

# CORNEAL ULCER/KERATITIS



# CORNEAL ULCER/ KERATITIS

- Keratitis is the inflammation of the cornea usually with no loss of corneal epithelium
- Corneal ulcer is the loss of corneal epithelium and bowman's membrane along with inflammation underlying stroma
- Corneal abscess is suppuration within corneal stroma

# COMMON CAUSES

- Bacteria e.g  
staph,strep,gonococcus,pseudomonas
- Viral e.g herpes simplex virus type 1
- Fungal e.g acantha amoeba, yeasts – fungus  
could be filamentous or non-filamentous.
- Nutritional e.g vitamin A deficiency

# CLINICAL FEATURES

- **BACTERIA AND FUNGAL**
- Pain
- Red eye
- Photophobia
- Blurred vision
- Diminished VA
- Grey/white ulcer on cornea
- Hypopyon or flare and cells in AC

- Eye lid oedema
- Corneal lesions in fungal ulcer usually have satellite lesions around it
- Bacterial corneal ulcer is of acute onset and patient is more symptomatic while fungal ulcer is gradual and chronic in nature

# SIGNS OF RESSOLVING ULCER

- Redness decreases
- Epithelial defect decreases
- Infiltrate becomes less dense
- Edges and base of ulcer becomes flatter and smoother
- Surrounding corneal oedema decreases
- Blood vessels grow towards the ulcer
- Scarring starts

# VIRAL CORNEAL ULCER

- Herpes simplex produce two types of lesions:
- Dendritic ulcer(epithelial keratitis)
- Discform keratitis (stromal keratitis)
- **CLINICAL FEATURES**
- No pain
- Eye not red most times
- Diminished VA
- Geographical ulcer,visible after staining with fluoresceine
- Cloud lesion on cornea seen before staining

# DEFERENTIATING SIGNS AND SYMPTOMS

BACTERIAL ULCER	FUNGAL ULCER	VIRAL ULCER
Symptoms and signs go hand in hand	Symptoms less severe than sign	Sign are more sever than symptoms
Severe photophobia and watering	Photophobia less	Photophobia and tearing
Marked swollen eye lids	Moderate swelling of eye lids	Less swelling of eye lids
Grayish white ulcer	Dry/white ulcer raised from normal cornea	Linear branching without slough
Mobile hypopyon	Hypopyon usually not mobile	No hypopyon
No loss of corneal sensation	No loss of corneal sensation	Loss of corneal sansetion



# MANAGEMENT

- BACTERIAL CORNEAL ULCER
- Hospitalisation,
- Corneal scraping for m/c/s
- Corneal staining with fluorescein
- Intensive topical broad spectrum antibiotics e.g ciprofloxacin, fortified gentamicin (14mg/ml)
- Subconjunctival injection of gentamicin 20mg daily for 7 days or cefazolin 100mg daily

# FUNGAL CORNEAL ULCER

- Hospitalisation
- Corneal staining with fluorescein
- Corneal scraping and staining with KOH
- Natamycin 5% eye drops
- Clotrimazole, miconazole, econazole (1%)
- Response is usually slower and requires prolonged course
- NB if in doubt start both antibacterial and antifungal

# VIRAL CORNEAL ULCER

- Topical antiviral agents for epithelial disease  
e.g. acyclovir eye ointment 3% 5x/day for 14 days
- Trifluridine 1% eye drop hourly during day and 2 hourly at night till epithelium forms then reduce to QID x7days

# COMPLICATIONS

- Endophthalmitis
- Phthisis bulbus