

- 1) Important causes of red eyes
- 2) Common OCT findings + interpretation

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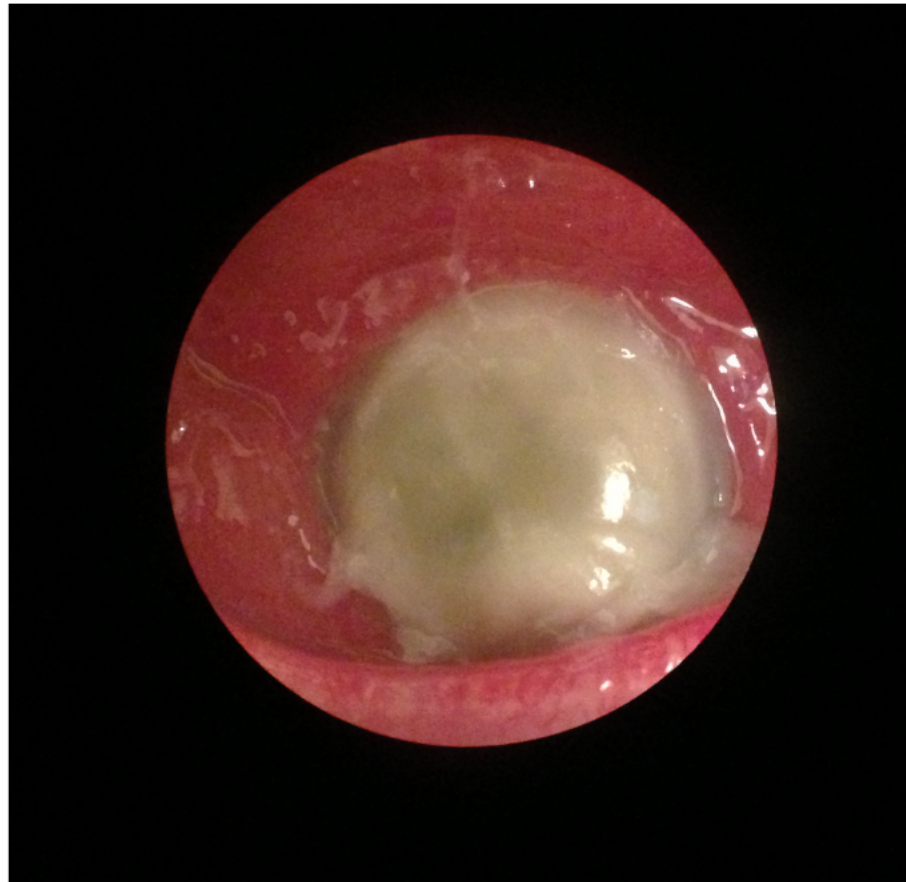
1) Important causes of a red eye that need urgent referral



Important causes of a red eye that need urgent referral

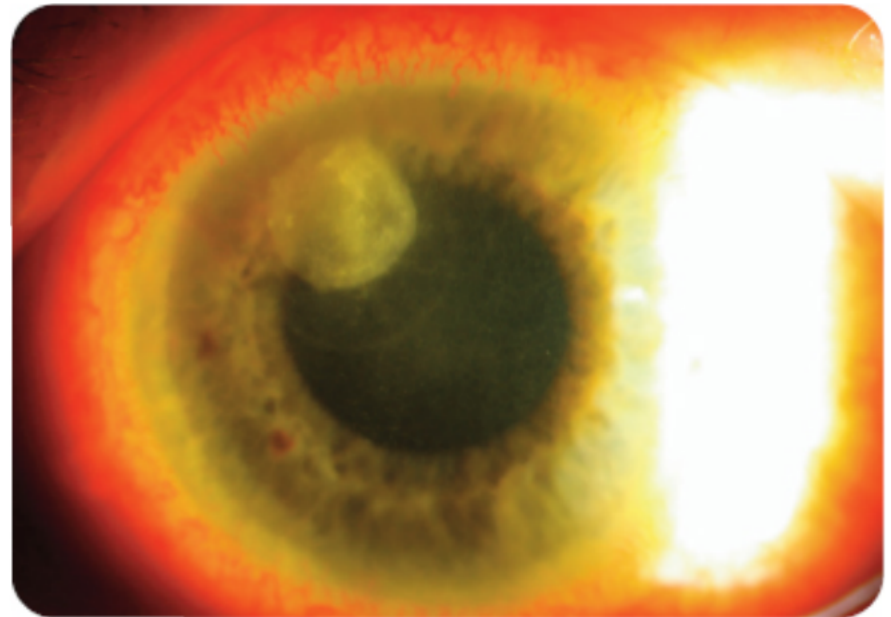
- Infective causes
 - Microbial keratitis
 - Viral keratitis
- Acute angle closure
- Post-surgical (rare)
 - Bacterial endophthalmitis
 - Post corneal transplant red eye

Case 1



Bad bacterial keratitis!

Bacterial keratitis: milder cases



Microbial keratitis management

- 1) Determine underlying cause:
 - Contact lens related
 - Trauma
 - Ocular surface disease / dry eyes
 - Reduced corneal sensation
 - Poor lid closure
- 2) Consider corneal scrape
- 3) Start empirical antibiotics (e.g. ofloxacin)
- 4) Review regularly – consider topical steroids (with caution)
- 5) Treat underlying cause

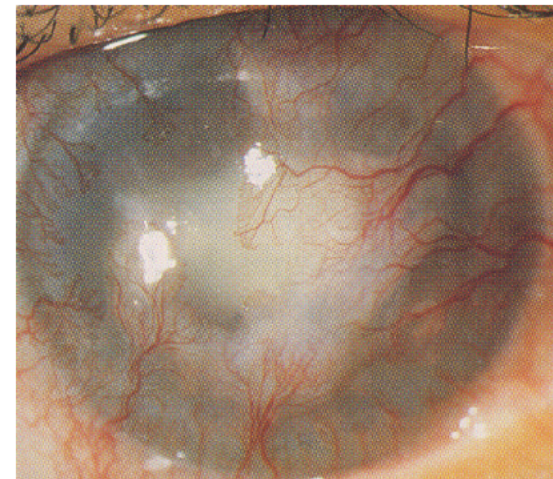
Case 2:



Note: photo courtesy of Dr Con Petsoglou

HSV keratitis

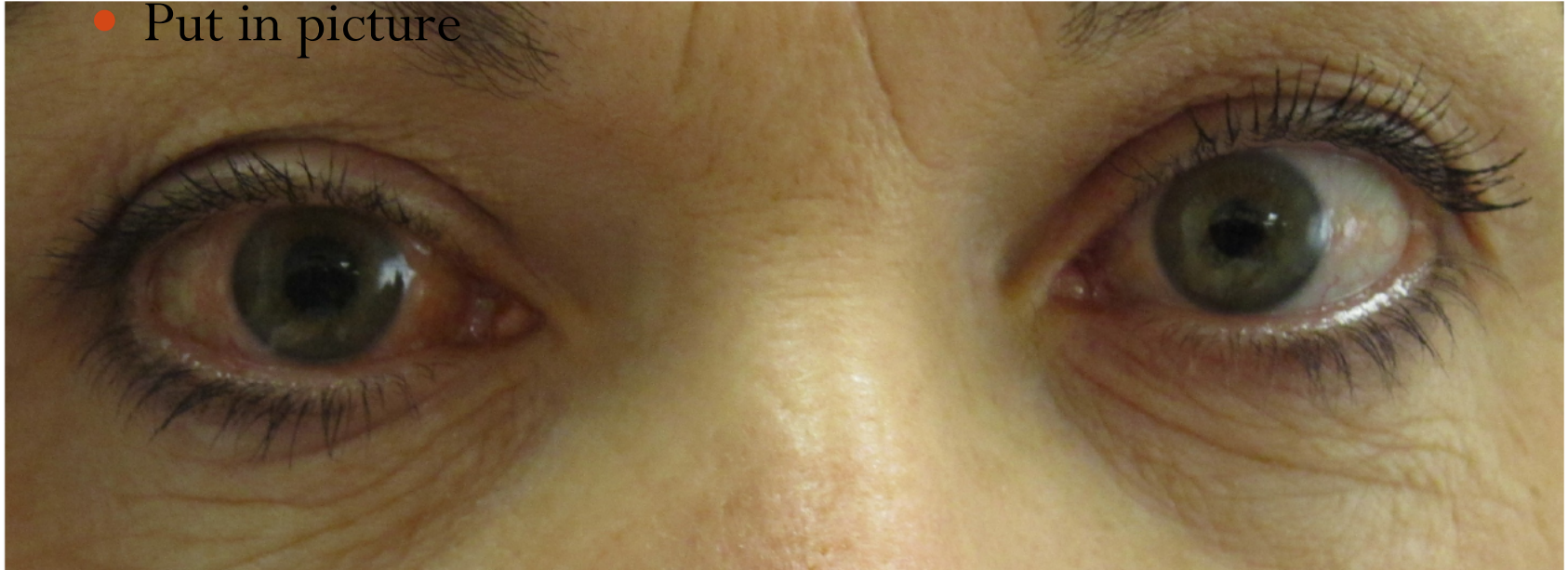
- Many types
 - Epithelial disease (dendritic ulcer)
 - Stromal / Endothelial / Anterior uveitis
- Treatment: Antivirals
 - Dendritic ulcer: can use topical zovirax
 - Other types: oral valtrex
- Recurrent HSV keratitis can cause major problems
 - Anaesthetic cornea
 - Corneal neovascularisation
 - Lipid keratopathy



HSV is a common cause of non healing ulcers

Case 3: Acute painful right eye

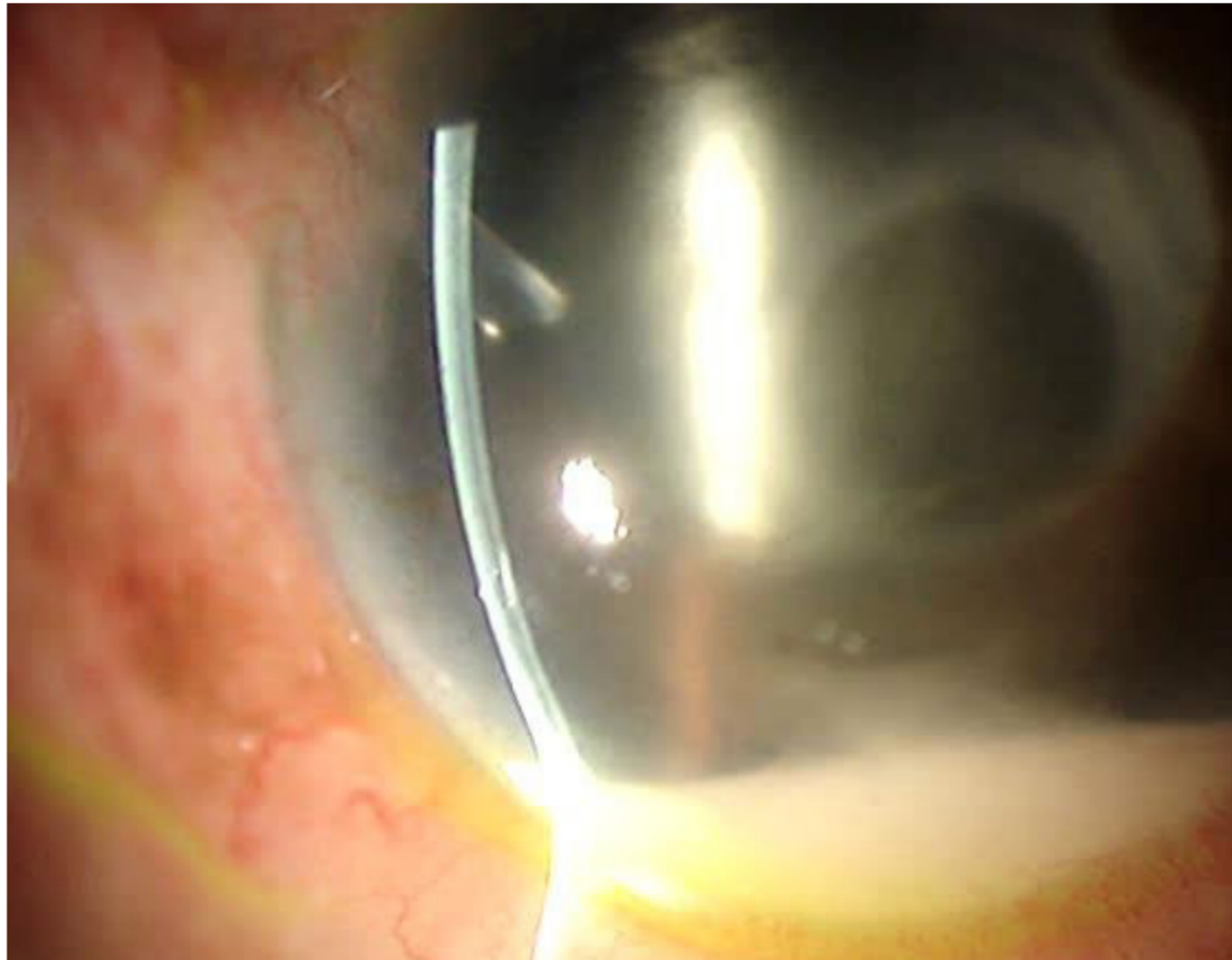
- Put in picture



Acute angle closure

- Clinical picture
 - Pain / reduced VA / nausea / vomiting
 - Examination:
 - High IOP
 - Mid dilated pupil
 - AC shallow / Corneal oedema
 - Often big cataract
 - Other eye gonioscopy: narrow / closed angle
- Principles of management:
 - Must break attack & get IOP down asap
 - Drops (β blocker / pilo) + diamox to reduce pressure
 - Laser PI +/- cataract surgery
 - Manage other eye
 - Needs PI +/- cataract surgery

Case 4: Recent cataract surgery

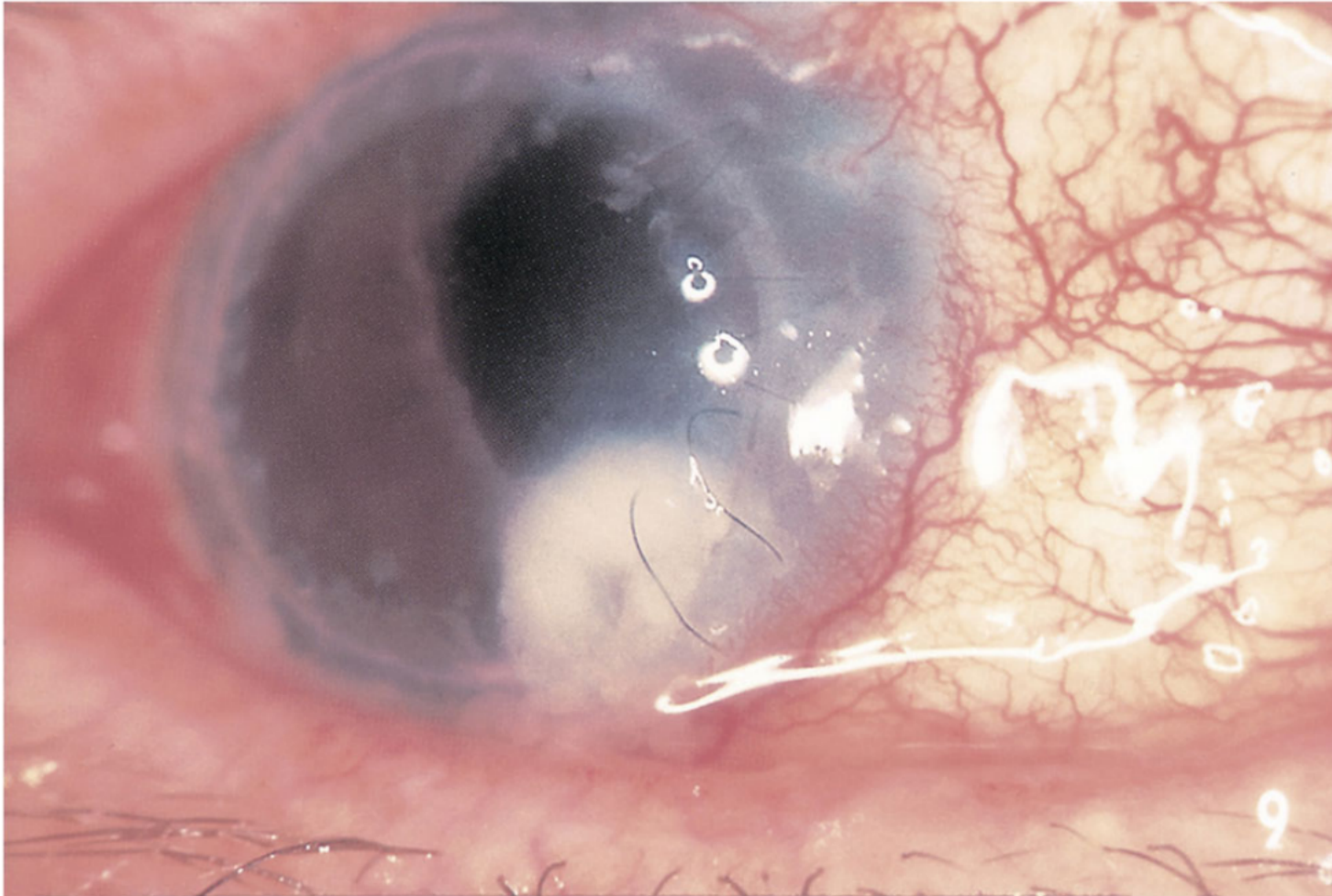


Acute bacterial endophthalmitis

- Fortunately very rare!
- Can occur after any intraocular surgery or intravitreal injection
- Clinical features:
 - Pain / reduced vision / red eye (but variable)
 - Chemosis / cells in AC +/- hypopyon / cells in vitreous
- Management:
 - Admit to hospital
 - Urgent vitreous tap (biopsy)
 - Urgent intravitreal antibiotics
- Prognosis: poor, but better if diagnosed and managed early

Must exclude endophthalmitis in any red eyes with recent surgery

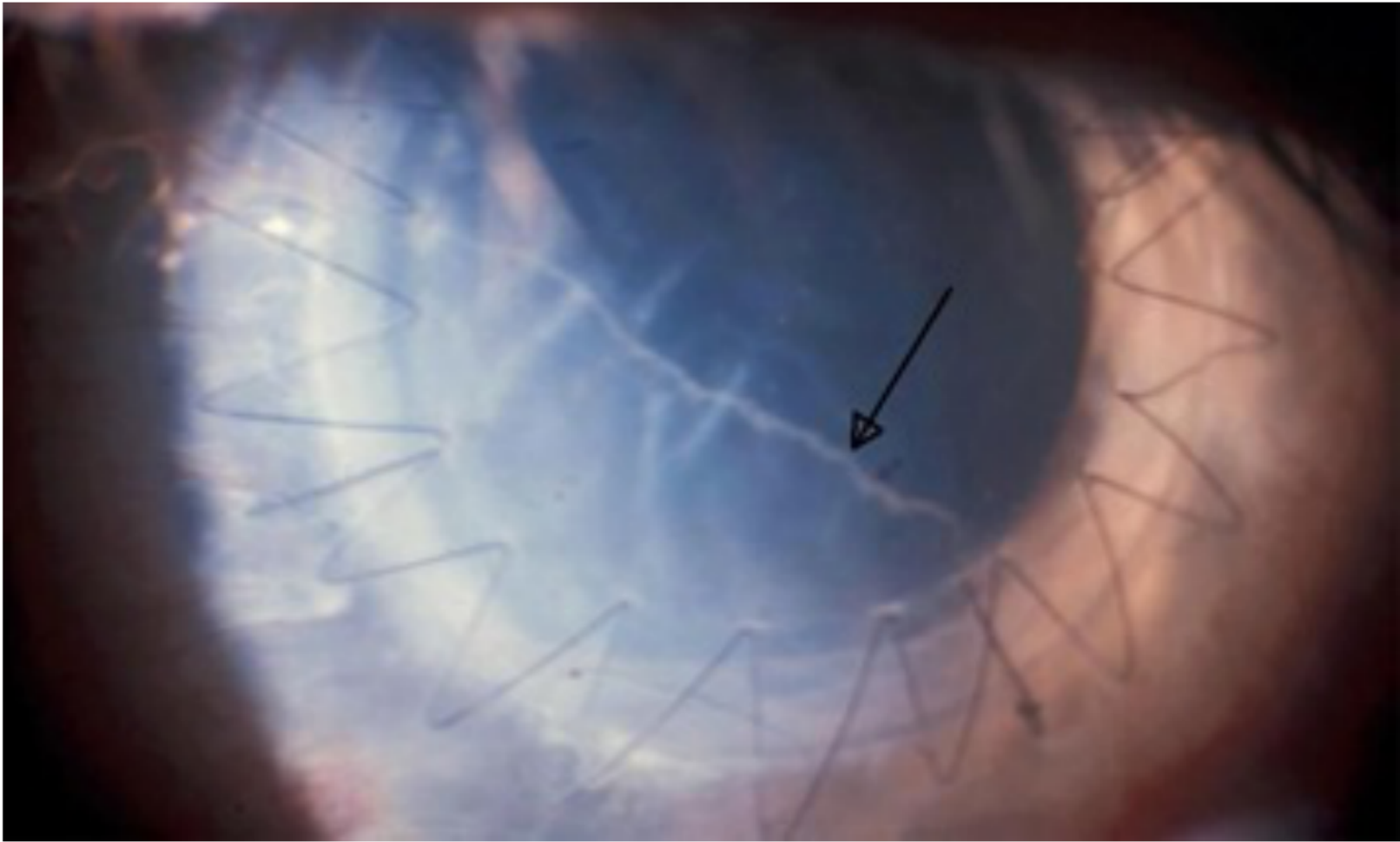
Case 5: Red eye in a corneal transplant



Infection in corneal transplant

- Similar to 'normal' microbial keratitis
- Often due to loose suture
- Key issues:
 - Needs aggressive topical antibiotics
 - What to do about steroids?

Case 6: Transplant rejection



Corneal transplant rejection

- Features on examination
 - Corneal oedema
 - Keratic precipitates
 - Cells in AC
 - Khodadoust line
- Risk factors
 - Acute stop steroids
 - Loose or broken sutures
- Management
 - Very aggressive topical steroids