PRIMARY EYE CARE

BEST EVENT 14/11/18

AIMS & OBJECTIVES

- Differential Diagnosis of Red Eye
- Eyelid Disorders
- Blepharitis & Dry Eyes

DIFFERENTIAL DIAGNOSIS OF RED EYE

- Pain
- Photophobia
- V/A
- Discharge
- Associated Symptoms
- Contact Lens Wearer

DIFFERENTIAL DIAGNOSIS - SUMMARY

- Bacterial Conjunctivitis
- Viral Conjunctivitis
- Allergic Conjunctivitis
- Keratoconjunctivitis Sicca – Dry Eyes
- Pinguecula
- Pterygium
- Chlamydial Conjunctivitis
- Dacryocystitis
- Blepharitis
- Hordeolum

DIFFERENTIAL DIAGNOSIS – SUMMARY cont.

- Chalazion
- Basal Cell Carcinoma
- Entropion
- Ectropion
- Corneal Abrasion
- Uveitis
- Subconjunctival Haemorrhage
- Angle Closure Glaucoma
- Scleritis / Episcleritis
- Contact Lens-Associated Peripheral Ulcer
- Corneal Ulcer…HSV,HZO and Acanthamoeba

RED EYE

- The most common cause of red eye is conjunctivitis
- Always check visual acuity, pupil size and reactivity.
- Evert lids to look for foreign body

BACTERIAL CONJUNCTIVITIS

BACTERIAL CONJUNCTIVITIS - MANAGEMENT

- Often resolves in 5-7 days without treatment
- Bathe/clean the eyelids with lint or cotton wool dipped in sterile saline or boiled (cooled) water to remove crusting
- Advise patient that condition is contagious (do not share towels, etc.)
- Treatment with topical antibiotics e.g.
  - chloramphenicol 0.5% eye drops
  - chloramphenicol 1% ointment
  - fusidic acid 1% viscous eye drops

VIRAL CONJUNCTIVITIS

VIRAL CONJUNCTIVITIS - MANAGEMENT

- Wash hands carefully before & after examination & clean equipment before next patient
- Review to monitor for painful or sight-compromising corneal involvement or development of conjunctival pseudo-membrane (in either case, refer to ophthalmologist/optometrist)
- Artificial tears and lubricating ointments (drops for use during the day, unmedicated ointment for use at bedtime) may relieve symptoms
- Topical antihistamines may be used for severe itching

VIRAL CONJUNCTIVITIS – PATIENT ADVICE

- Condition is normally self-limiting, resolving within one to two weeks
- Condition is highly contagious for family, friends and work colleagues (do not share towels, etc)
- Infection with adenovirus necessitates 2 weeks off work or school
- Cold compresses may give symptomatic relief
- Discontinue contact lens wear in acute phase

ALLERGIC CONJUNCTIVITIS

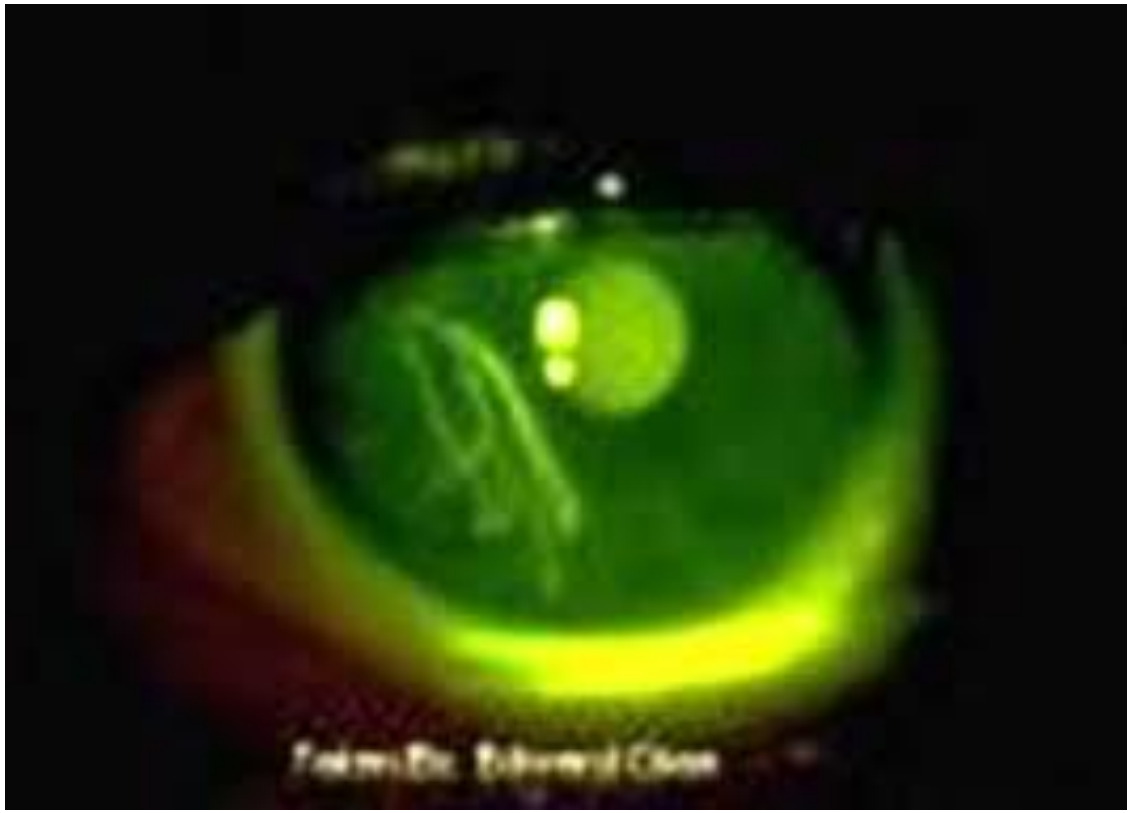
ALLERGIC CONJUNCTIVITIS – MANAGEMENT

- If possible, identify allergen and advise future avoidance
- Ocular lubricant drops and/or topical anti- histamines may provide symptomatic relief)
- If condition recurrent, prescribe prophylactic topical mast cell stabiliser,
  e.g. sodium cromoglicate 2% (as POM), or dual-acting antihistamine/mast cell stabiliser,
  e.g. olopatadine 0.1% (off-licence use)

ALLERGIC CONJUNCTIVITIS – PATIENT ADVICE

- Reassure patient: most cases resolve spontaneously within a few hours
- Advise against eye rubbing (causes mechanical mast cell degranulation)
- Cool compresses may give relief
- Advise patient to return/seek further help if symptoms persist

CORNEAL ABRASION



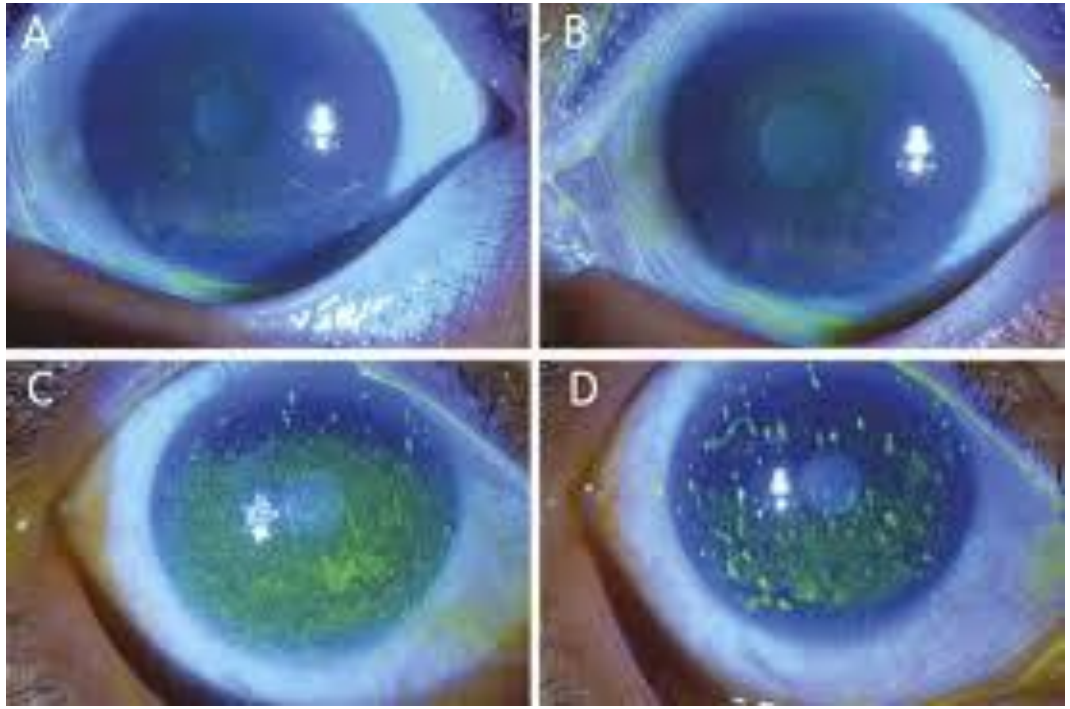
CORNEAL ABRASION - SYMPTOMS

- Unilateral sharp pain
- Lacrimation
- Photophobia
- Blurred vision

CORNEAL ABRASION - MANAGEMENT

- Remove foreign body with cotton tipped applicator
- Antibiotic ophthalmic ointment
- Eye patch with pressure
- Oral painkillers

KERATOCONJUNCTIVITIS SICCA – DRY EYES



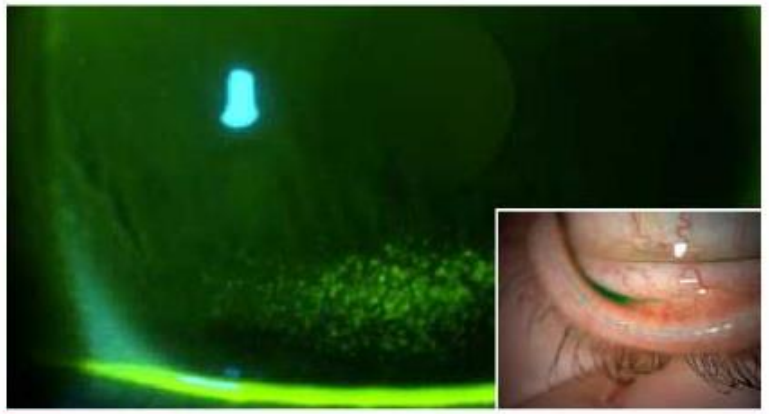
KERATOCONJUNCTIVITS SICCA – DRY EYES

LID WIPER EPITHELIOPATHY

TEAR THINNING

INCREASED MUCOUS STRANDS/OTHER TEAR MUCOUS FILM DEBRIS

DELLEN (SHALLOW EXCAVATIONS ALONG THE OUTER EDGE OF THE CORNEA CAUSE BY LOCALISED DEHYDRATION)



REDUCED TEAR MENISCUS AT INFERIOR LID MARGIN (NORMAL MENISCUS NOT LESS THAN 0.2MM IN HEIGHT)

PUNCTATE EPITHELIAL EROSIONS IN EXPOSED AREA OF CORNEA AND BULBAR CONJUNCTIVA

MUCOUS PLAQUES

KERATOCONJUNCTIVITIS SICCA – MANAGEMENT

BARNSLEY HOSPITAL GUIDELINES FOR THE TREATEMENT OF DRY EYE

Severity	First line	Second line	Other
Mild <4 drops per day	Hypromellose 0.3% (preserved) £0.44 £1.05 Viscotears (preserved) £1.39 £1.59 Tear-Lac (hypromellose 0.3% preservative free) £5.75	Liquifilm Tears (preserved) £1.72 £1.93 Artelac Rebalance (oxid preserved) £4.00 Hylo-tear 0.1% (preservative free) £7.00 £8.50	Bed time Xailin Night or VitApos ointment.
Moderate 4-6 drops per day	Hypromellose 0.3% (preserved) £0.44 £1.05 Hypromellose 1% (preserved) £0.84 £0.94 Viscotears (preserved) £1.39 £1.59 Artelac Rebalance (oxid preserved) £4.00 Tear-Lac (hypromellose 0.3% preservative free) £5.75 Hylo-tear 0.1% (preservative free) £7.00 £8.50	Systane (preserved) £4.33 £4.66 Ilube* (preserved) £8.93 £10.09 Xailin Fresh (preservative free, qds) £14.34 Hylo-forte 0.2% (preservative free) £8.00 £9.50	Bed time Xailin Night or VitApos ointment. Punctal plugs.
Severe >6 drops per day; corneal disturbance; Schirmer's <3 mm;	Hylo-tear 0.1% (preservative free) £7.00 £8.50 Hylo-forte 0.2% (preservative free) £8.00 £9.50	Systane (preserved) £4.33 £4.66 Ilube (preserved) £8.93 £10.09 Xailin Fresh 0.5% (preservative free, qds) £14.34	Bed time Xailin Night or VitApos ointment. Punctal plugs. Punctal cautery.

Cost within BHNFT, Primary care cost (Drug Tariff April 2014, MIMS March-May 2014) for a 28 day supply

KERATOCONJUNCTIVITIS SICCA – MANAGEMENT

BARNSLEY HOSPITAL GUIDELINES FOR THE TREATEMENT OF DRY EYE

Notes:

1. Schirmer's Test is an approximate guide to severity and should be taken in the context of the patient's symptoms. However, proceed with caution in advising punctal cautery in patients with Schirmer's result >3 mm.
2. * Acetylcysteine drops or Ilube can be used (when available).
3. Punctal plugs can be inserted in clinic. Use sizing gauge if using silicone plugs. Visiplugs are internal and last about 3 months.
4. Before cauterizing puncta, always syringe to confirm patency. Do not cauterize a punctum that is blocked on syringing.
5. First line products should be tried first before proceeding to second line products.

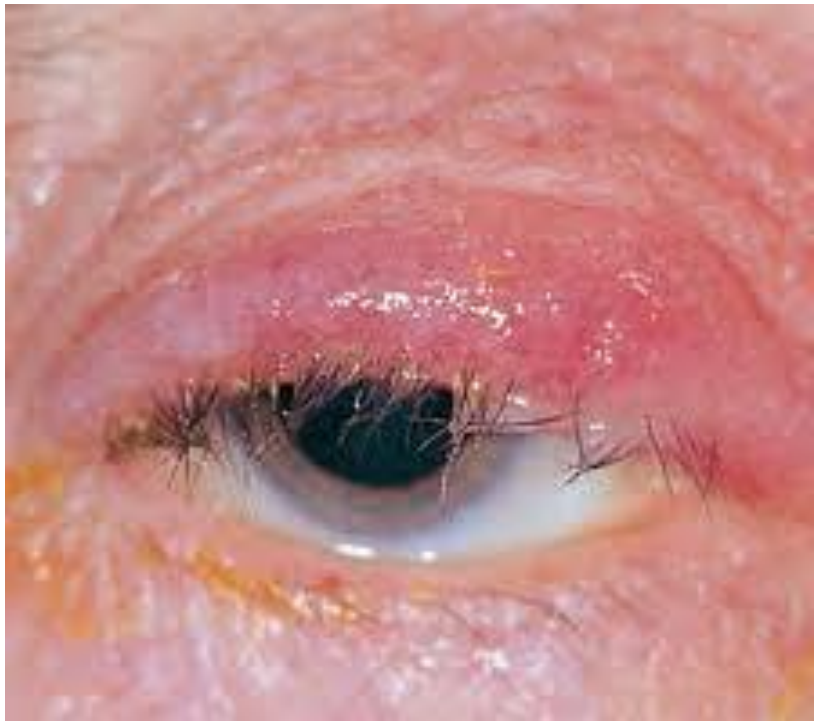
Using Preservative Free products:

- When treating dry eye associated with glaucoma treatment use preserved ocular lubricants with preserved glaucoma drops before trying preservative free ocular lubricants. This also applies to other medication used in the eye on a long term basis.
- Combine preservative free ocular lubricants and preservative free glaucoma drops only if management of dry eye is still problematic.
- For patients with moderate-to-severe dry eye disease, the absence of preservatives is of more critical importance than the ocular lubricant used, as preservative can increase corneal inflammation and exacerbate dry eye.

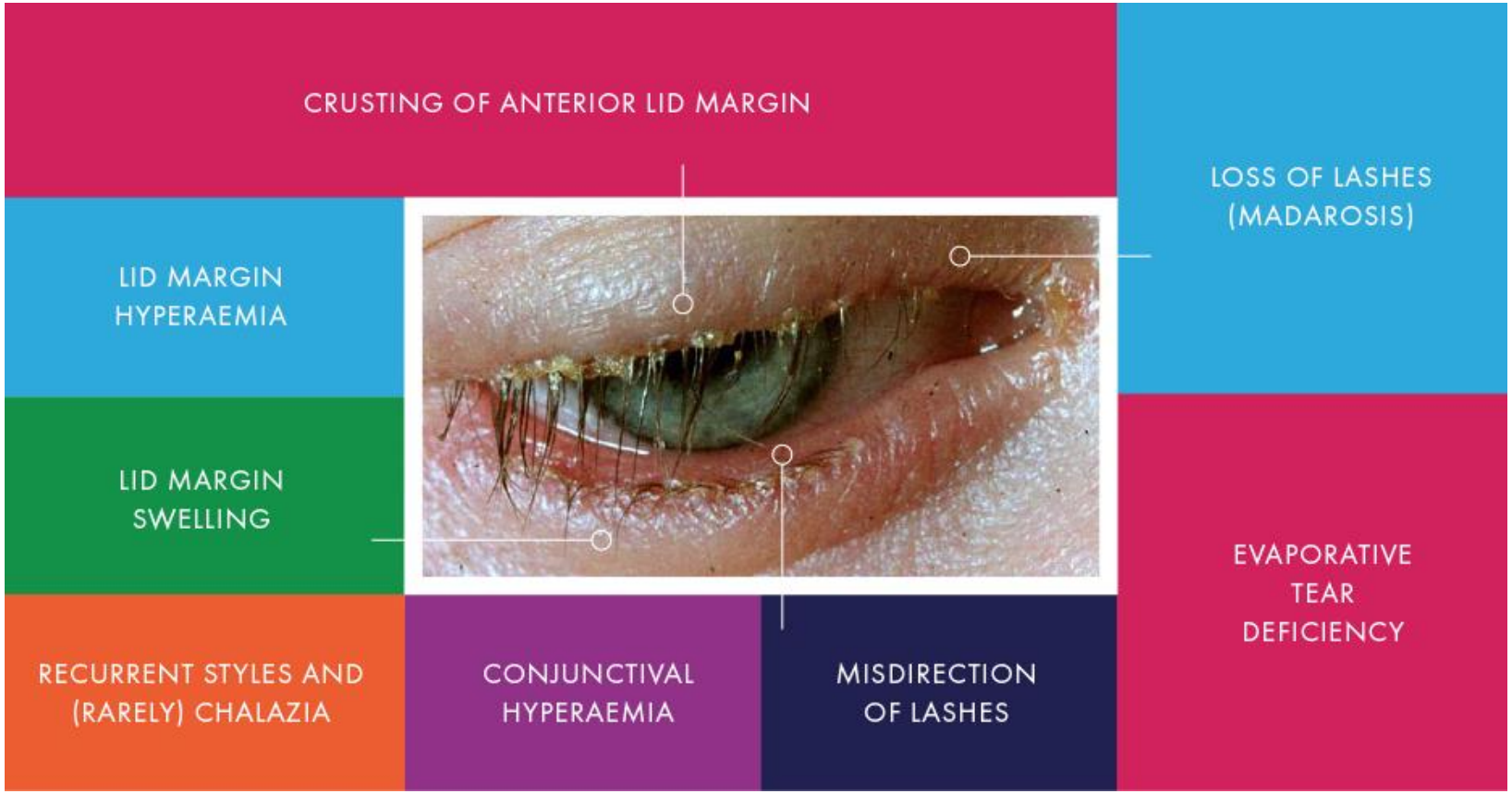
Mr M J Hassan, Consultant Ophthalmologist
Gillian Smith, Lead Pharmacist, Medicines Information, November 2010. Updated April 2014. Minor update November 2015.

KERATOCONJUNCTIVITIS SICCA – DRY EYES

BLEPHARITIS



BLEPHARITIS



BLEPHARITIS - MANAGEMENT

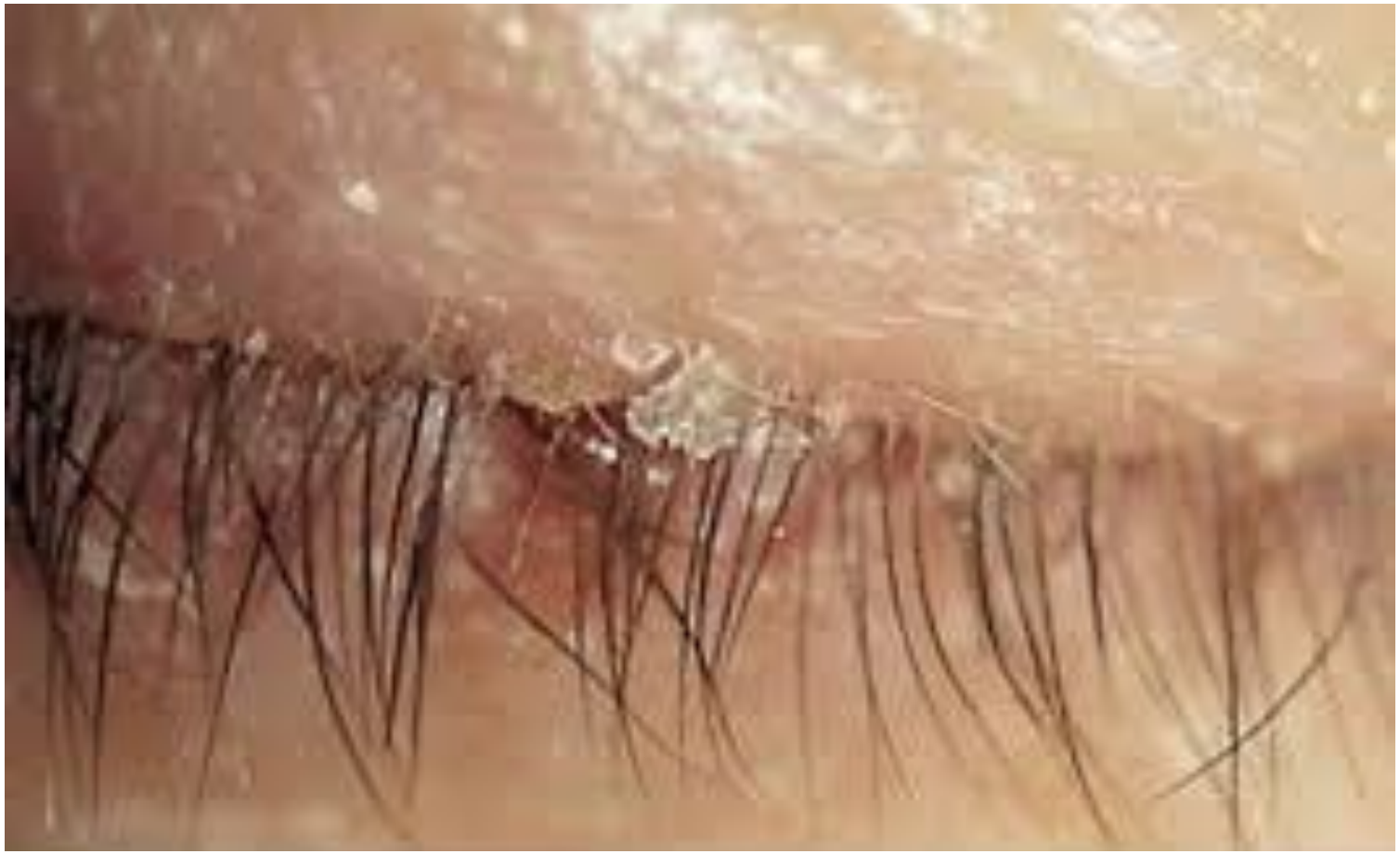
- Lid hygiene – wipes away bacteria and deposits from lid margins and leads to improved signs and symptoms in the majority of individuals.
- Wet warm compresses loosen collarettes and crusts in anterior blepharitis.
- Dry warm compresses melt meibum in posterior blepharitis **- compress applied to lid skin twice daily for not less than 5 minutes at 40°C**
- Antibiotic ointment (e.g. chloramphenicol) twice daily; place in eyes or rub into lid margin with fingertip

BLEPHARITIS – PATIENT ADVICE

- Advise the avoidance of cosmetics, especially eye liner and mascara
- Advise patient to return/seek further help if symptoms persist

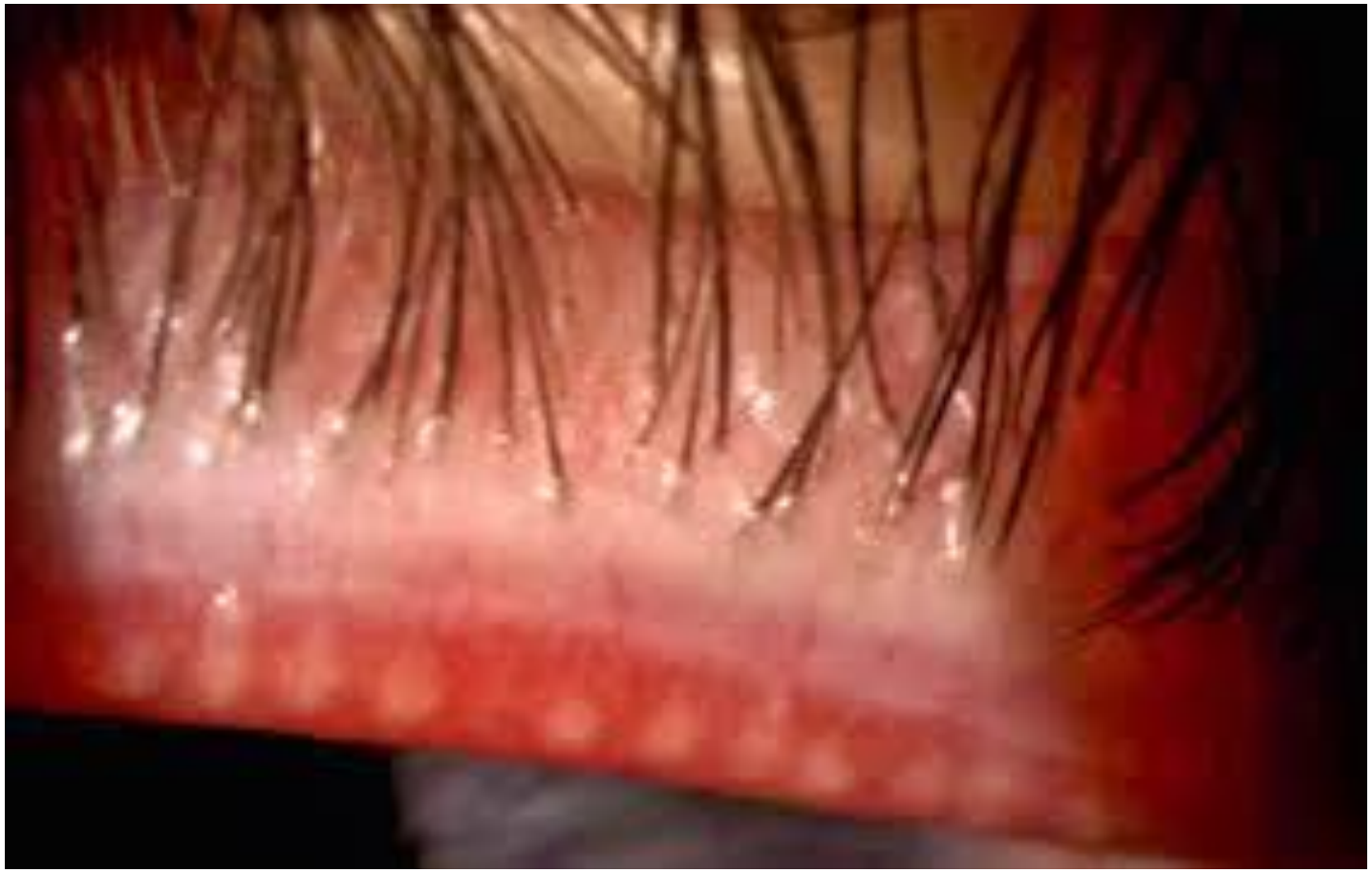
BLEPHARITIS - STAPHYLOCOCCAL

BLEPHARITIS - SEBORRHOEIC



BLEPHARITIS - DEMODEX

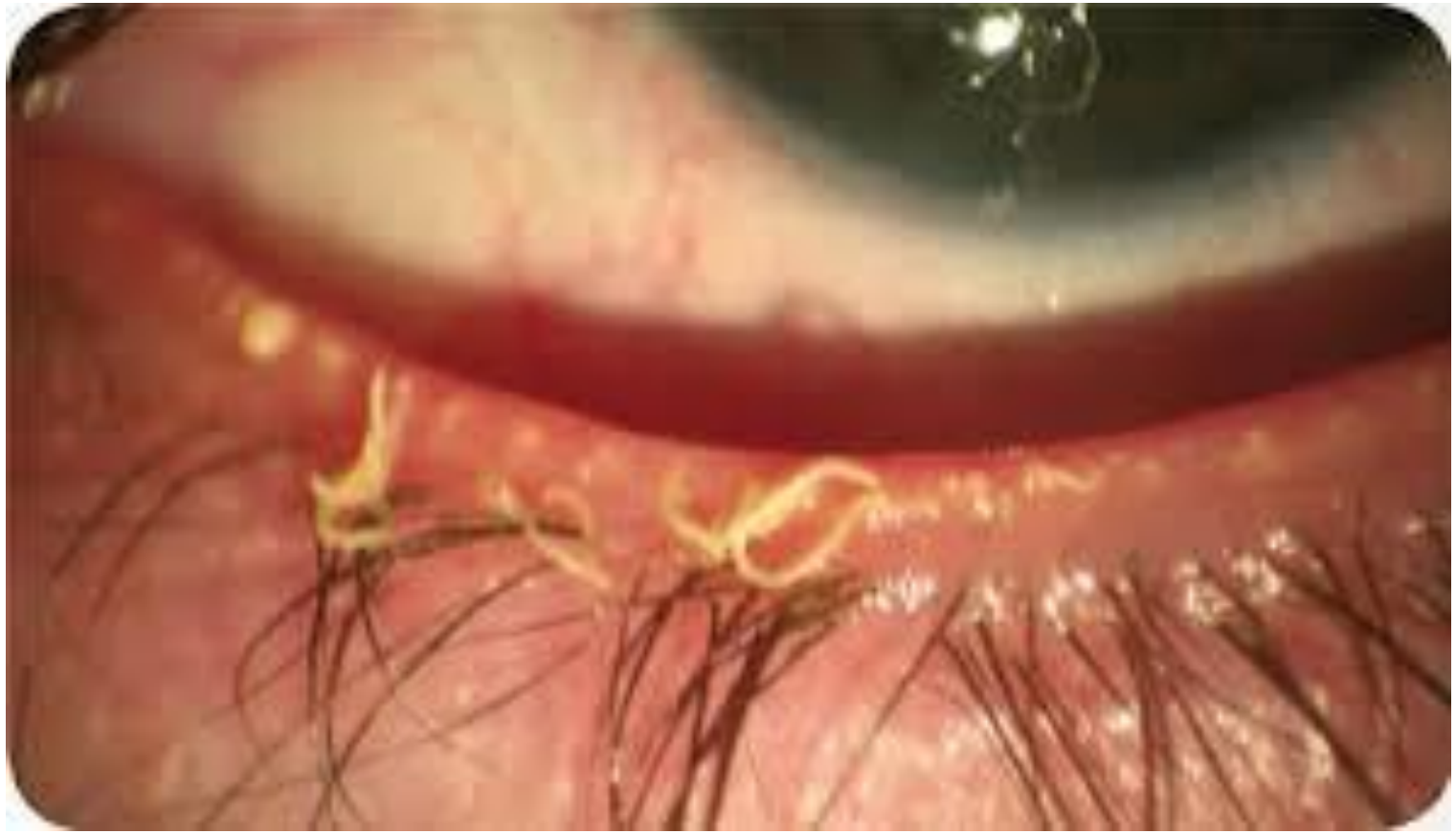
MGD



MEIBOMIAN GLAND DYSFUNCTION (MGD)

- Chronic, diffuse abnormality of the meibomian glands
- Commonly characterised by terminal duct obstruction and/or qualitative changes in glandular secretion
- May result in alteration of the tear film, symptoms of eye irritation, clinically apparent inflammation, and ocular surface disease

MGD - EXPRESSION



BLEPHARITIS - MANAGEMENT

- **Lid hygiene & hot compresses** wipe away bacteria from lid margins, and loosen crusts and collarettes
- **Sodium bicarbonate / diluted baby shampoo?? v Lid wipes and solutions**
- Preservative free artificial tears, if patient has presence of dry eyes

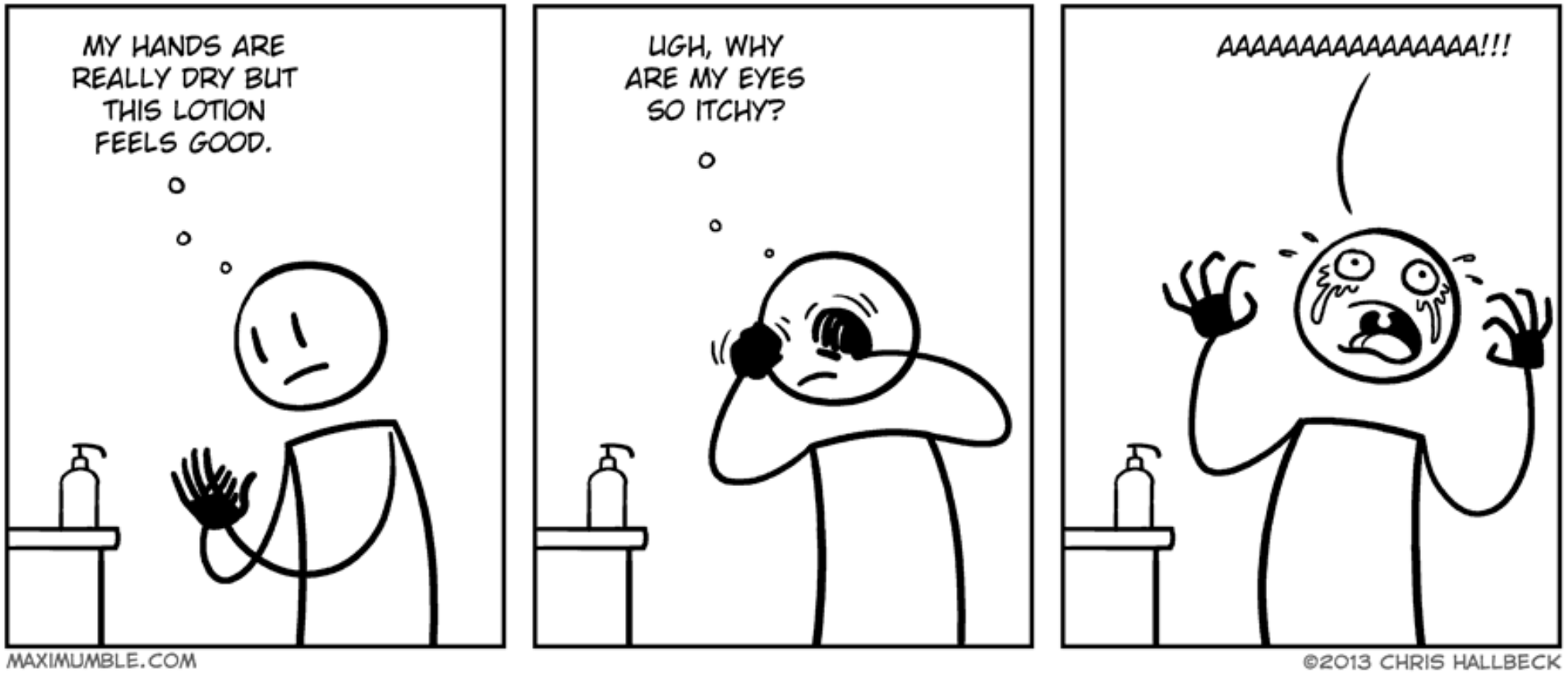
BLEPHARITIS - MANAGEMENT

- Persistence or recurrence after compliant management may indicate systemic associations such as acne rosacea
- Refer only if symptoms are extreme (and if all other options have been attempted)
- If infection is present, antibiotics may be prescribed

BLEPHARITIS – ADVICE TO PATIENT

- Begin with twice daily cleansing and reduce to once daily upon improvement
- Treatment may take several months
- Long term routine to prevent reoccurrence
- Usage of cosmetics

DRY EYES


MY HANDS ARE REALLY DRY BUT THIS LOTION FEELS GOOD.
UGH, WHY ARE MY EYES SO ITCHY?
AAAAAAAAAAAAAAAA!!!
MAXIMUMBLE.COM
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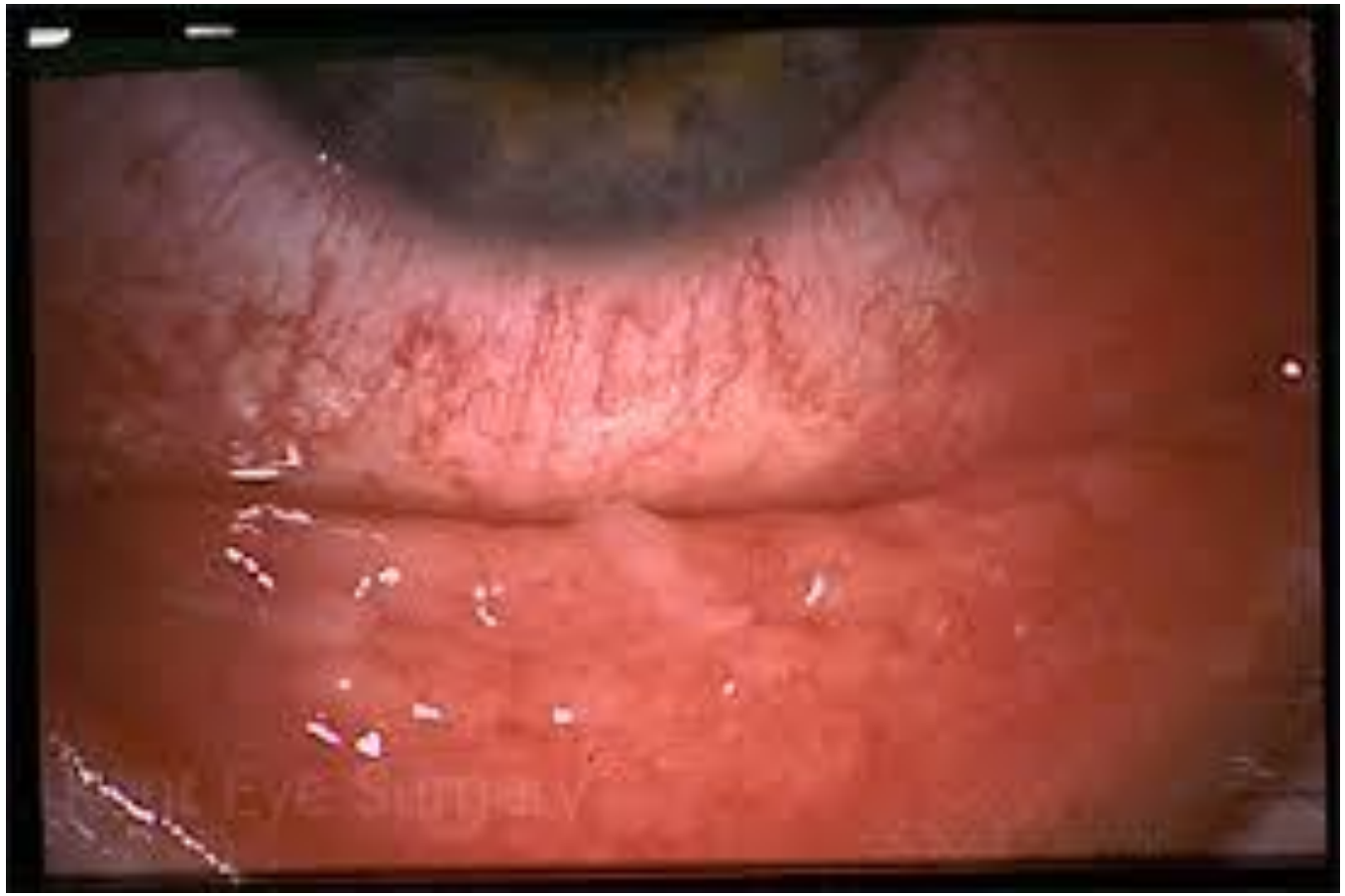
KERATOCONJUNCTIVITIS SICCA – DRY EYES

- Heat
- Massage
- Clean
- Lubricate

CHLAMYDIAL CONJUNCTIVITIS



CHLAMYDIAL CONJUNCTIVITIS - SYMPTOMS

- History usually more than two weeks
- Ocular gritty sensation and sticky discharge
- Drooping upper lid(s) (the majority of cases are unilateral)

CHLAMYDIAL CONJUNCTIVITIS - MANAGEMENT

- Advise against contact lens wear
- Symptomatic relief with ocular lubricants

Management by Ophthalmologist

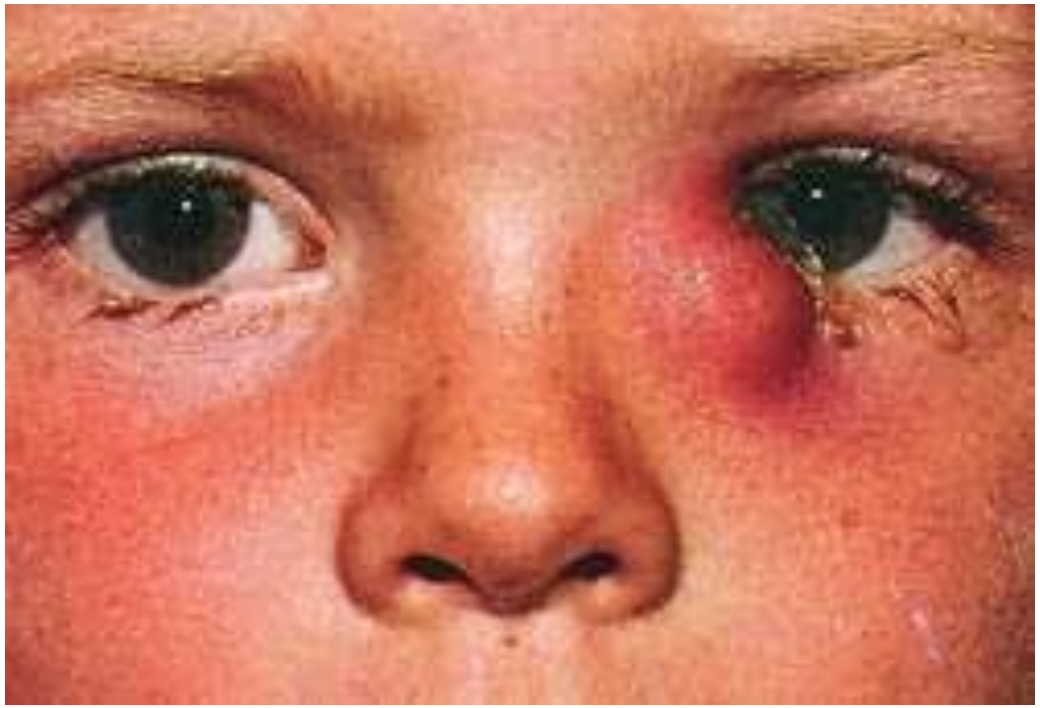
- Liaison with Genito-Urinary Clinic, which will exclude other STDs and advise on treatment of patient and partner(s)
- Treatment with systemic antibiotics
- Patients and sexual partners must be treated.

MOLLUSCUM CONTAGIOSUM

MOLLUSCUM CONTAGIOSUM - MANAGEMENT

- Usually self limiting (weeks or months) without scarring or other long term sequelae
- advise on need for hygiene to prevent reinfection and spread to others
- Artificial tears and lubricating ointment may relieve symptoms in follicular conjunctivitis

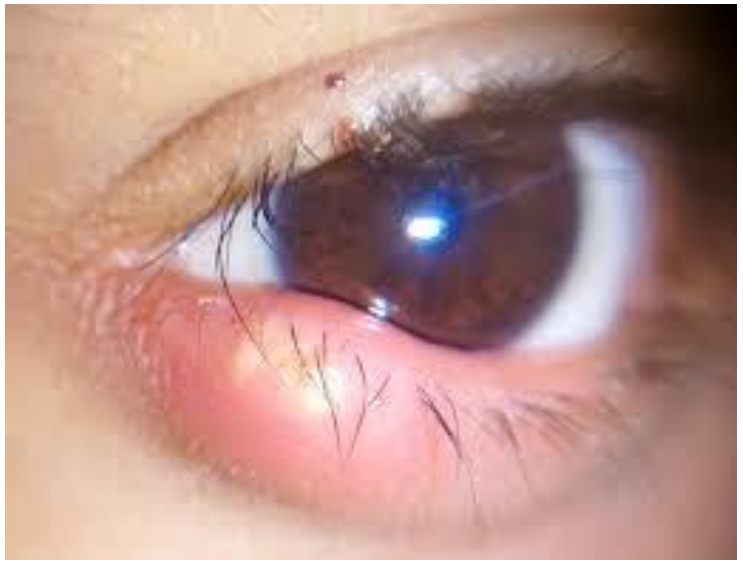
DACRYOCYSTITIS



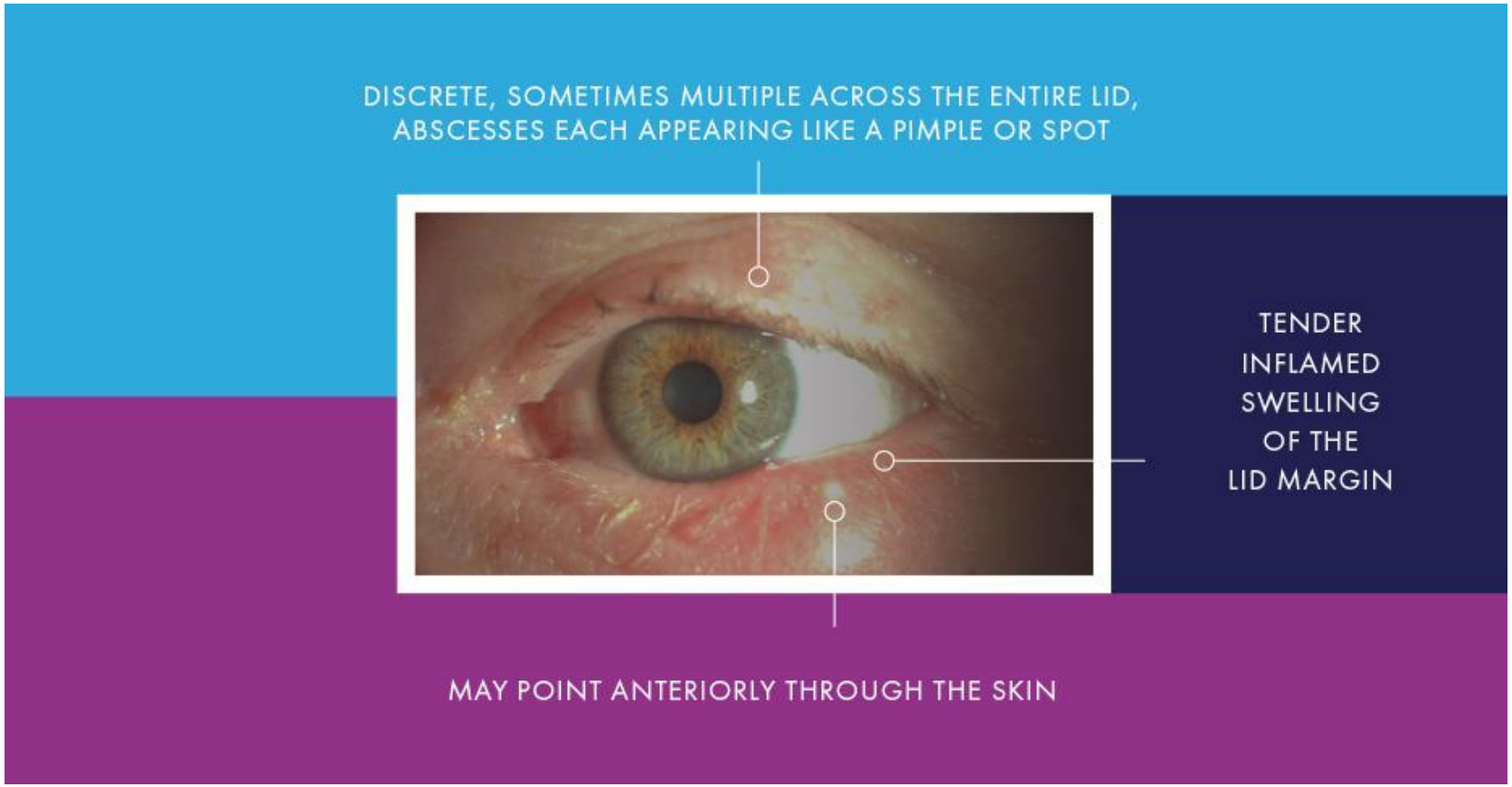
DACRYOCYSTITIS - MANAGEMENT

- Topical antibiotic to prevent bacterial conjunctivitis: e.g. chloramphenicol drops and/or ointment for no less than 5 days
- For mild cases, consider prescribing systemic antibiotic, e.g. co-amoxiclav or, where there is a penicillin allergy, erythromycin

HORDEOLUM



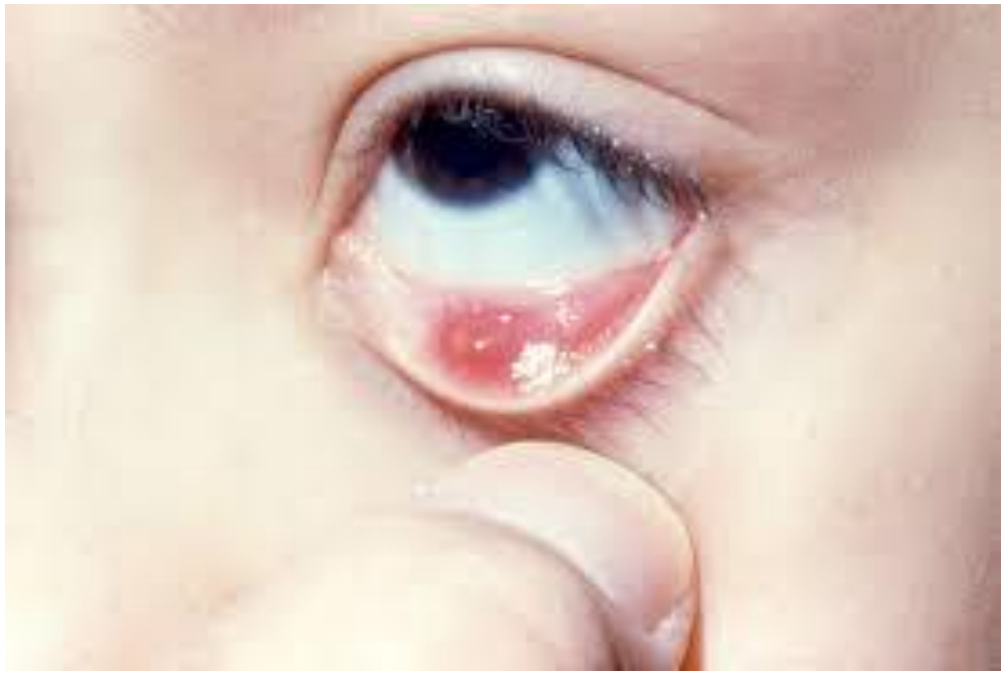
HORDEOLUM - SIGNS



HORDEOLUM - MANAGEMENT

- Most resolve spontaneously
- For **external hordeola**, it may help to remove the lash associated with the infected follicle
- Warm compresses
- Manage associated blepharitis with lid hygiene
- Refer for incision in cases that do not discharge (commoner with internal hordeolum)
- An internal hordeolum may evolve into a chalazion
- Course of antibiotic drops or ointment (e.g. chloramphenicol) in the presence of muco-purulent discharge
- In severe or recurrent cases, consider management with systemic antibiotics

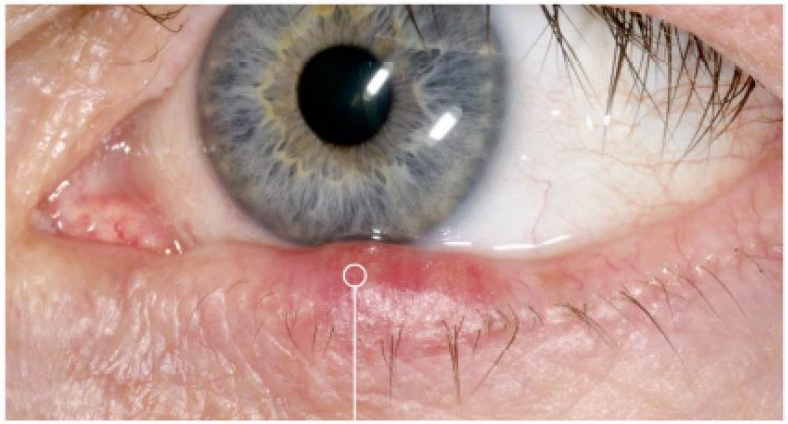
CHALAZION



CHALAZION - SIGNS

MAY BE ASSOCIATED WITH BLEPHARITIS

LID EVERSION MAY SHOW EXTERNAL CONJUNCTIVAL GRANULOMA



INDUCED ASTIGMATISM MAY CAUSE CHANGE IN REFRACTION

WELL-DEFINED, 2-8MM DIAMETER SUBCUTANEOUS NODULE IN TARSAL

CHALAZION - MANAGEMENT

- Usually (up to 80%) resolves spontaneously (may take weeks or months)
- If persistent, large, recurrent or causing corneal distortion then refer for management by ophthalmologist
- Regular lid hygiene for blepharitis

SUBCONJUNCTIVAL HAEMORRHAGE

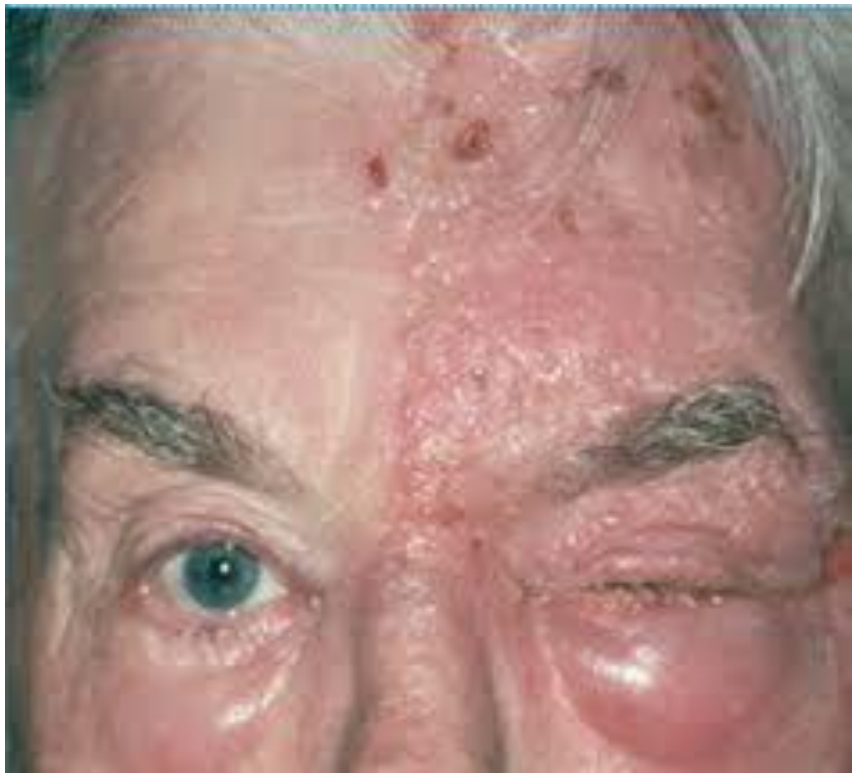
SUBCONJUNCTIVAL HAEMORRHAGE - MANAGEMENT

- Ensure that posterior border of haemorrhage can be seen, to exclude intra-cranial source e.g. following skull base fracture
- If patient has history of recurrent sub conjunctival haemorrhages or a history of bleeding or clotting abnormalities, refer to GP
- Tear supplement / ocular lubricant if mild ocular irritation is present

SUBCONJUNCTIVAL HAEMORRHAGE – PATIENT ADVICE

- reassure patient
- condition usually clears within 5-10 days
- cold compress may reduce discomfort
- Advise patient to return/seek further help if problem does not resolve or if it reoccurs

HERPES ZOSTER OPHTHALMICUS (HZO)



(HZO) – SIGNS (OCULAR FEATURES)

- Anterior uveitis
- Secondary glaucoma
- Rarely, posterior segment involvement: retinitis, acute retinal necrosis, choroiditis, optic neuritis, optic atrophy
- Rarely, neurological complications: cranial nerve palsies, encephalitis
- Post-herpetic neuralgia is defined as pain and/or itch lasting beyond 90 days after the onset of zoster. This affects around 25% of patients and is: chronic and severe in about 7%

(HZO) – MANAGEMENT

- Rest and general supportive measures (reassurance, support at home, good diet, plenty of fluids)
- Advise avoidance of contact with elderly or pregnant individuals, also babies and children not previously exposed to VZV (who are non-immune) or immunodeficient patients
- Topical lubricants for relief of ocular symptoms
- Pain relief: aspirin, paracetamol or ibuprofen

BASAL CELL CARCINOMA

BASAL CELL CARCINOMA - MANAGEMENT

- Document with photography if possible
- Refer to Ophthalmology with details of location, size and history (to aid assessment of urgency)
- Advise patient of possible diagnosis
- Reassure that this is a low risk skin cancer
- Advise on sun protection measures

ECTROPION

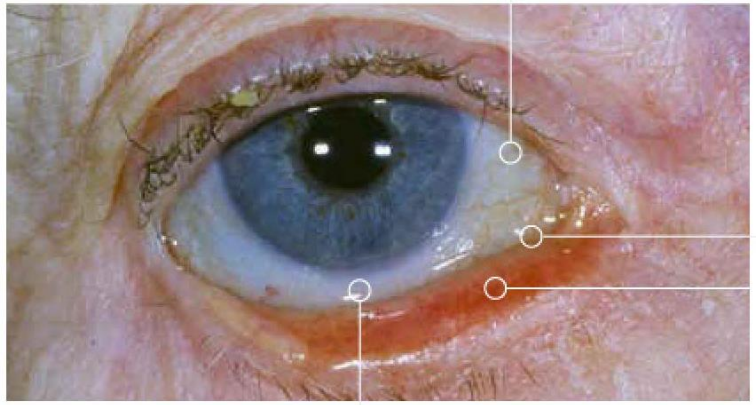
ECTROPION - SIGNS

EPIPHORA

CONJUNCTIVAL HYPERAEMIA

LOWER PUNCTUM NOT IN CONTACT WITH GLOBE

MUCOUS DISCHARGE



KERATINISATION OF LID MARGIN AND EXPOSED PALPEBRAL CONJUNCTIVA

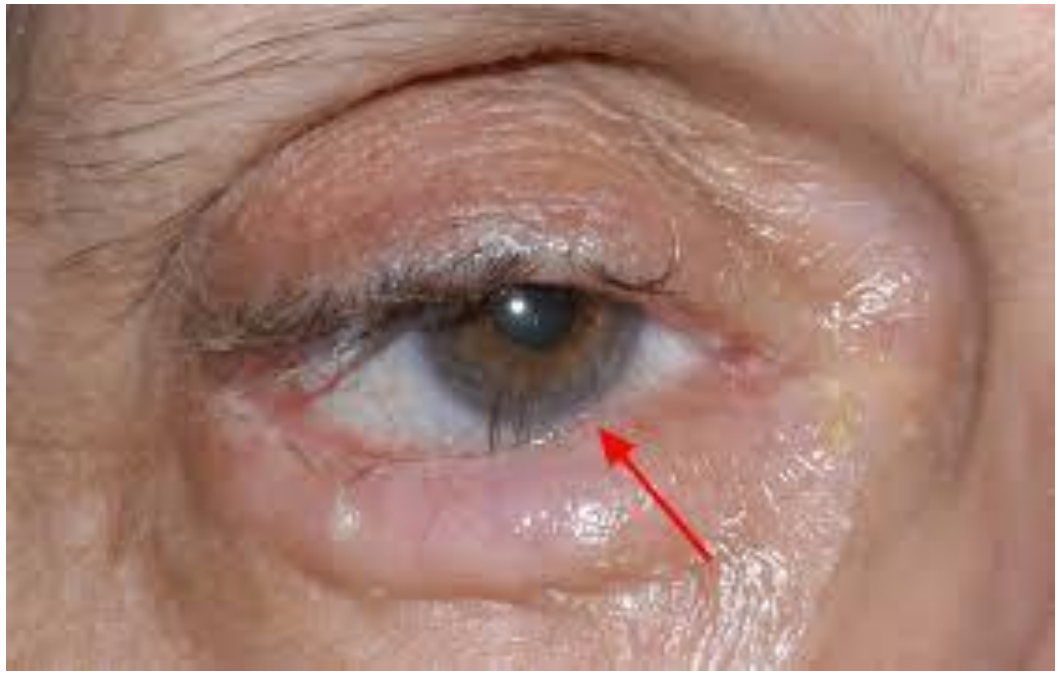
EXPOSURE KERATOPATHY

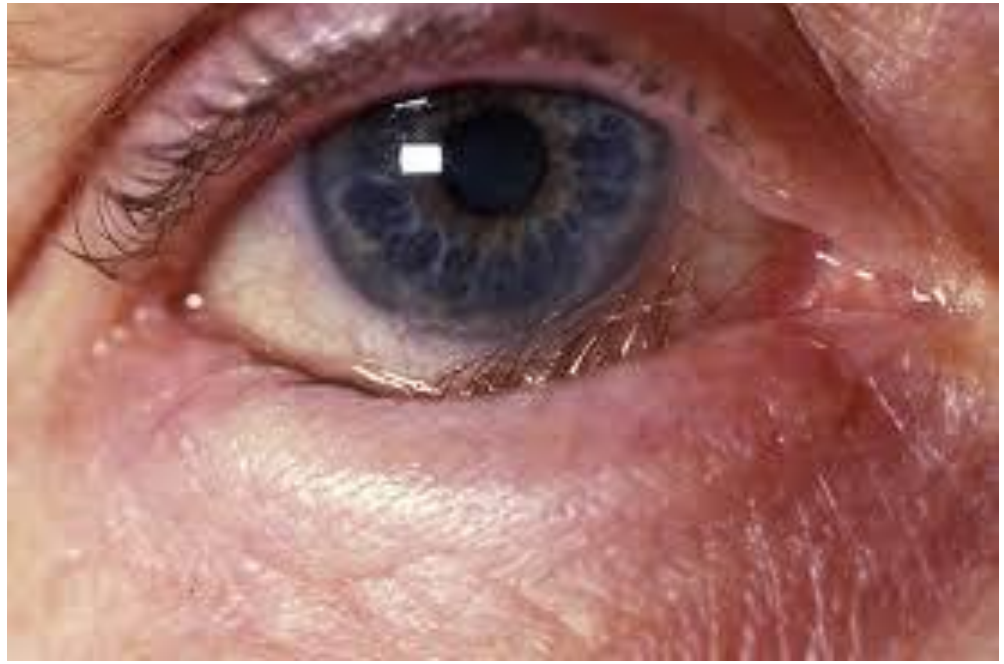
INFERIOR LID MARGIN NOT IN CONTACT WITH GLOBE

ECTROPION - MANAGEMENT

- Mild cases require no treatment
- Taping the lids closed at night when there is a risk of corneal exposure
- Ocular lubricants for tear deficiency/instability related symptoms (drops for use during the day, unmedicated ointment for use at bedtime)

ENTROPION

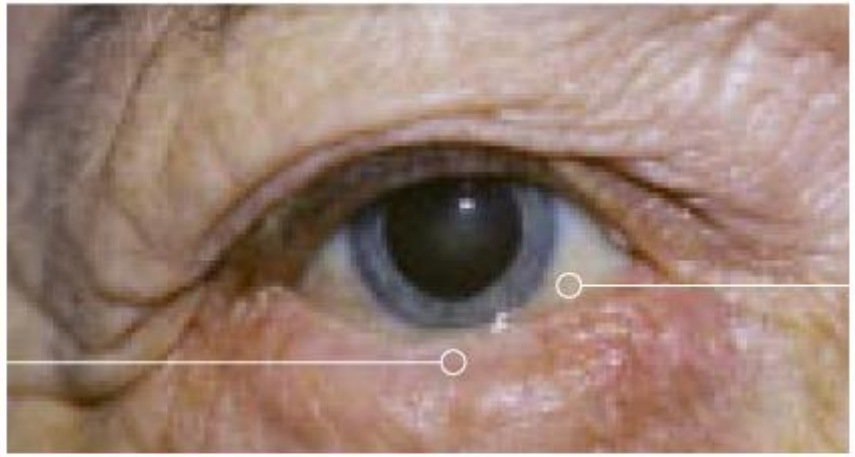




ENTROPION

ENTROPION - SIGNS

CORNEAL AND/OR CONJUNCTIVAL EPITHELIAL DISTURBANCE FROM ABRASION BY THE LASHES



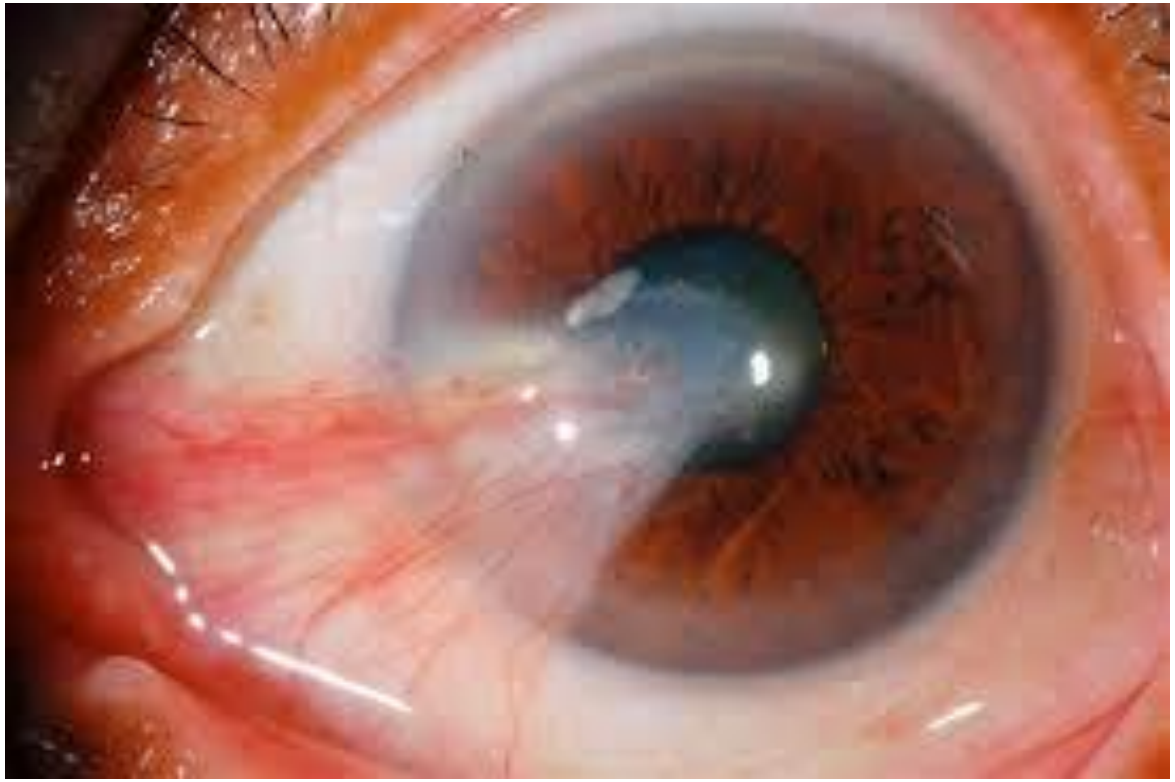
LID LAXITY

LOCALISED CONJUNCTIVAL HYPERAEMIA

ENTROPION - MANAGEMENT

- Taping the lid to the skin of the cheek, so as to pull it away from the globe, can give temporary relief (particularly for involutional or spastic entropion)
- Epilation of lashes can be done where the trichiasis is localised
- Ocular lubricants for tear deficiency/instability related symptoms (drops for use during the day, unmedicated ointment for use at bedtime)

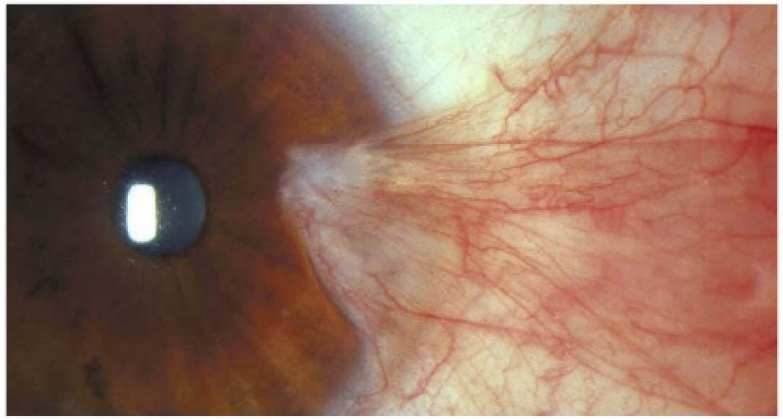
PTERYGIUM



PTERYGIUM - SIGNS

FLATTENING OF THE CORNEA IN HORIZONTAL MERIDIAN

USUALLY BILATERAL AND OFTEN ASYMMETRICAL



RELATIVELY RICH SURFACE VASCULARISATION

MORE COMMON NASALLY

PTERYGIUM - MANAGEMENT

- Measure and draw diagram (photo document if possible)
- Cold compress when inflamed
- Ocular lubricants for symptomatic relief (drops for use during the day, unmedicated ointment for use at bedtime)

PTERYGIUM – PATIENT ADVICE

- UV protection

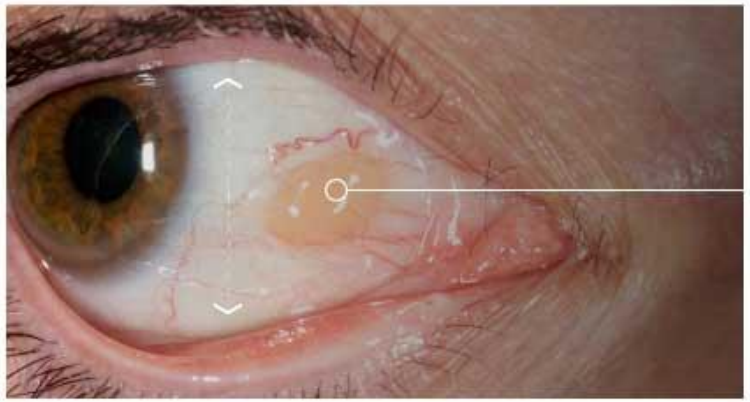
PINGUECULA

PINGUECULA

ELEVATED AND LESS TRANSPARENT THAN NORMAL CONJUNCTIVA (WHITE TO YELLOW COLOUR WITH A FAT-LIKE APPEARANCE AND CALCIFICATION IN SOME CASES)

AREA OF CONJUNCTIVAL THICKENING USUALLY ADJOINING THE LIMBUS (NOT SHOWN IN THIS CASE)

SOMETIMES SLIGHTLY MORE HYPERAEMIC THAN SURROUNDING CONJUNCTIVA



IN THE PALEBRAL APERTURE USUALLY AT 3 O CLOCK AND 9 O CLOCK POSITIONS

USUALLY BILATERAL

MORE COMMON NASALLY

PINGUECULA - MANAGEMENT

- Cold compresses when inflamed
- Ocular lubricants for symptomatic relief (drops for use during the day, unmedicated ointment for use at bedtime)

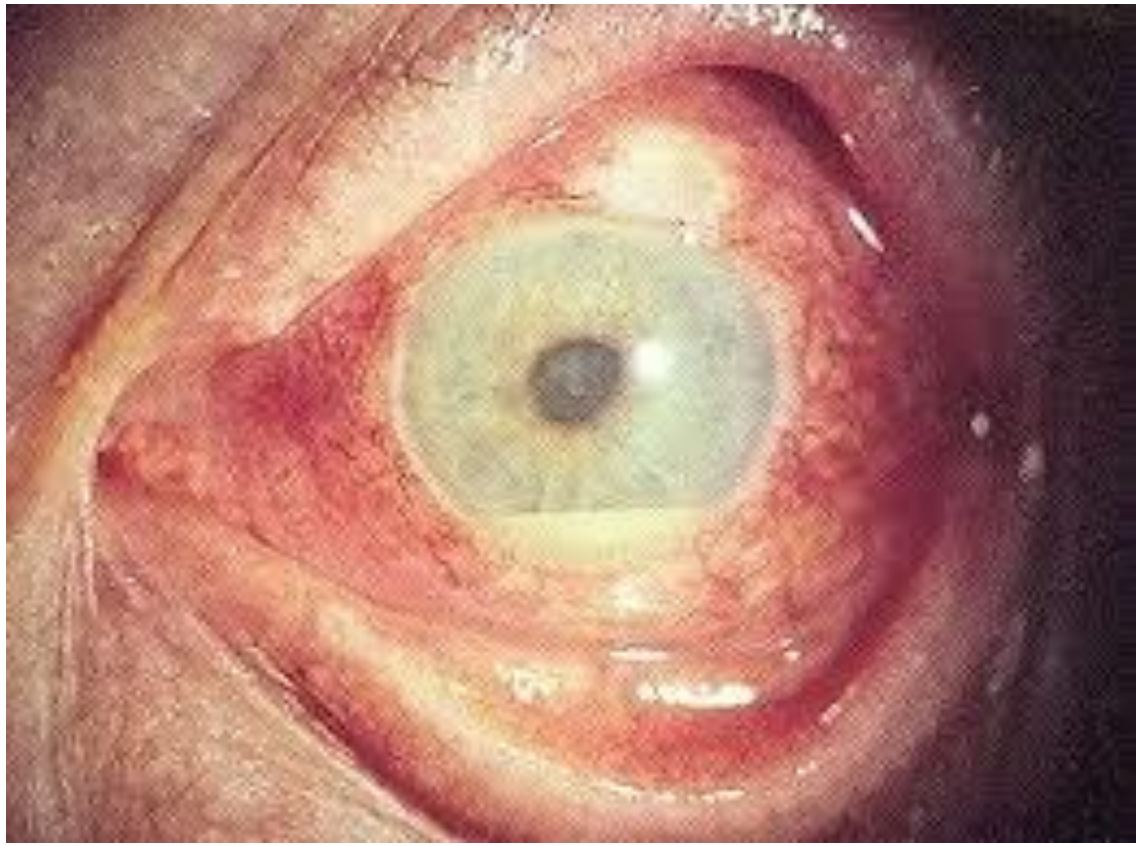
PINGUECULA – PATIENT ADVICE

- Reassure patient about benign nature of the lesion (no threat to health or sight)
- Advise on UV protection to minimise risk of inflammation
- brimmed hat, sunglasses in wrap-around style for side protection

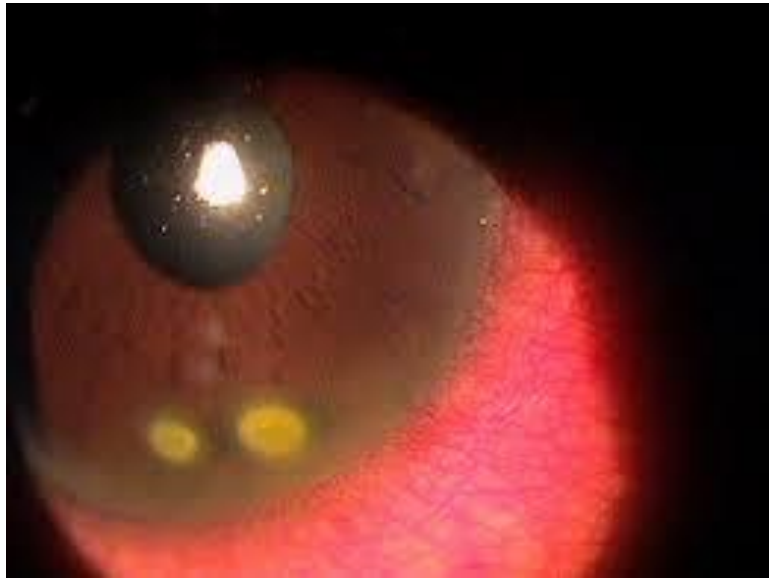
SCLERITIS

ANGLE CLOSURE GLAUCOMA

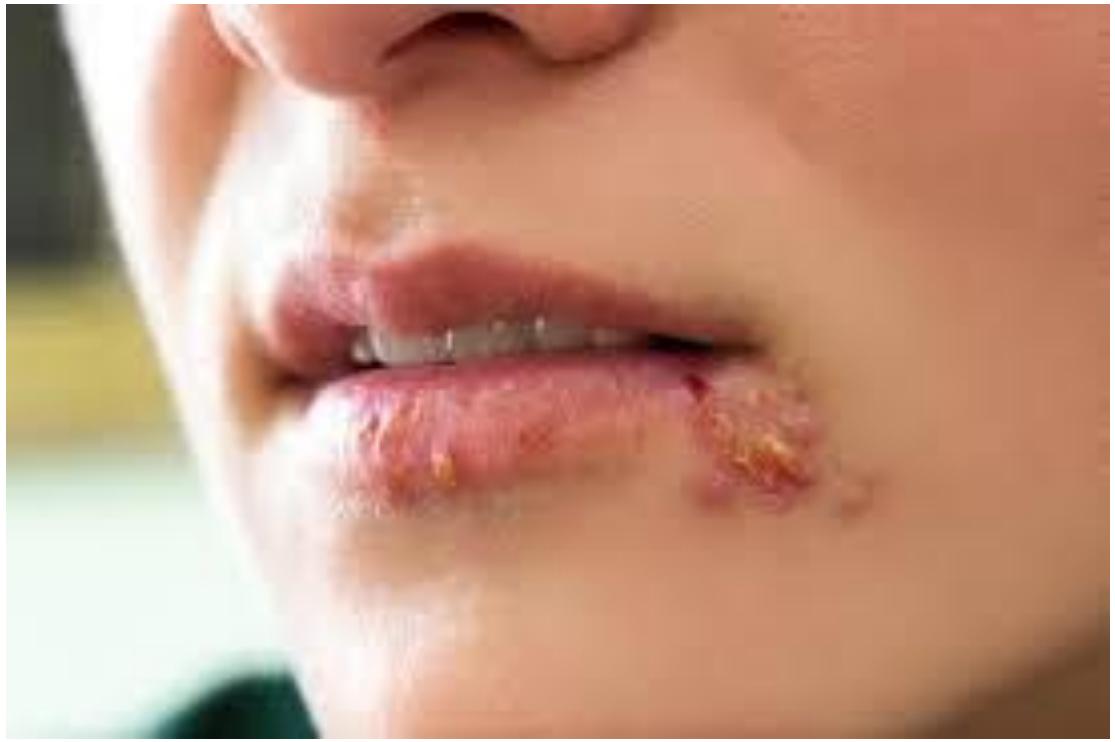
UVEITIS



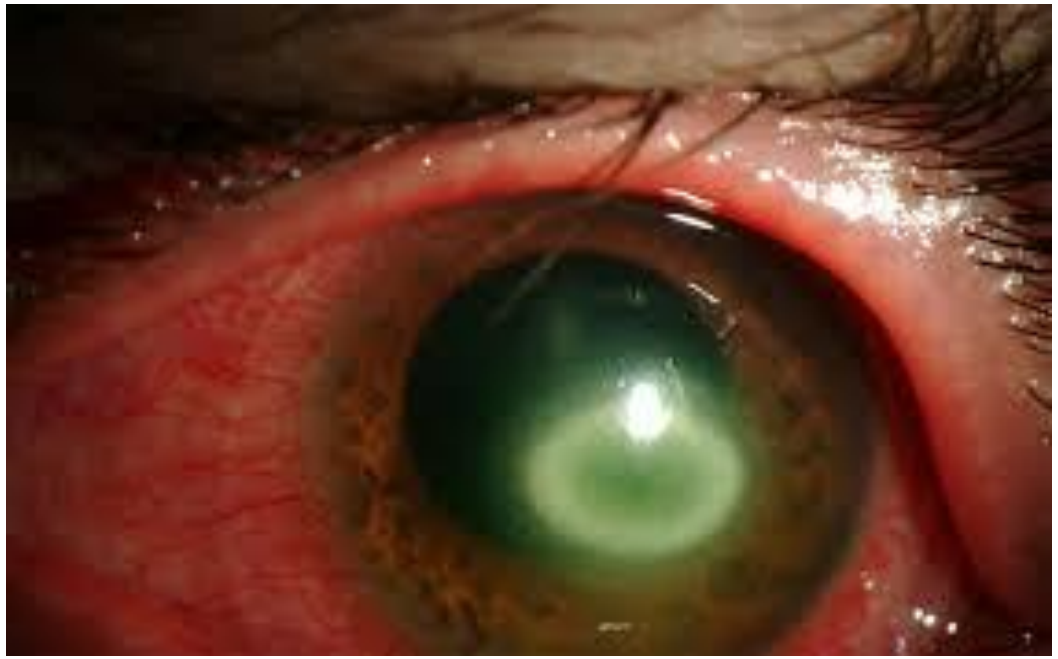
CONTACT LENS-ASSOCIATED PERIPHERAL ULCER (CLPU)



HERPES SIMPLEX KERATITIS (HSK)



ACANTHAMOEBA



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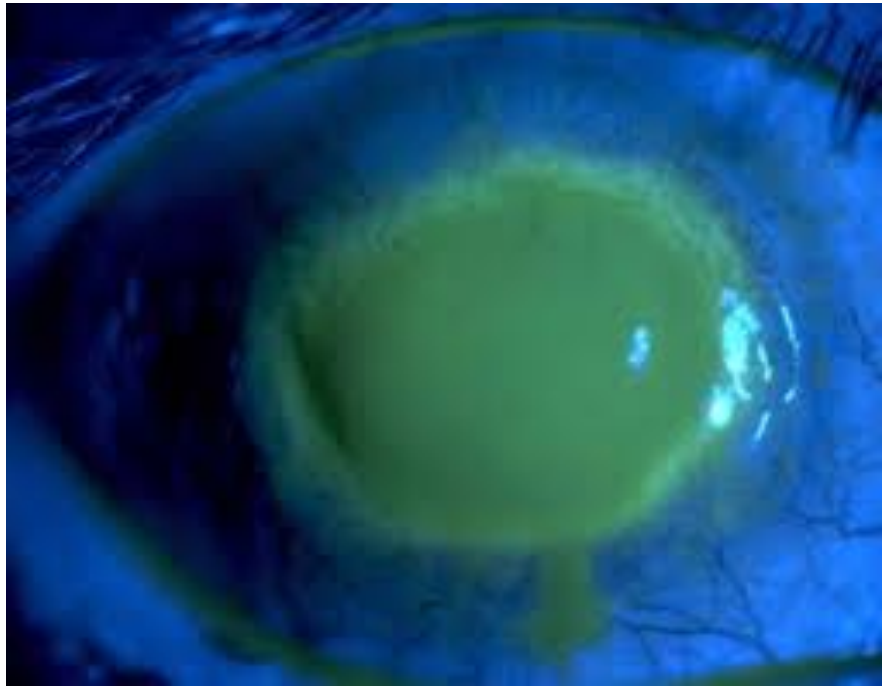

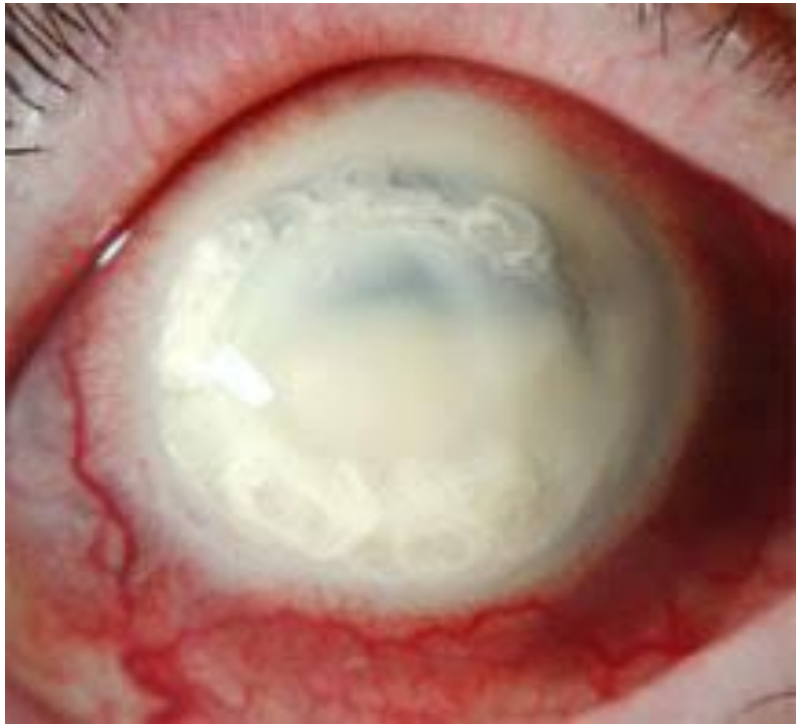


Final
Thoughts

THANK YOU