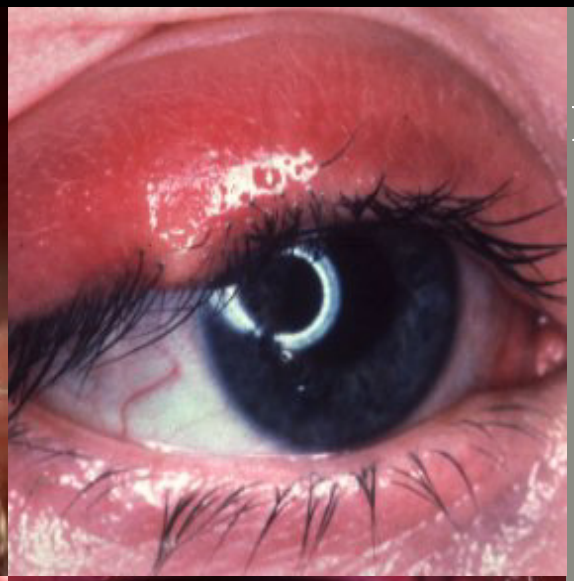
- Chronic irritation
- Worse in mornings
- Scales around base of lashes (collarettes)

- Hyperaemia and telangiectasia of anterior lid margin
- Scarring and hypertrophy

Complications of staphylococcal blepharitis

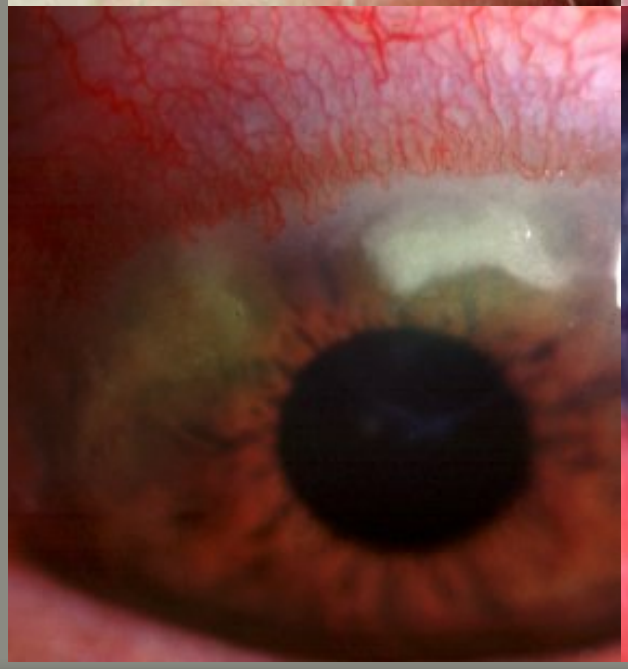
Trichiasis

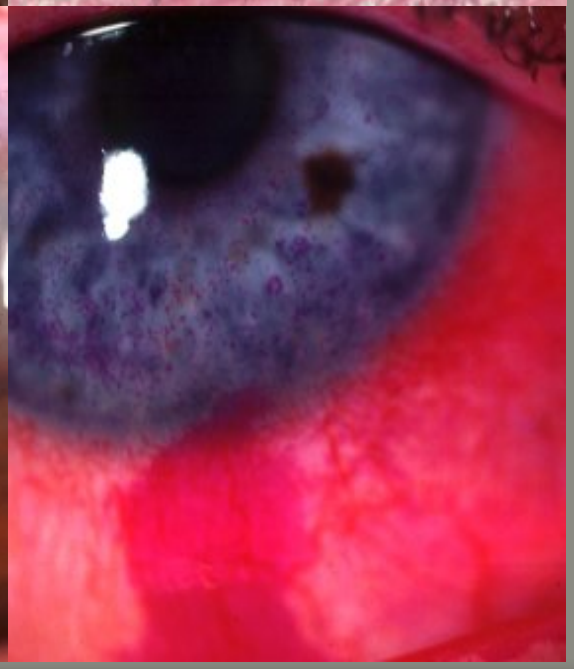




Recurrent styes

Marginal keratitis





Tear film instability

Treatment of Chronic Blepharitis

1. Lid hygiene

– clean debris from lashes at night with cotton bud

2.Chloramphenicol Ointment

– to lid margins at night

3. Tear substitutes - for associated tear film instability

Hypromellose, Optive, Celluvisc

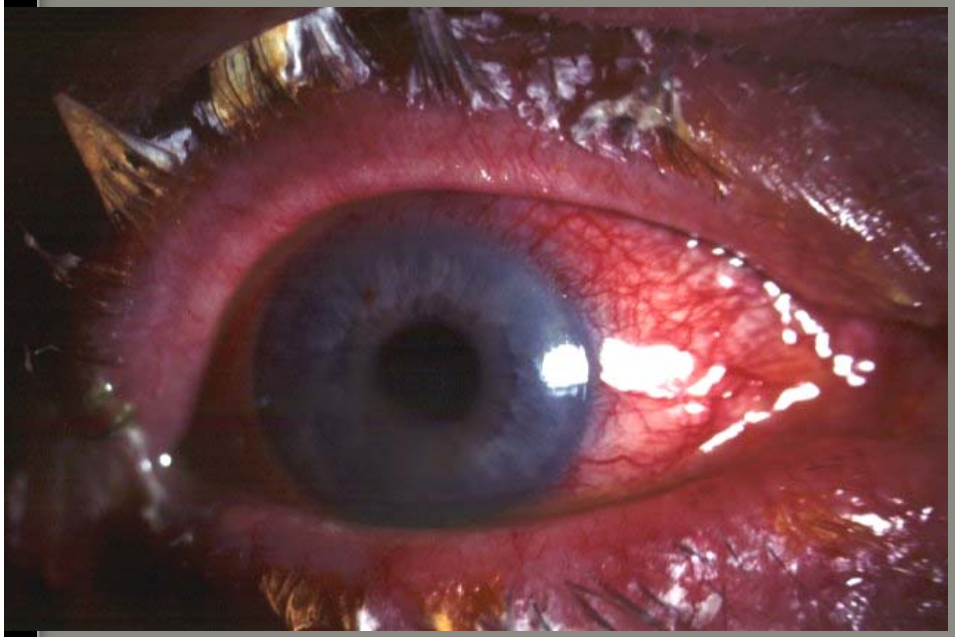
4. Oral Lymecycline 408 mg OD one month –

very useful in most cases

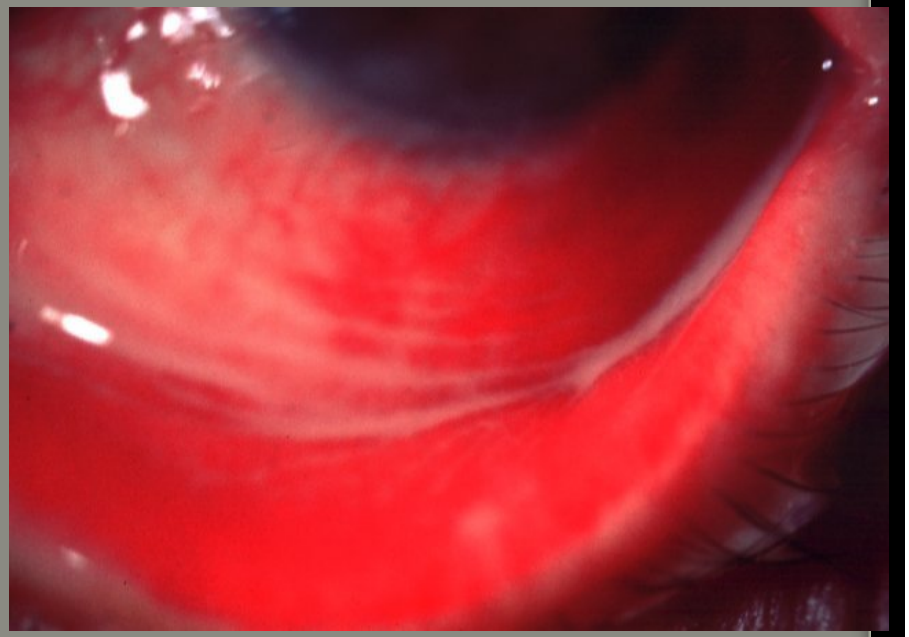
CONJUNCTIVAL INFECTIONS

1. **Bacterial**
   - **Simple bacterial conjunctivitis**
2. **Viral**
   - **Adenoviral keratoconjunctivitis**
   - **Molluscum contagiosum conjunctivitis**
   - **Herpes simplex conjunctivitis**
3. **Chlamydial**
   - **Adult chlamydial keratoconjunctivitis**
   - **Neonatal chlamydial conjunctivitis**
   - **Trachoma**

Simple bacterial conjunctivitis



Crusted eyelids and conjunctival injection

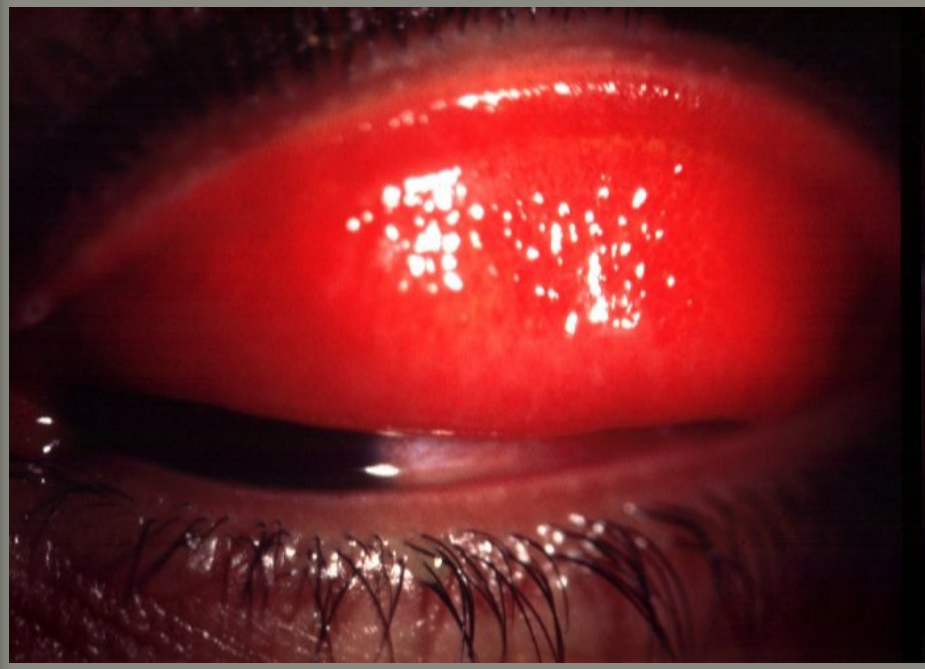


mucopurulent discharge

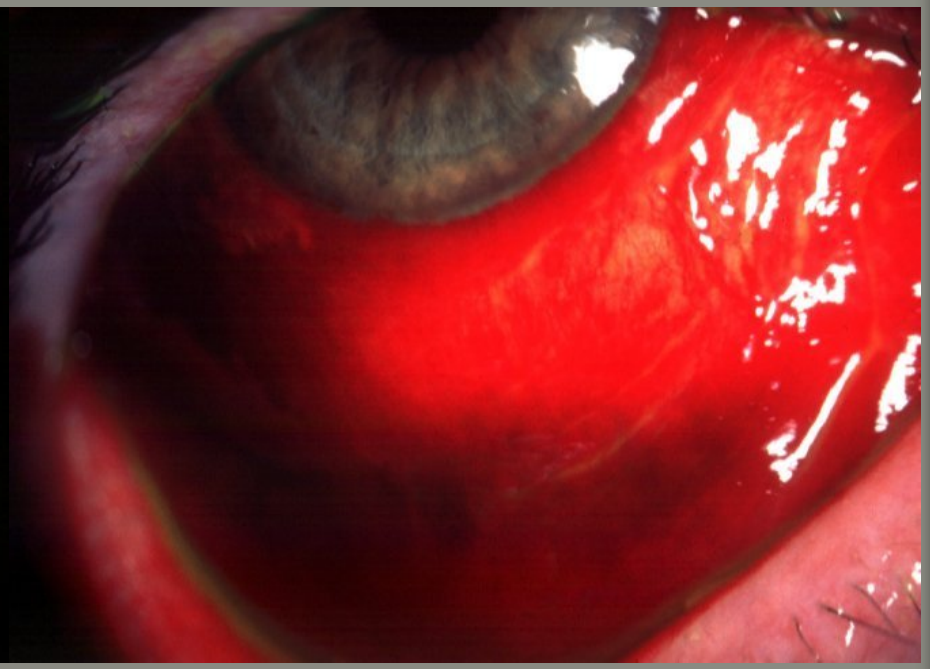
Treatment

- broad-spectrum topical antibiotics
- Chloramphenicol or Fucithamic (soothing base ointment)
- One week only to avoid drop allergy
- Suggest lubricants for persistent irritation/redness

Viral conjunctivitis



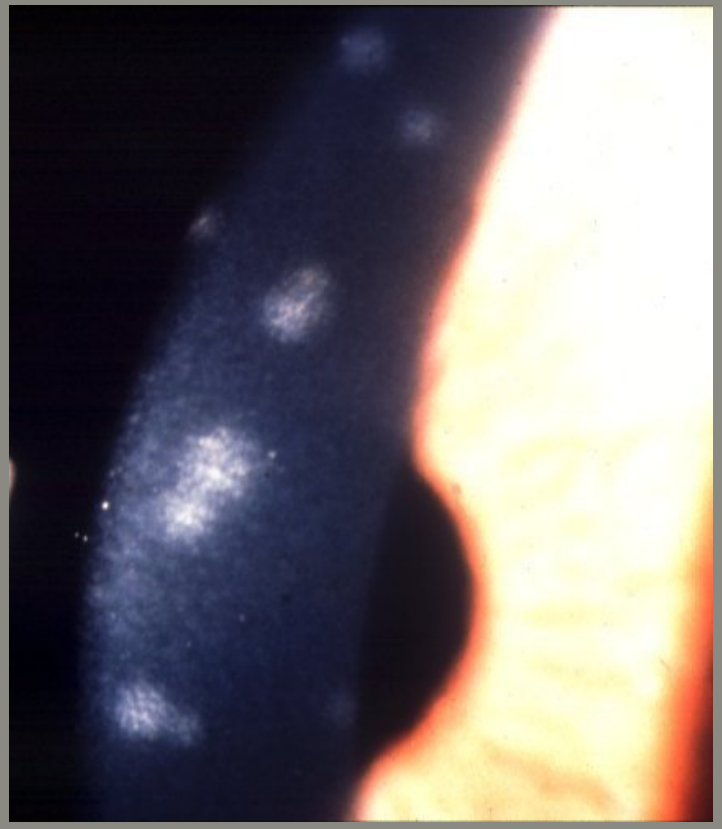
Usually bilateral, acute watery discharge and follicles



Subconjunctival haemorrhages and pseudomembranes if severe

Treatment -Tear substitutes or topical antibiotics
-Fucithalmic has very good carrier gel keeping eyes comfortable

Post Adenovirus Keratitis

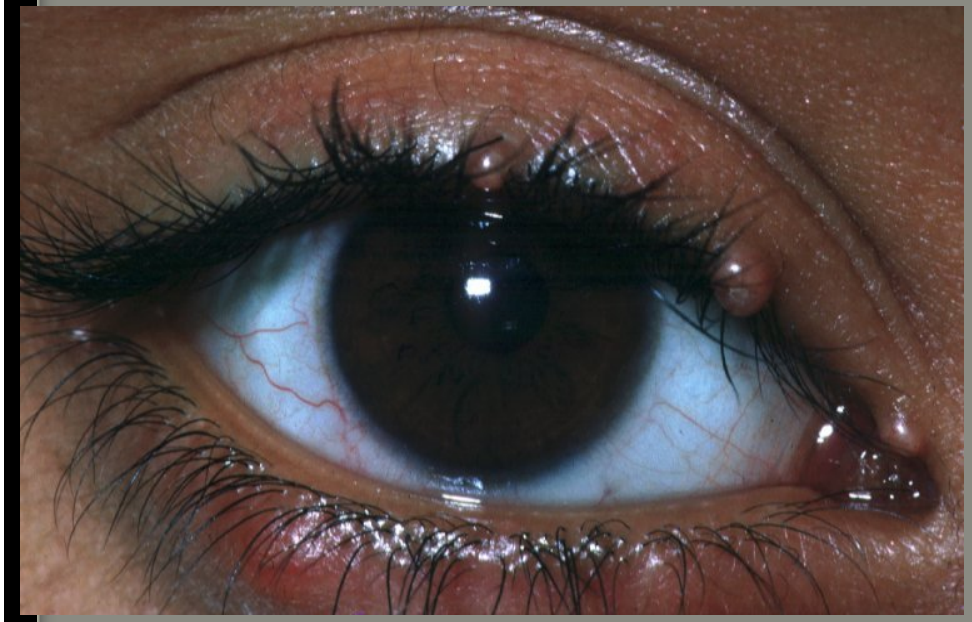


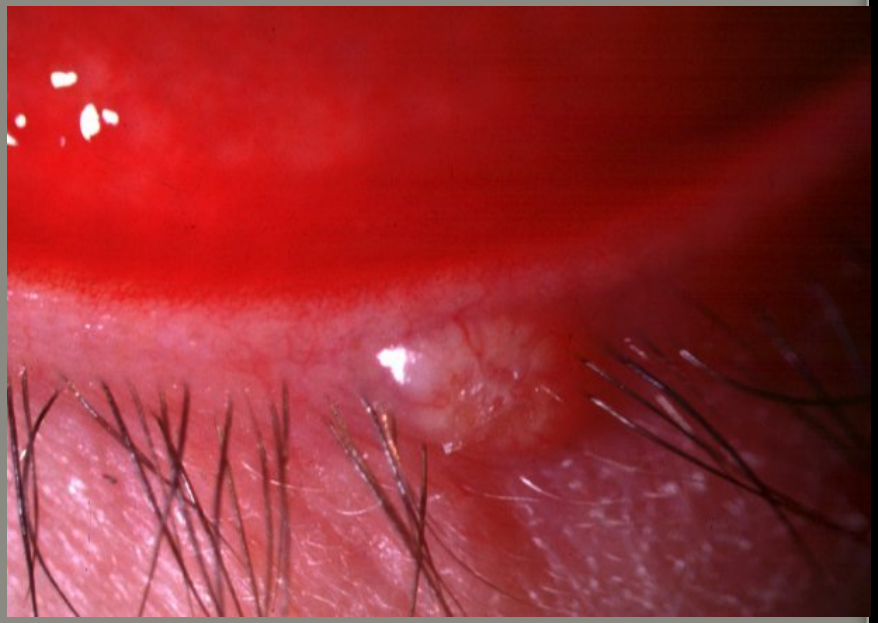
- Persistent photophobia
- Decrease acuity
- Following adenoviral infection

- Focal, subepithelial keratitis
- May persist for months

Treatment - topical steroids if persists

Molluscum contagiosum conjunctivitis



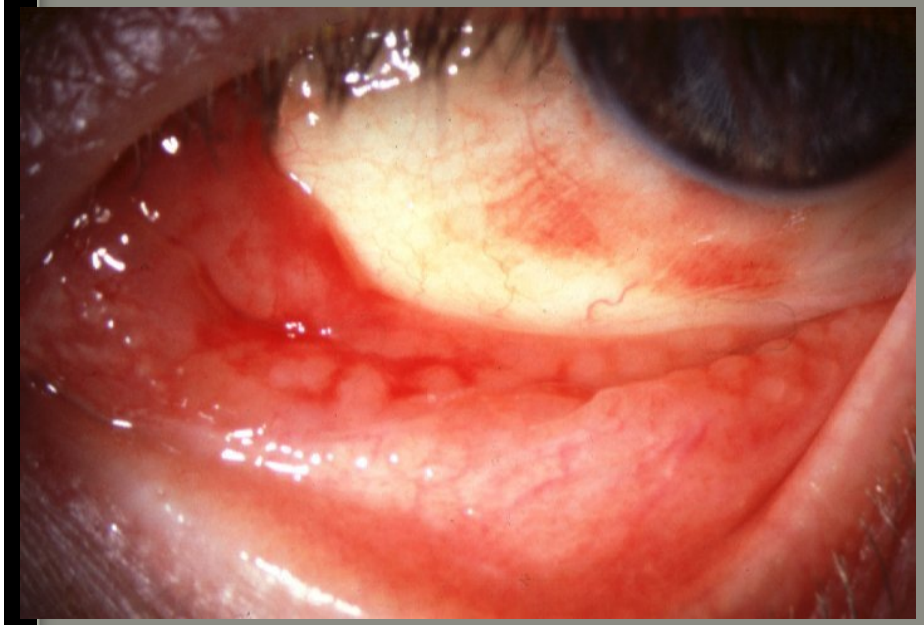


- Waxy, umbilicated eyelid nodule
- May be multiple
- Ispilateral, chronic, mucoid discharge
- Follicular conjuntivitis

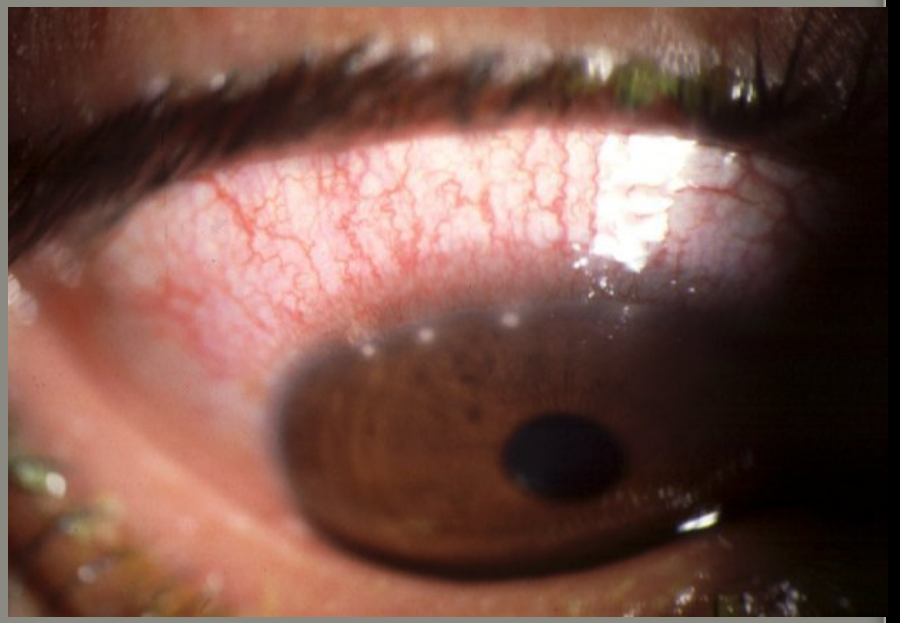
Treatment - excision/cautery of eyelid lesion

Adult chlamydial keratoconjunctivitis

- Infection with *Chlamydia trachomatis* serotypes D to K
- Concomitant genital infection is common



Subacute, mucopurulent follicular conjunctivitis



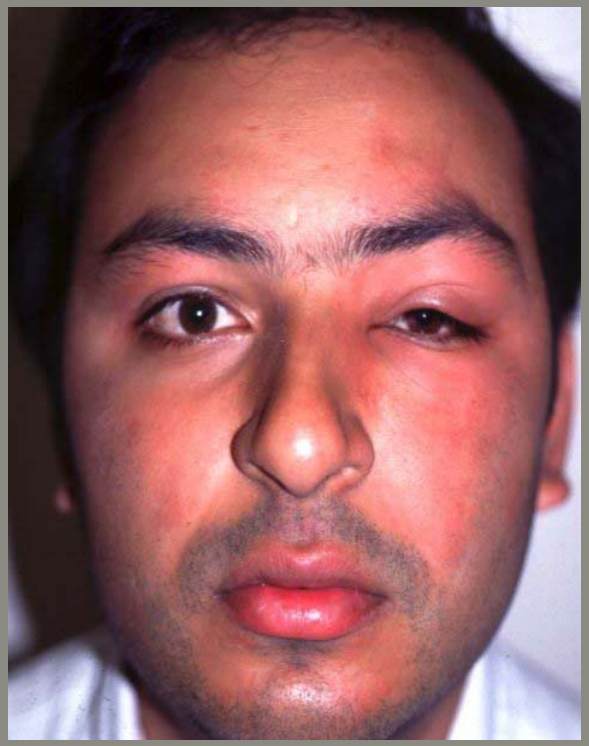
Variable peripheral keratitis

Treatment

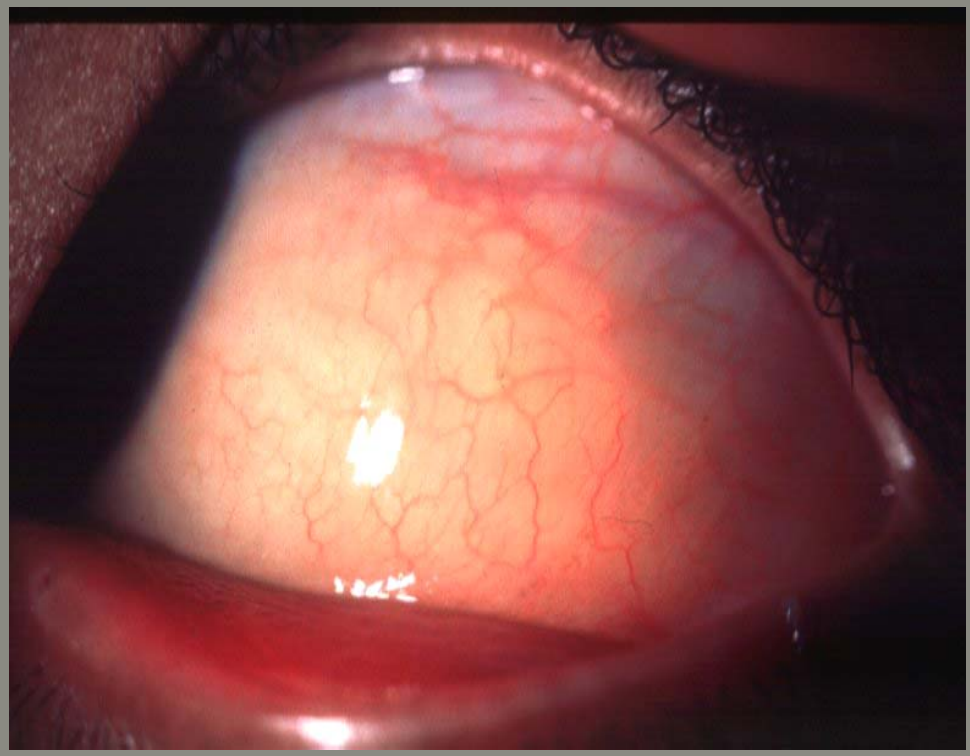
- oral tetracycline or erythromycin
- Consider and send swab in all persistent conjunctivitis if sexually active

Allergic rhinoconjunctivitis

- Hypersensitivity reaction to specific airborn antigens
- Frequently associated nasal symptoms
- May be seasonal or perennial
- Usually no treatment required



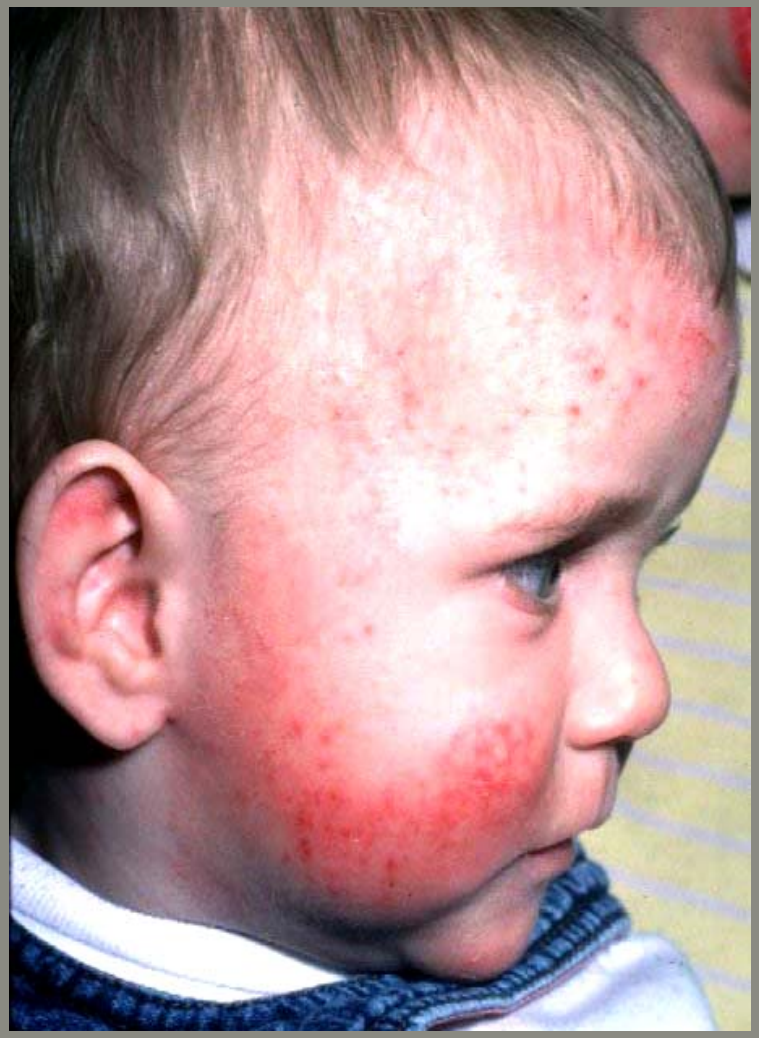
Transient eyelid oedema



Transient conjunctival oedema

Vernal keratoconjunctivitis

Frequently assoc. with atopy: asthma, hay fever and dermatitis

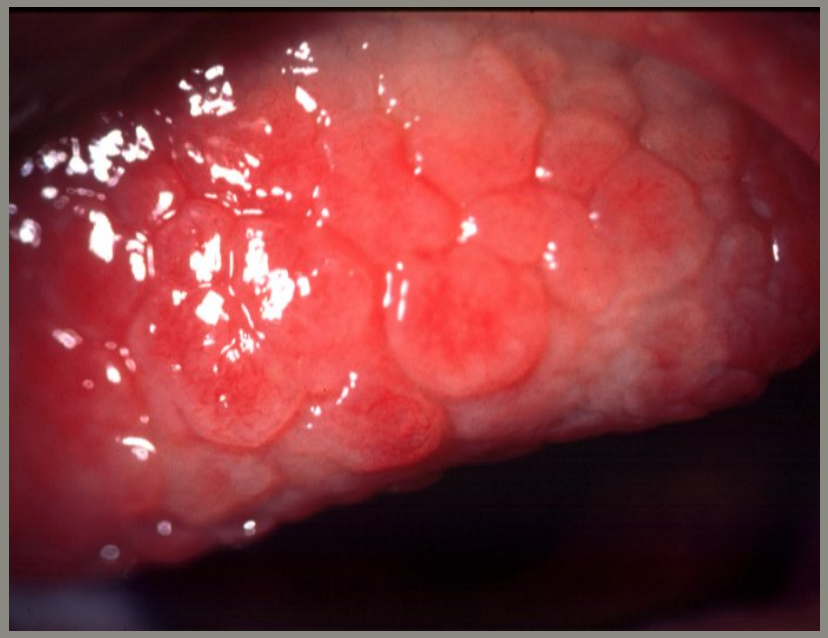


- **Recurrent, bilateral**
- **Affects children and young adults**
- **Itching, mucoid discharge and lacrimation**

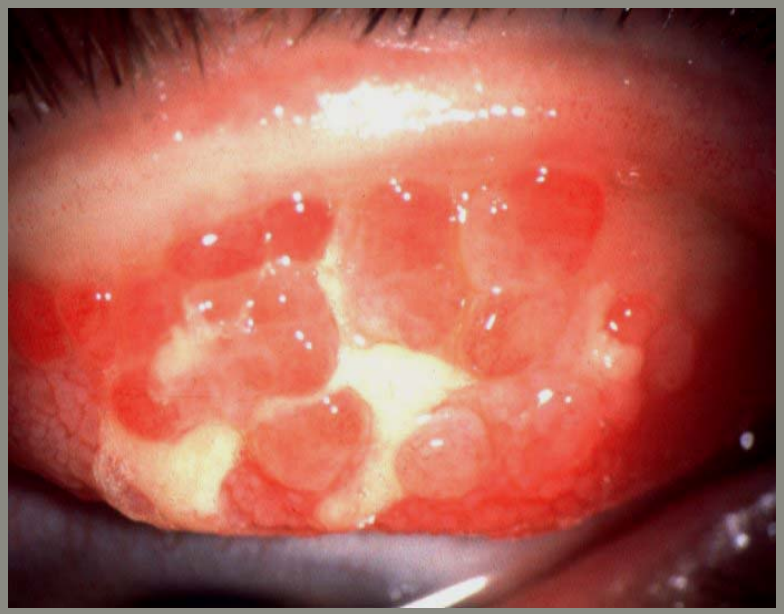
Treatment

- **Topical mast cell stabilizers**
  - **Alomide - sodium chromoglycate**
  - **Lodoxamide**
  - **Rapitil**
- **Topical steroids**

Progression of vernal conjunctivitis



Cobblestone papillae

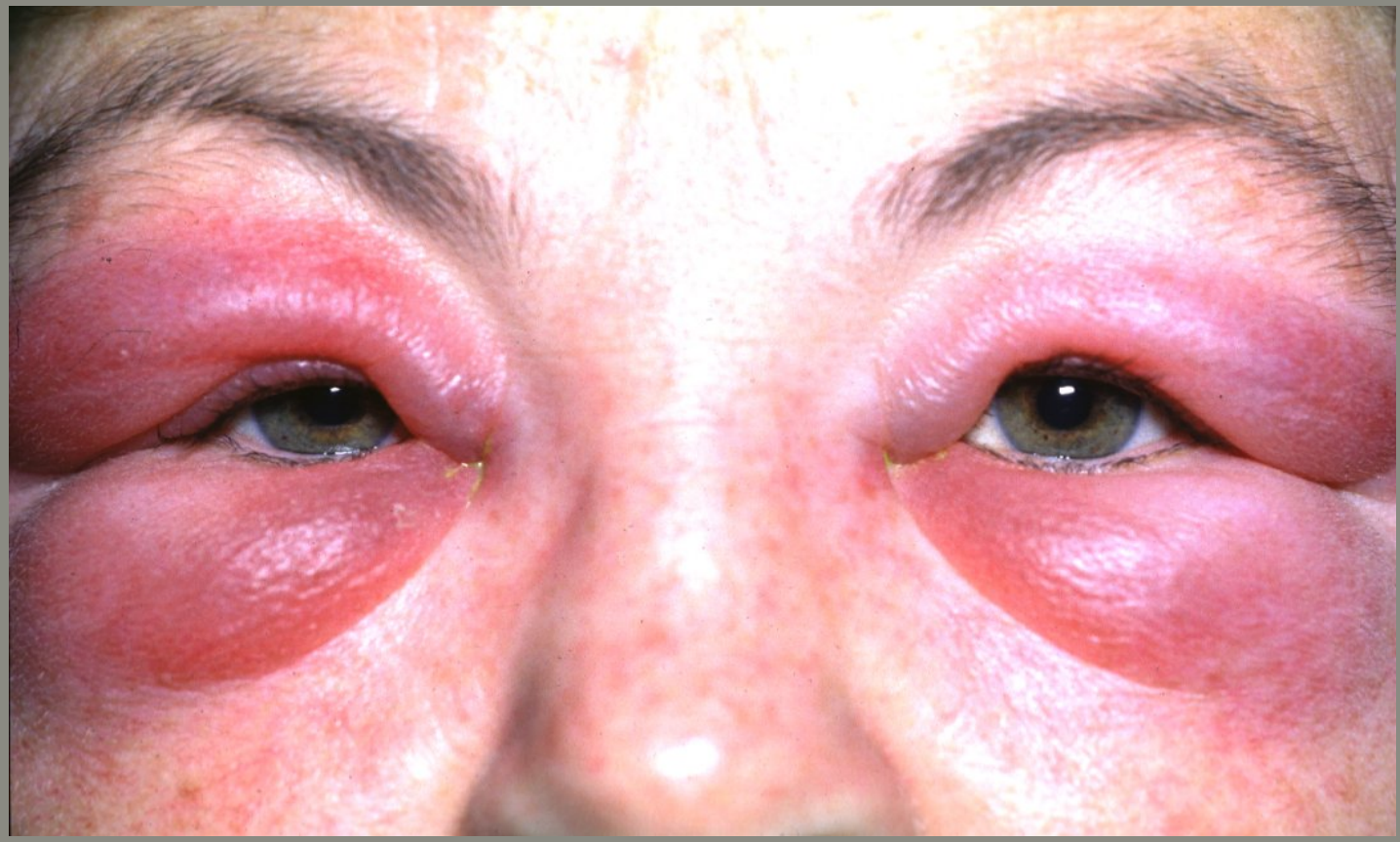


Giant papillae

DIFFUSE EYELID DISEASE

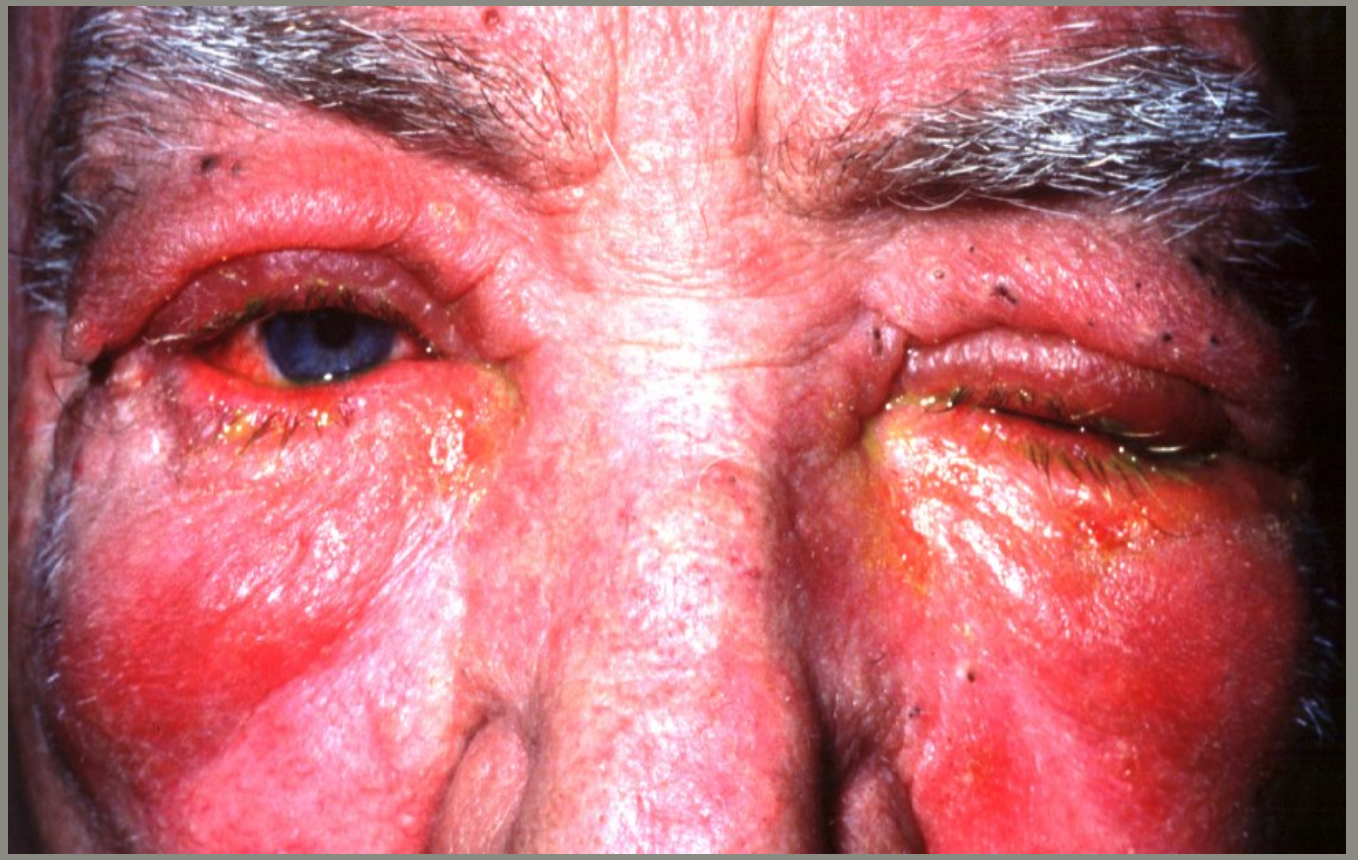
1. Allergic
   - Acute oedema
   - Contact dermatitis
   - Atopic dermatitis
   - Blepharochalasis
2. Infections
   - Preseptal cellulitis
   - Herpes simplex
   - Herpes zoster ophthalmicus
   - Impetigo
   - Erysipelas
   - Necrotizing fasciitis
3. Miscellaneous
   - Systemic causes

Acute allergic oedema



- Causes - insect bites, urticaria and angioedema
- Unilateral or bilateral
- Painless, red, pitting oedema
- Chemosis may be present
- Self-limiting

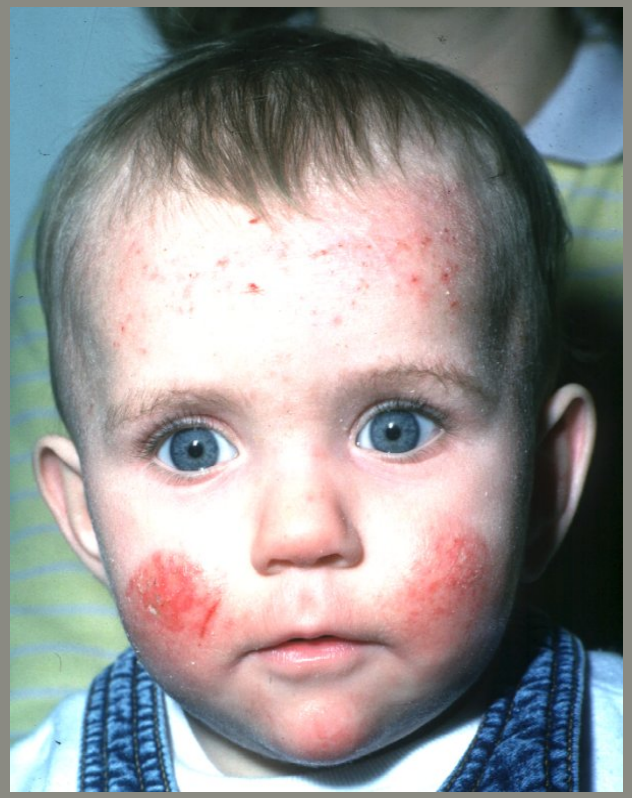
Contact dermatitis

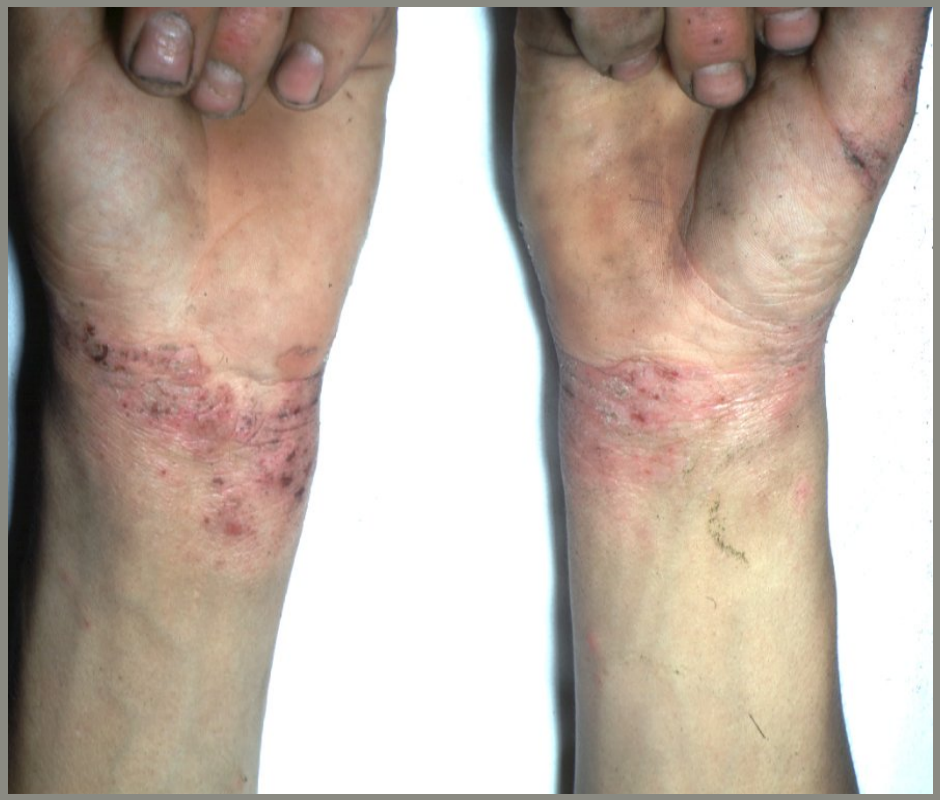


- Sensitivity to topical medication – stop all drops
- Unilateral or bilateral
- Painless oedema and erythema
- Vesiculation and crusting
- Thickening if chronic

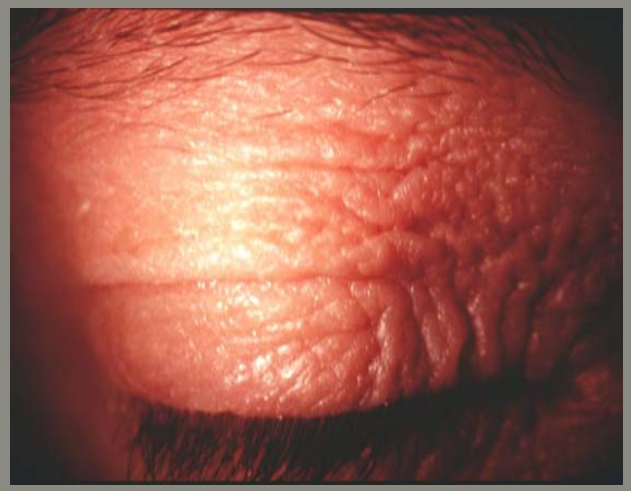
Atopic dermatitis

- Associated with asthma and hay fever
- Chronic itching and scratching

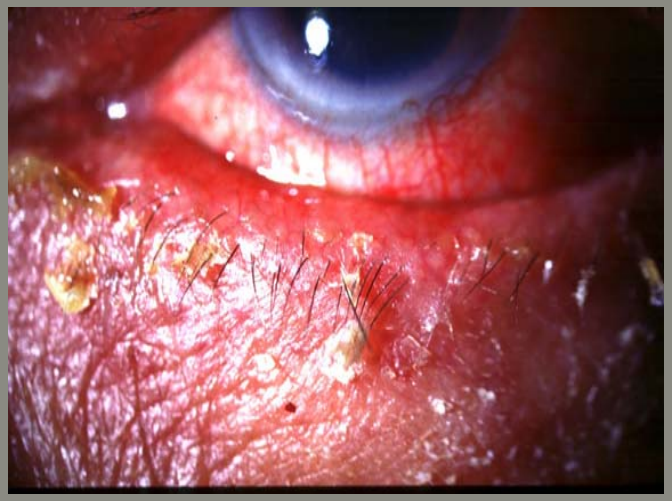




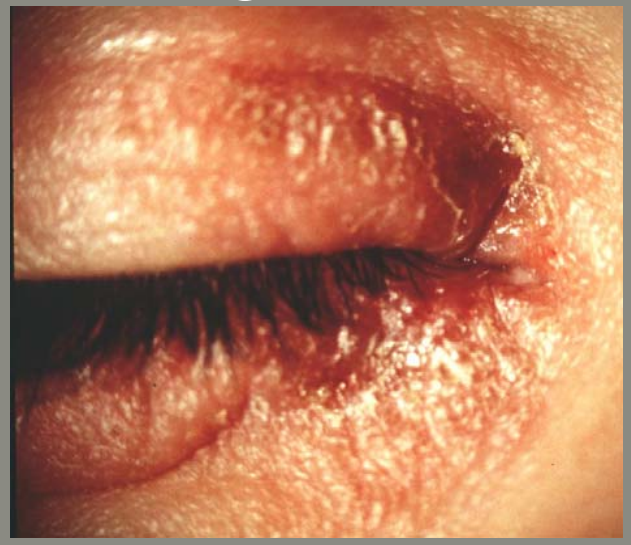
Ocular associations of atopic dermatitis



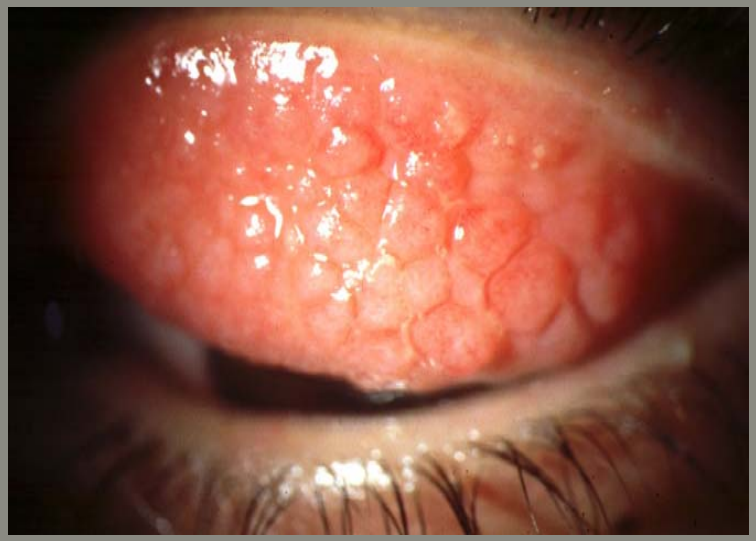
Thickening, crusting and fissuring



Staph. blepharitis

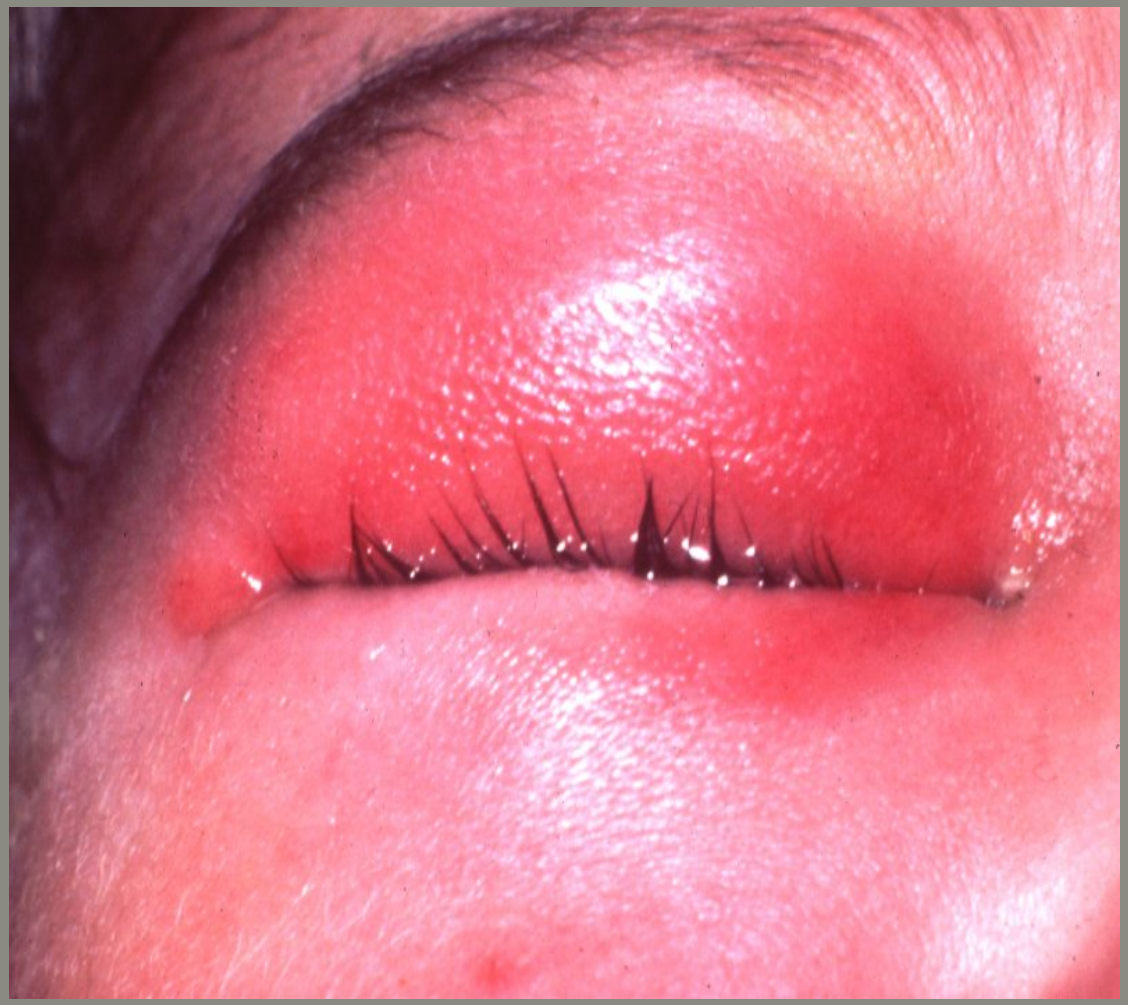


Angular blepharitis



Vernal disease in children

Preseptal cellulitis



Causes

- Skin trauma or insect bites of lids or eyebrows
- Spread from local infection
- Upper respiratory or ear infection

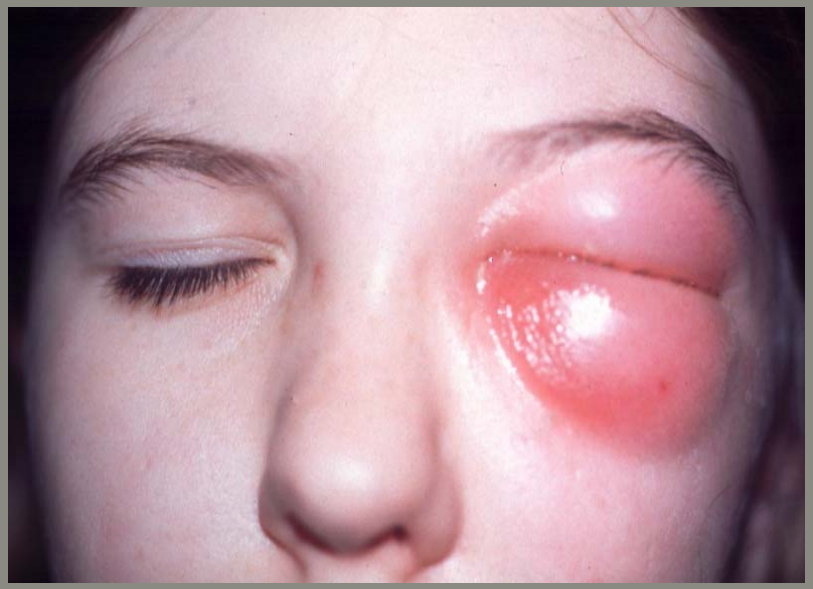
Signs

- Usually unilateral
- Tender and red
- Periorbital oedema
- White eye

Prise lids apart – If eye white and normal VA just systemic Oral AB

Orbital cellulitis

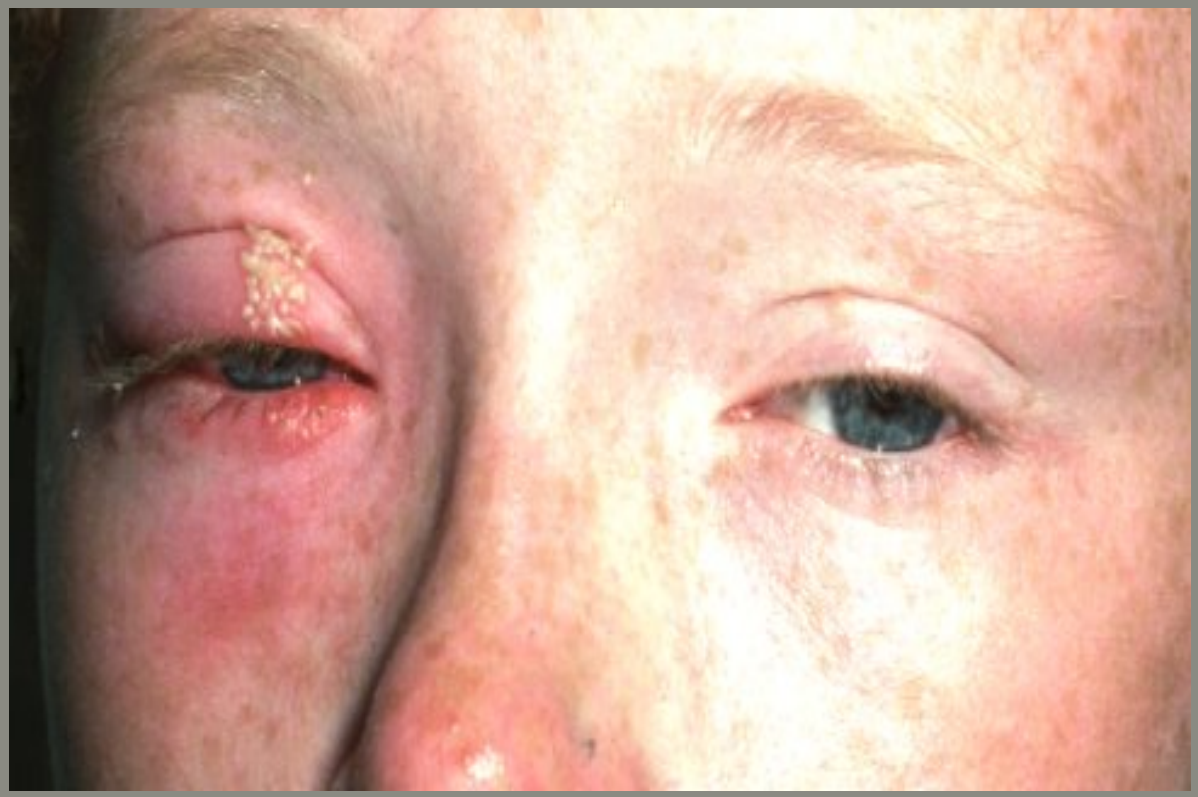
- Infection behind orbital septum
- Usually secondary to ethmoiditis
- Presentation - severe malaise, fever and orbital signs



Admit
IV AB

- Severe eyelid oedema and redness
- Proptosis
- Painful ophthalmoplegia
- Optic nerve dysfunction if advanced

Herpes simplex



Signs

- Crops of small vesicles
- Rupture and crust
- Heal without scarring after 7 days

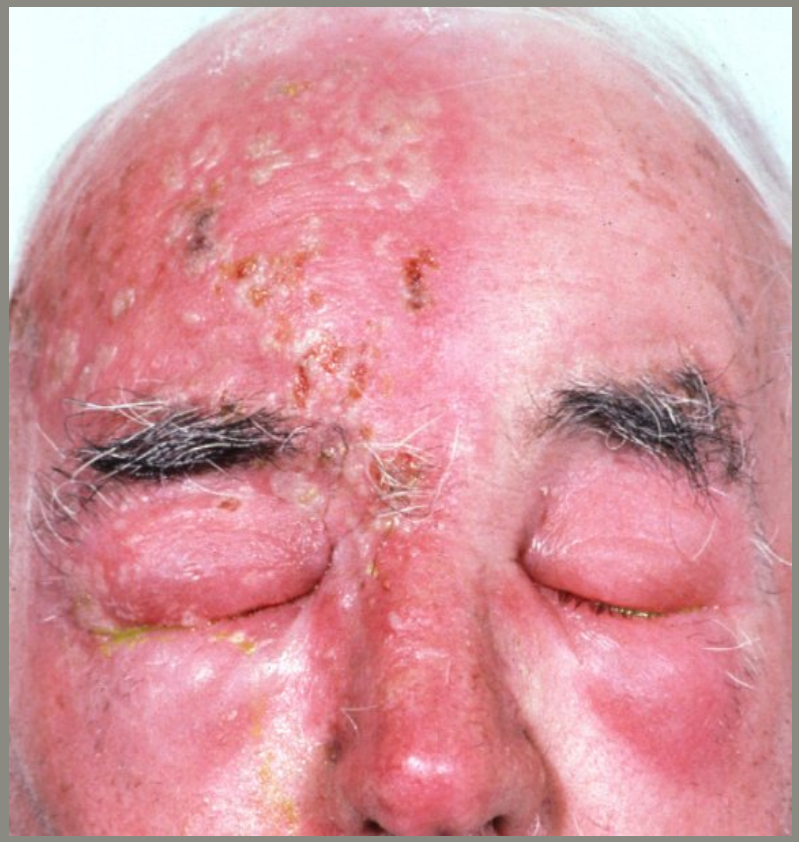
Complications

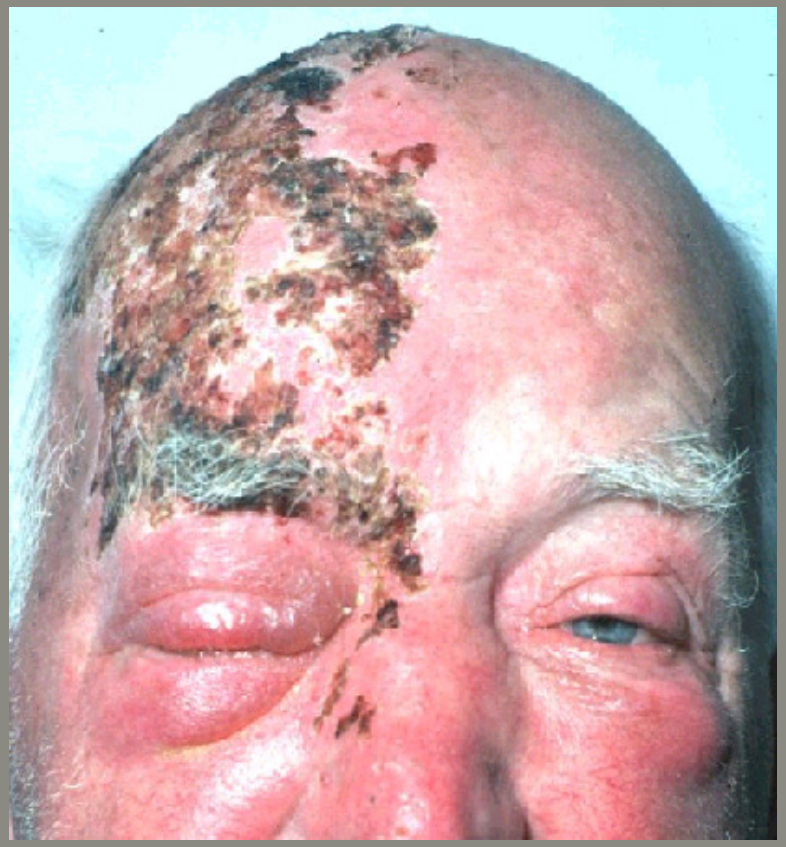
- Follicular conjunctivitis
- Keratitis

Treatment

Topical acyclovir

Herpes zoster ophthalmicus

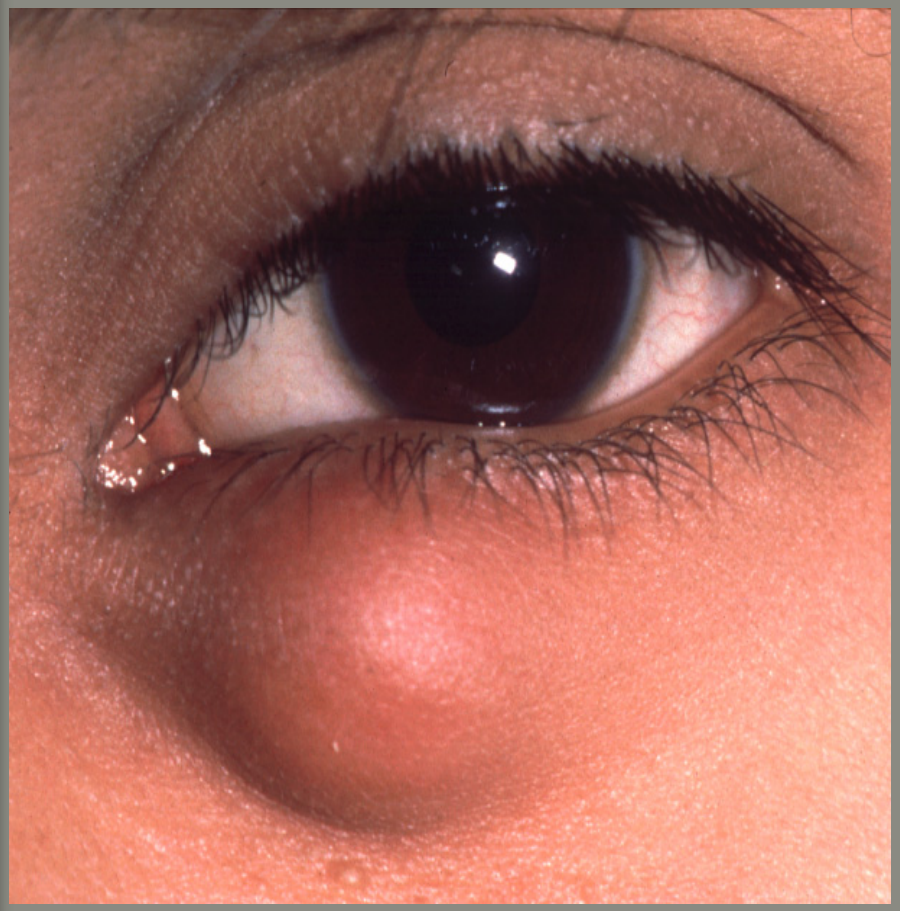




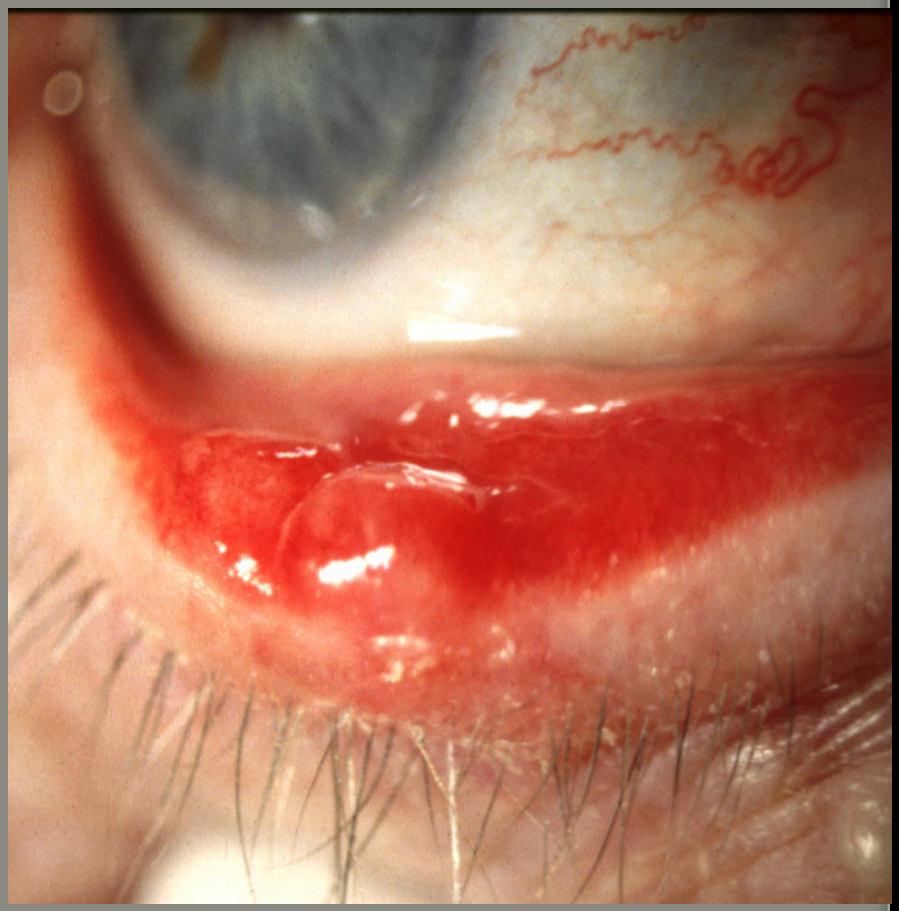
Painful vesicles and pustules
Peri-orbital oedema
Crusting ulceration

Treatment
- oral antivirals and ophthalmic review ? uveitis

Signs of chalazion (meibomian cyst)



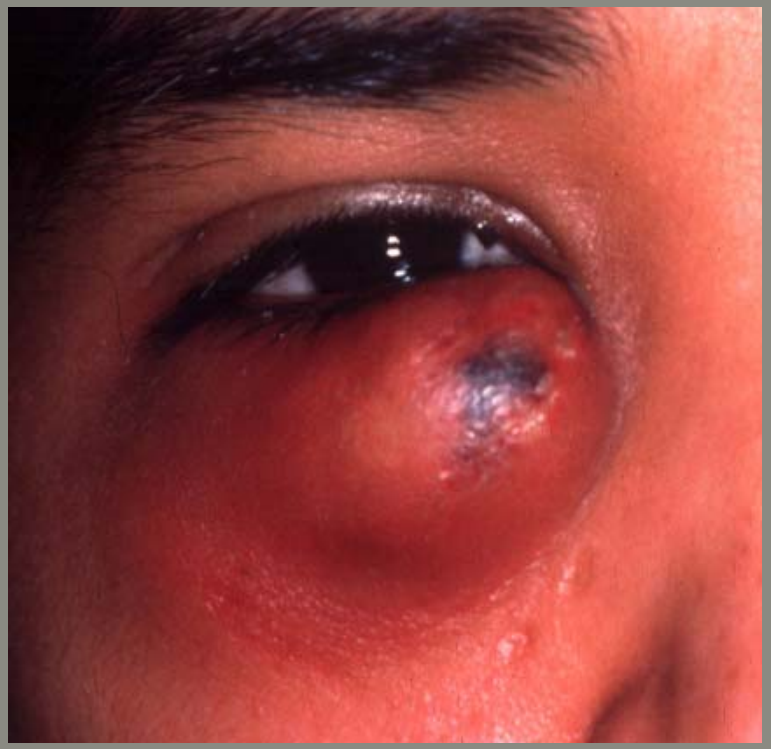
Painless, roundish, firm lesion within tarsal plate



May rupture through conjunctiva and cause granuloma

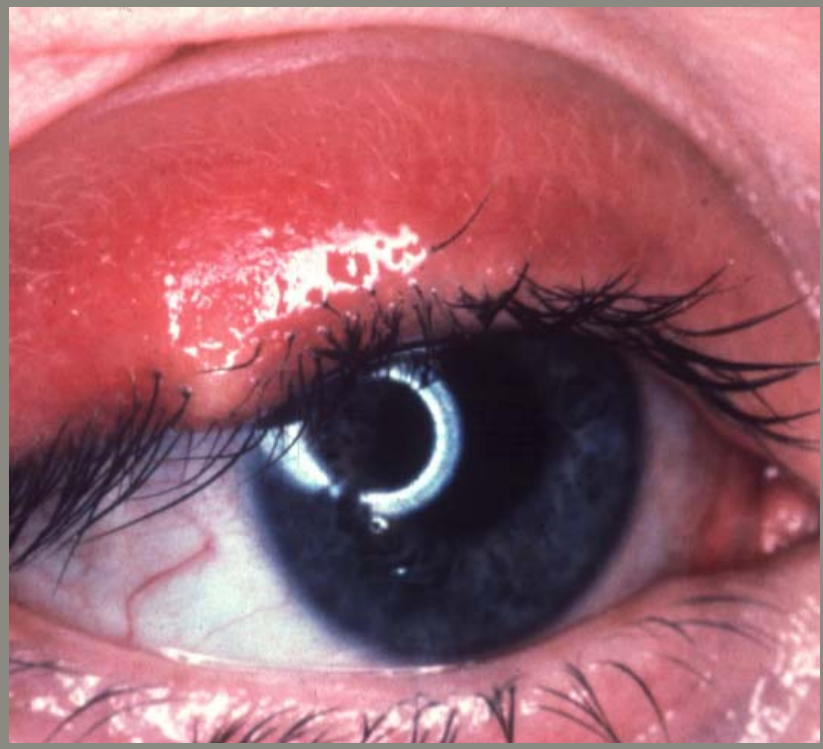
Acute hordeolum

Internal hordeolum (acute chalazion)



- *Staph.* abscess of meibomian glands
- Tender swelling within tarsal plate

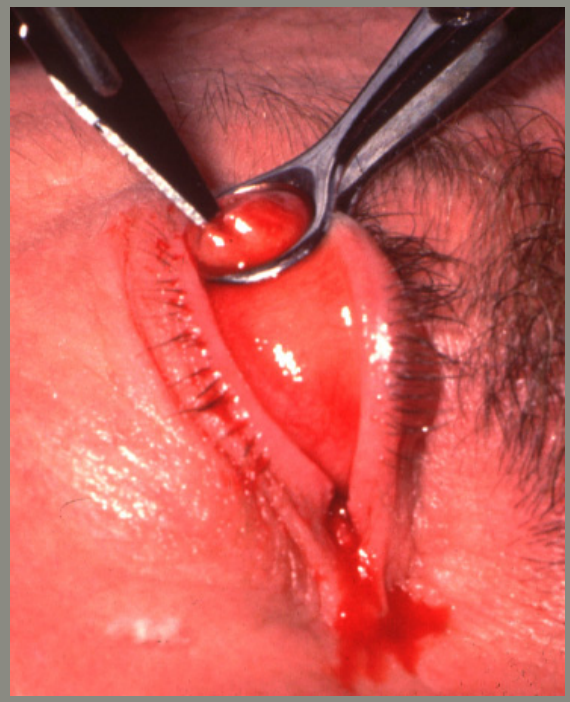
External hordeolum (stye)



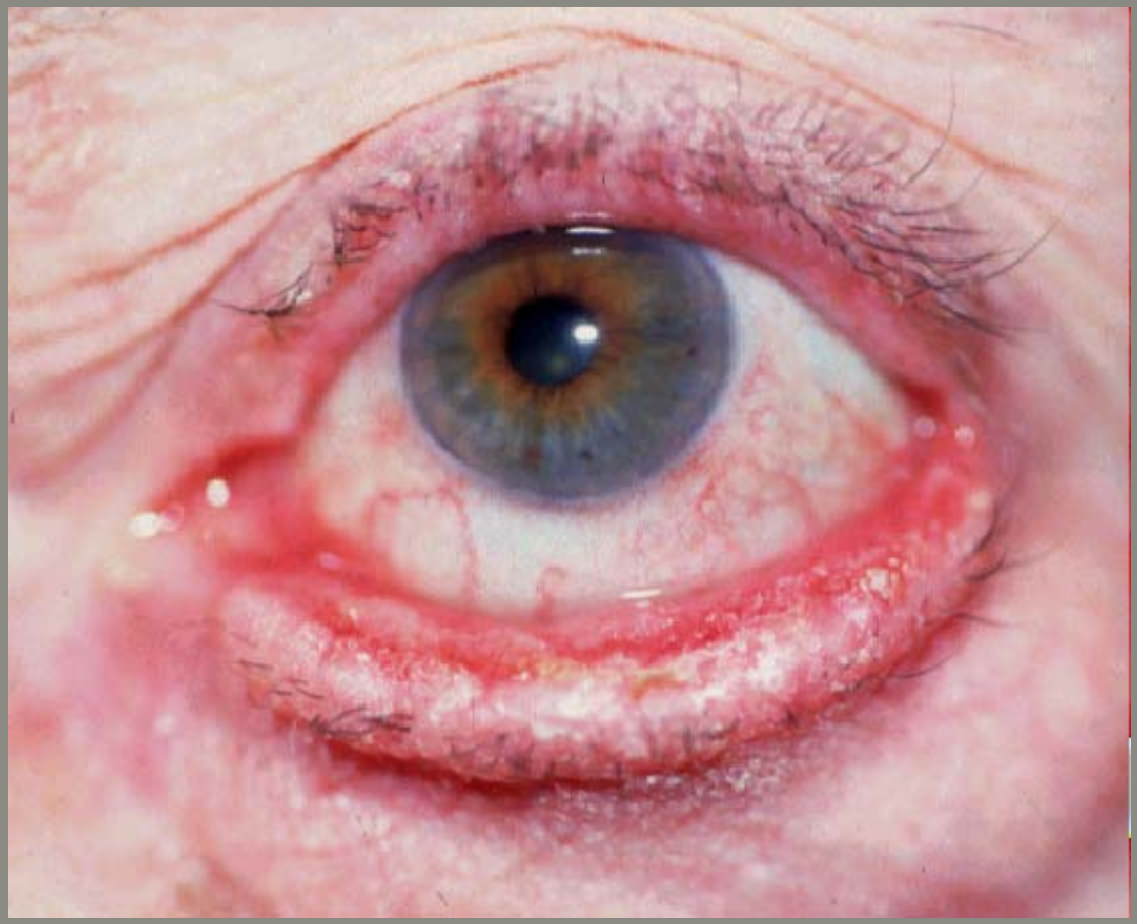
- *Staph.* abscess of lash follicle and associated gland of Zeis or Moll
- Tender swelling at lid margin
- May discharge through skin

Treatment of chalazion

If persistent – Incision and curretage
Little benefit in antibiotics unless
a. Cellulitis – oral
b. Associated conjunctivitis - drops



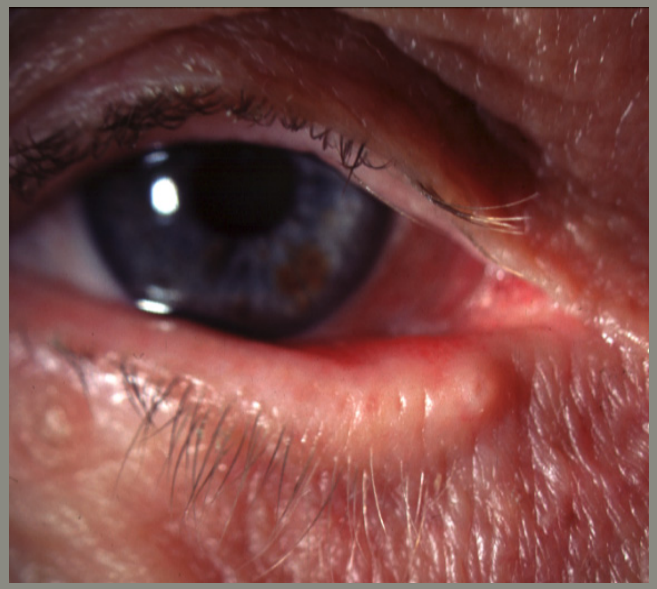
Involutional Ectropion



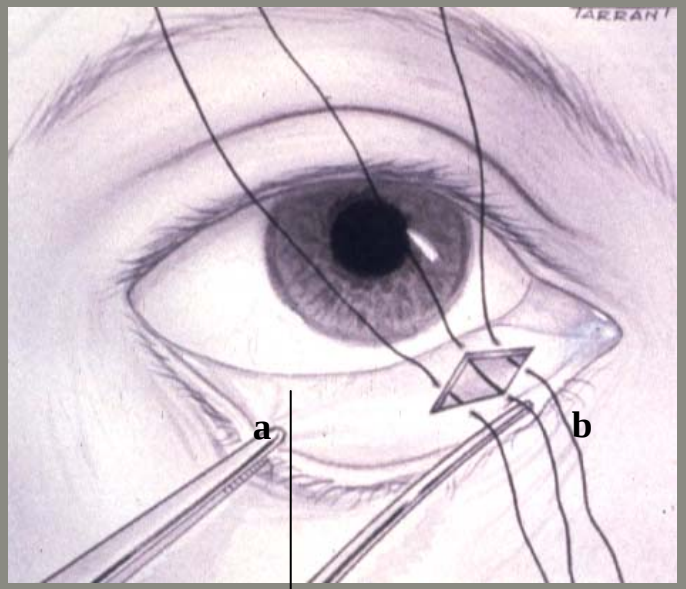
- Affects lower lid of elderly patients
- May cause chronic conjunctival inflammation and thickening

Treatment of medial ectropion

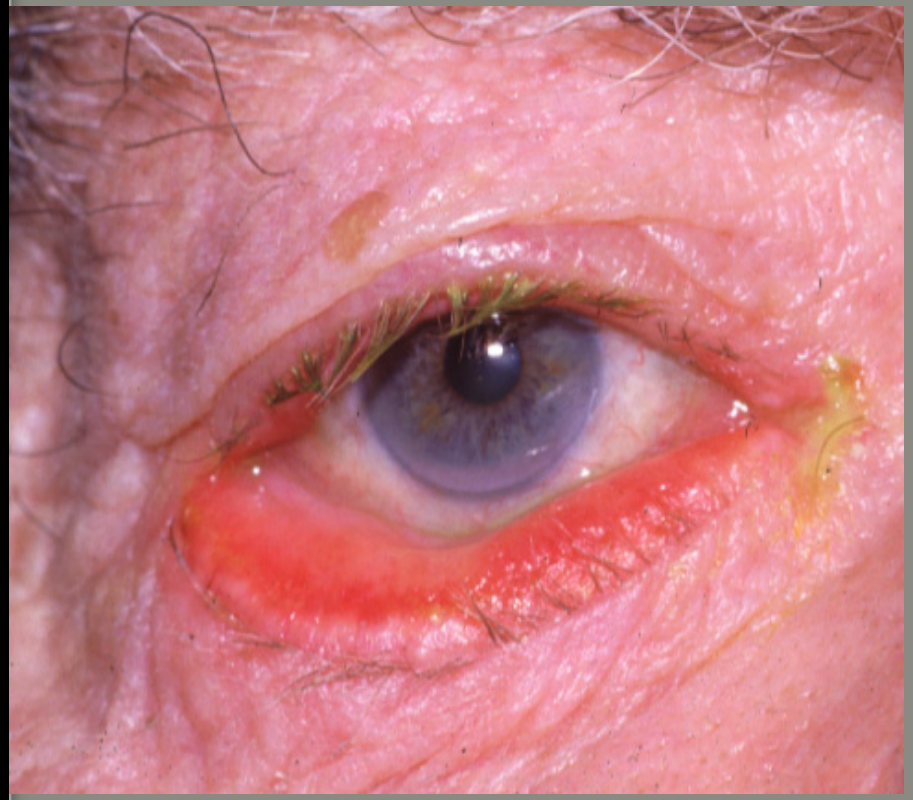
Mild

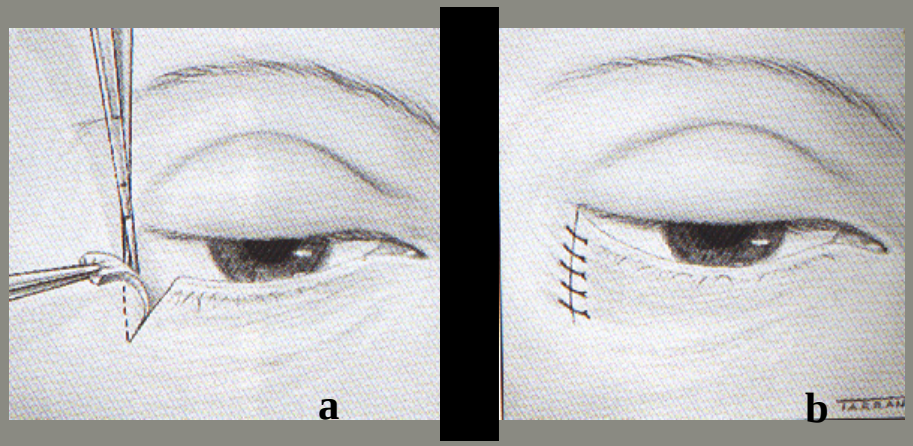


Medial conjunctivoplasty



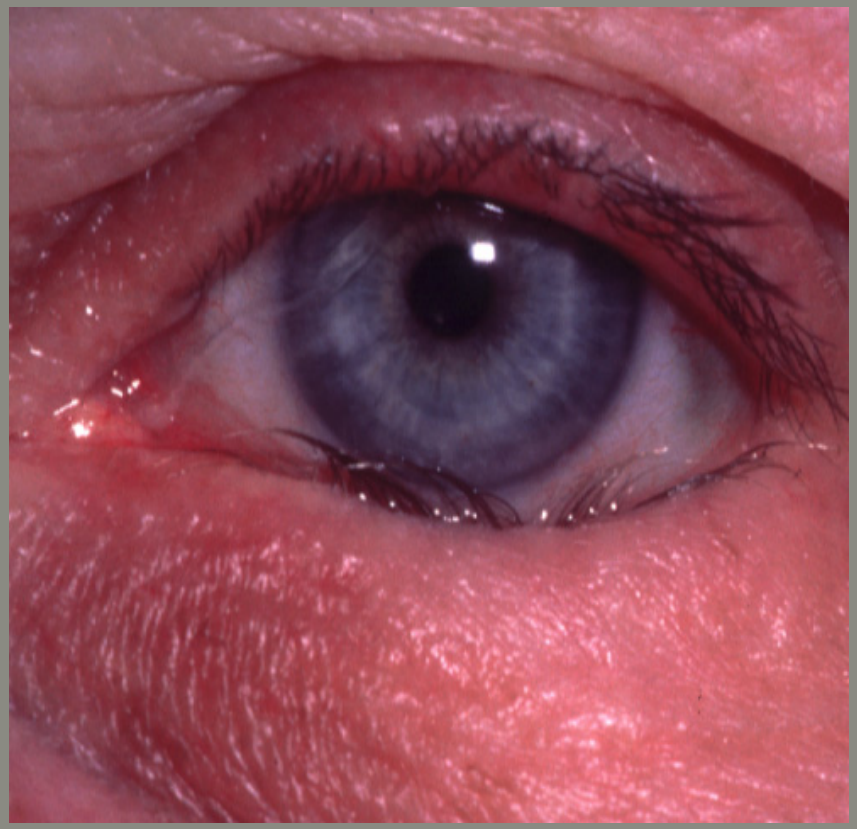
Treatment of extensive ectropion

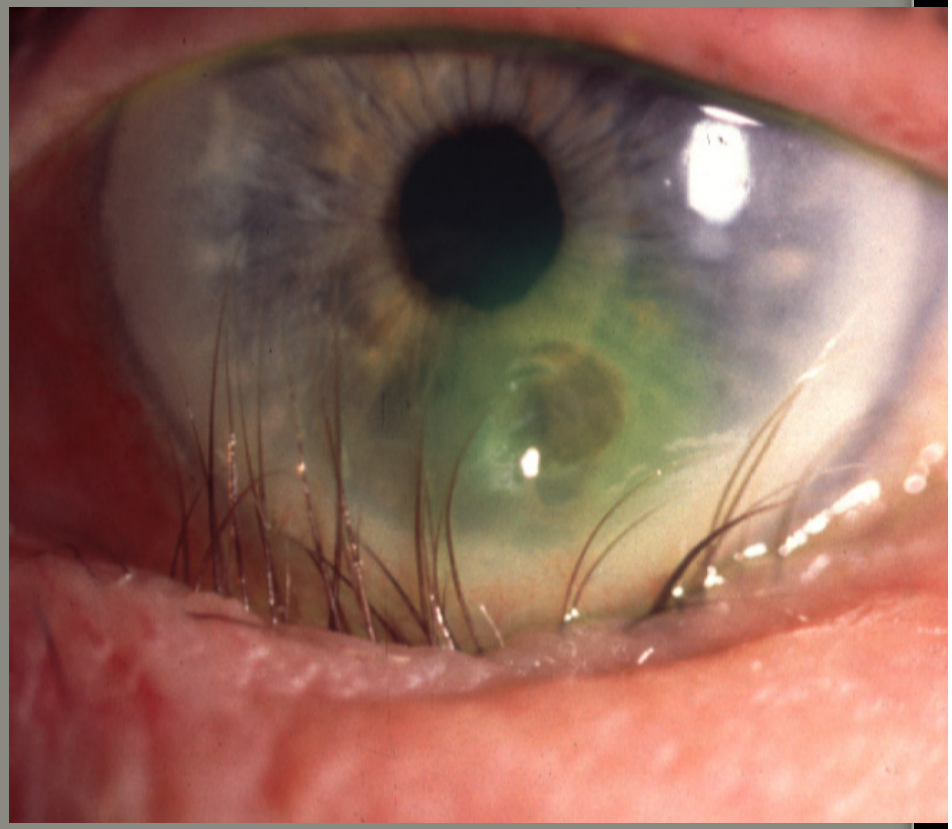




Horizontal lid shortening

Involutional entropion

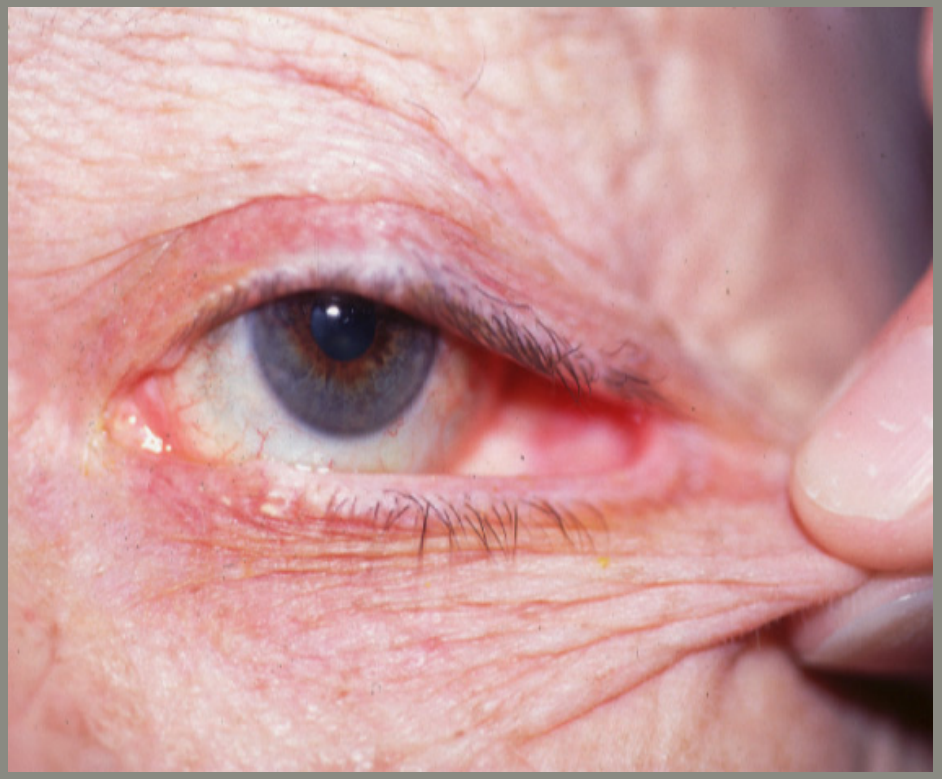


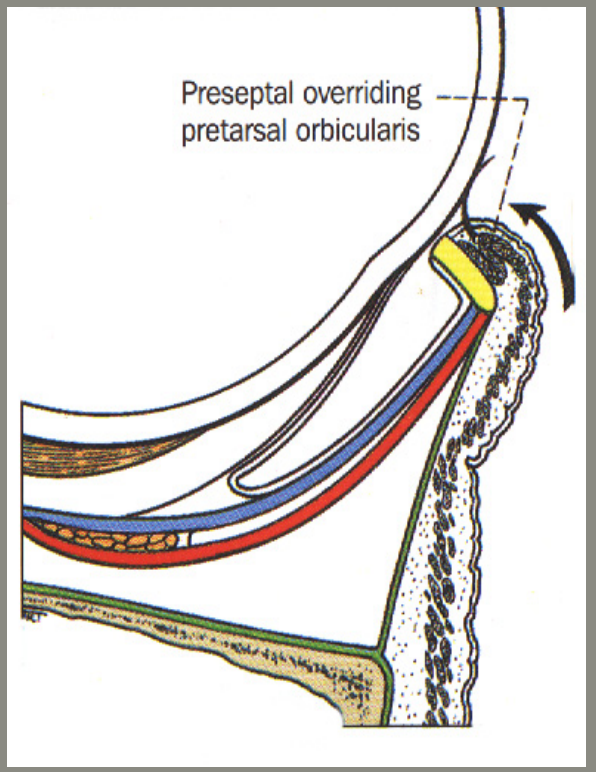


Affects lower lid because upper lid has wider tarsus and is more stable

If longstanding may result in corneal ulceration

Pathogenesis of involutional entropion

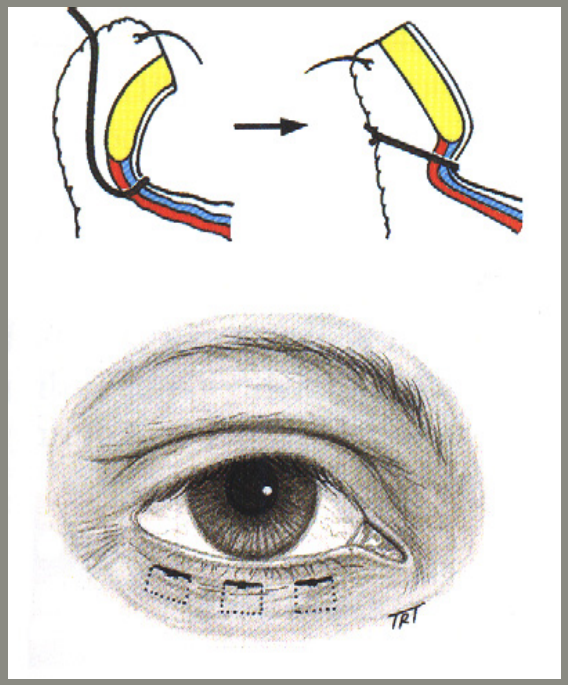




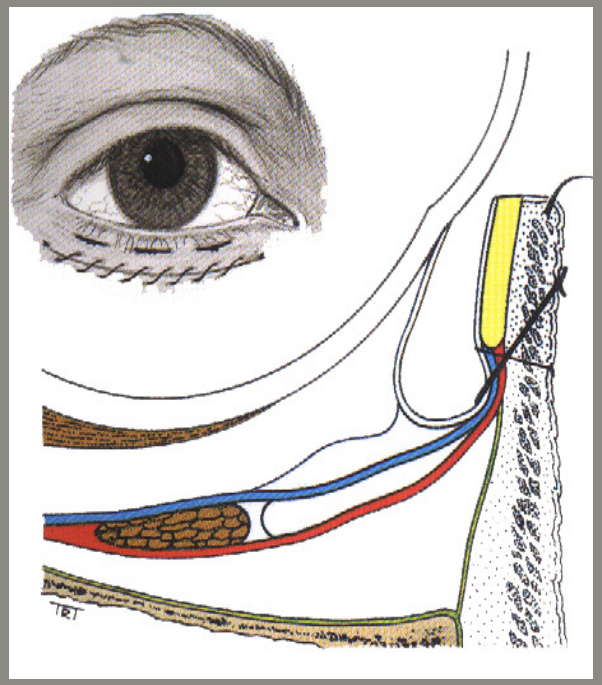
- Canthal tendon laxity
- Horizontal lid laxity

- Overriding of preseptal orbicularis

Treatment options for involutional entropion



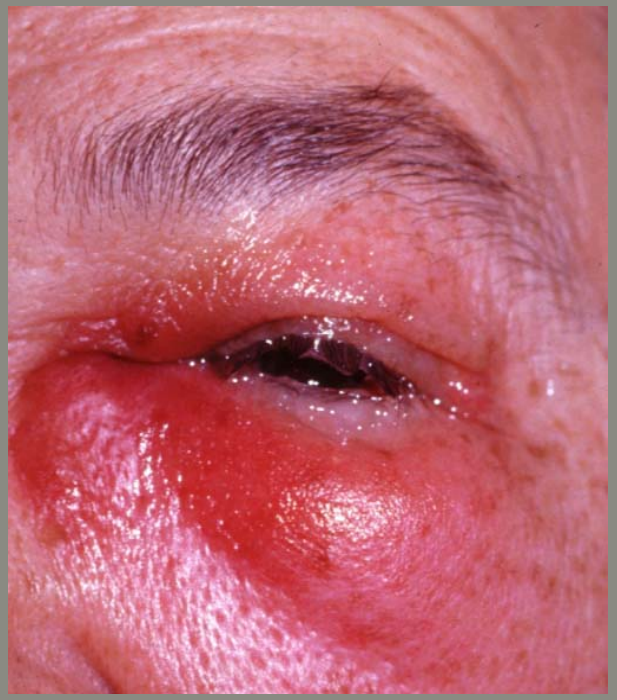
· **Transverse everting sutures (temporary)**

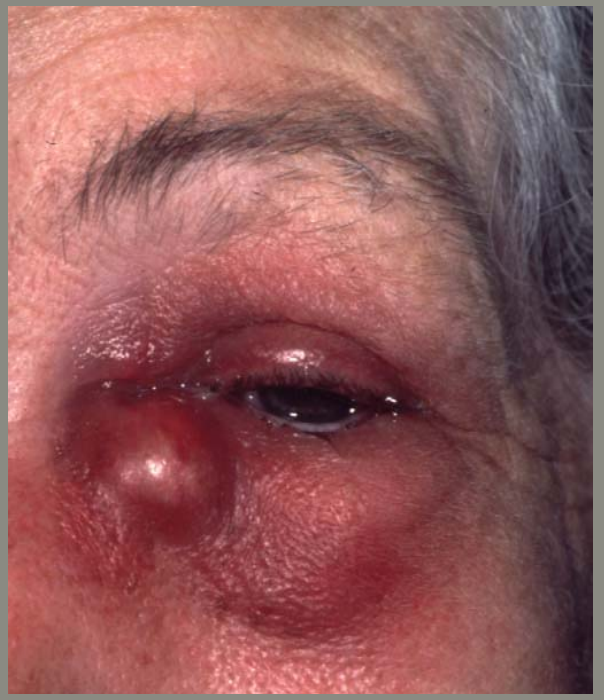


· **Weis procedure (permanent)**

Acute dacryocystitis

Usually secondary to nasolacrimal duct obstruction





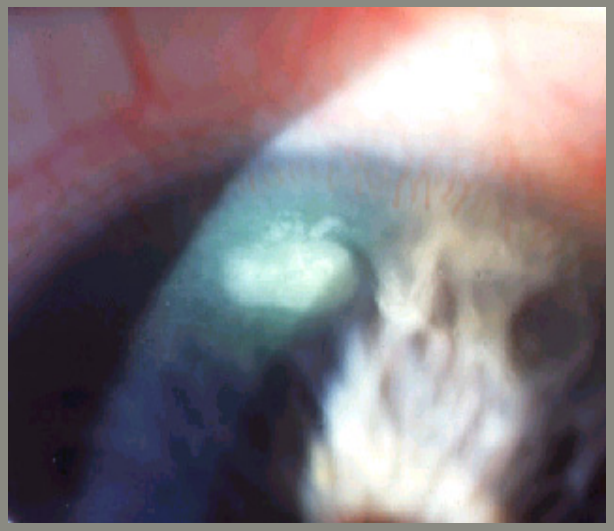
- Tender canthal swelling
- Mild preseptal cellulitis

- May develop into abscess

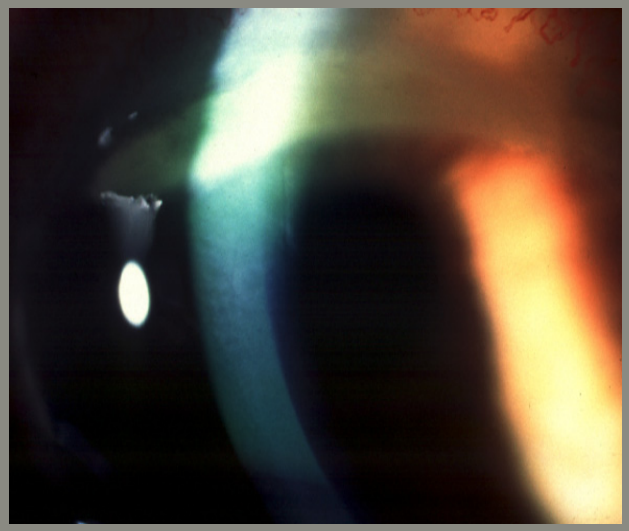
- Systemic antibiotics
- DCR after acute infection is controlled

Marginal keratitis

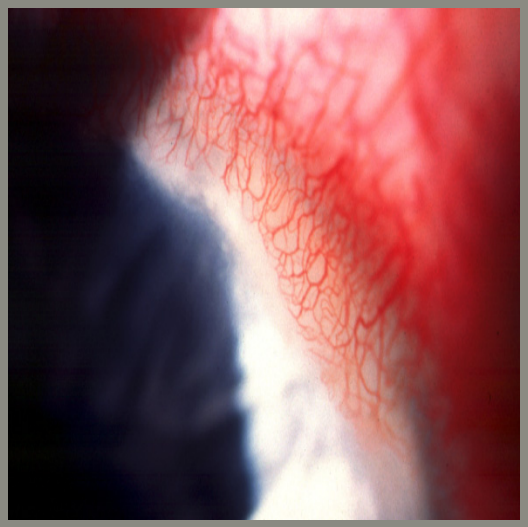
- Hypersensitivity reaction to *Staph.* exotoxins
- May be associated with *Staph.* blepharitis
- Unilateral, transient but recurrent



Subepithelial infiltrate separated by clear zone



Circumferential spread

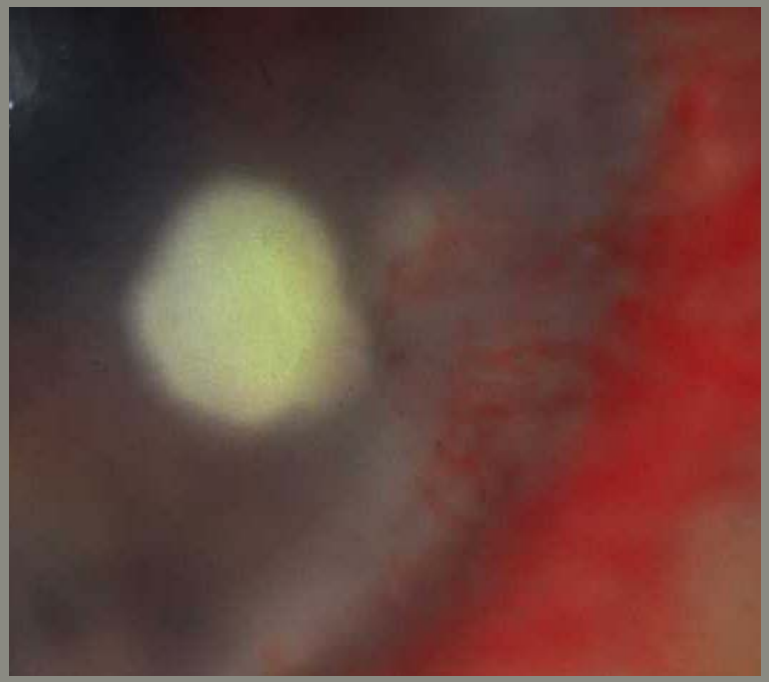


Bridging vascularization followed by resolution

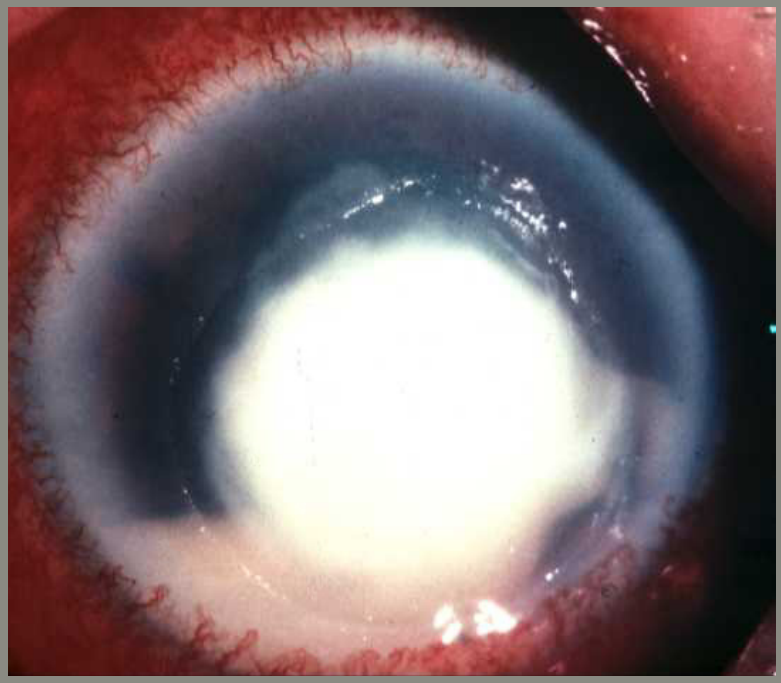
Treatment - short course of topical steroids

Bacterial keratitis -refer

- Contact lens wear
- Chronic ocular surface disease
- Corneal hypoaesthesia



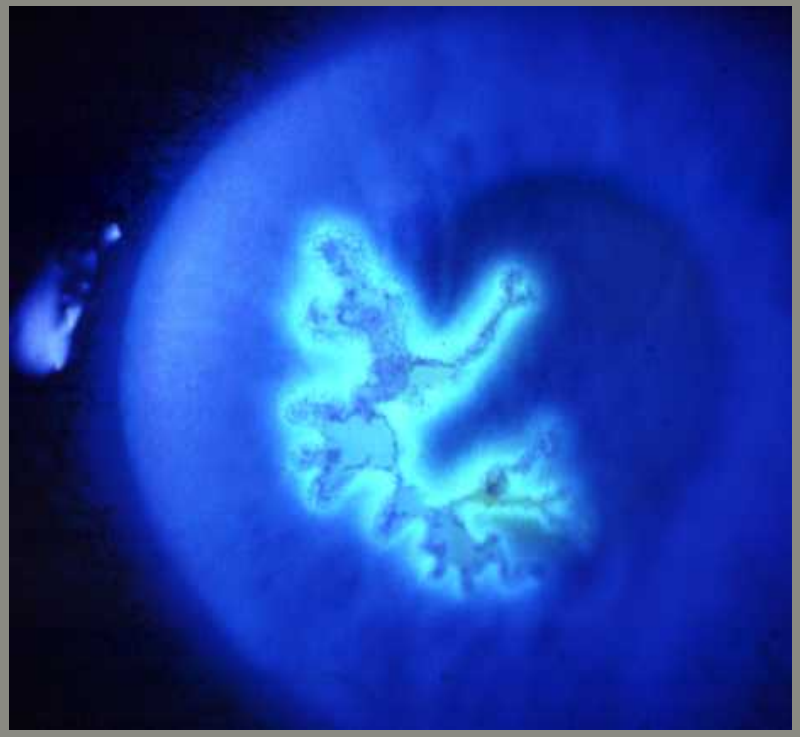
Expanding oval, yellow-white, dense stromal infiltrate

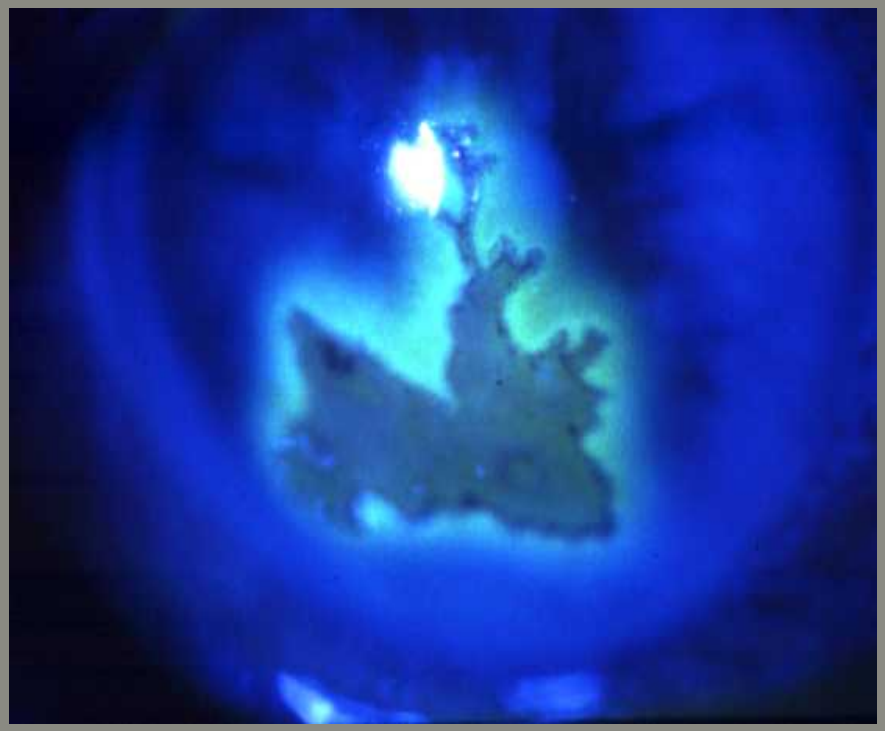


Stromal suppuration and hypopyon

Treatment - topical ciprofloxacin 0.3% or ofloxacin 0.3%

Herpes simplex epithelial keratitis



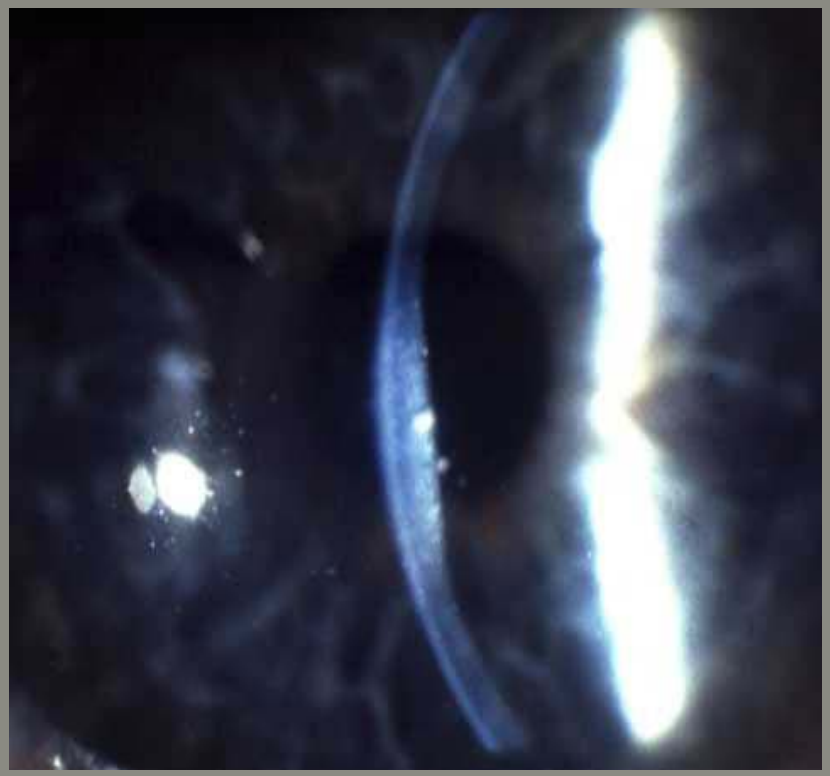


- **Dendritic ulcer with terminal bulbs**
- **Stains with fluorescein**
- **No steroids**

Treatment

- **Aciclovir 3% ointment x 5 daily**

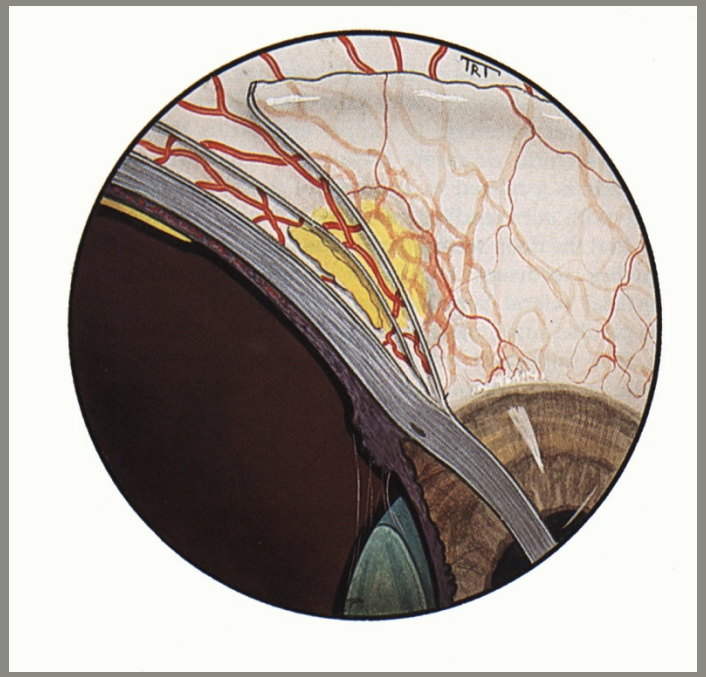
Herpes simplex disciform keratitis

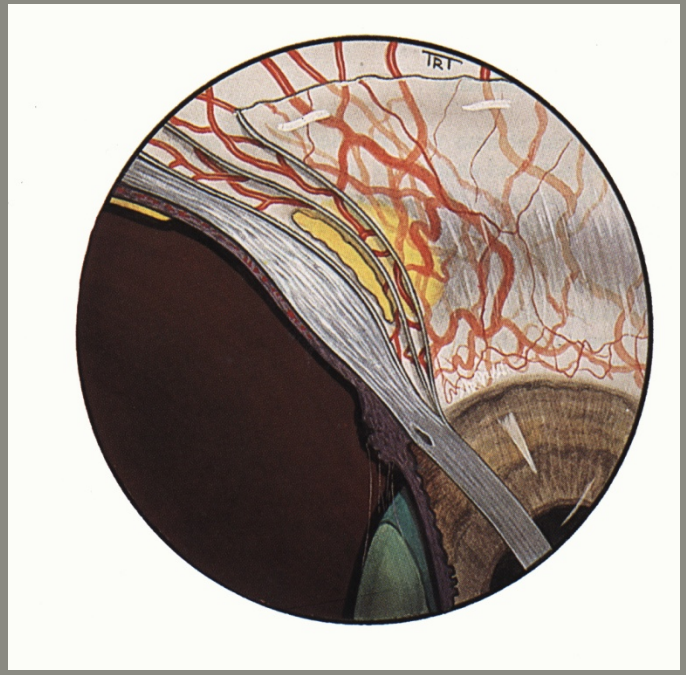


- Central epithelial and stromal oedema
- Folds in Descemet membrane
- Small keratic precipitates

Treatment - topical steroids with antiviral cover

Episcleritis and Scleritis



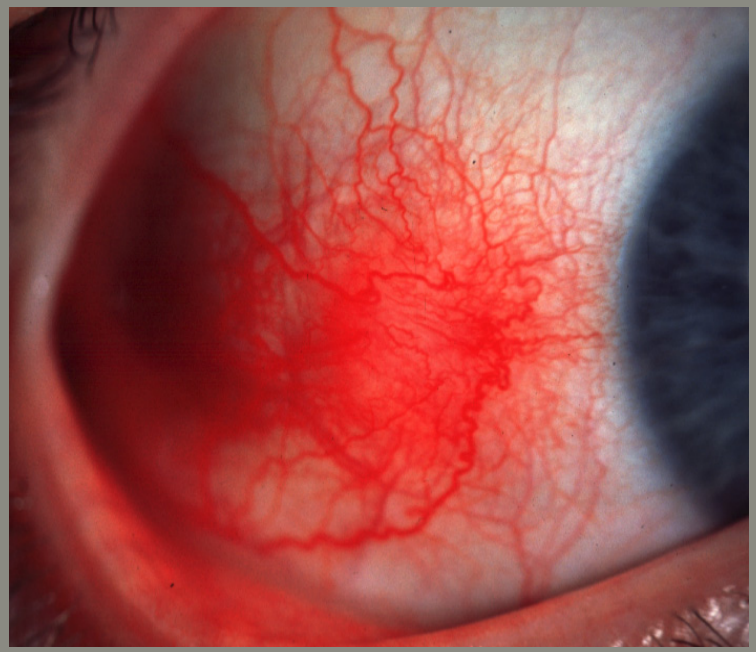


- Maximal congestion of episcleral vessels

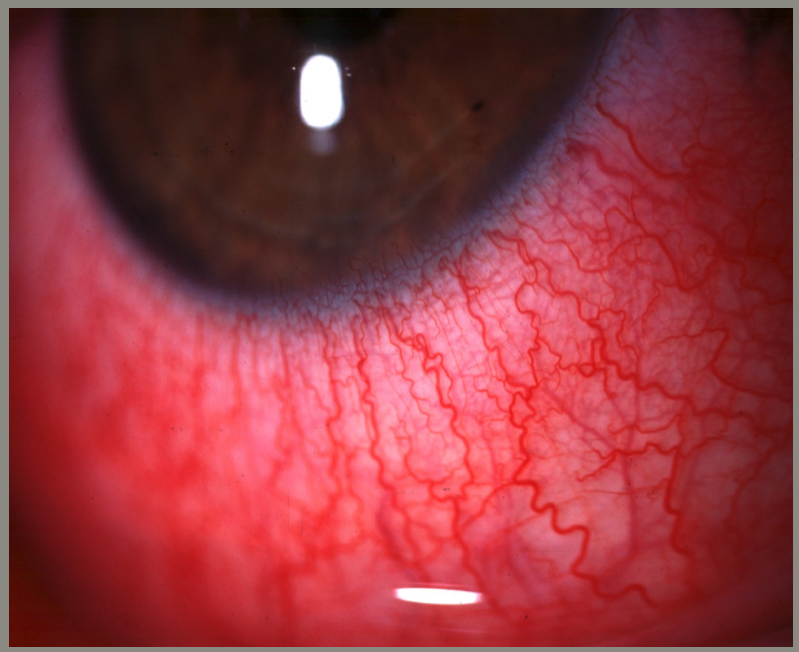
- Maximal congestion of deep vascular plexus

Simple episcleritis

- Common, benign, self-limiting but frequently recurrent
- Typically affects young adults
- Seldom associated with a systemic disorder



sectorial



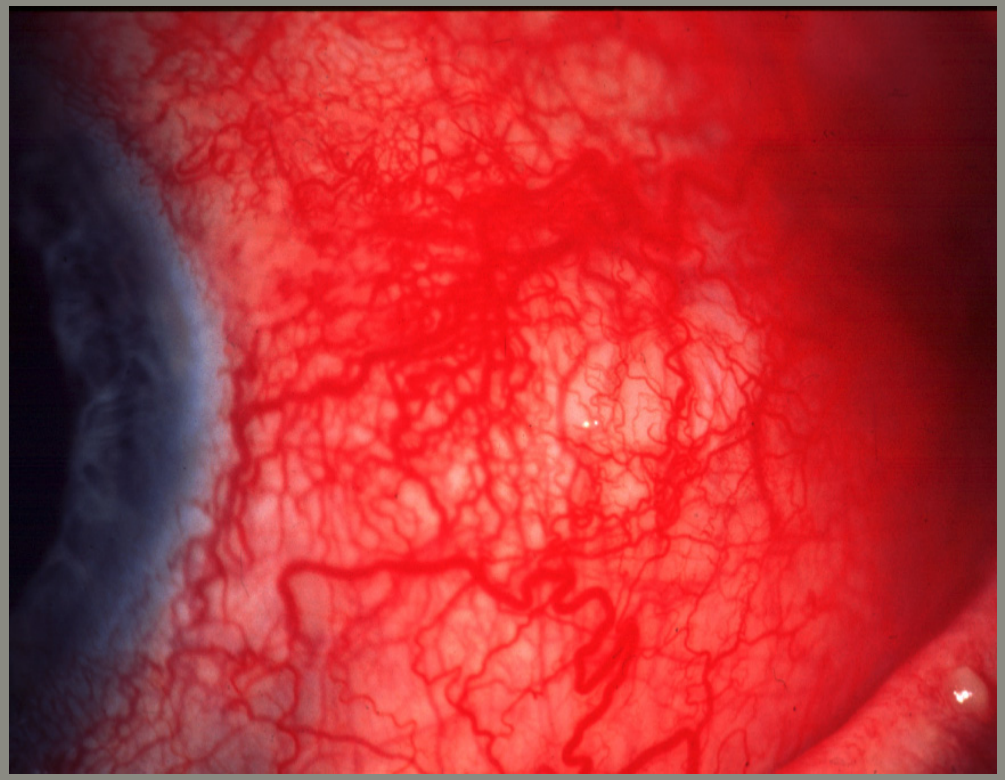
diffuse

Treatment – Conservative, topical steroids, systemic NSAIDS

Diffuse anterior non-necrotizing scleritis

- **Relatively benign - does not progress to necrosis**
- **Widespread scleral and episcleral injection**

refer

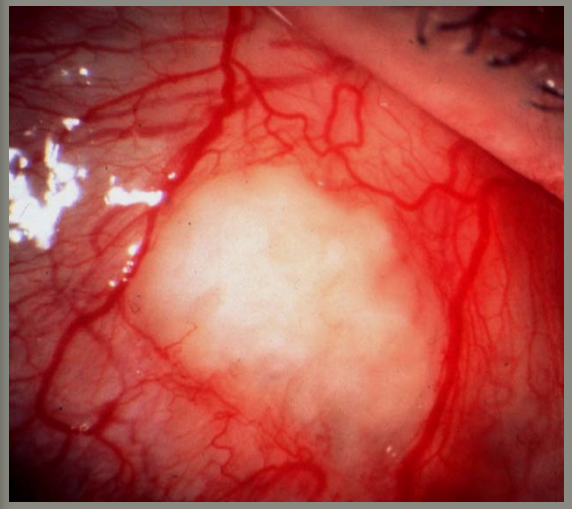


Treatment

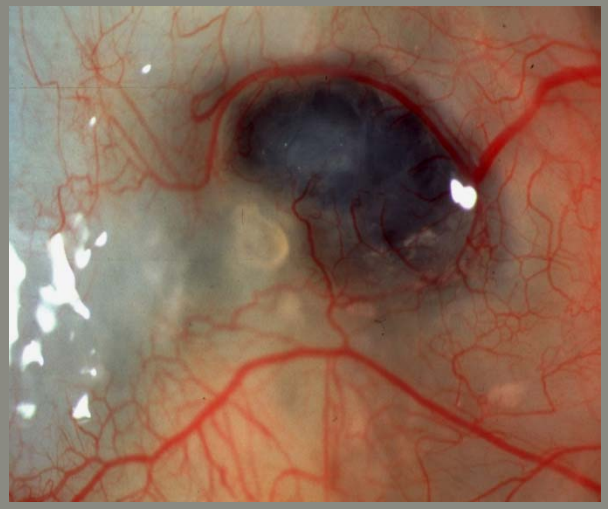
- **Oral NSAIDs**
- **Oral steroids if unresponsive**

Anterior necrotizing scleritis

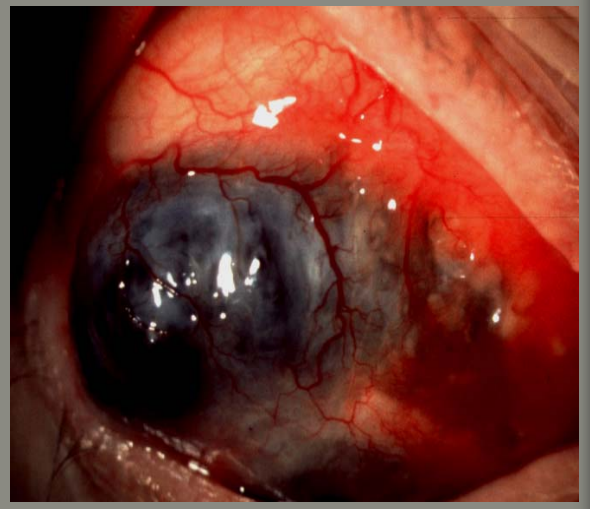
- Painful and most severe type
- Complications - uveitis, keratitis, cataract and glaucoma



Avascular patches



Scleral necrosis and visibility of uvea



Spread and coalescence of necrosis

Treatment

- Oral steroids
- Immunosuppressive agents (cyclophosphamide, azathioprine, cyclosporin)
- Combined intravenous steroids and cyclophosphamide if unresponsive

Systemic Associations of Scleritis

1. Rheumatoid arthritis

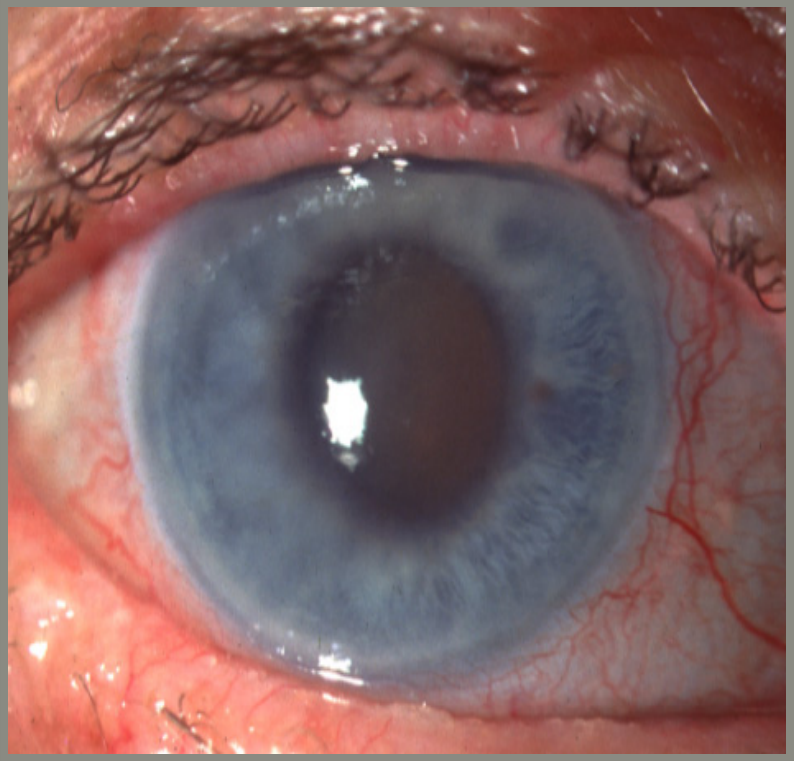
2. Connective tissue disorders

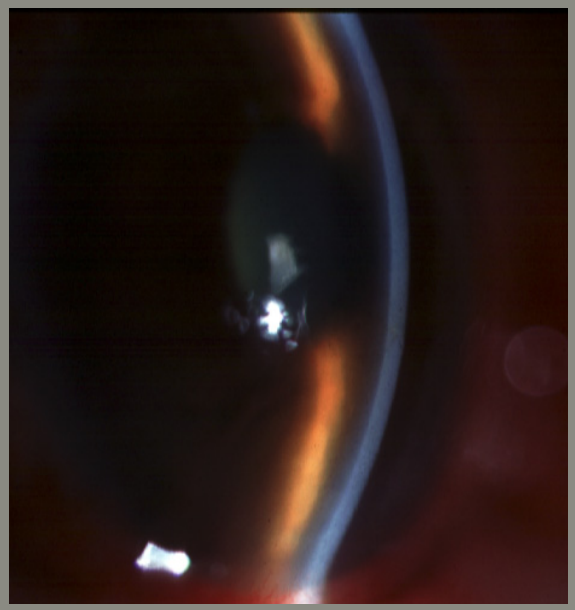
- **Wegener granulomatosis**
- **Polyteritis nodosa**
- **Systemic lupus erythematosus**

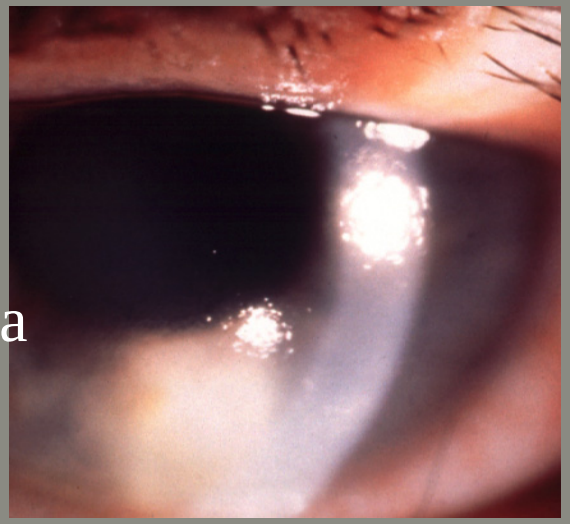
3. Miscellaneous

- **Relapsing polychondritis**
- **Herpes zoster ophthalmicus**
- **Surgically induced**

Angle-closure glaucoma



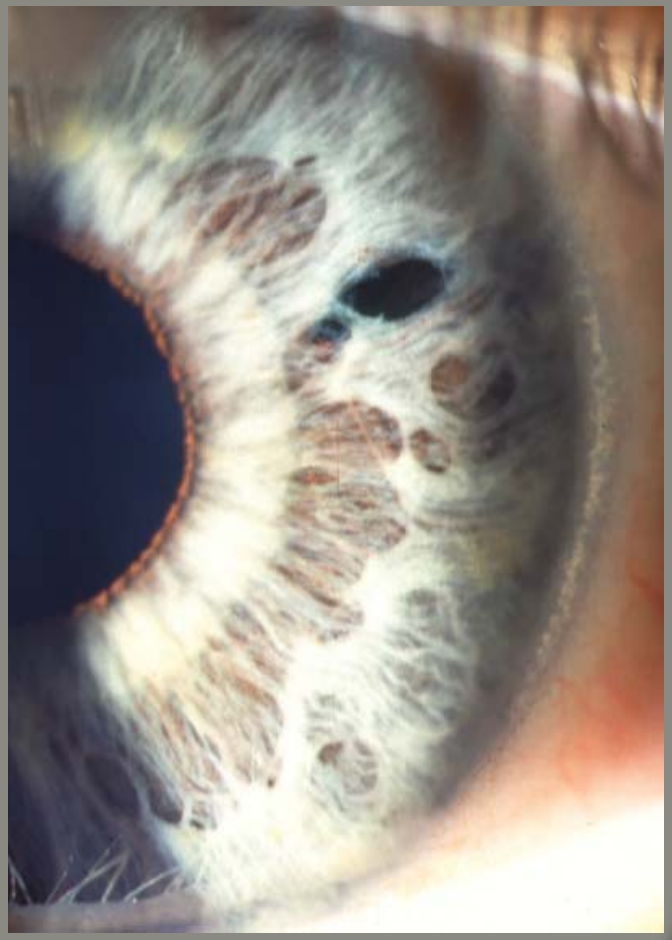




Urgent referral
Oval pupil, pain ,loss vision, dull cornea
Pain may be referred to frontal sinus
Often nauseu and vomit

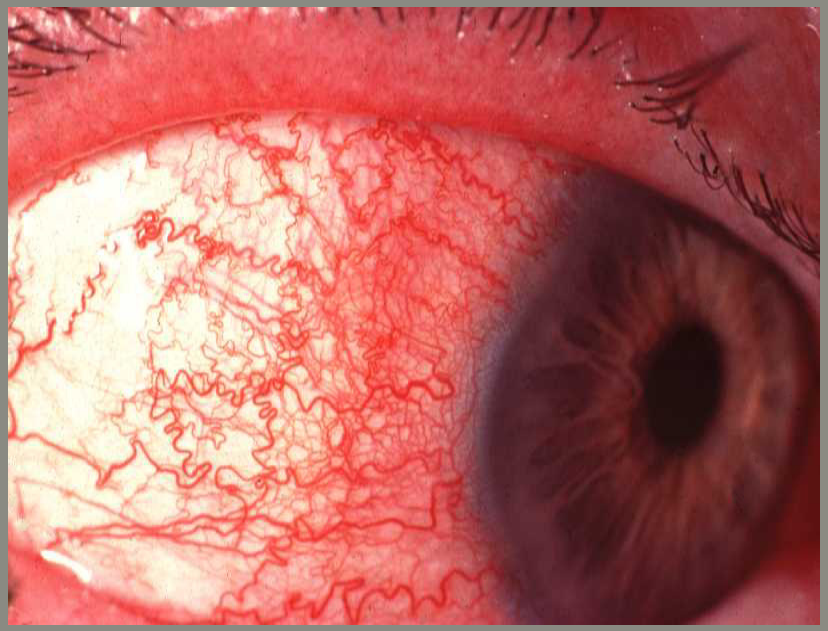
Treatment of Acute Angle-Closure Glaucoma

1. Acetazolamide i.v.
2. Topical therapy
   - Pilocarpine 2% to both eyes
   - Beta-blockers
   - Steroids
3. Hyperosmotic agents
4. YAG laser iridotomy
   - To both eyes when cornea is clear

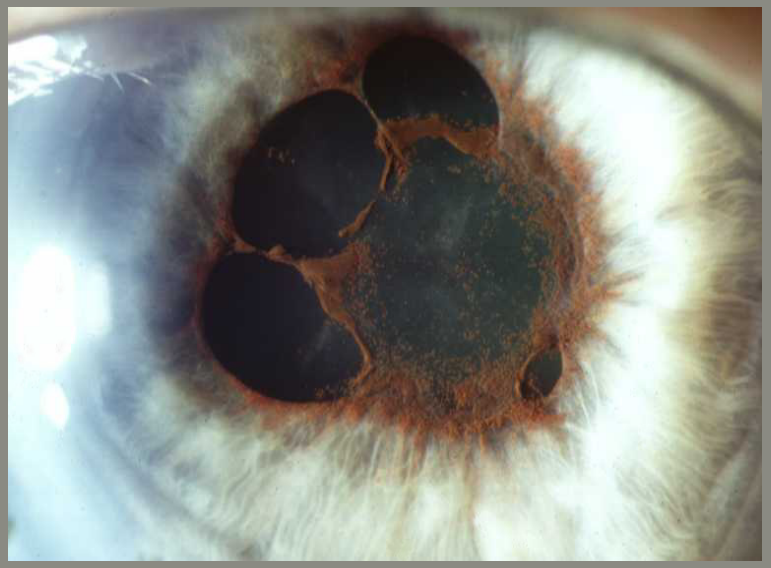


Acute anterior uveitis

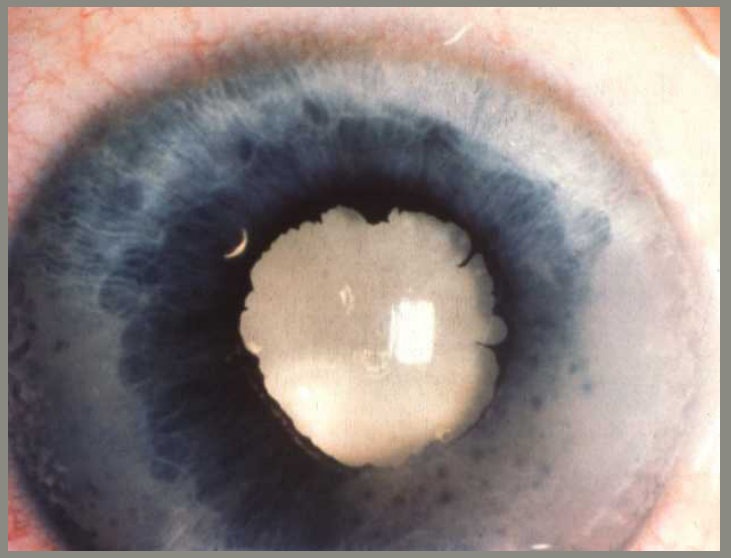
- Majority are men
- 45% are positive for HLA-B27
- Initially no systemic disease
- Minority subsequently develop ankylosing spondylitis
- If chronic disease - OK for GP to prescribe steroids while awaiting ophthalmic review



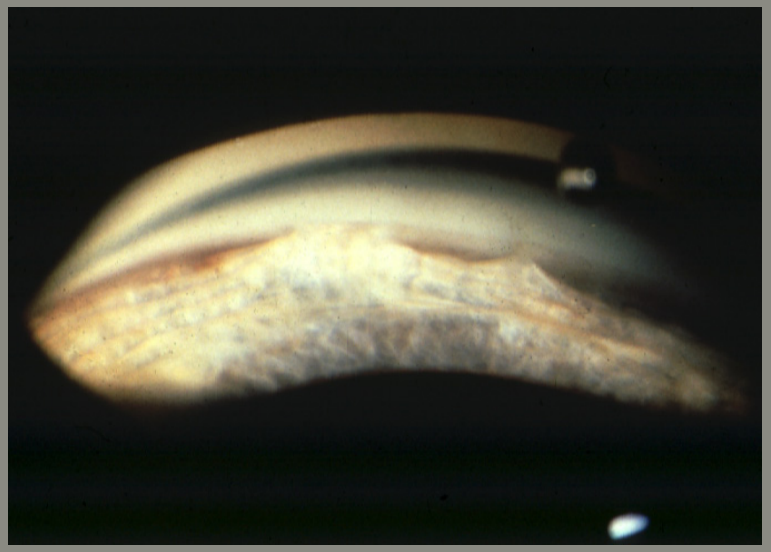
Complications of uveitis



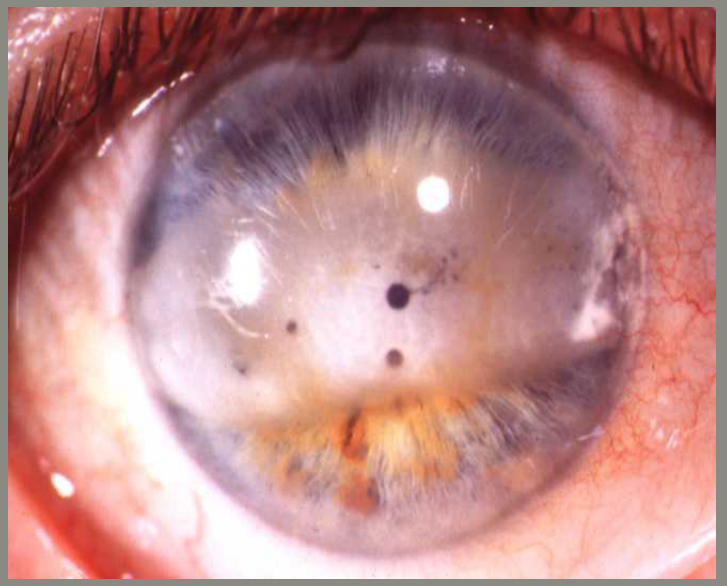
Posterior synechiae



Cataract

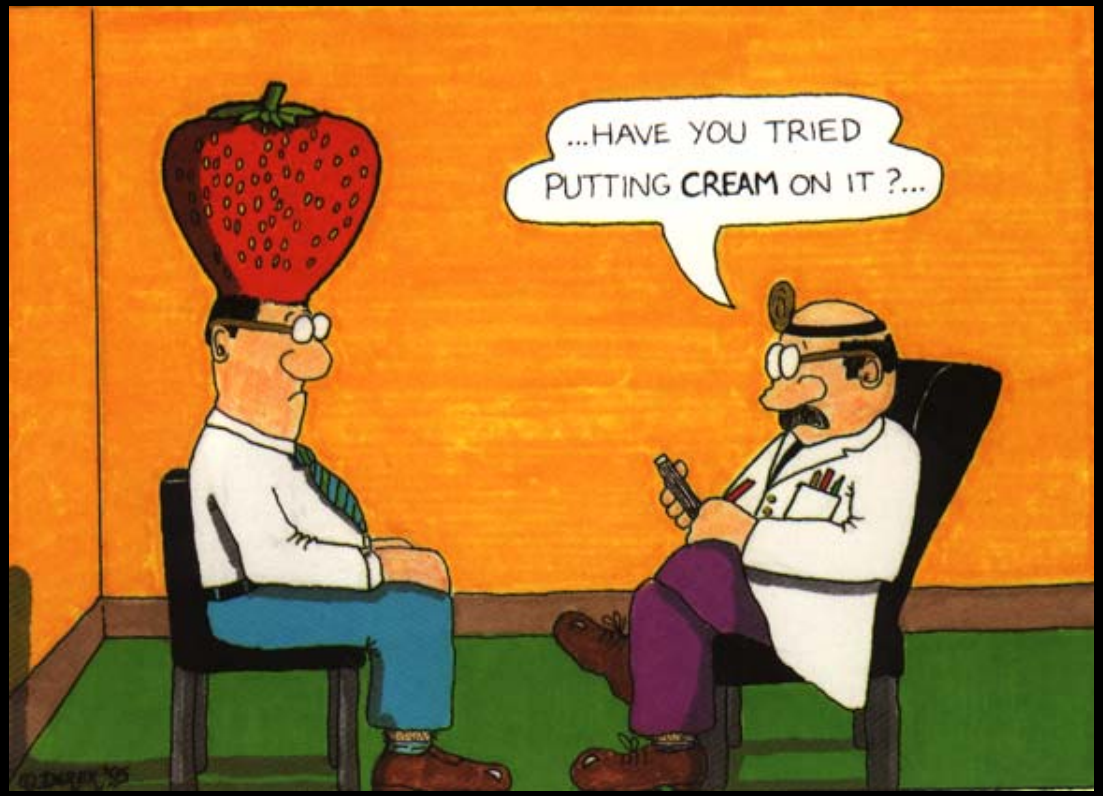


Glaucoma



Band keratopathy

I am happy to take questions on red eye or any other topic to:
secretary@tanner-eyes.co.uk



Further info at
www.tanner-eyes.co.uk