



Post-Operative Considerations

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Acknowledgement

Prof. Harminder S Dua



Post-operative regime

- Chloramphenicol PF QID for 1/12
- Dexamethazone 0.1% QID for 4/12 then reduce gradually
- Post- op consideration for high risk grafts

Post operative considerations for high-risk grafts

Systemic immunosuppression

- Tacrolimus 1 mg BID 18 months
- Cyclosporin 1mg/kg/d for 18 months
- Acyclovir 400 mg BID for 18 months (Post-viral keratoplasty)

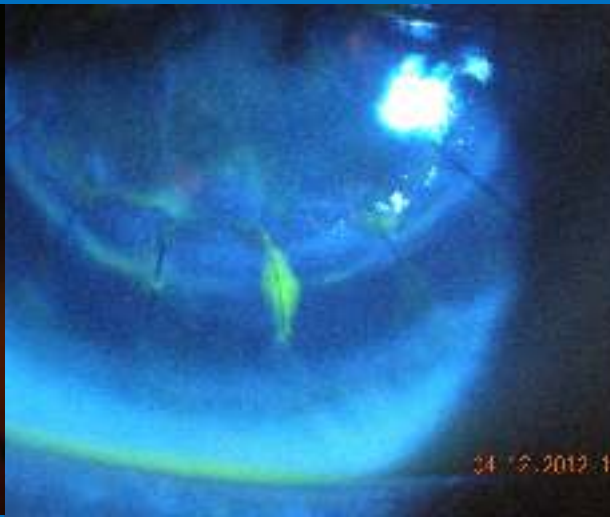
Post-op first day

- Graft host cooptation
- Epithelialization
- Loose or unburied sutures
- Intraocular inflammation
- (IOP) Be ware of steroid responders

Follow up of PKP

- 1 week, 1 month, 3 month, 1 year, as long as sutures are there
- Reduce steroids once every 3 months
- Suture management at 6-9 months

Tight or loose sutures



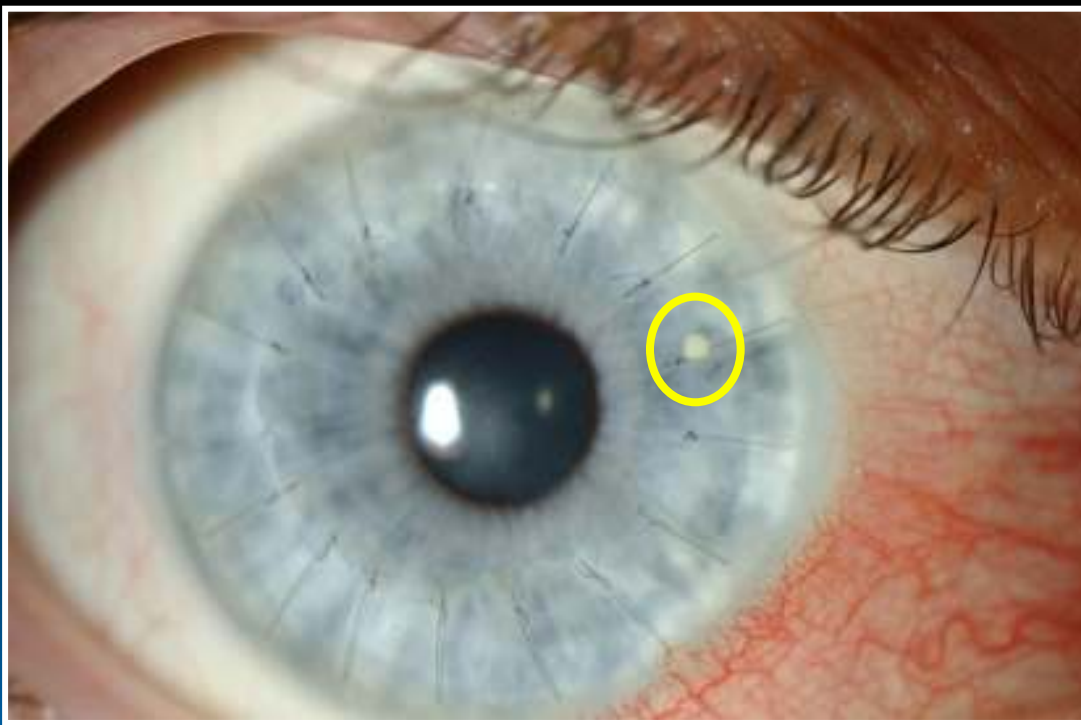


Sterile infiltrate



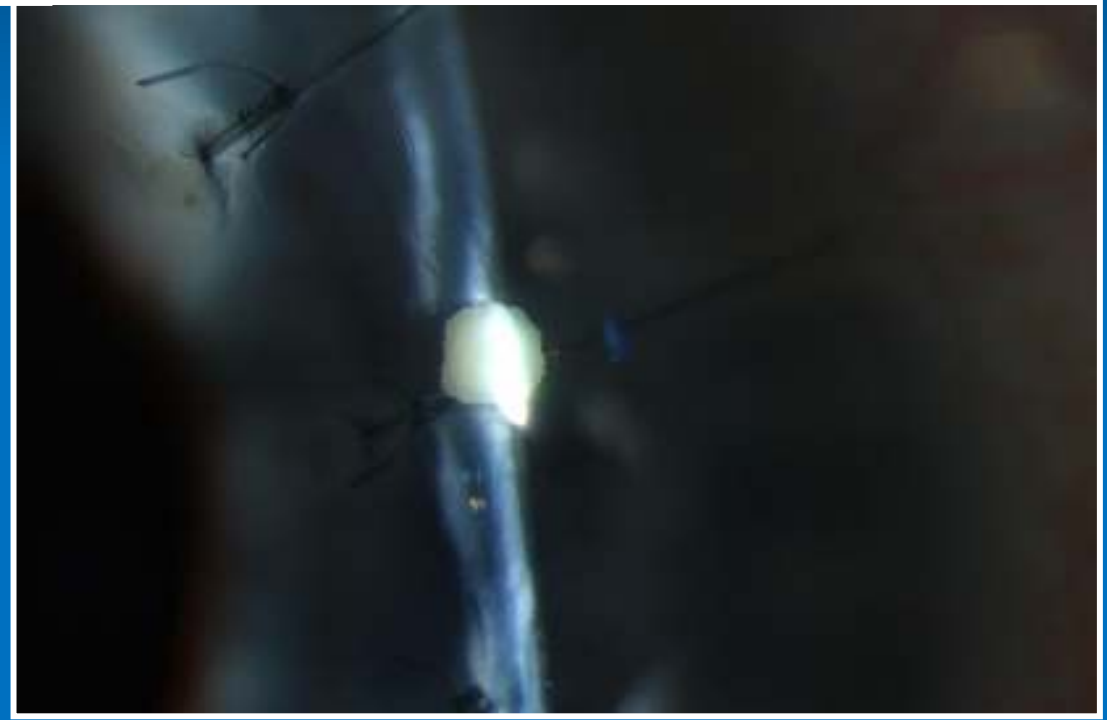
Sterile infiltrate with vascularisation

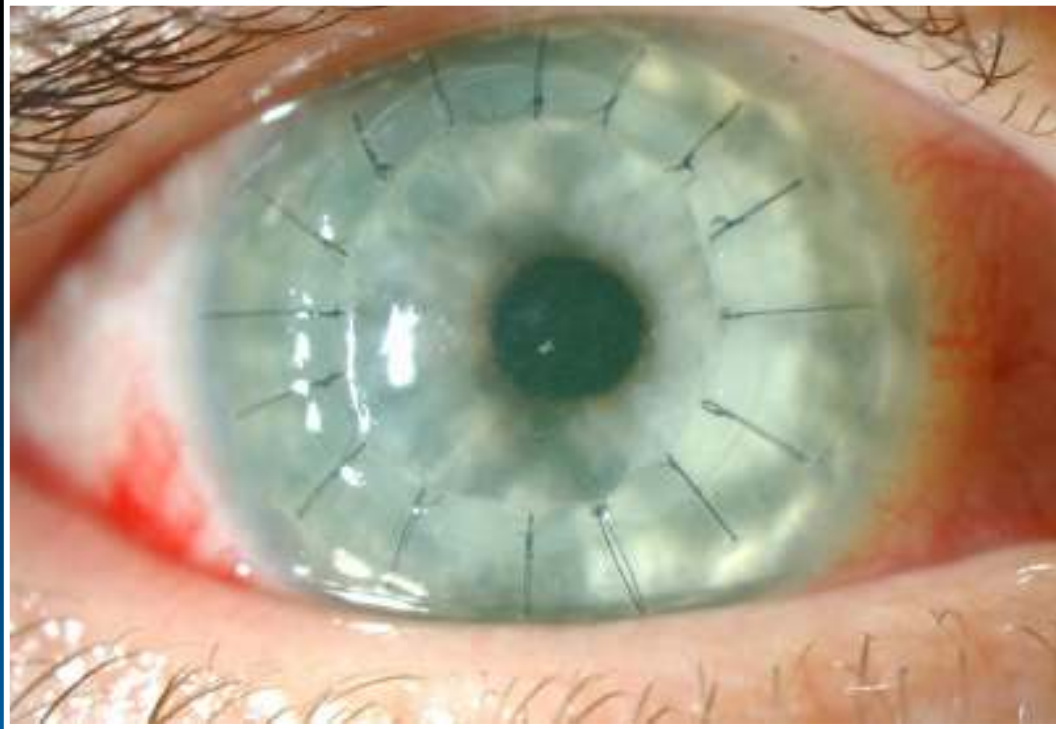




Pseudo Infiltrate

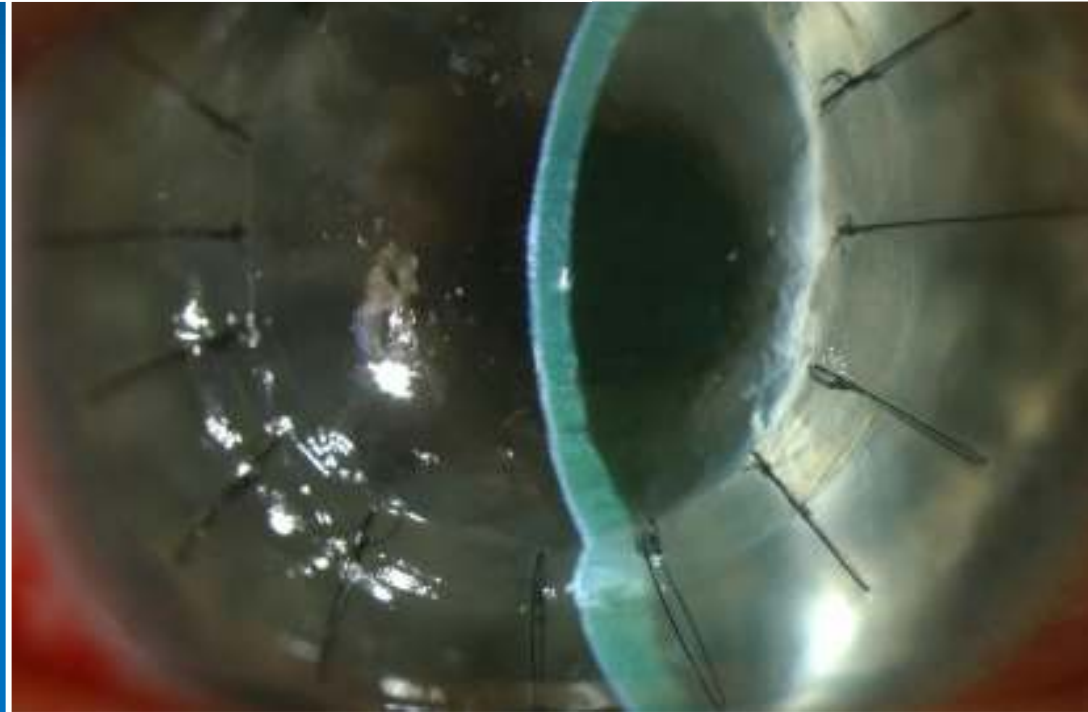
Desiccated mucus





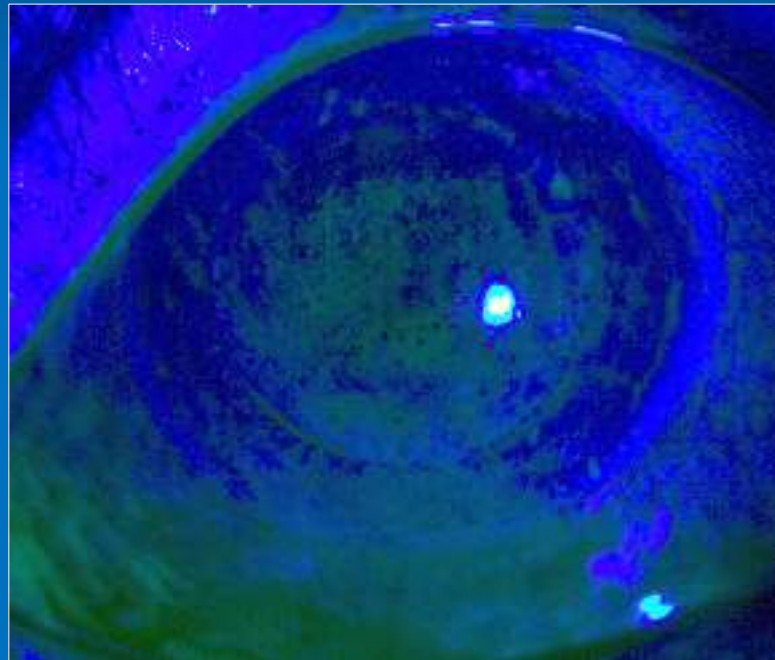
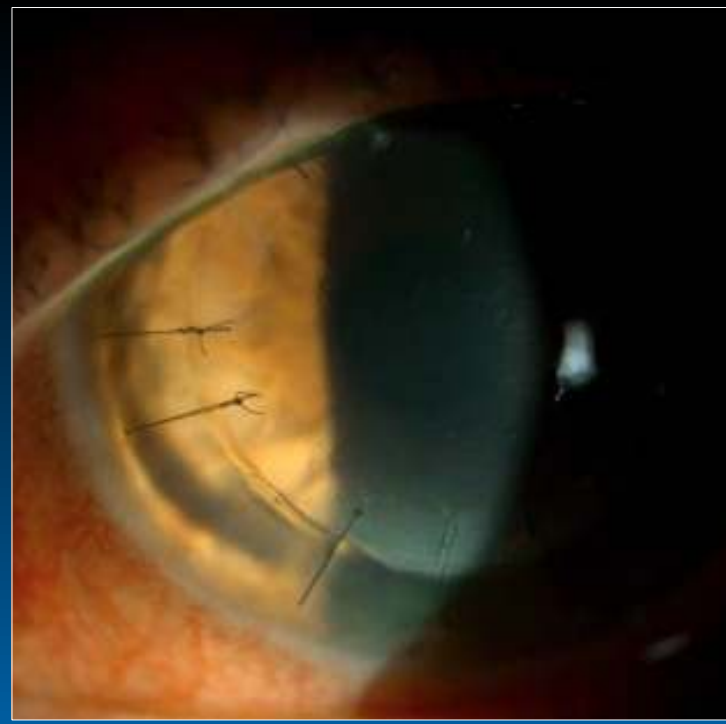
DALK

Interface
Debris

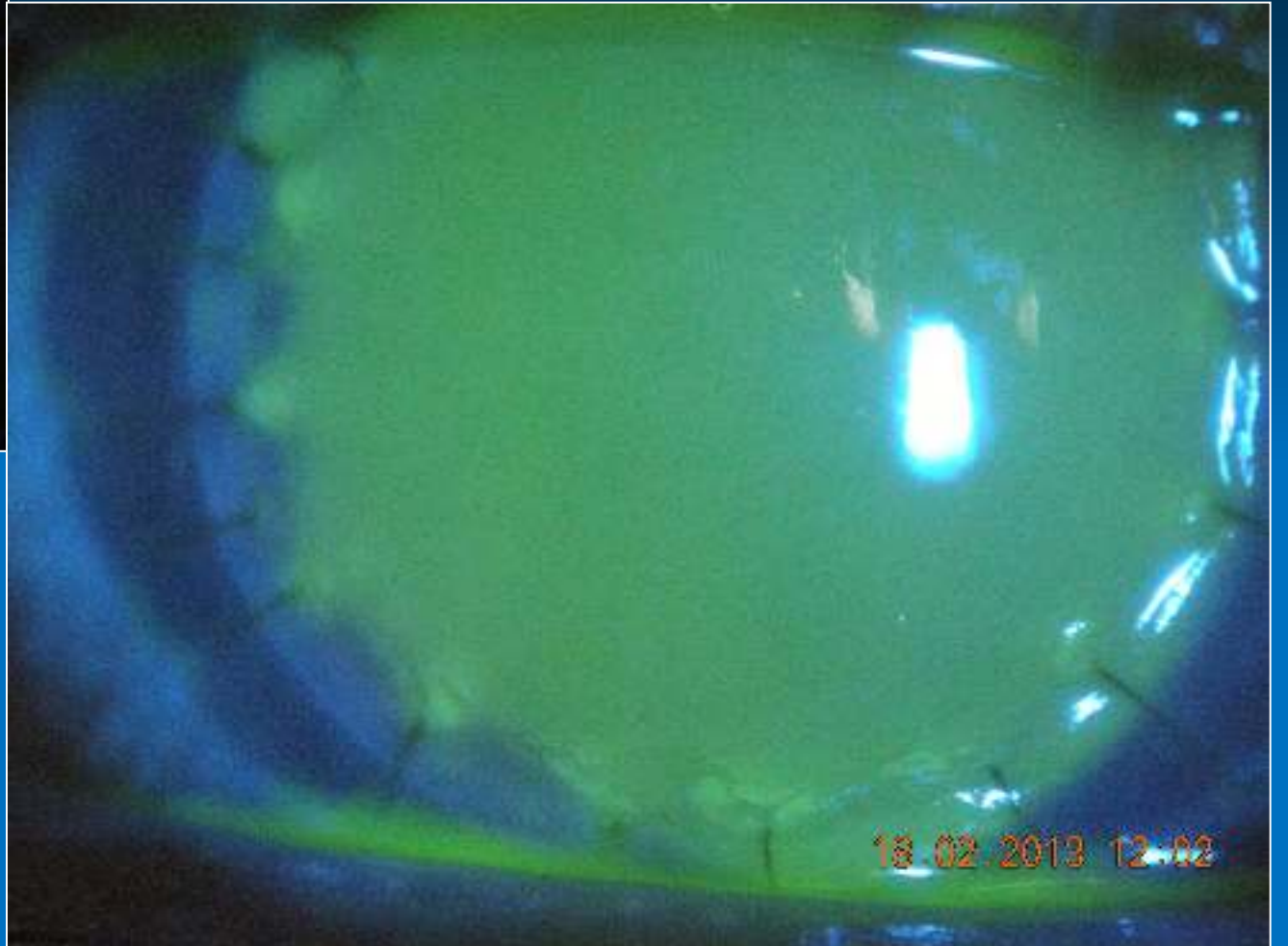


Not a true
infiltrate

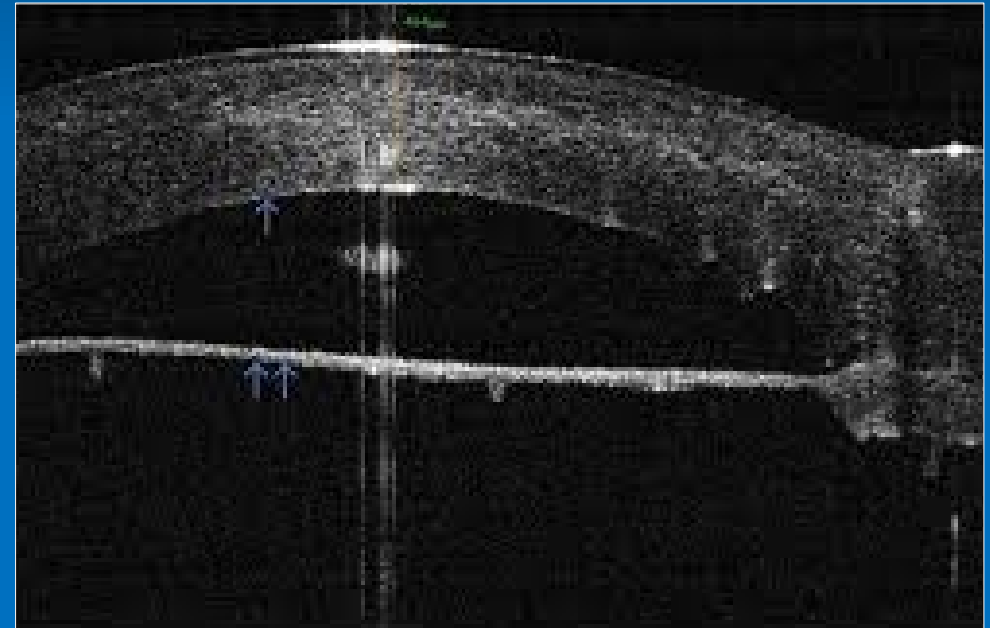
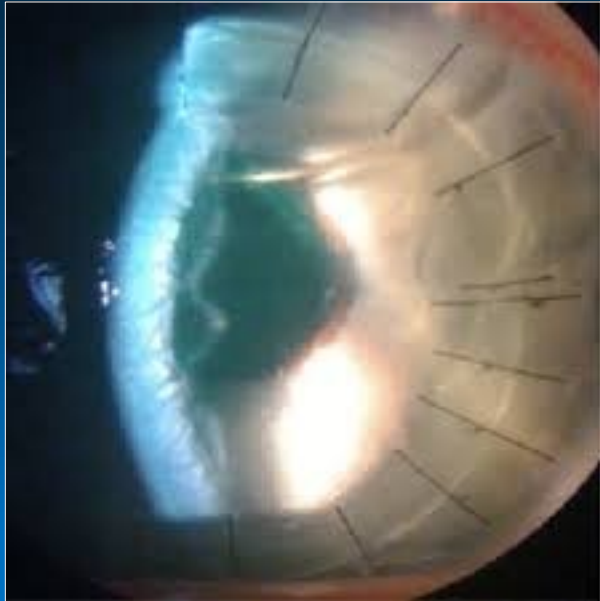
Proud graft with loosening of
sutures and astigmatism



Proud graft with delayed epithelialisation



Double Chamber

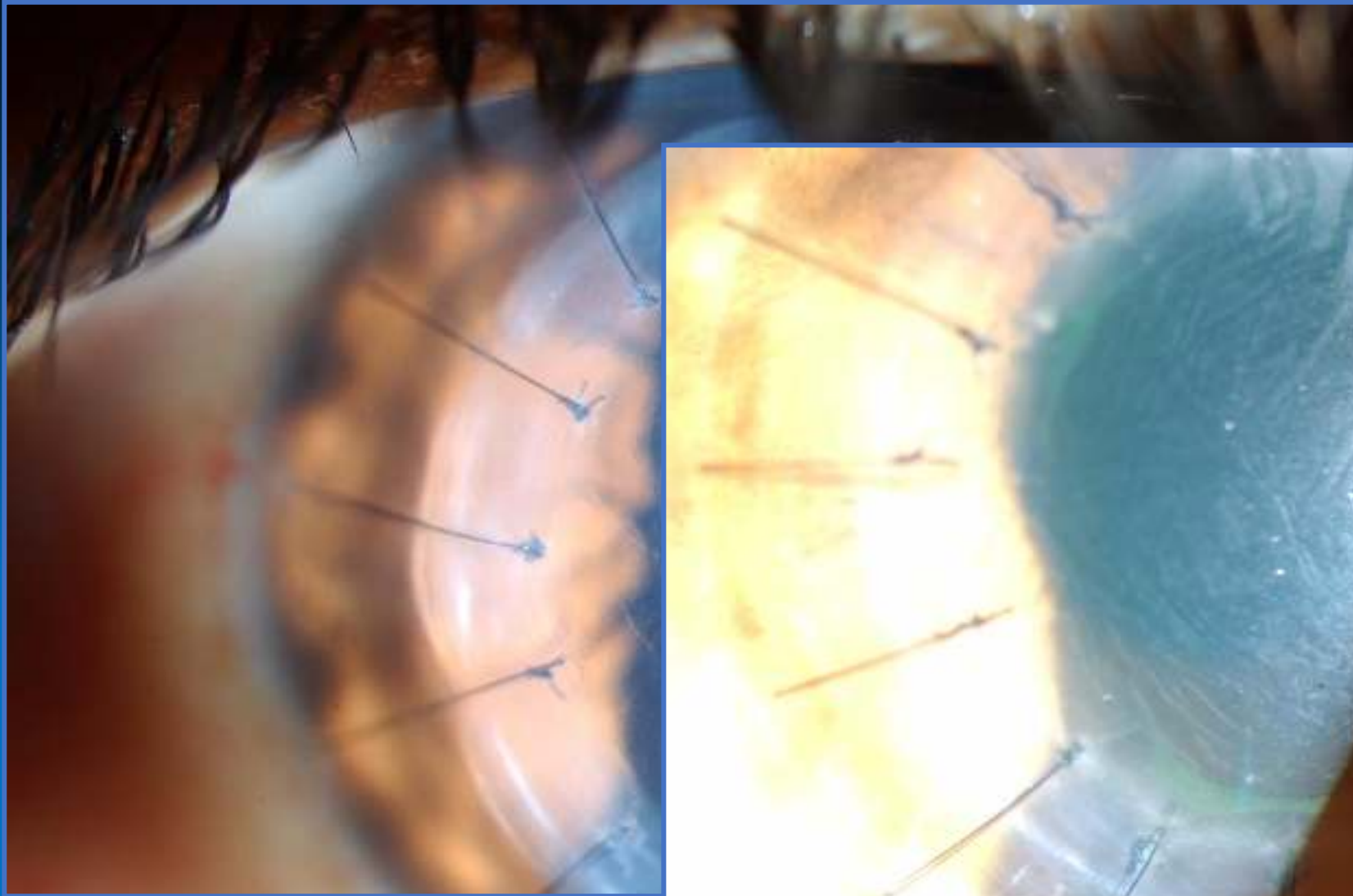


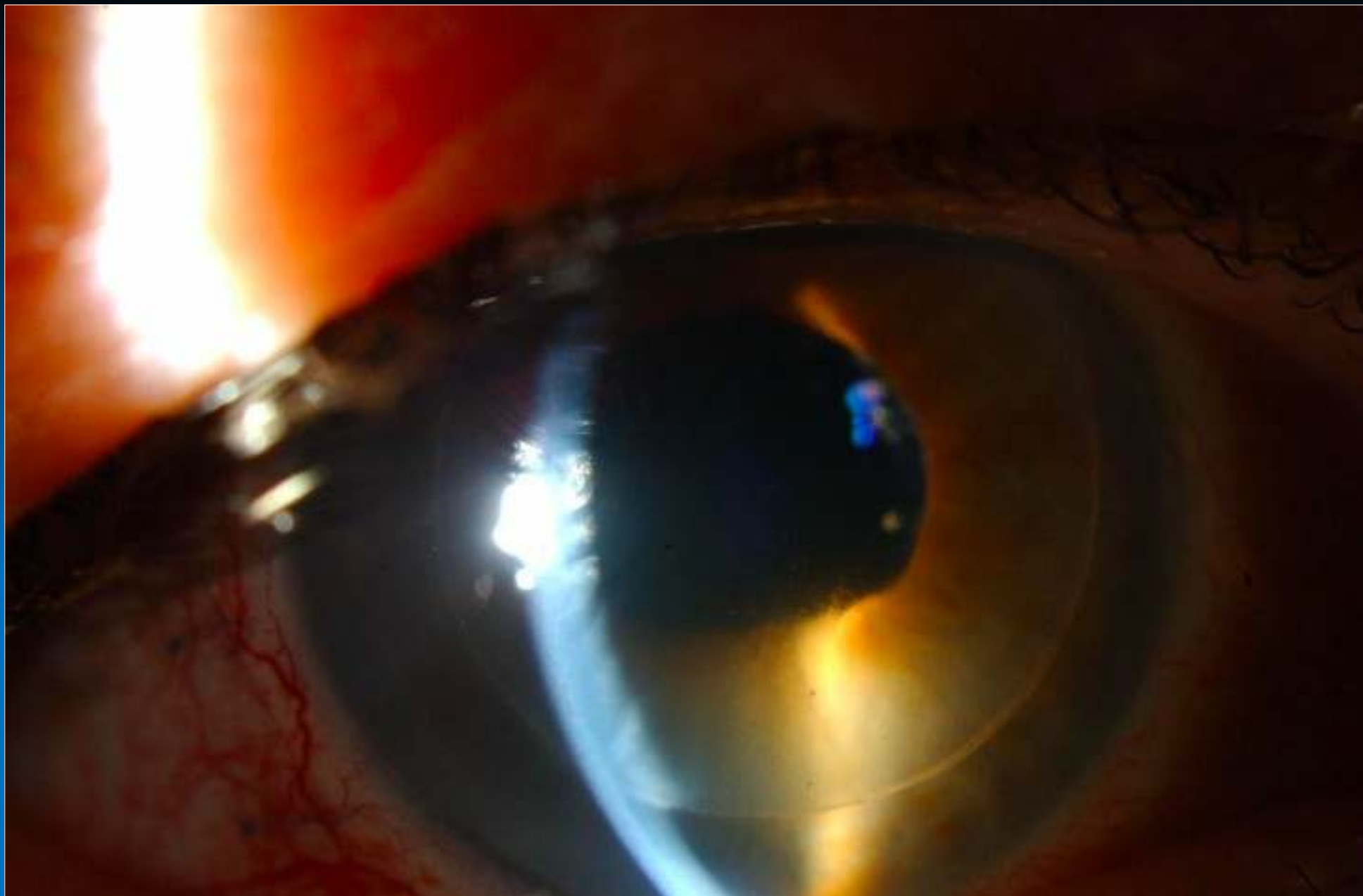
Urrets-Zavalía syndrome



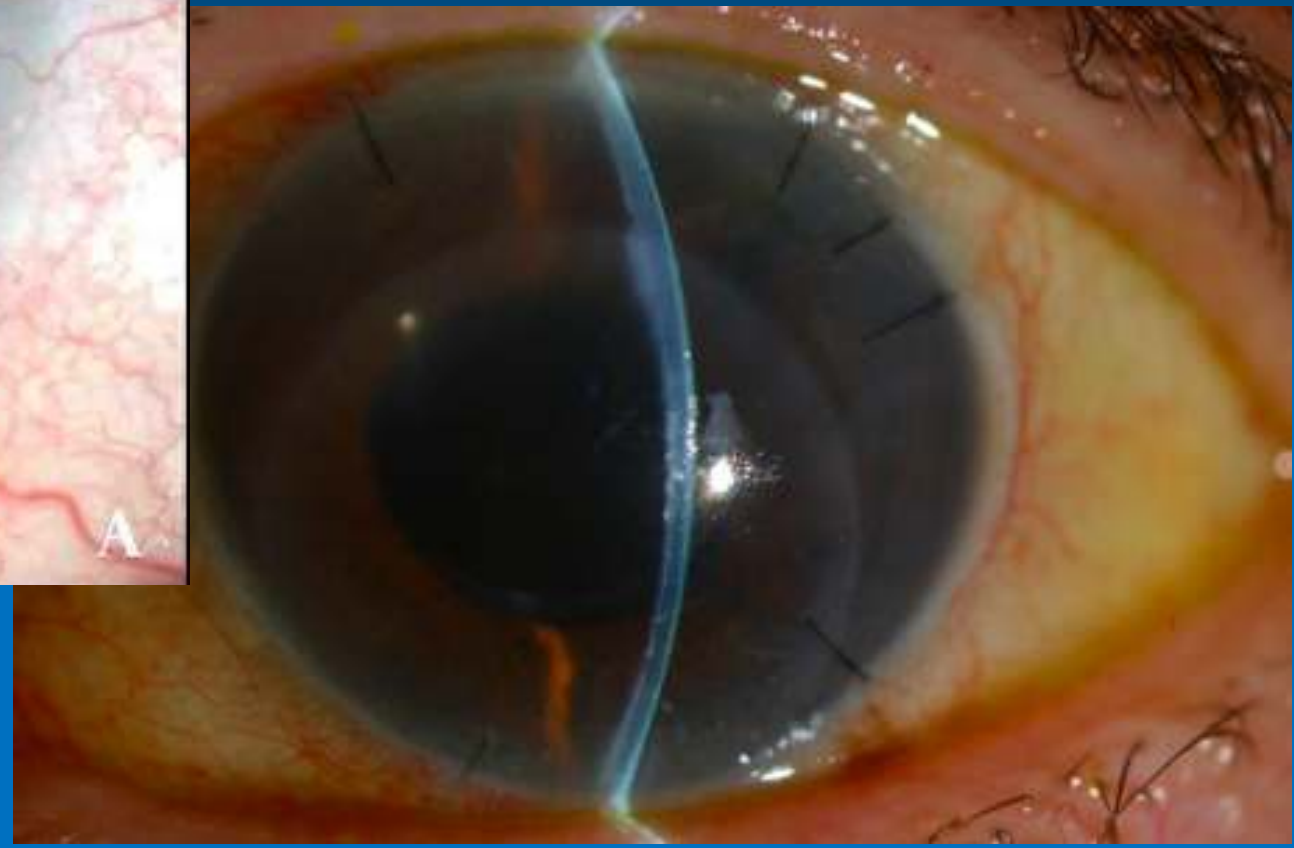
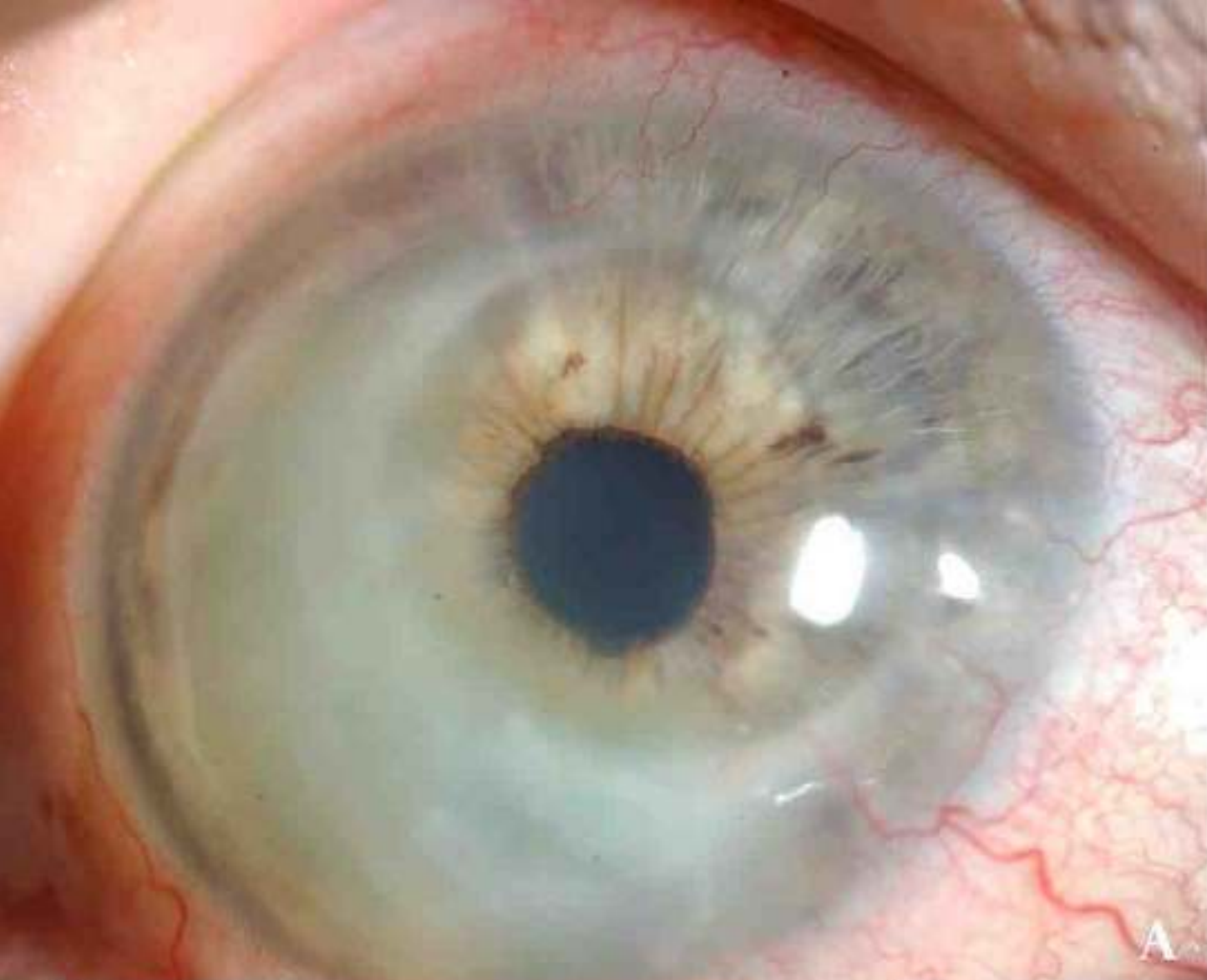
DALK 'Striae'

Descemet's striae – may look like DLK
'Sands of Sahara' of Lasik.

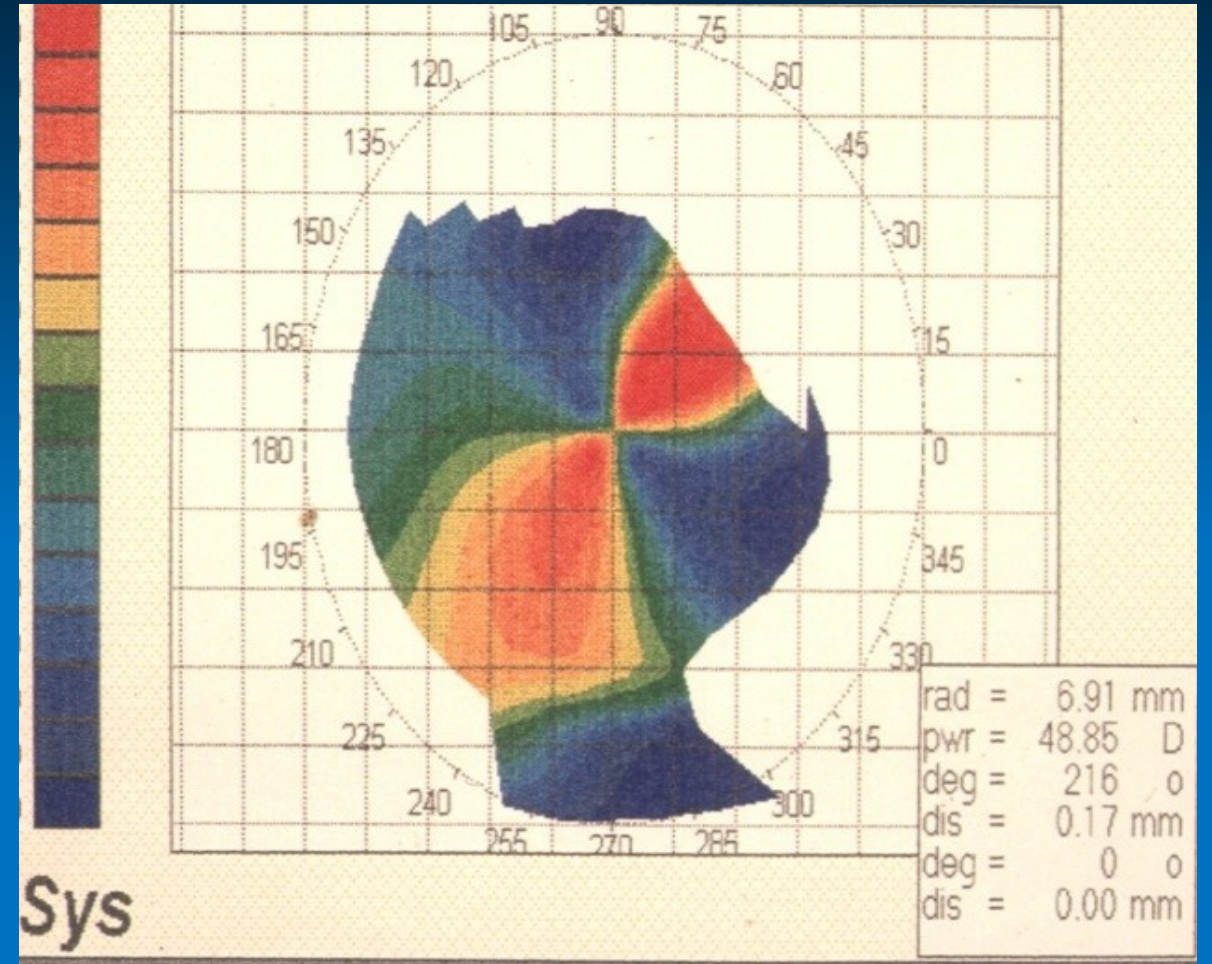
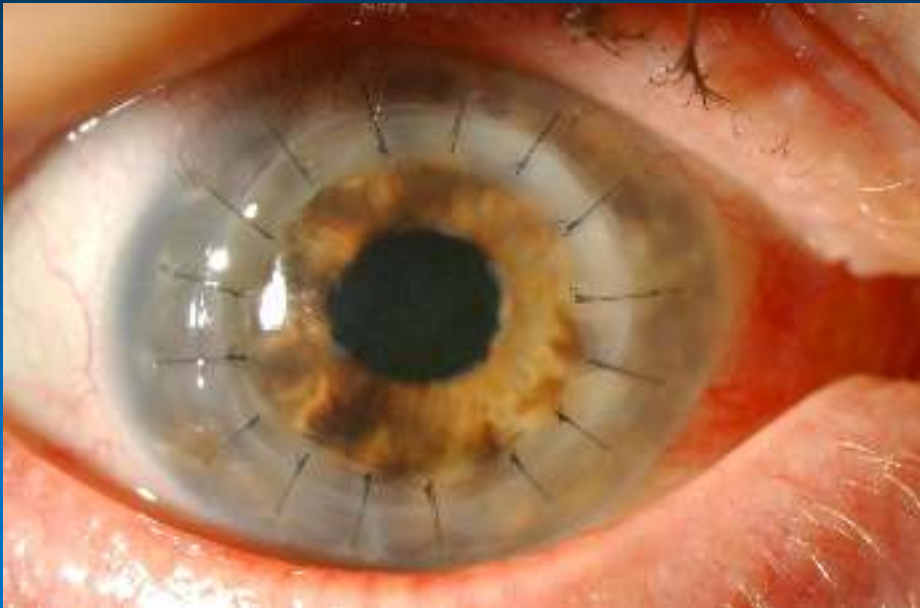




Decentration



Post-operative astigmatism

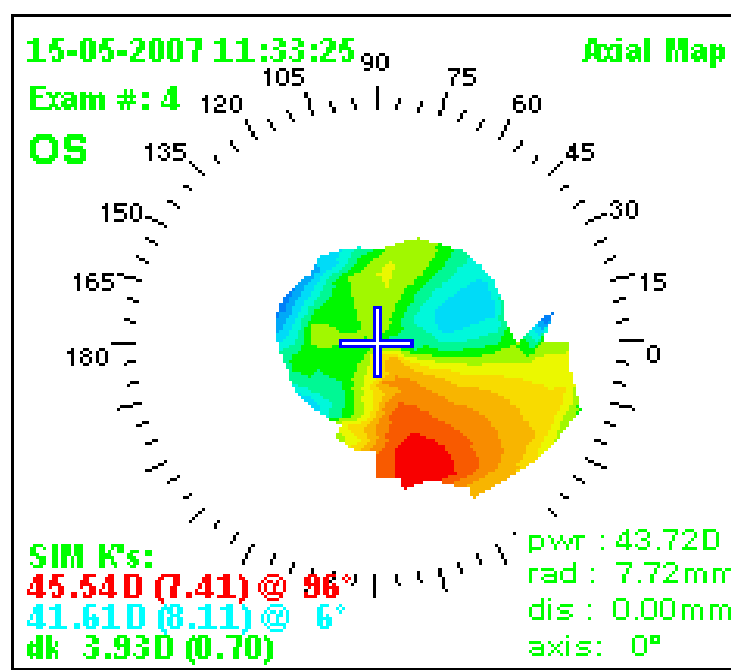
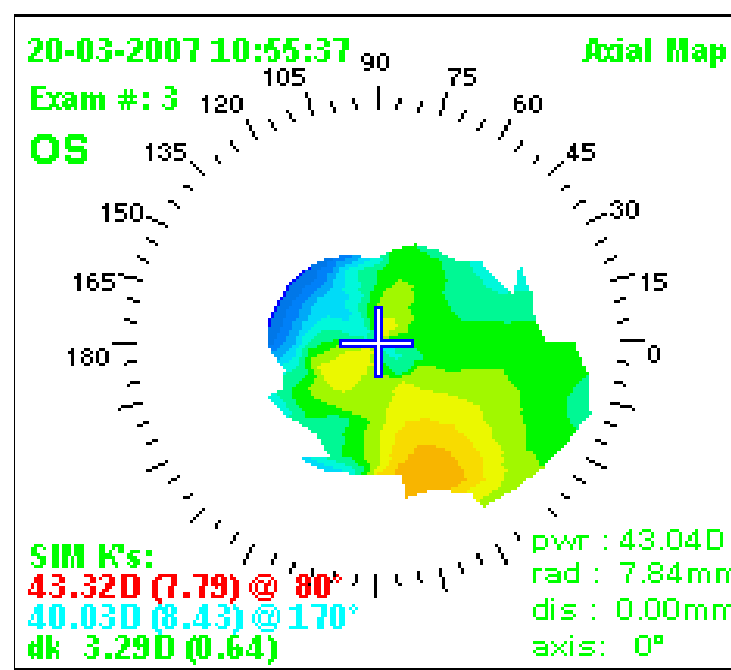
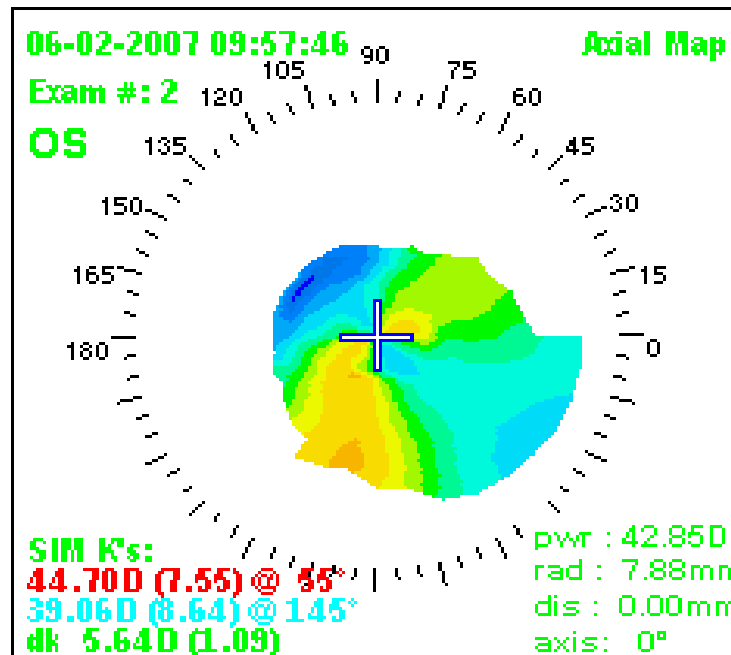
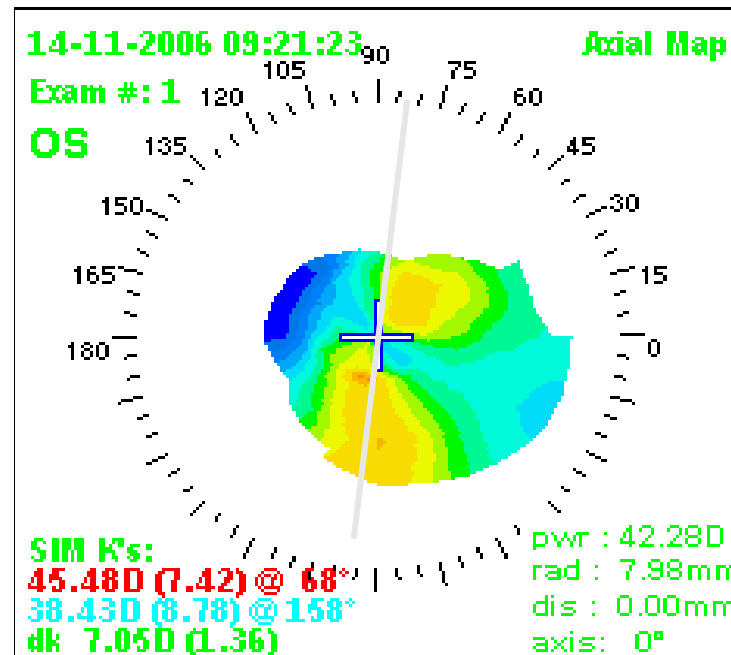
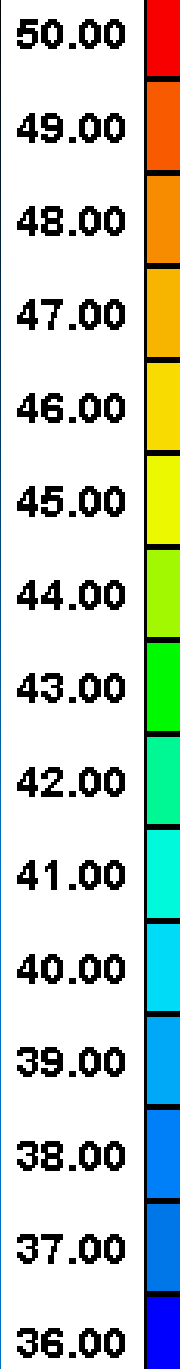


Suture management:

Suture removal

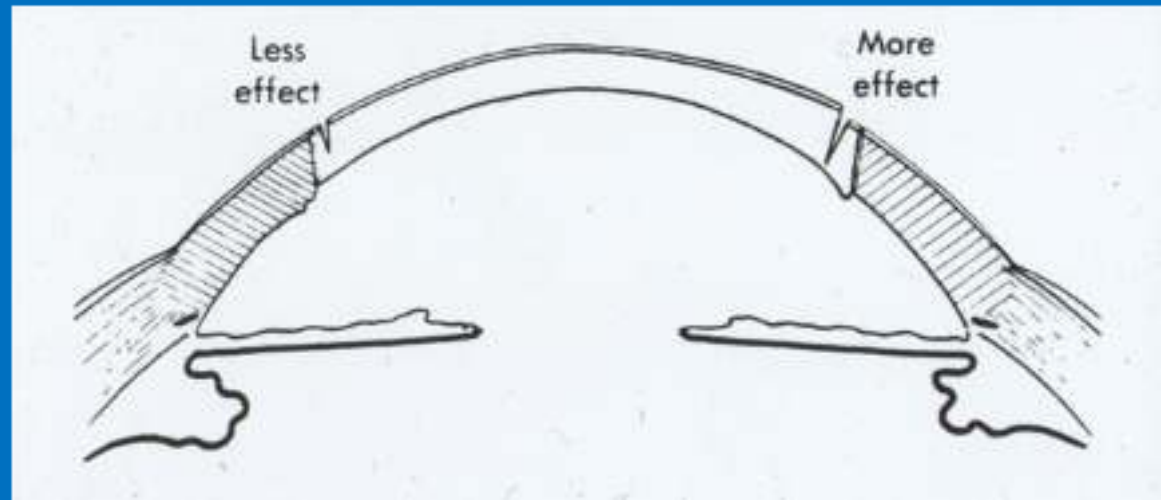
- Topography and refraction coincide
- When ??
- How frequent??
- How to remove the stitches

PK SUTURE REMOVAL



Astigmatic keratectomy

- Arcuate incision (60 degrees)
- Inside the graft host junction
- 7 mm optical zone
- Perpendicular to steep axis
- Compression sutures across the flat meridian
- Suture removal
(3 months)



Astigmatic keratectomy



Axis Marker

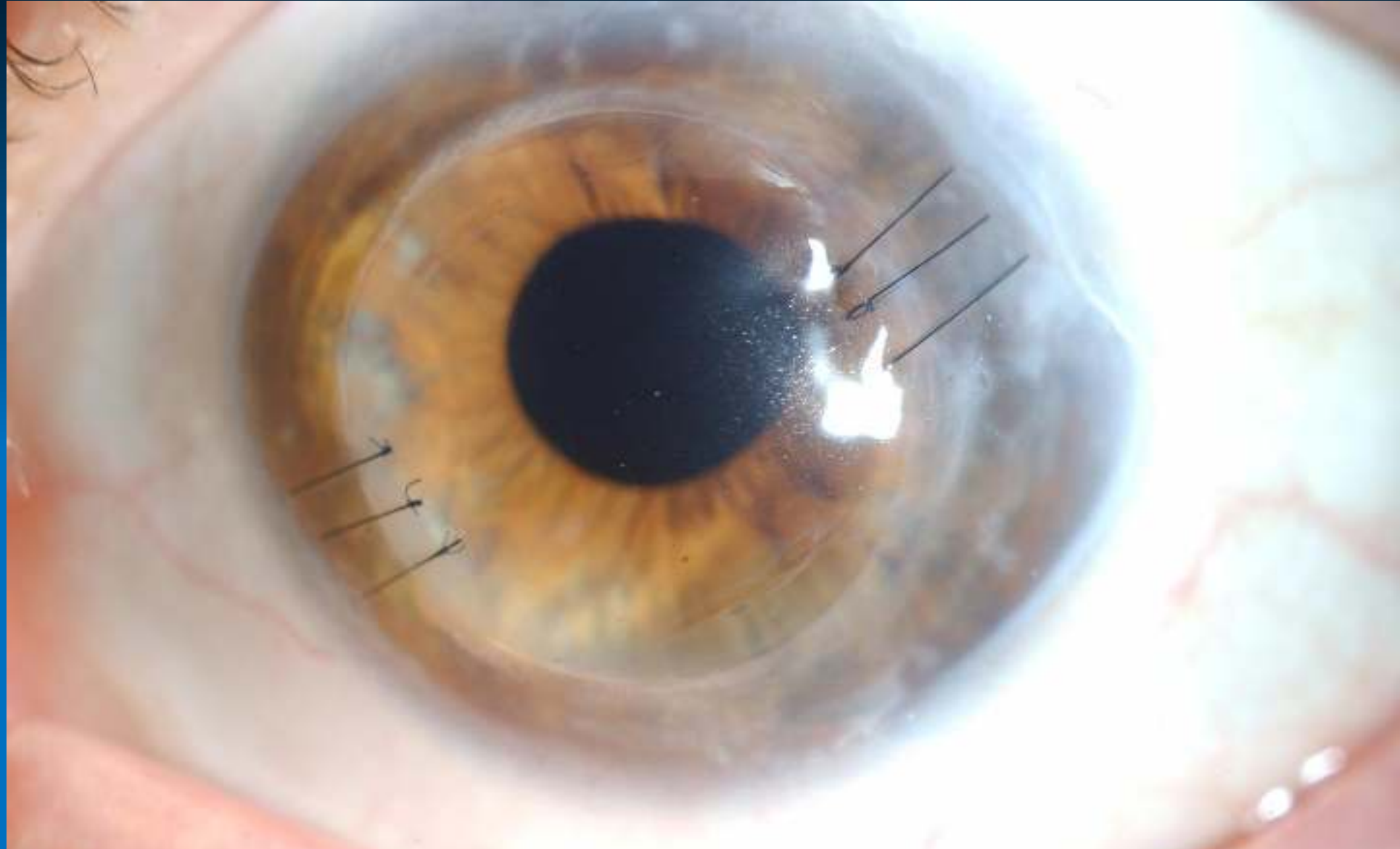
Mendez Gauge



Arcuate Marker



Astigmatic keratectomy



Concerns!!

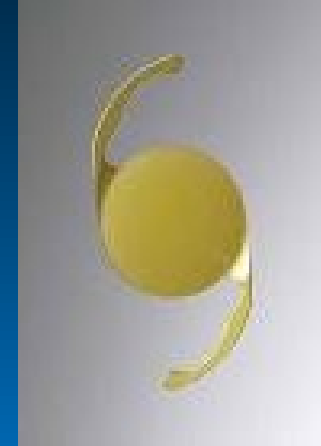
- Poor predictability
- Wound dehiscence
- Perforations
- Rejection

Toric IOLs

- Ideal in cataract, corneal thinning, ectasia
- Sclerocorneal tunnel

Concerns

- Endothelial cell loss
- Chronic inflammation, CMO



Excimer laser

Advantage

- Corrects spherical error as well

Disadvantage

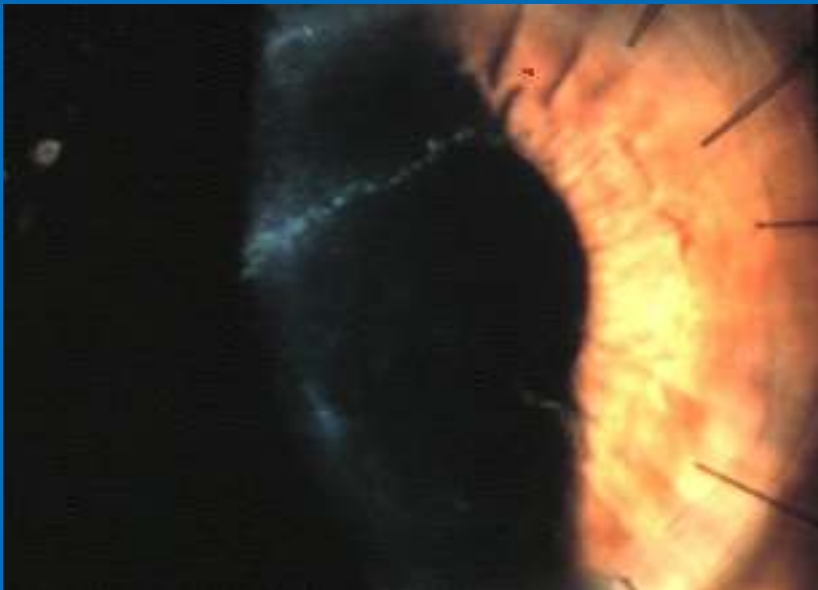
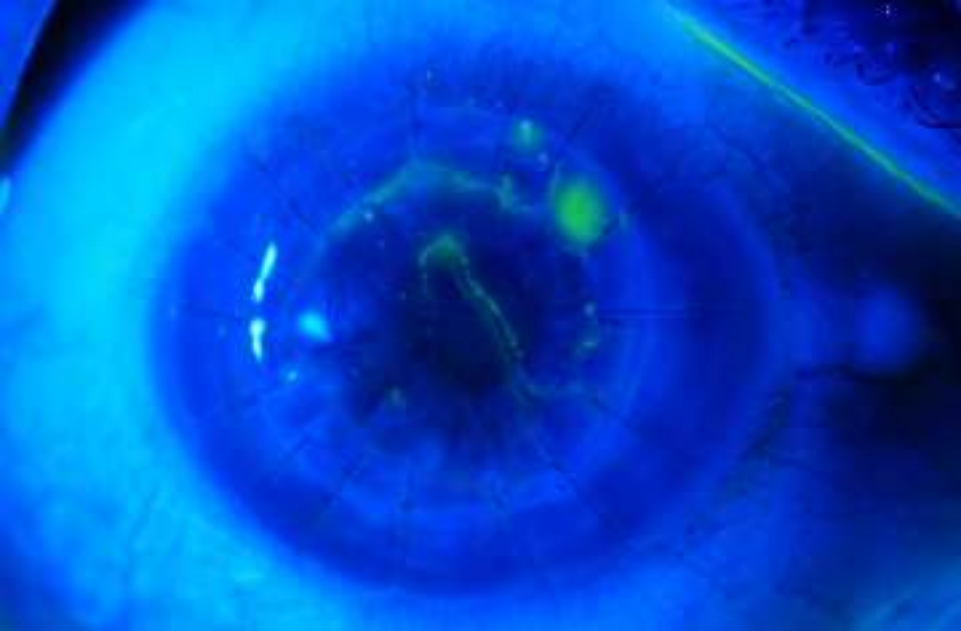
- Haze
- Flap complications

Contraindications

- Recurrent HED
- Early graft rejection
- Recurrent inflammations

Graft Rejection

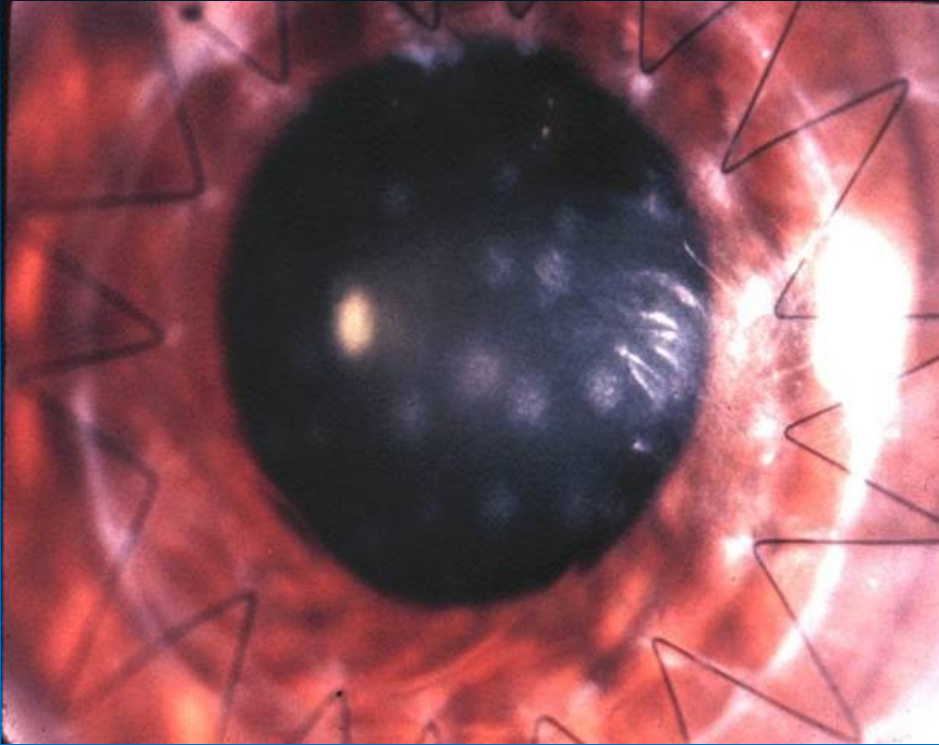
Graft rejection



**Epithelial
Rejection**



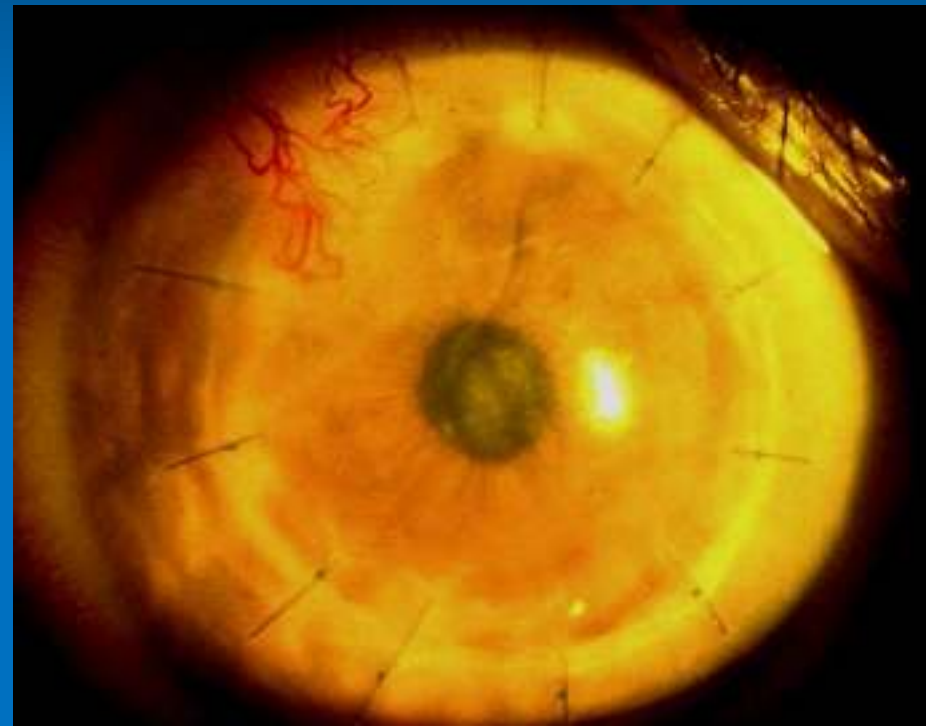
Graft rejection



Krachmer's Spots

Stromal Rejection

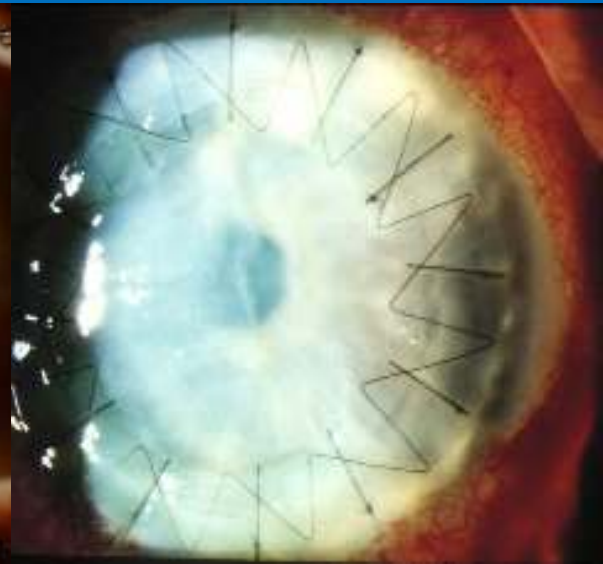
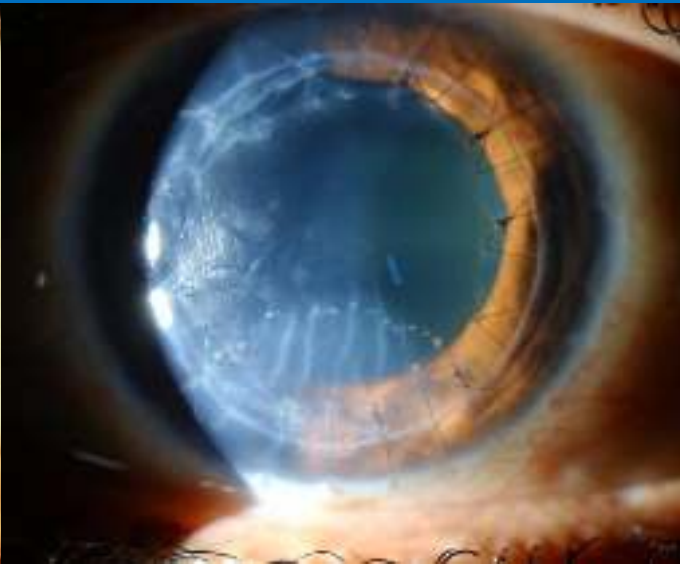
Localised edema and vessels



Graft rejection



Endothelial Rejection

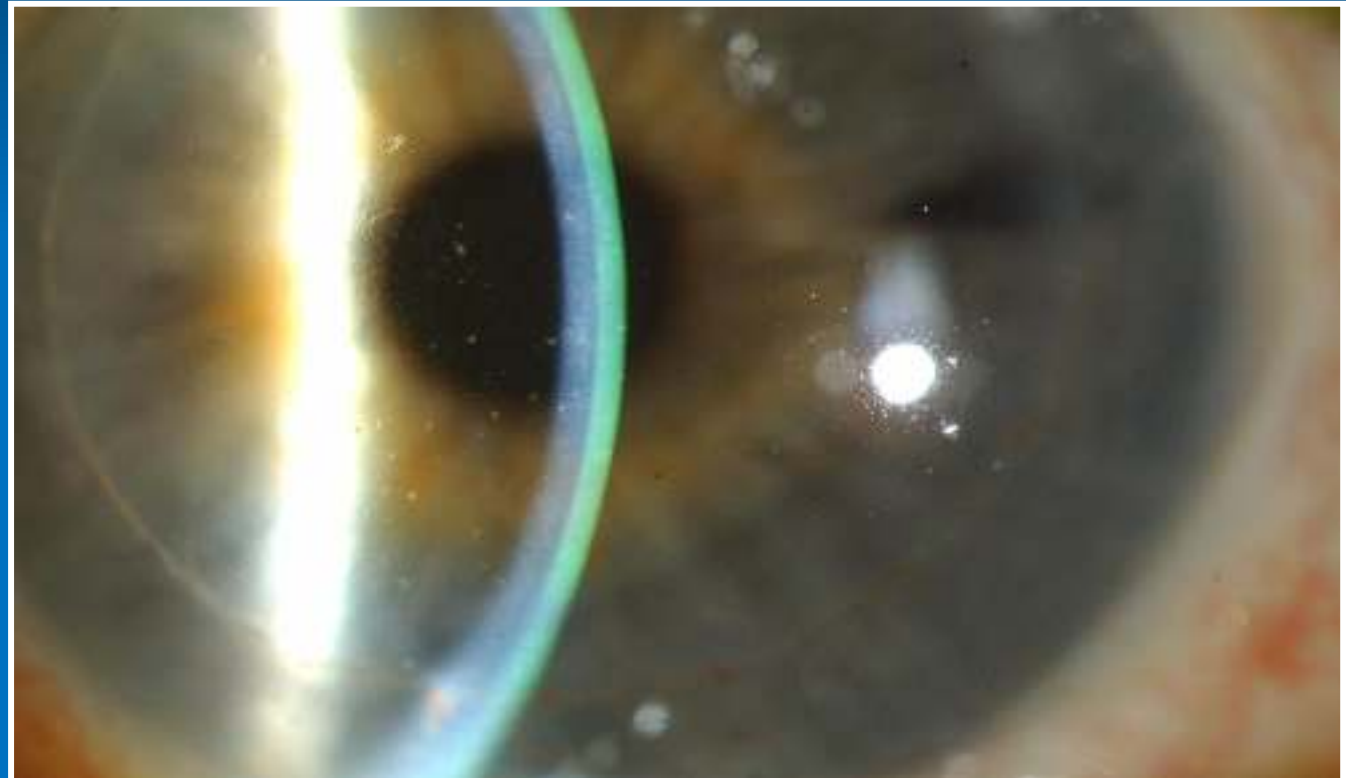


WHY SHOULD ENDOTHELIAL GRAFTS BE ANY DIFFERENT?

- Only deep stroma and endothelium are transplanted
- Paucity of Antigen Presenting Cells (APC) in deep stroma
- Endothelial rejection does occur – scattered KPs

Incidence appears to be comparatively lower

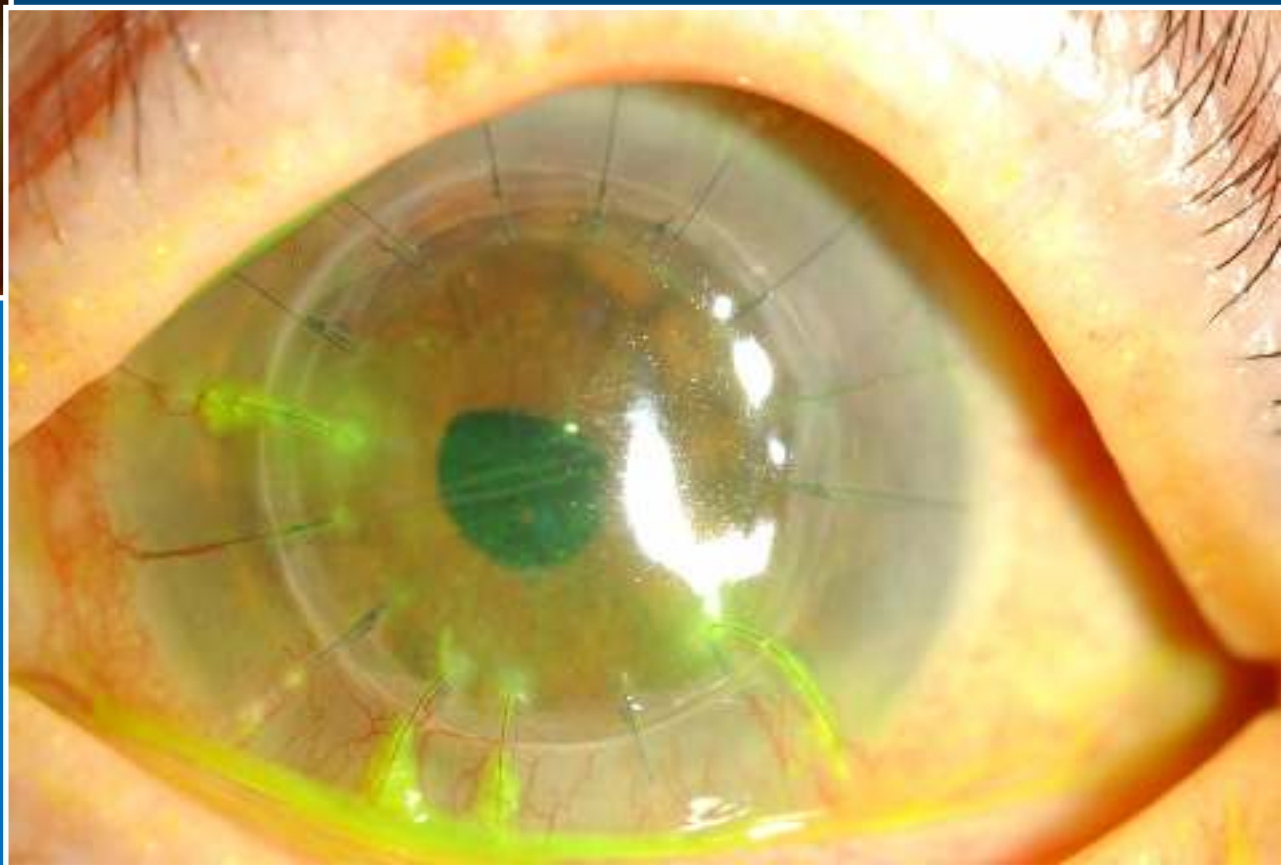
➤ Khodadoust ~~limit~~
reported (yet)

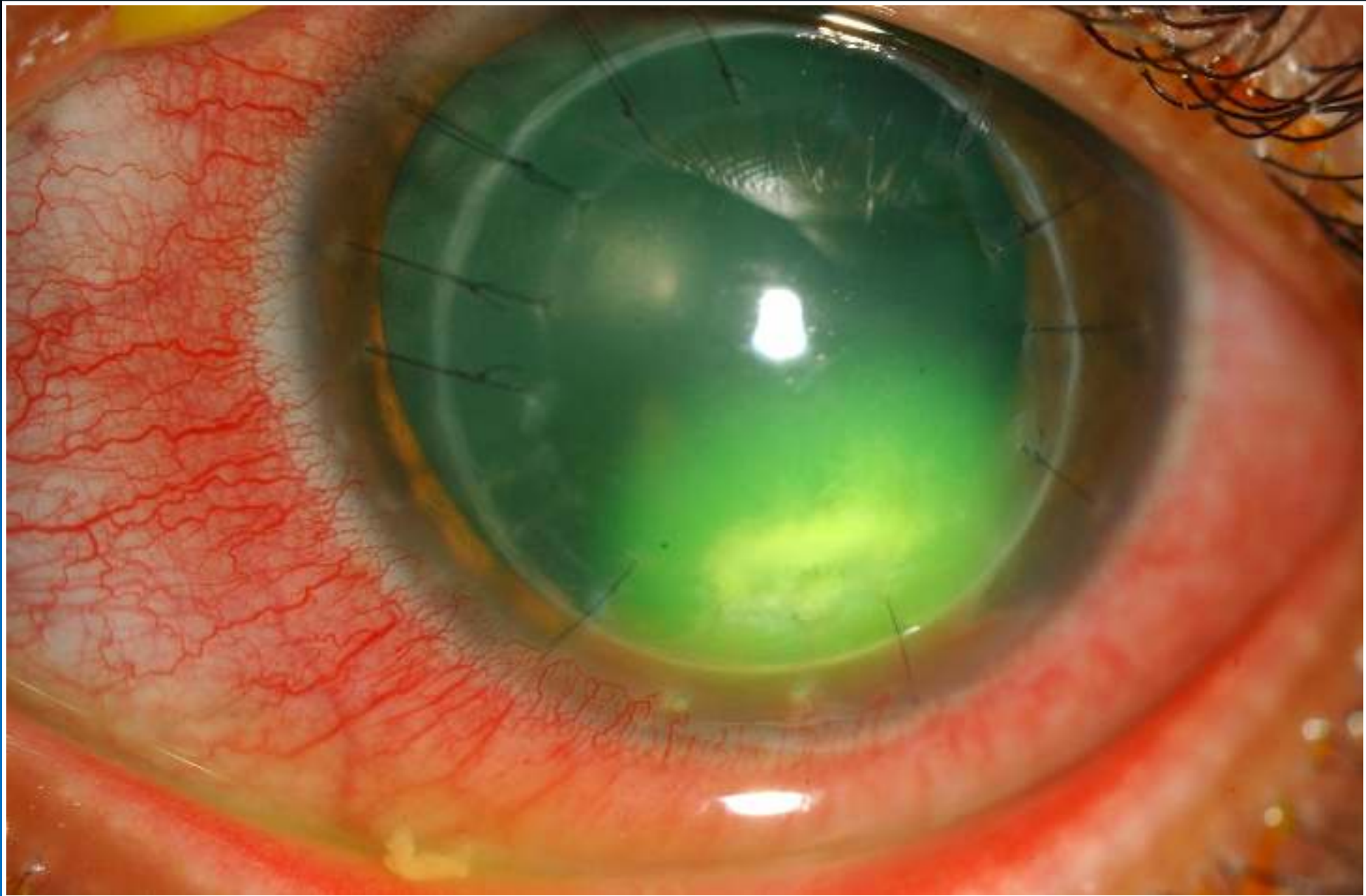


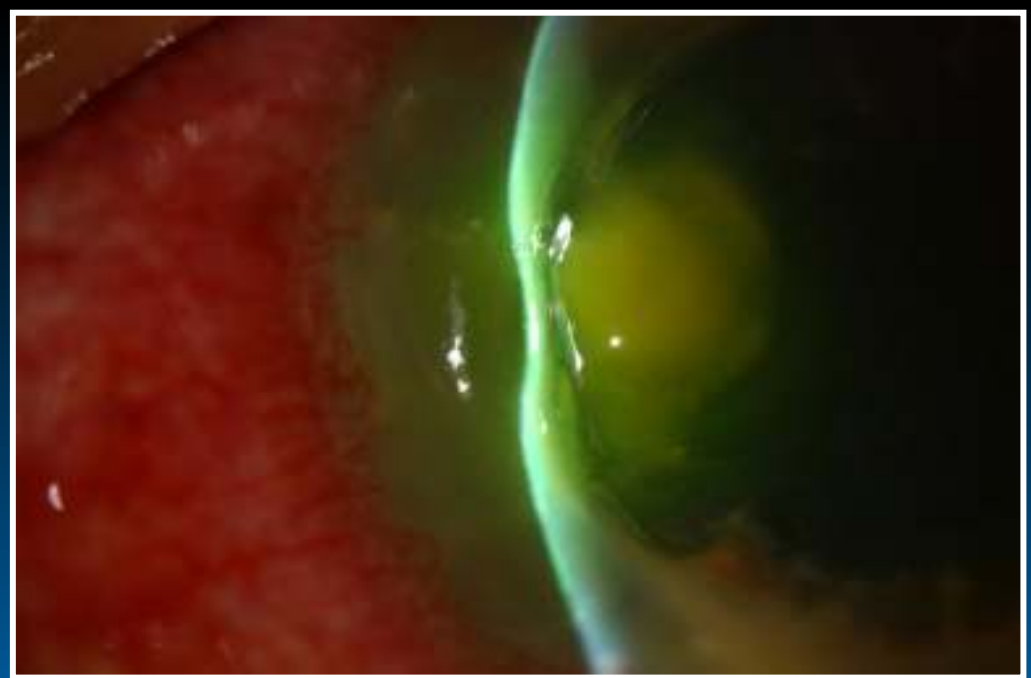
Graft infection



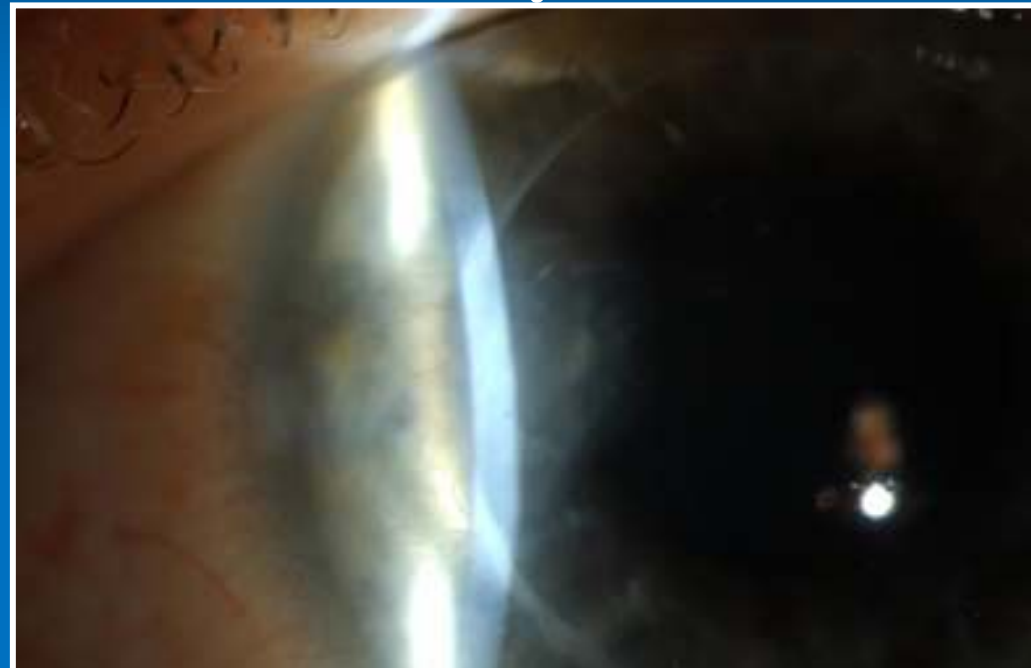
Loose sutures
which traps
mucousµbes



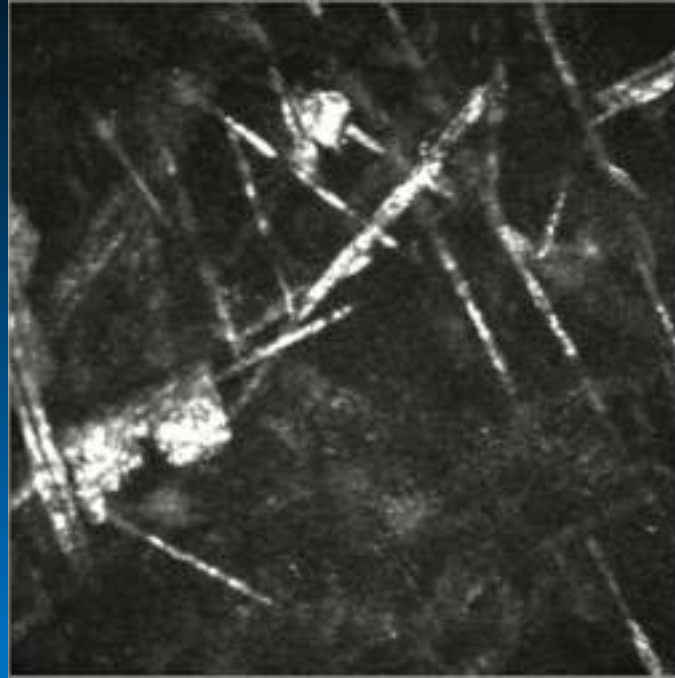




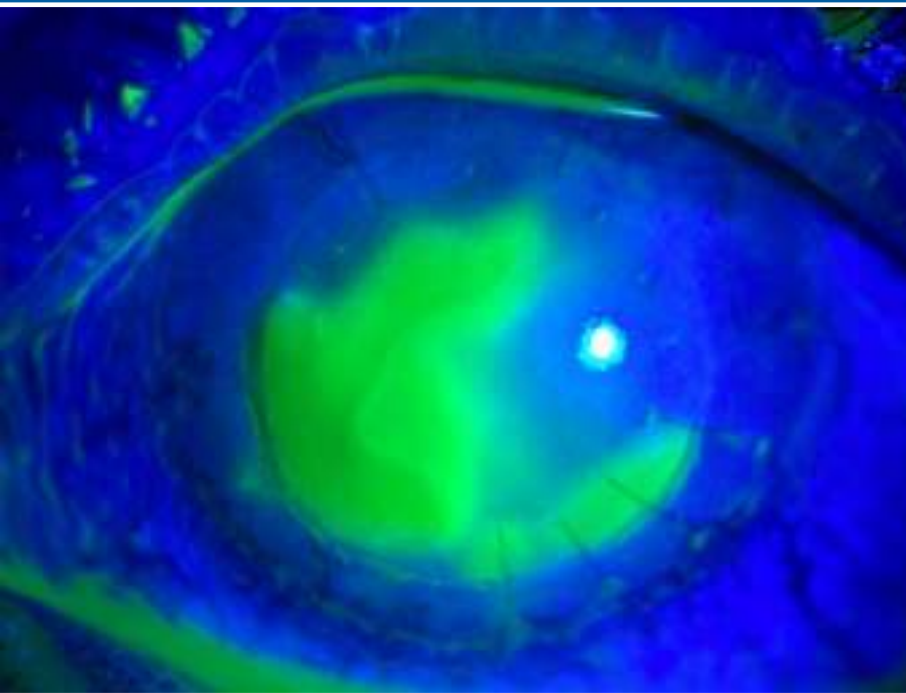
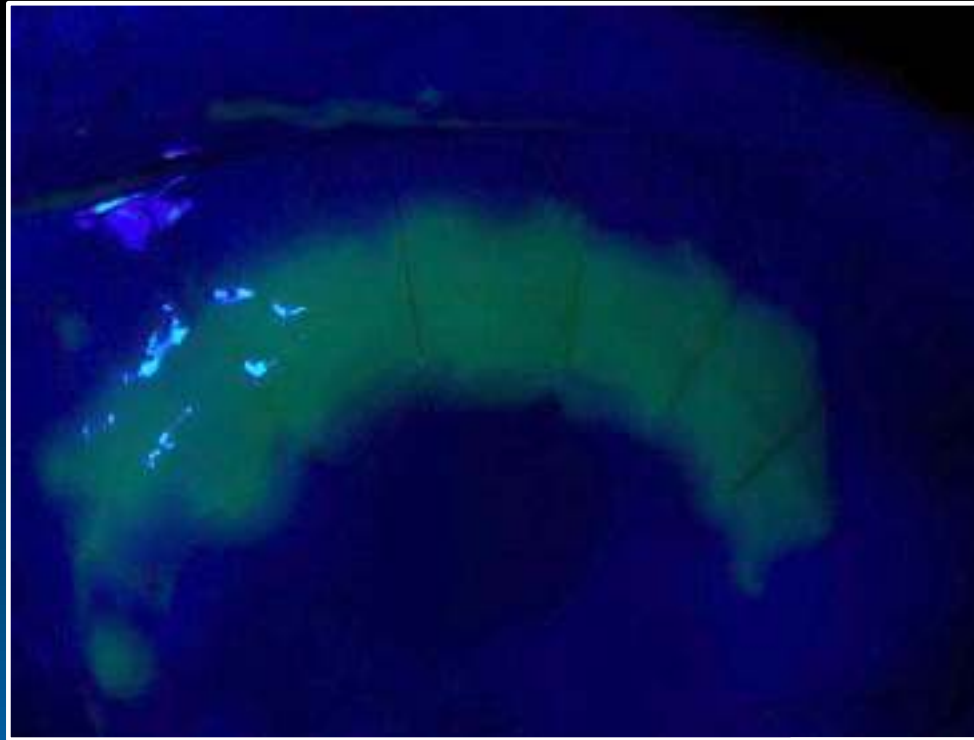
DALK: Infection with dehiscence, successfully treated



Interface infection in DSAEK



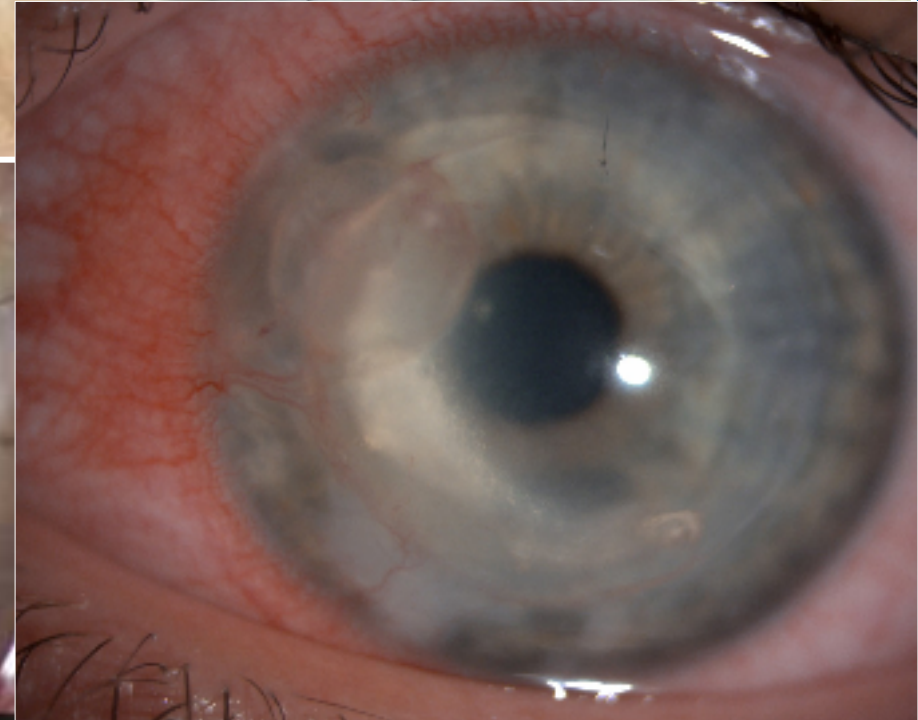
Herpetic reactivation after DALK



DALK and PK

Infectious Crystalline Keratopathy

- Microbial infiltration in the absence of host immune response.
- Corneal Hypo-aesthesia.
- Biofilm of microbe colonies



Graft Failure





Thank you for your attention