
Totally random: A recall of cases I've learnt from

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Acknowledgements

- ESA Orthoptists and administration staff

No financial disclosures

Learning objectives

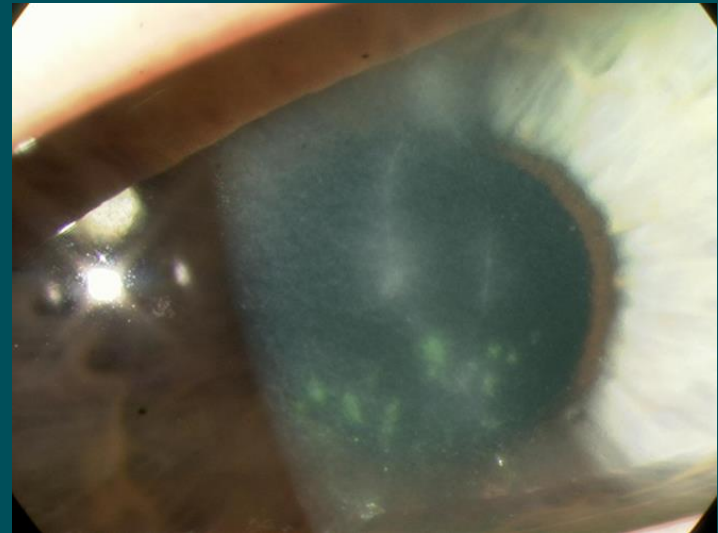
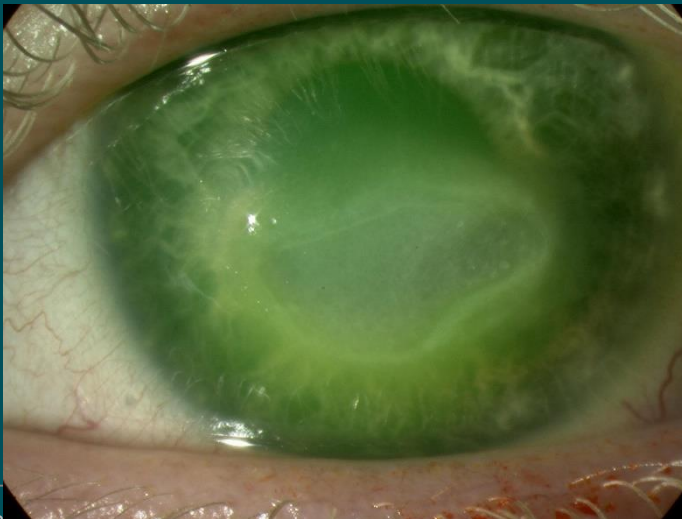
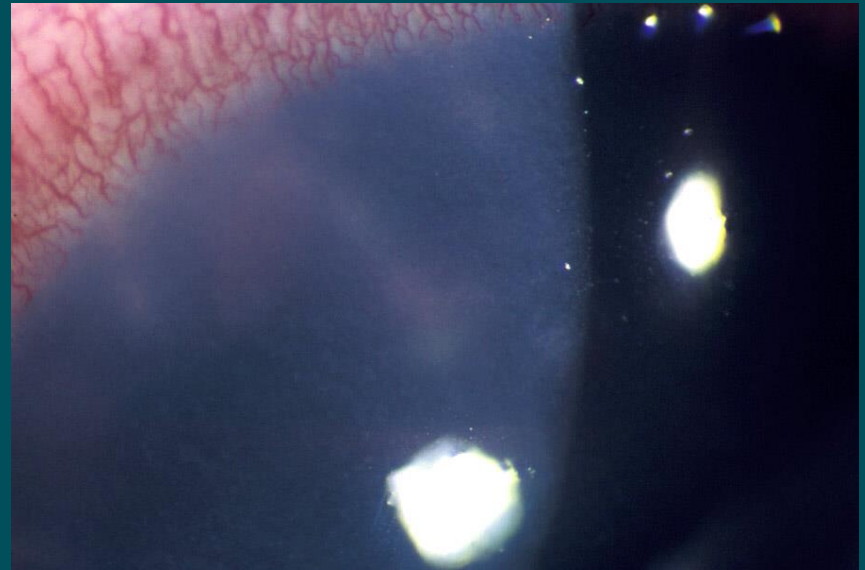
1. Diagnose a range of “once in a lifetime” conditions
2. Insights: condition that are easy to miss. Gain some awareness on what these conditions are (?learn from when Ben has done this)
3. Improve skills in managing patient expectations

No financial disclosures

Q1: Contact lens wearer

21 year old contact lens wearer

- 1 week of eye pain and headache
 - What is your diagnosis?
1. Microbial keratitis
 2. Marginal keratitis
 3. Acanthamoeba keratitis
 4. HSV keratitis



Q2: Corneal changes

48 year old

- PK for HSV, long term Flarex
 - Slight blur in vision
-
- What is your diagnosis?
 1. Microbial keratitis
 2. Infectious crystalline keratopathy
 3. HSV keratitis
 4. Christmas eye



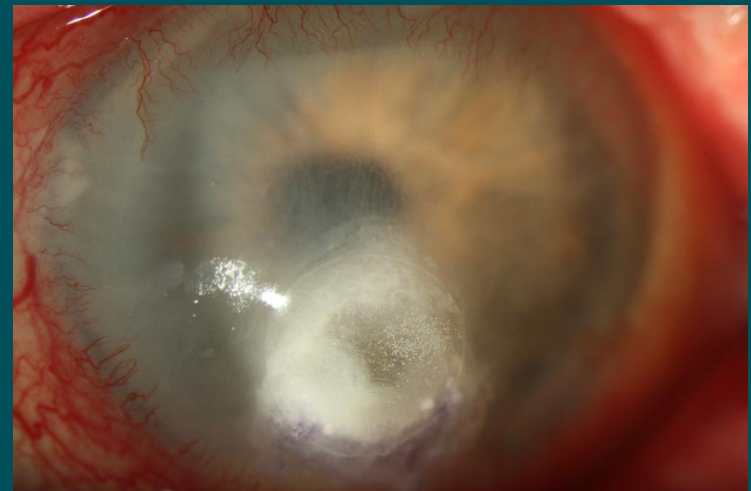
Q3: Microbial keratitis

23 year old

- Contact lens wearer
- Blurred vision

Could I go blind doctor?

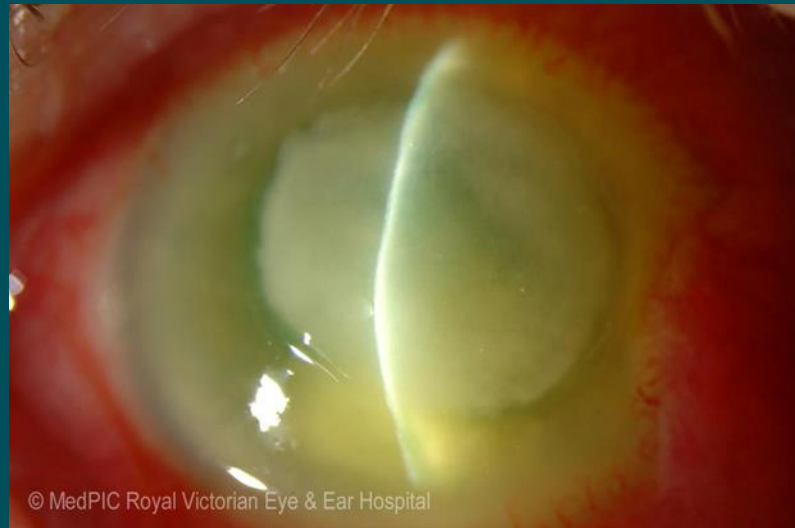
1. Yes
2. No



Q4: Contact lens related microbial keratitis

Contact lens microbial keratitis

- Which organism is least likely to cause this?
 1. Staph Epidermidis
 2. Staph Aureus
 3. Pseudomonas
 4. Streptococcus
- Important to review day 1
- Will often get worse before better
- Keratoplasty



Commonest micro report

▼ Print Review History

MICRO-EYE TISSUE/FL.
Ordered: EM EYE, Emergency Dept

SPECIMEN:
Corneal Scrapings , Left Eye

GRAM STAIN: BLANKOPHOB PREPARATION:
Amoebic cysts/fungal elements not seen

MICROSCOPY COMMENT:
Insufficient material on slide for microscopy.

CULTURE:
1. Staphylococcus epidermidis ISOLATED

SENSITIVITIES: 1

Flucloxacillin	S
Cefazolin	S
Ciprofloxacin	S
Chloramphenicol	R
Neomycin	S

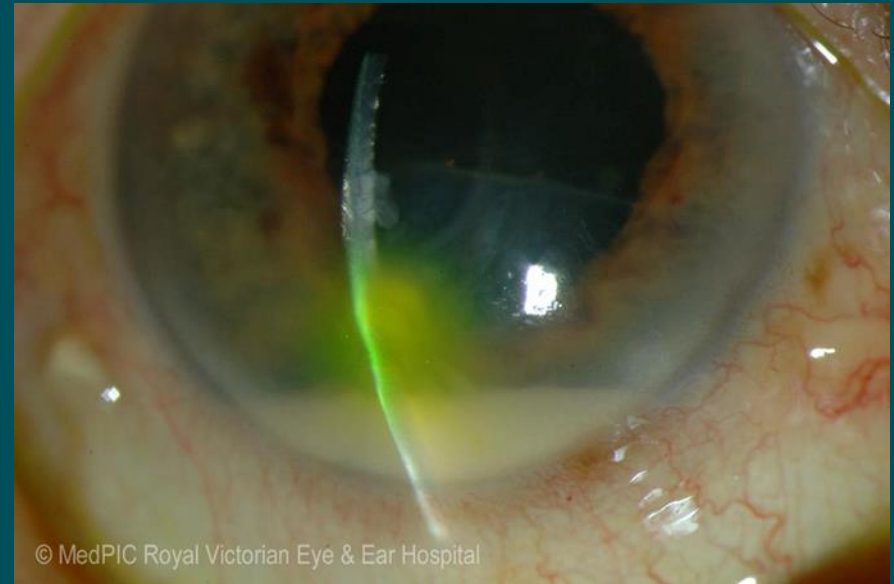
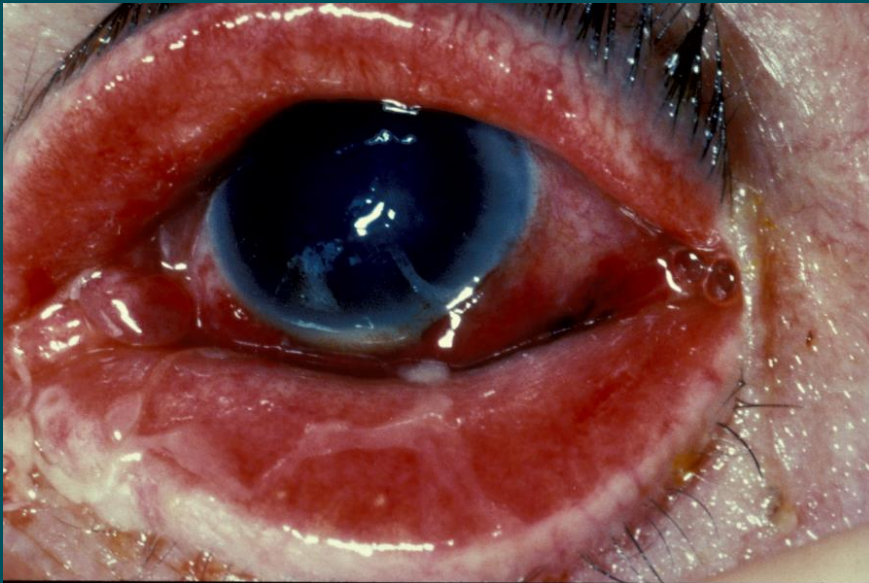
COMMENT:
Organism 1: isolated from enrichment broth only after 3 days.

Significance uncertain. Organism 1 is only being reported because it is a potential pathogen in certain clinical settings. Please discuss if indicated.

Acanthamoeba sp. NOT isolated.

Neomycin/trimycetin, ciprofloxacin and chloramphenicol when reported are for topical use only.

Microbial keratitis



What are your exam findings?

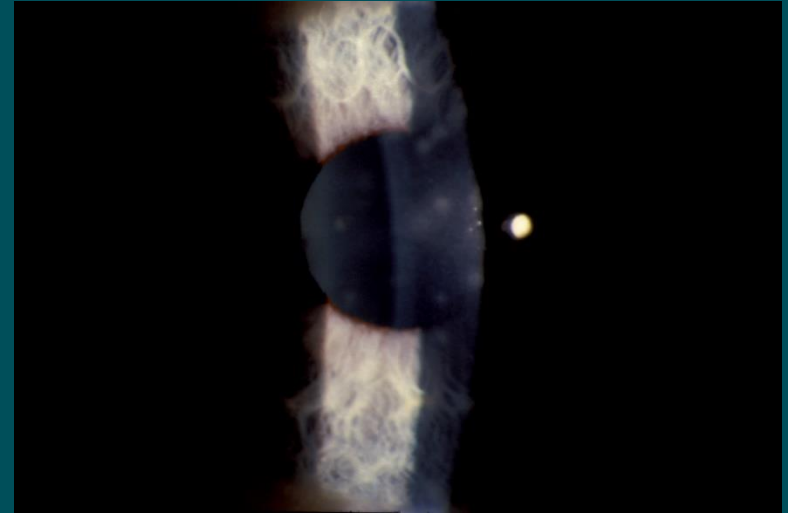
Q5: What is your diagnosis?

28 yo Woman

- Rings around lights when night driving
- A bit red a few weeks ago
- Son has sore throat

What is your diagnosis?

1. Thygesons
2. Post viral infiltrates
3. HSV
4. Past foreign bodies

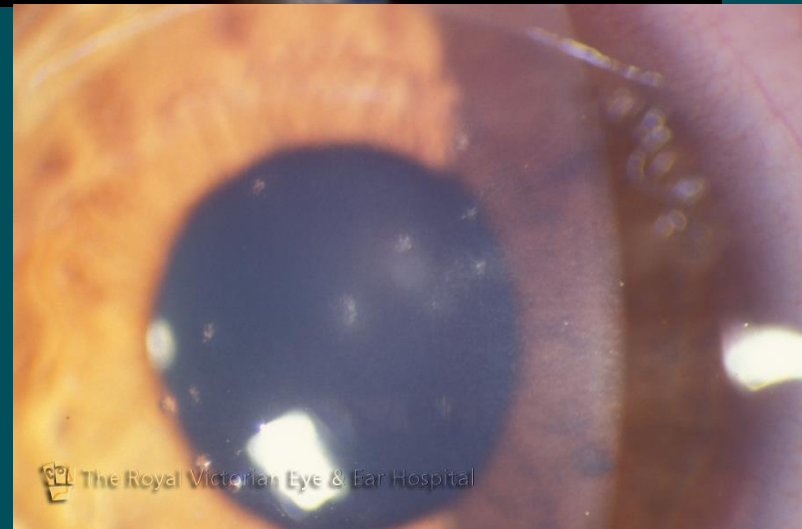


Viral v Thygesons



Difference of Thygesons?

- Larger
- Both can be asymptomatic (*RVEEH)
- H/O viral like illness (including family members)
- Role for steroids



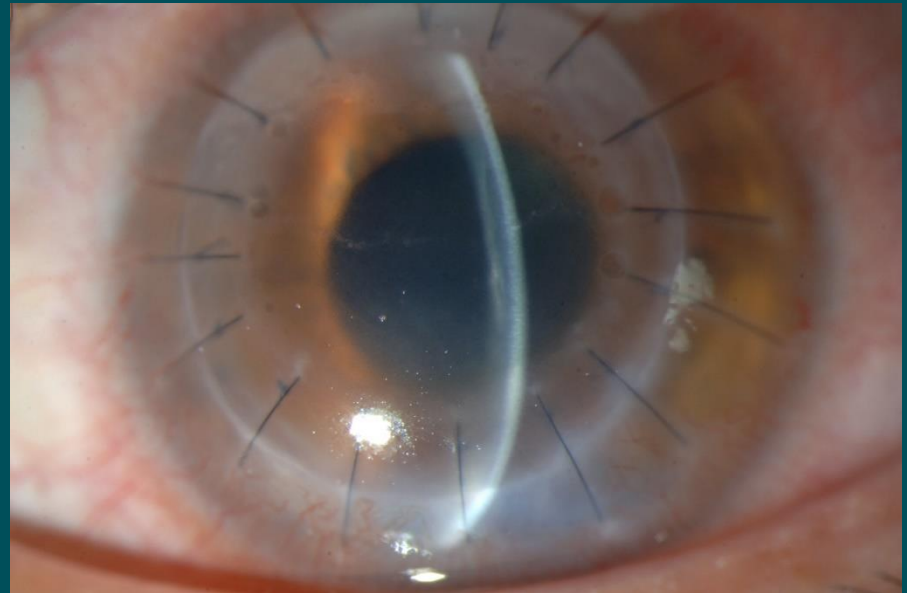
Q5: Previous PK: blurred vision

Describe the findings:

- Inferior swelling/superior spared
- Endothelial line

What is your diagnosis?

1. Stromal keratitis
2. Graft rejection
3. Graft failure
4. HSV infection

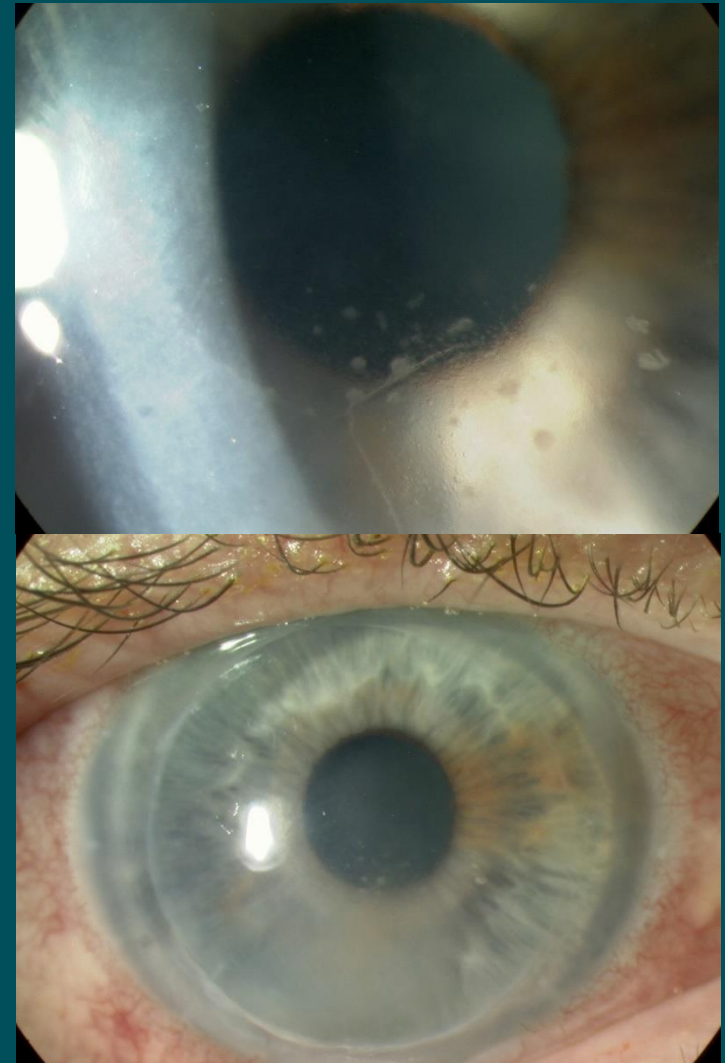


- Khodadoust Line
 - White cells on endothelium
- Contact surgeon

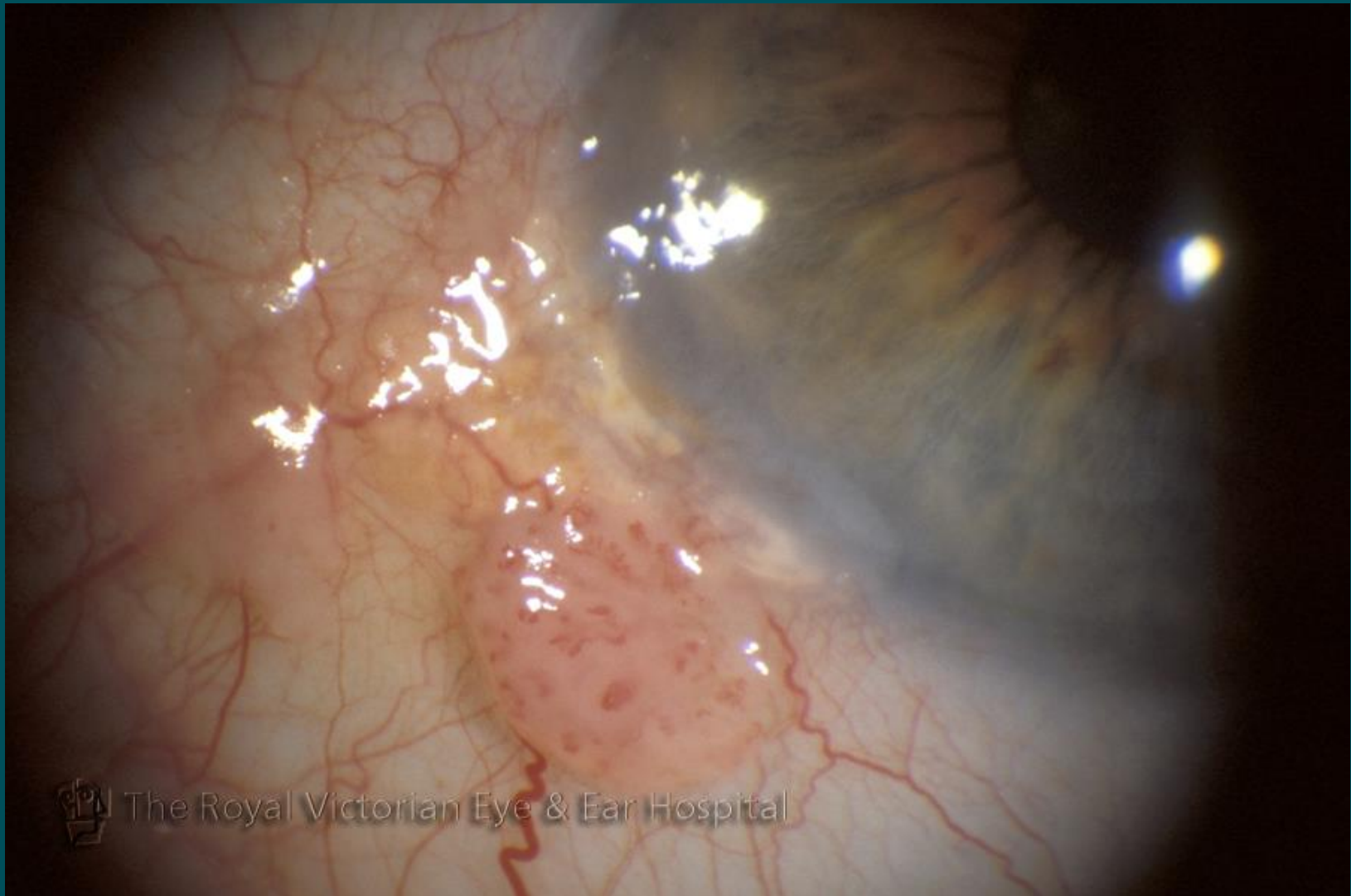
Cloudy cornea

56 blurred vision 1/52

- Past history cold sores
- What do you see?
- Most likely diagnosis?
- How important are topical anti virals?
- Which steroid would you use?
- HEDS study
- ?underused

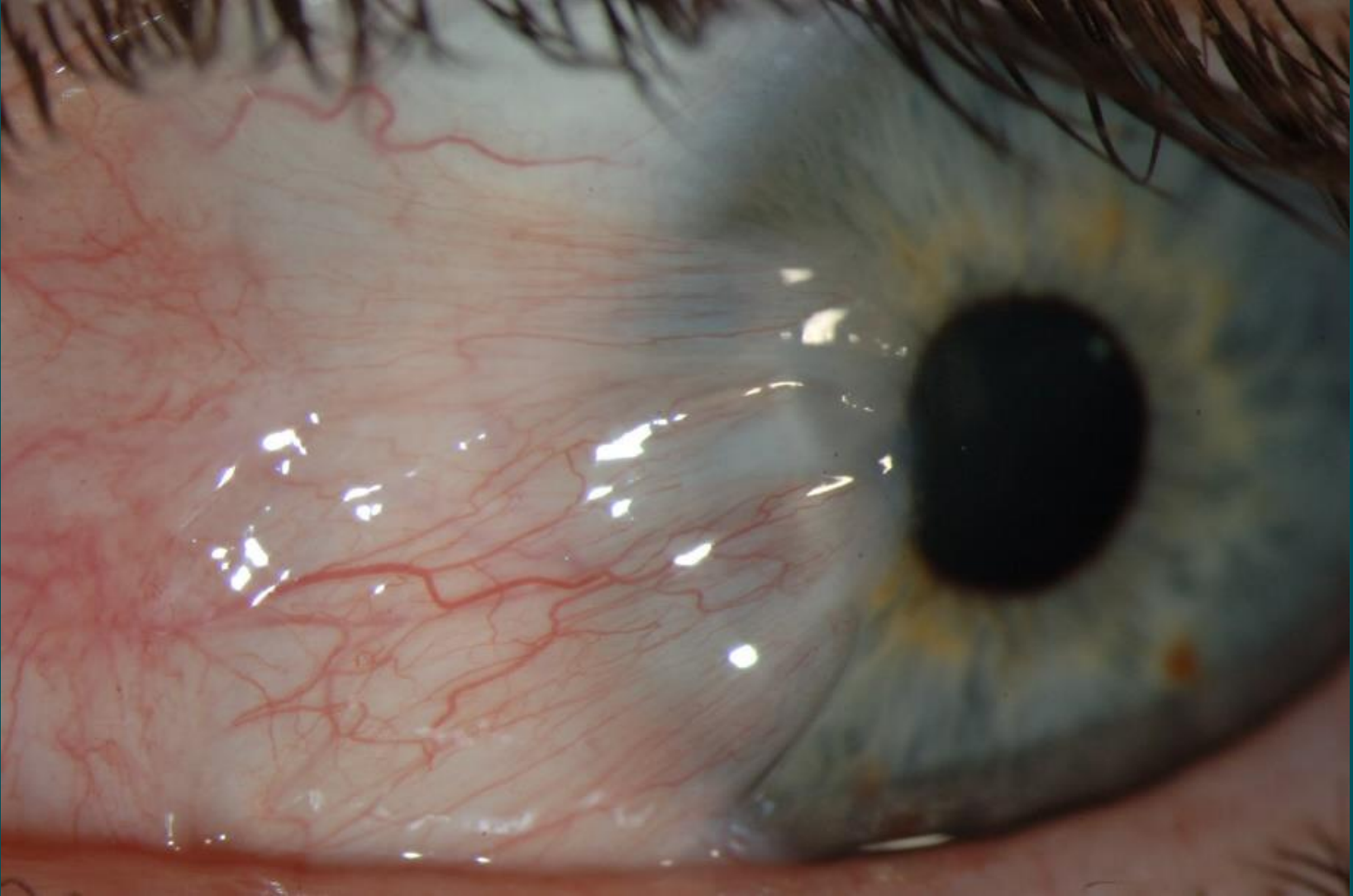


Q6: OSSN?

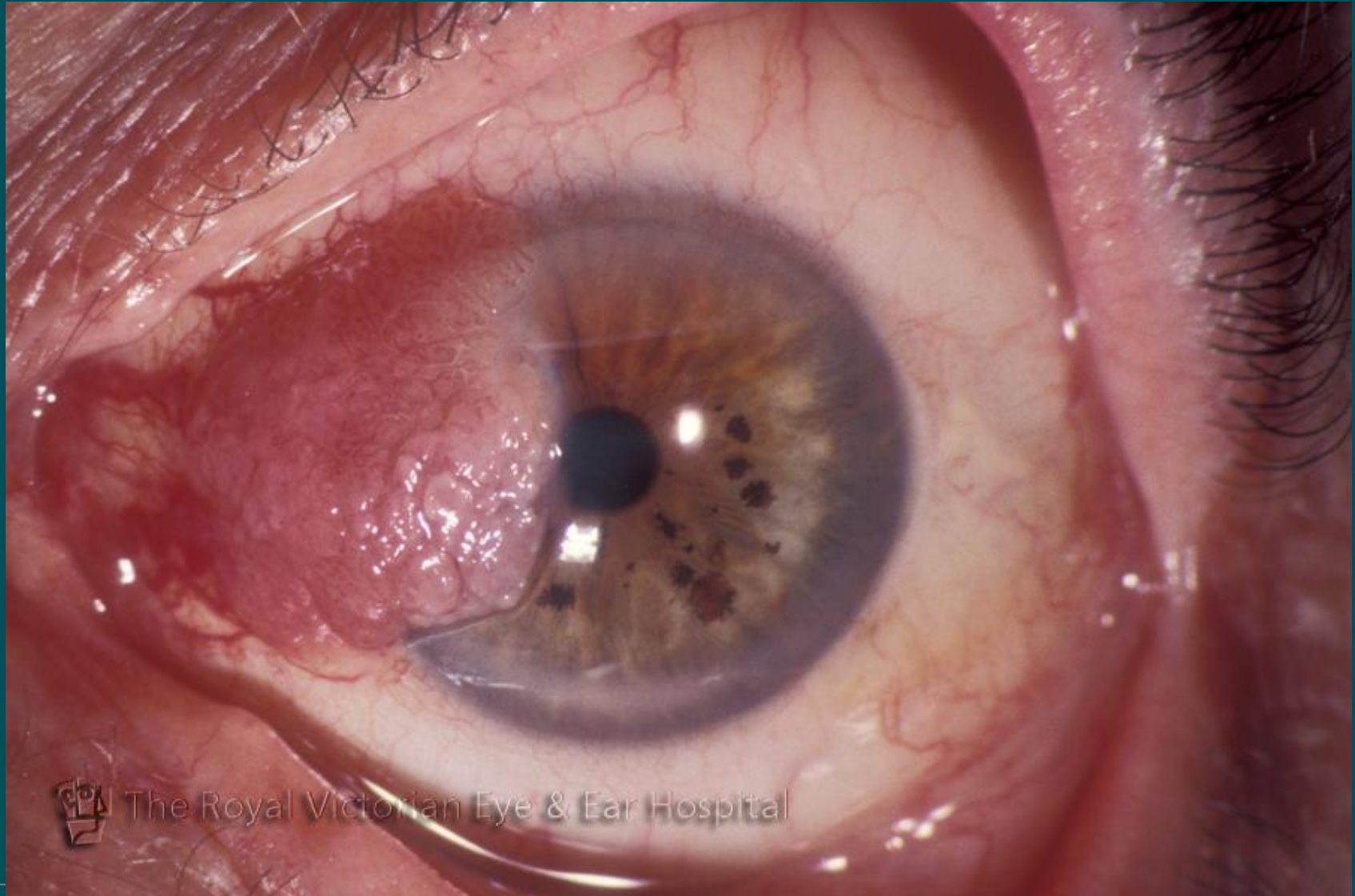


The Royal Victorian Eye & Ear Hospital

Q7: OSSN?

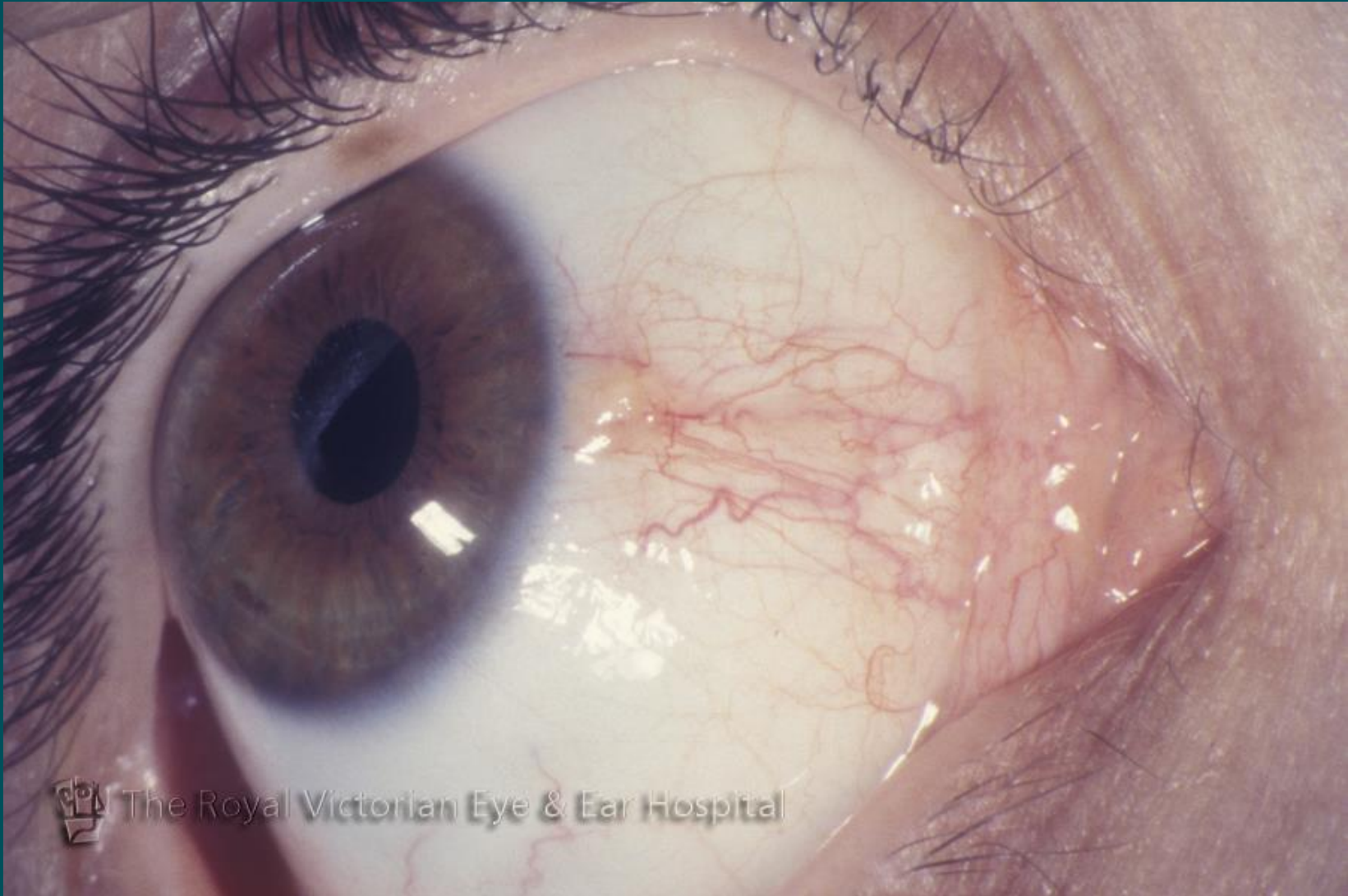


Q8: OSSN?

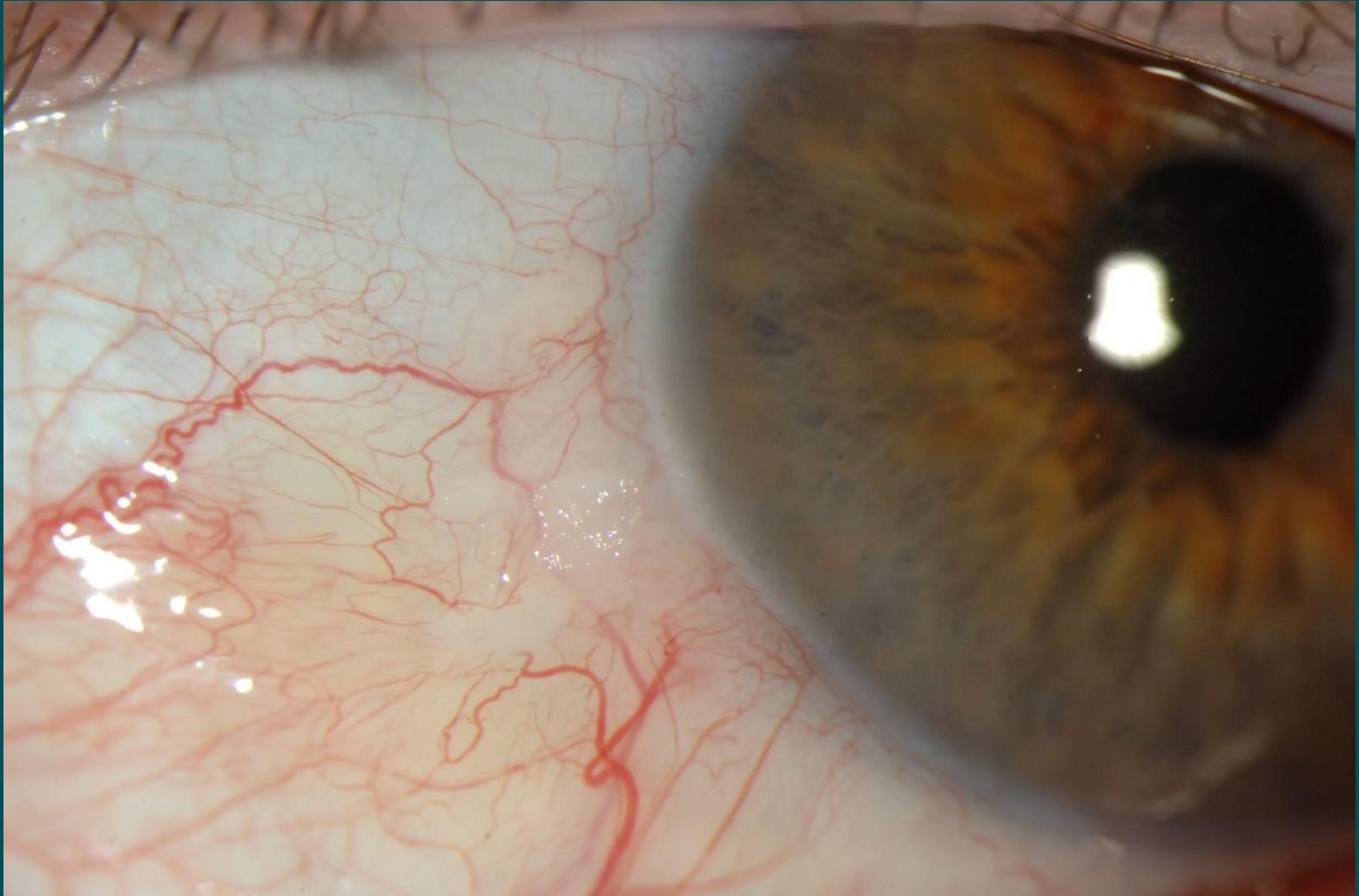


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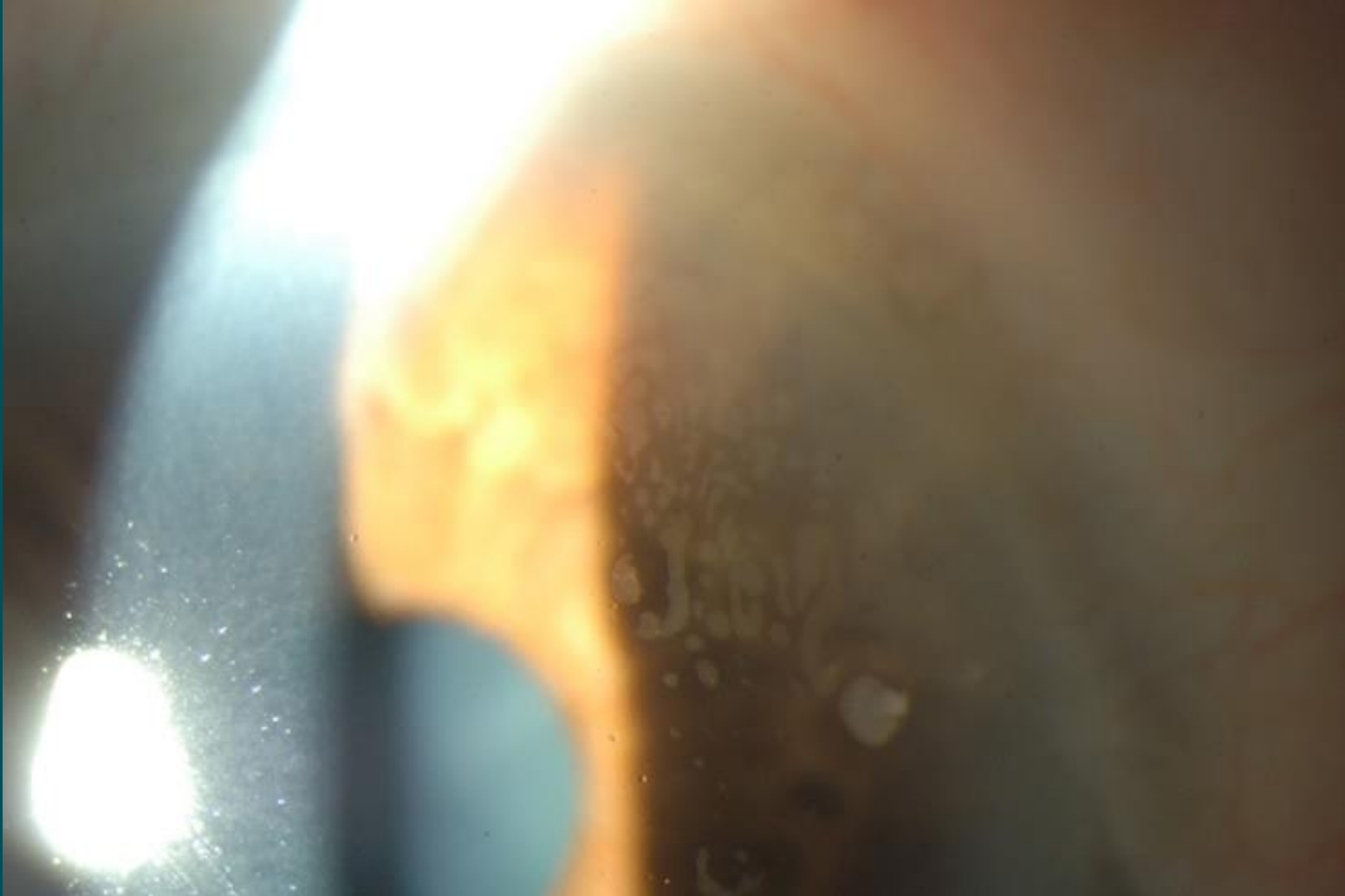
Q9: OSSN?



Q10: OSSN?



Q11: OSSN?

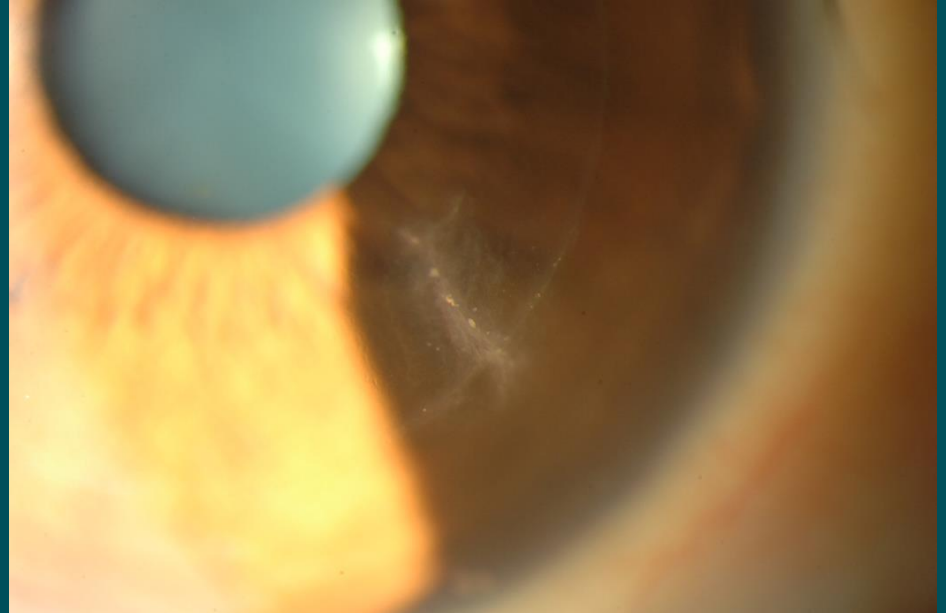


Magpie beak v LASIK flap

Beware magpies

Risk of flap trauma following LASIK

- Low
- Often used in justification for PRK



Trauma

Octopus strap: globe rupture

Would you remove this?

4x increased risk to other eye

Counselling

Protective eyewear



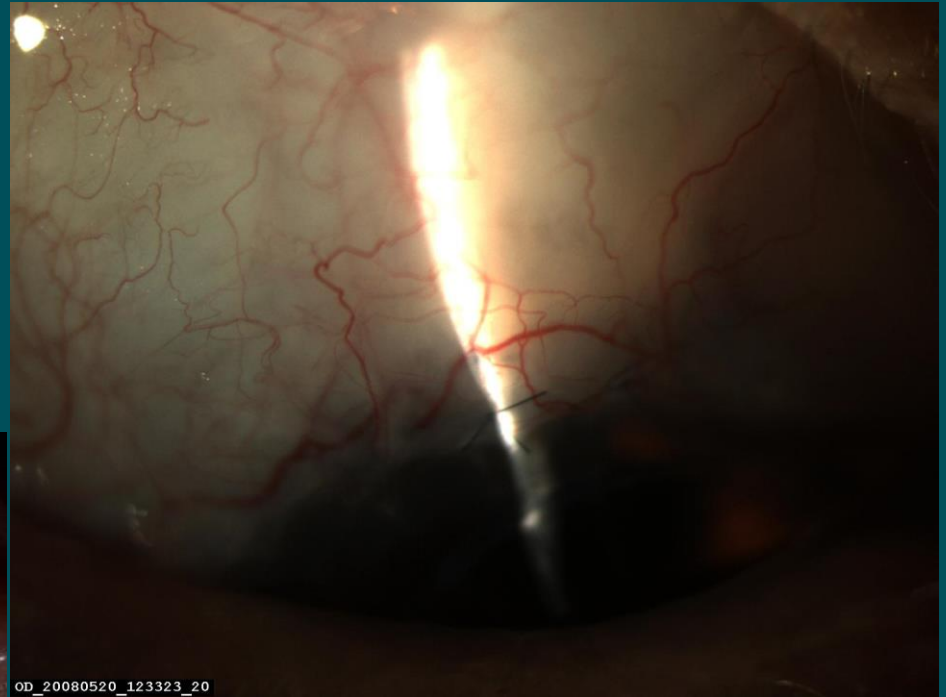
Beware!

- High velocity metal on metal history
- Retro illumination of iris
- Entry site may be occult



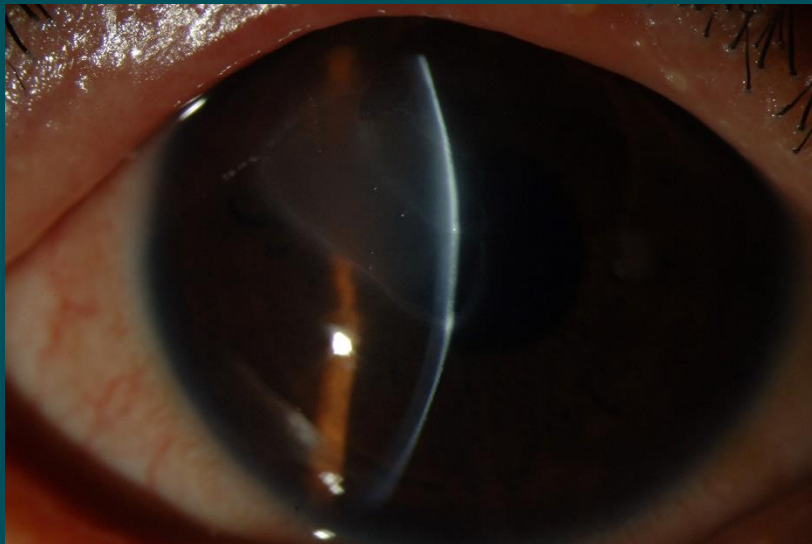
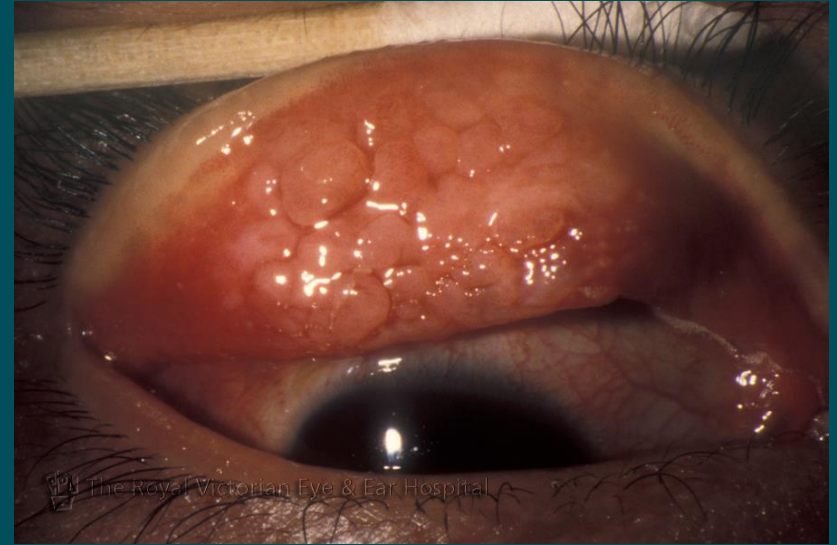
What does a good bleb look like?

- Diffusely raised
- Microcysts
- Absence of thinning
 - Infection risk
 - Rupture, leak



Vernal keratoconjunctivitis

- Classic papillary changes
- Limbal inflammation
- Easy not to examine
 - Sub tarsal
 - Superior cornea (sight threatening)



Child 8yo

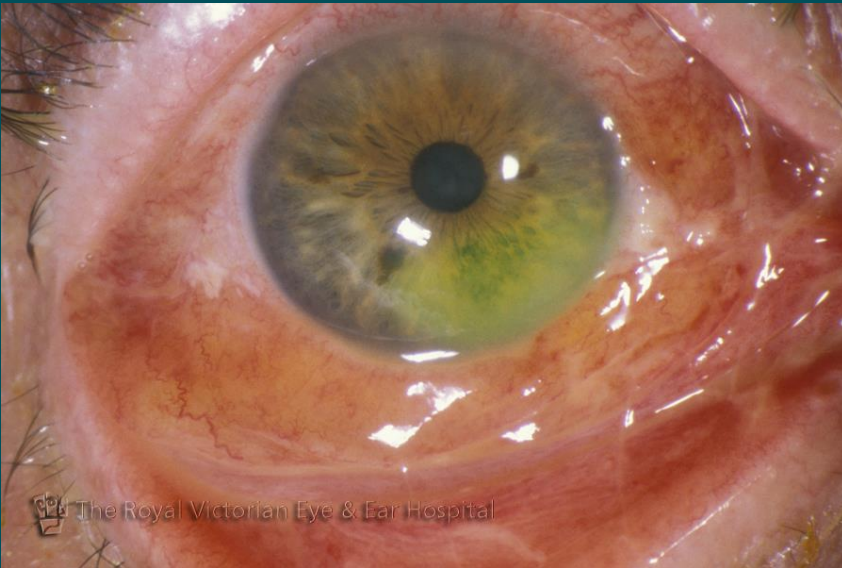
- Red sore eye
- Diet: ASDA fair cakes
- What do you see?
- ?Cause
- Other symptoms?



Q12: Acute sore eye

24yo male

- Acute onset red sore eye, no other history
- Otherwise normal corneal exam OU
- December
- Albury Wodonga
- What do you see?
- What is your diagnosis?
 1. Traumatic Corneal epithelial defect
 2. Christmas eye
 3. Recurrent corneal erosion syndrome
 4. Microbial keratitis



Common finding in Melbourne

What is your diagnosis?

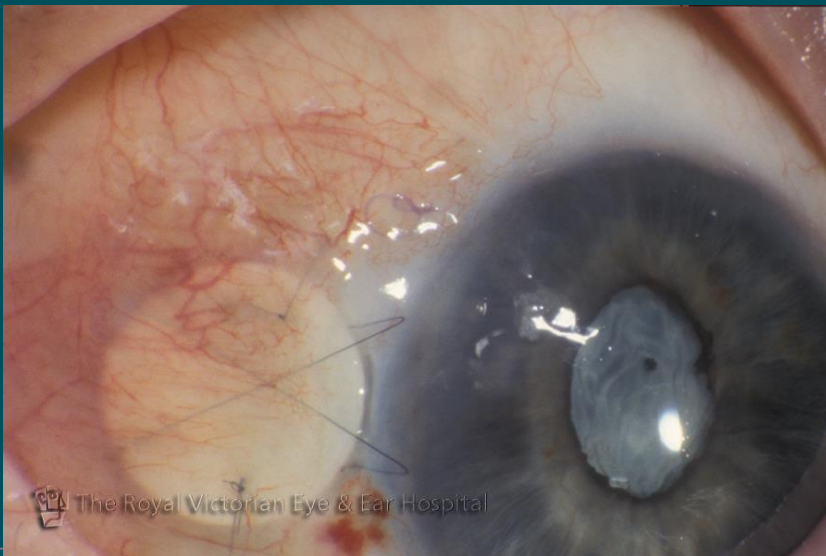
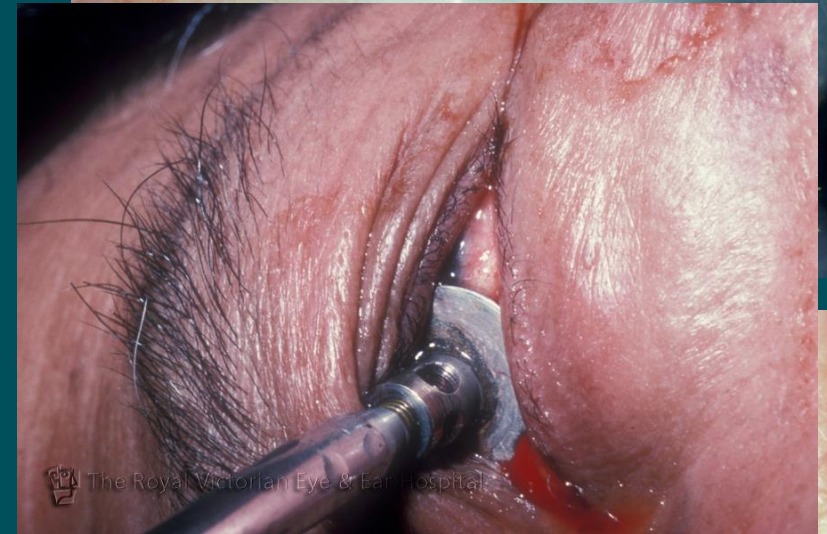
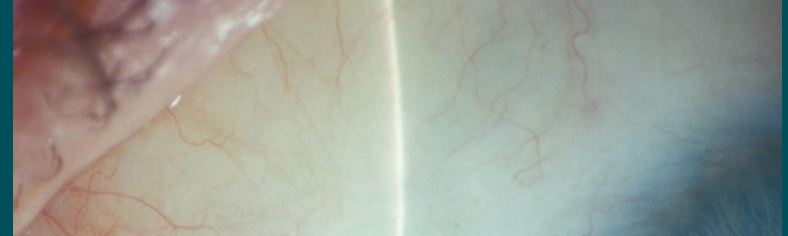
- Scleral malacia following pterygium surgery

Why?

- β radiation

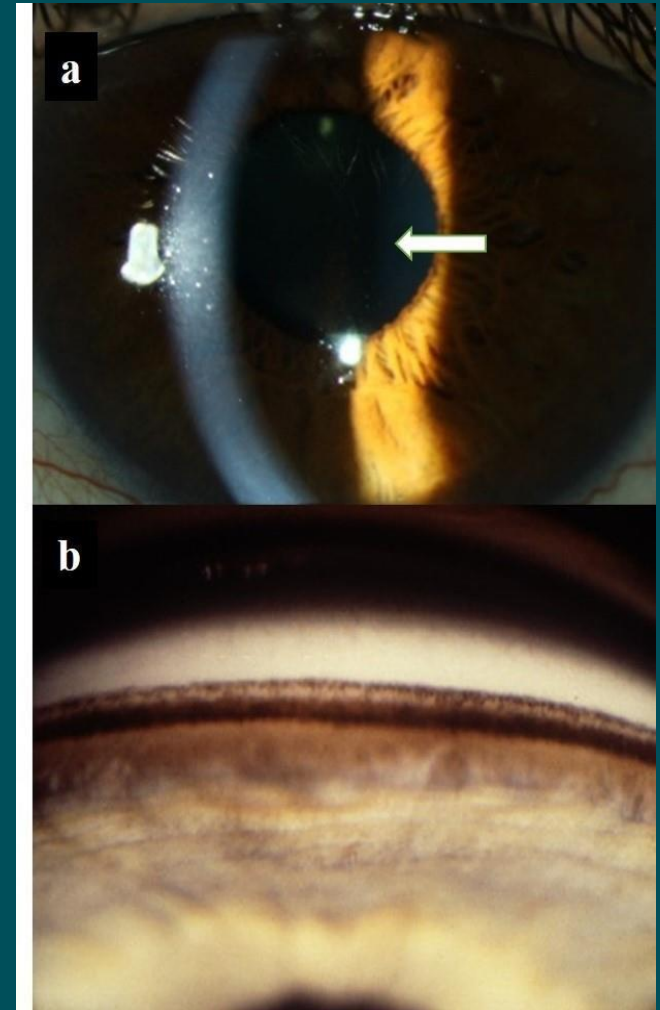
Treatment:

- Lubricants
- g CPL & oc CPL if CED
- Patch graft: indications



Diagnoses that can be easily missed?

Pigment dispersion syndrome



Diagnoses that can be easily missed?

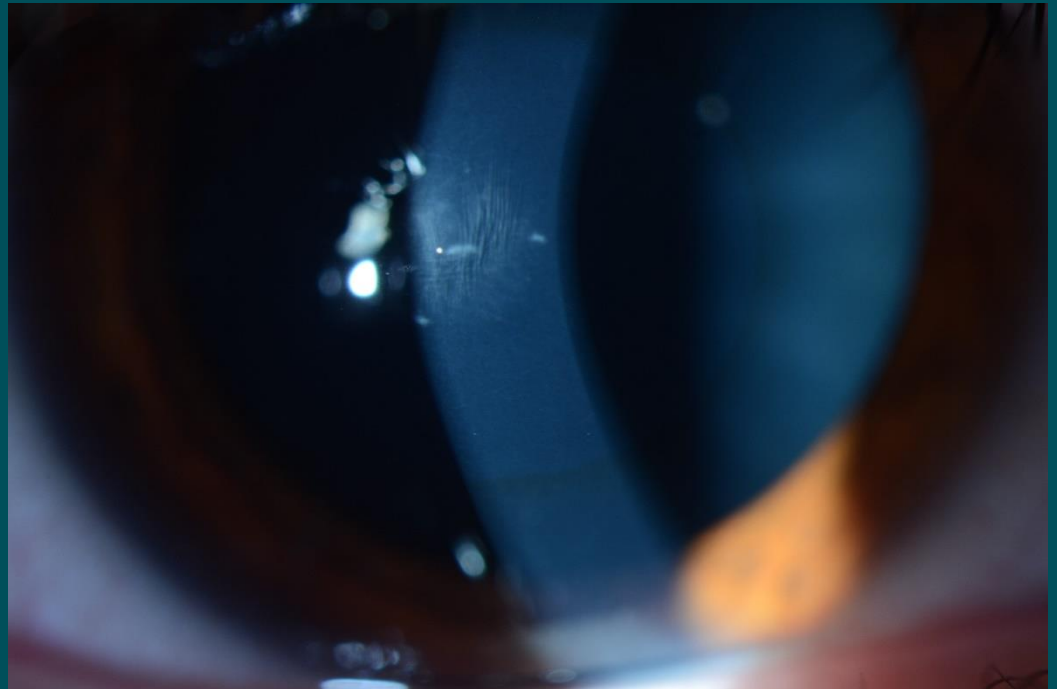
PXF

- Dilated pupil
- Undilated pupil



Diagnoses that can be easily missed?

- Keratoconus
 - Topography changes
 - Examination findings also
 - Can function at a very



Q13: What is your diagnosis

28 yo male

Allergic history

3 day history of sore eye and
epiphora

What is your most likely diagnosis?

1. Stromal keratitis
2. Hydrops
3. Keratoglobus
4. Microbial keratitis



Diagnoses that can be easily missed?

OCP/mucous membrane pemphigoid

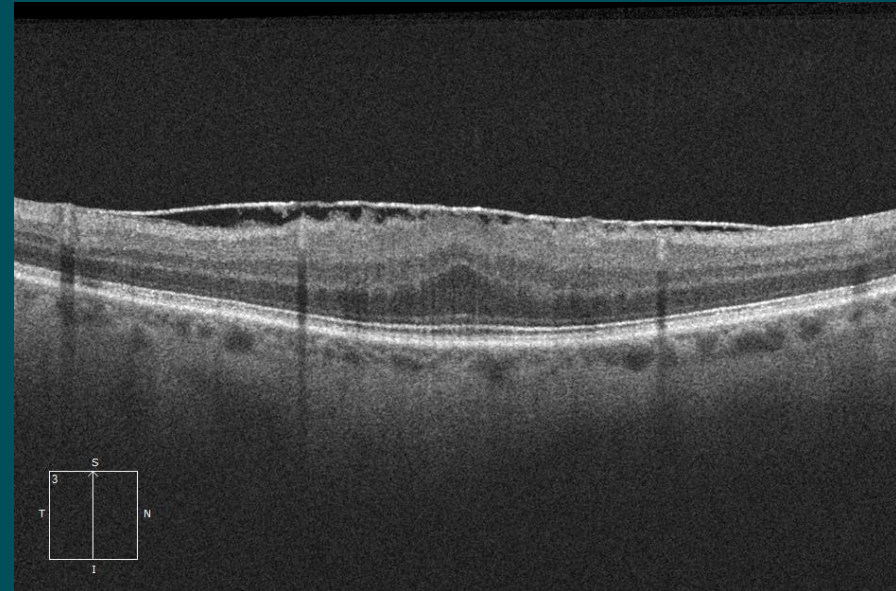
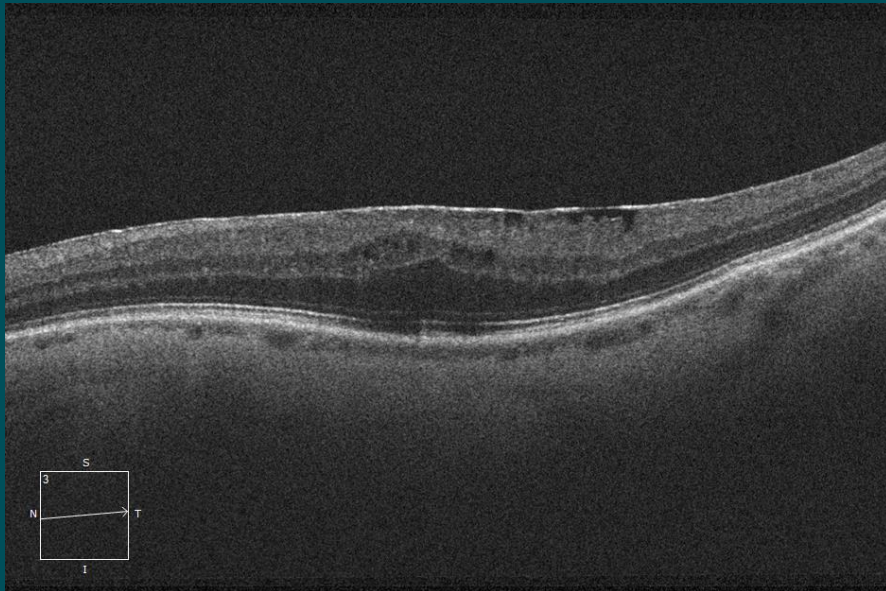
- Fornix shortening
- Plica loss
- Systemic treatment



I don't know why you can't see

Epiretinal membrane

- 3 tests if you can't find a cause for reduced vision
 1. OCT
 2. Corneal topography
 3. VF



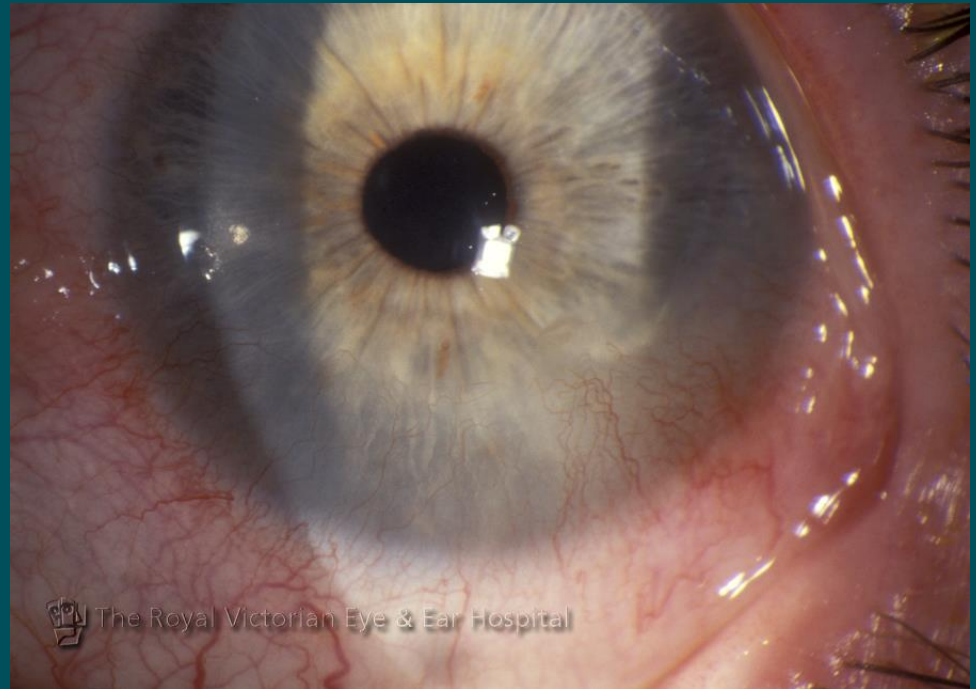
Diagnoses that can be easily missed?

OSA (sleep apnoea)

- ↑ weight
- Keratoconus
- Chronic sore eye
- Floppy eyelids
- OHT
- 2 cases in last week

Diagnoses that can be easily missed?

- What are your findings?
- Rosacea



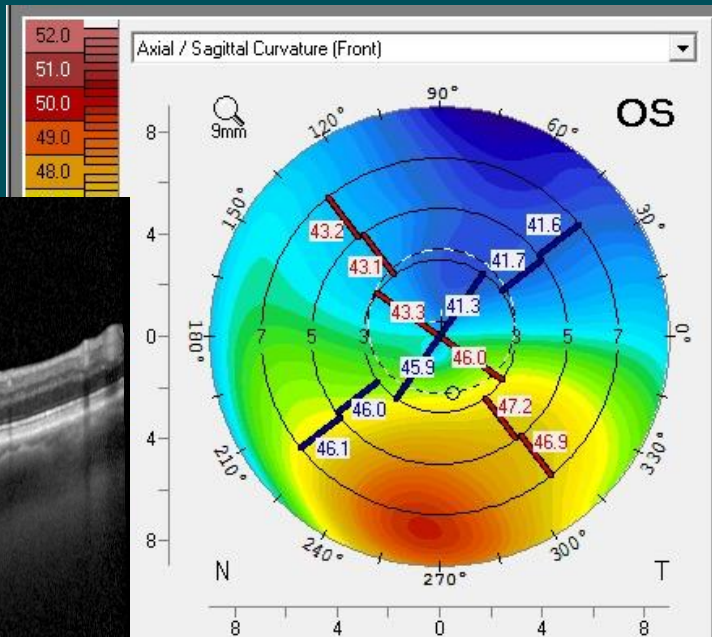
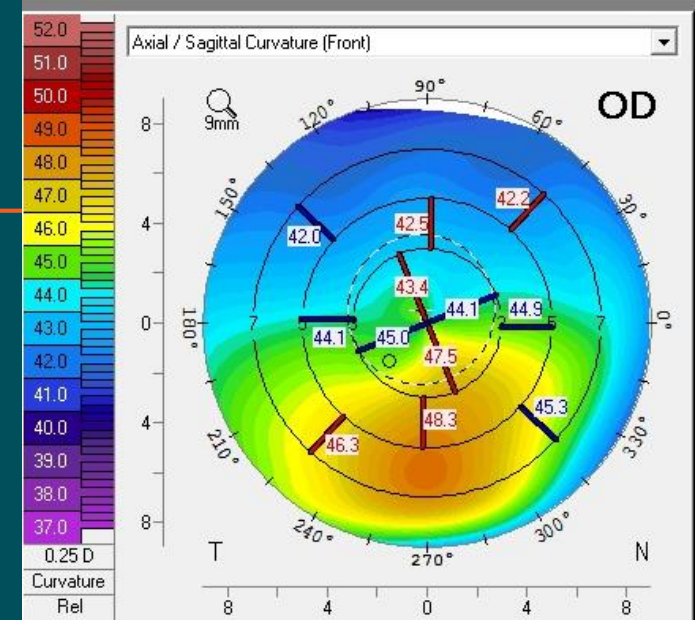
Herpes Zoster Ophthalmicus

- Pseudodendrites
- Anterior uveitis
- Chronic neurotrophic corneal
- Must dilate
- Can lose eye
- 6/12ly review?

Post cataract surgery

Cataract 60yo Male

- Referral: “Left myopic shift”
- Patient: “Glare”
- No distance glasses, only readers
- Right: 6/19
 - 0.25/-0.50 x 125: 6/7.5
- Left 6/19
 - -1.00/-1.75 x 70: 6/12



Refractive aim?

- No distance glasses, only readers
- Right: 6/19
 - 0.25/-0.50 x 125: 6/7.5
- Left 6/19
 - -1.00/-1.75 x 70: 6/12

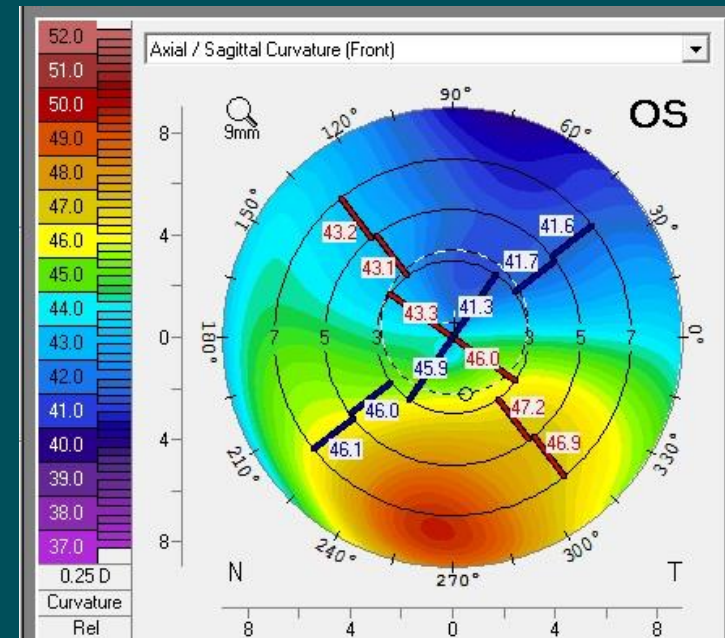
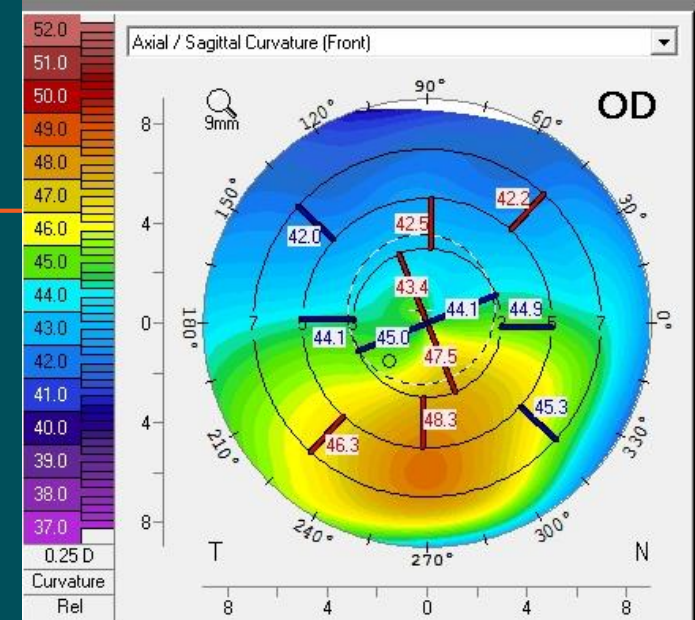
What is your recommended refractive aim?

Considerations:

- Refractive outcomes in KCN
- Loss of intermediate range vision (patients can underestimate)

Recommendations please:

- Emmetropia (plano to -1.00)
- Intermediate myopia (~-1.50)
- Reading vision myopia (~-3.00)

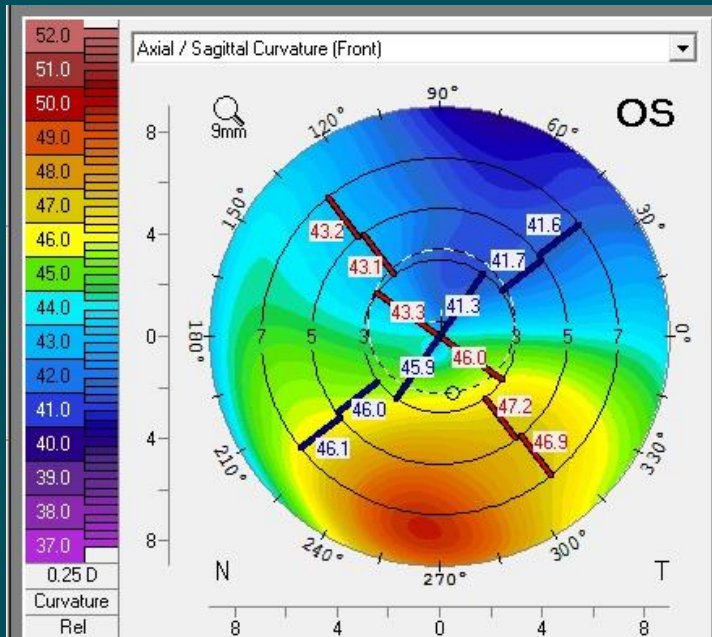
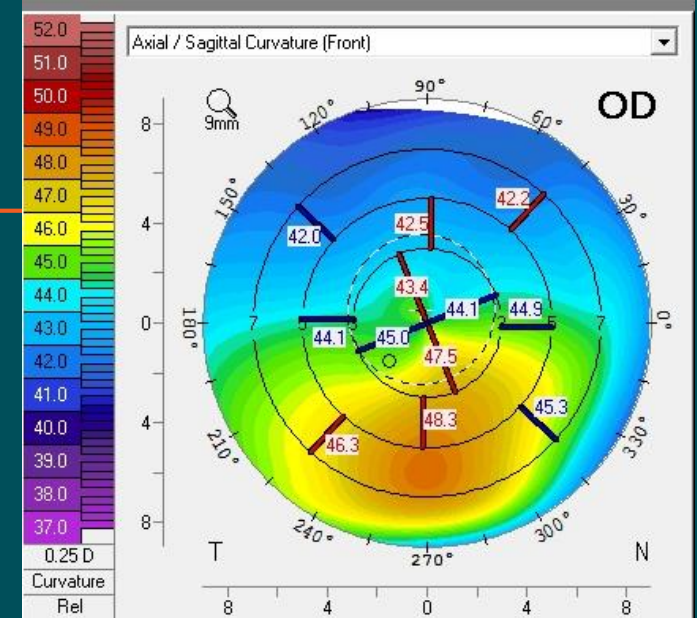


Refractive aim?

Date of calibration test: 29/05/2019 by: Operator Result: OK
Date of measurement: 29/05/2019 n: 1.3375 CVD: 12.00 mm
Formula: Haigis Suite

Calc: -1.50DS AIM

OD right		IOL calculation		OS left	
		(I) Indicates an uncertain measurement value. (*) Indicates that this value has been edited manually. -- Indicates a measurement failure.			
AL: 23.52 mm ACD: 3.52 mm LT: 4.34 mm SE: 44.90 D K1: 44.56 D @ 40° Ref: +0.25 D +0.50 D @ 25° Target ref: -1.50 D LS: Phakic; VS: Vitreous body; LVC: Untreated; LVC mode: -	(SD = 9 µm) (SD = 7 µm) (SD = 8 µm)	WTW: 12.4 mm Δ D: +0.69 D @ 130° K2: 45.25 D @ 130° VA: --- SIA: +0.10 D @ 200°		AL: 23.60 mm ACD: 3.58 mm LT: 4.28 mm SE: 44.28 D K1: 43.56 D @ 67° Ref: -1.75 D +1.75 D @ 160° Target ref: -1.50 D LS: Phakic; VS: Vitreous body; LVC: Untreated; LVC mode: -	(SD = 5 µm) (SD = 3 µm) (SD = 6 µm) Δ D: +1.46 D @ 157° K2: 45.03 D @ 157° VA: --- SIA: +0.00 D @ 0°
Alcon Alcon SN60WF		Alcon Toric SN6AT(2-9)		Alcon Alcon SN60WF	
A0: -0.769 A1: +0.234 A2: +0.217		A0: -0.323 A1: +0.213 A2: +0.208		A0: -0.769 A1: +0.234 A2: +0.217	
IOL (D) +22.50 +22.00 +21.50 +21.00 +20.50 +19.60	Ref (D) -2.07 -1.70 -1.34 -0.98 -0.63 Emme.	IOL (D) +23.00 +22.50 +22.00 +21.50 +21.00 +19.90	Ref (D) -2.18 -1.82 -1.46 -1.11 -0.76 Emme.	IOL (D) +23.50 +23.00 +22.50 +22.00 +21.50 +20.23	Ref (D) -2.35 -1.98 -1.61 -1.25 -0.89 Emme.
Alcon MTA4UO		Alcon AcrySof MA60AC		Alcon MTA4UO	
A0: -0.705 A1: +0.400 A2: +0.100		A0: +0.229 A1: +0.011 A2: +0.205		A0: -0.705 A1: +0.400 A2: +0.100	
IOL (D) +19.00 +18.50 +18.00 +17.50 +17.00 +16.23	Ref (D) -2.32 -1.89 -1.46 -1.05 -0.63 Emme.	IOL (D) +22.50 +22.00 +21.50 +21.00 +20.50 +19.47	Ref (D) -2.17 -1.80 -1.44 -1.08 -0.72 Emme.	IOL (D) +19.50 +19.00 +18.50 +18.00 +17.50 +16.77	Ref (D) -2.28 -1.85 -1.43 -1.01 -0.59 Emme.
Alcon AcrySof MA60AC		Alcon AcrySof MA60AC		Alcon AcrySof MA60AC	
A0: +0.229 A1: +0.011 A2: +0.205		A0: +0.229 A1: +0.011 A2: +0.205		A0: +0.229 A1: +0.011 A2: +0.205	
IOL (D) +23.00 +22.50 +22.00 +21.50 +21.00 +20.07	Ref (D) -2.10 -1.73 -1.36 -1.02 -0.67 Emme.	IOL (D) +23.00 +22.50 +22.00 +21.50 +21.00 +20.07	Ref (D) -2.10 -1.73 -1.36 -1.02 -0.67 Emme.	IOL (D) +23.00 +22.50 +22.00 +21.50 +21.00 +20.07	Ref (D) -2.10 -1.73 -1.36 -1.02 -0.67 Emme.
Comment		Signature <i>BK.</i>		ZEISS	

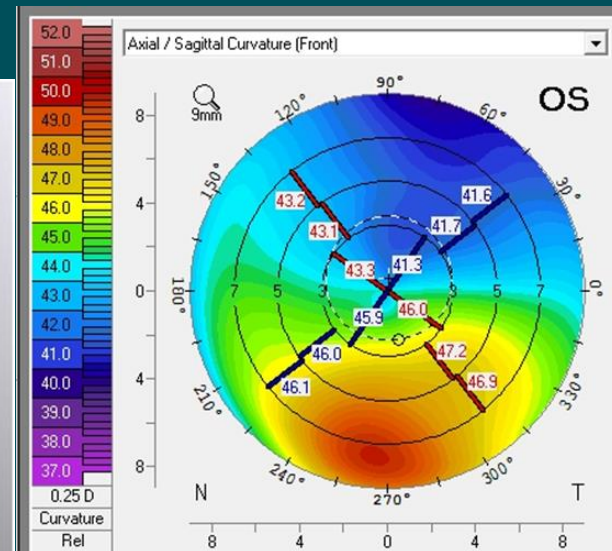


Surgery

- Uneventful surgery
- Alcon T4 23.0D (2.25D in IOL plane, 1.5D in corneal plane)
- IOL @ 160

Post op

- UCVA: 6/15
- -2.25/-0.75 x 178: 6/9+
- IOL @ 157



Counselling

- Repeat in writing ?letter
- Better to deal with disappointment pre surgery
- Be consistent with prognosis
- Patients may inadvertently forget some discussion
- “My friend had this”



Recurrent corneal erosion syndrome

Expectations

- May still get pain/erosions
- Need to continue drops
- PTK doesn't cure

Post refractive surgery

- R/O CL
- LASIK

