

# Complications of Laser Treatments: Now What?

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# Administrative

- Financial disclosures: Telasight, inc., Allergan, inc.
- COPE: 86629-LP

# Case 1

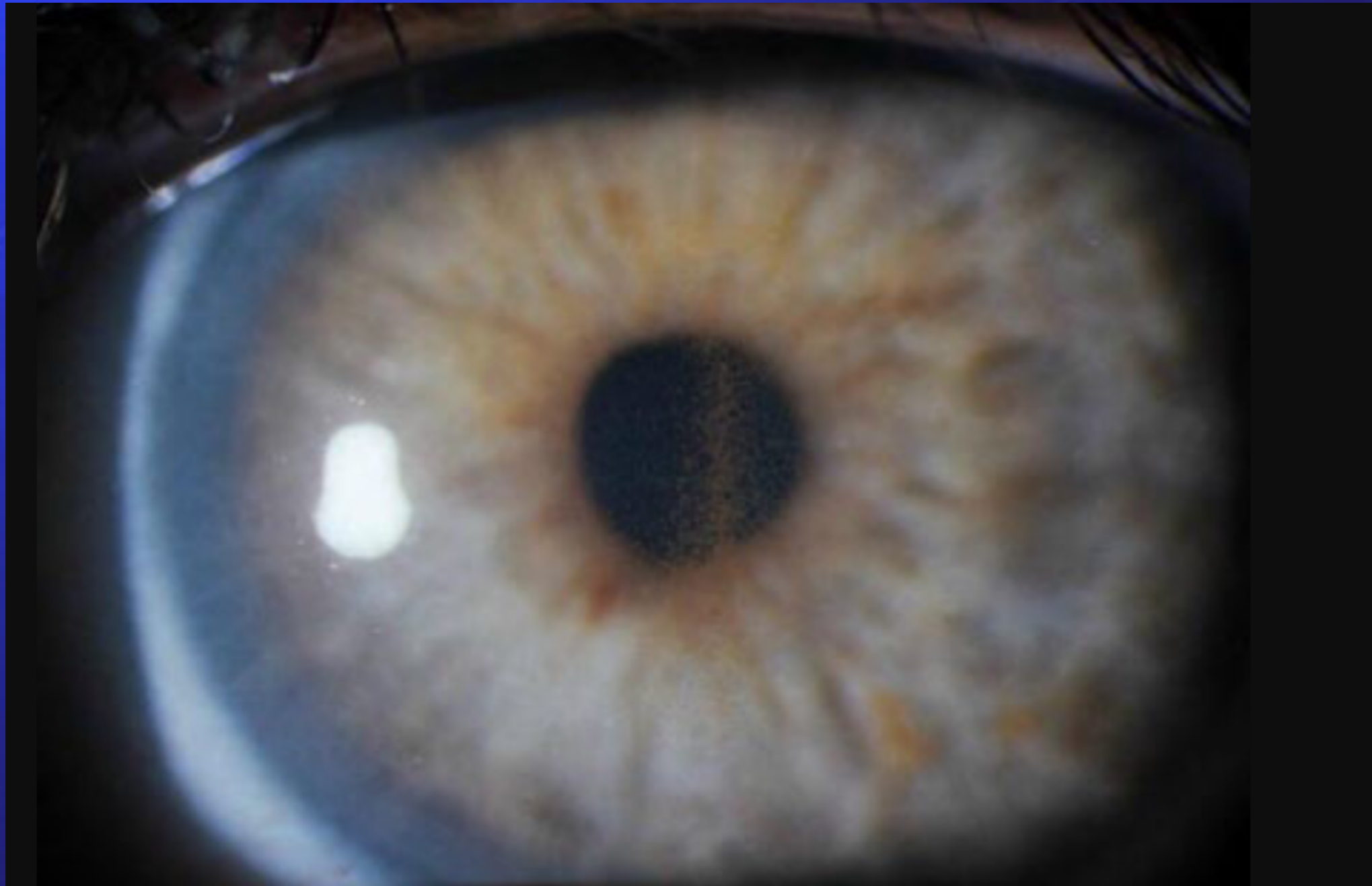
- 67 yo AA male
- CC: 4 months Glaucoma follow up
- Medical Hx: HTN, DM 2, COPD, RA
- Ocular Hx: Glaucoma
- Ocular Meds: latanoprost qhs OU and simbrinza bid OU

# Case 1

- VA OD:20/20 OS:20/20
- EOM: Full
- CF OD: Full OS: nasal constriction
- IOP OD: 16 OS: 24
- Pachs OD: 553 OS: 546

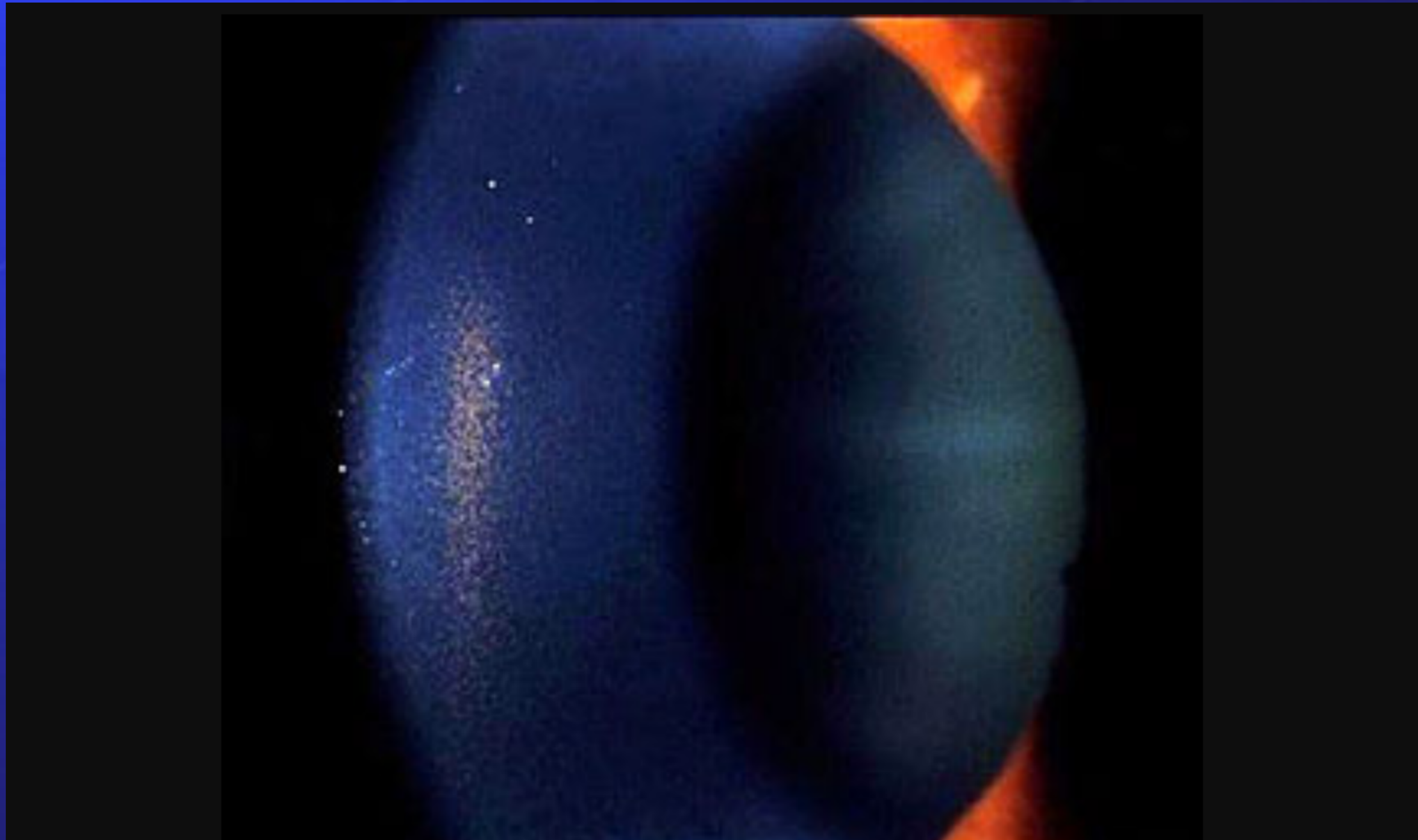
# Case 1

- Slit Lamp: See photo



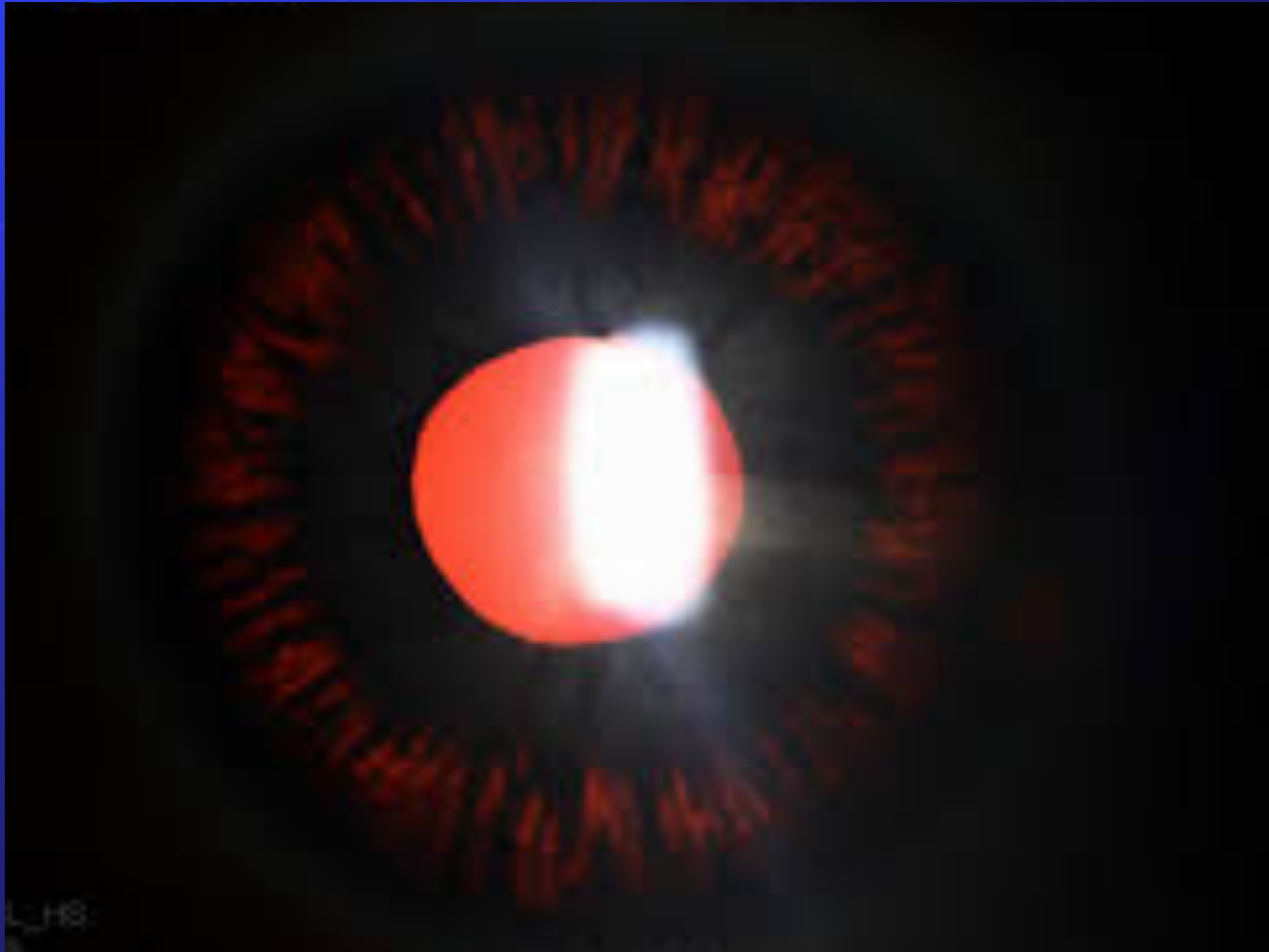
# Case 1

- Slit Lamp: See photo



# Case 1

- Slit Lamp: See photo



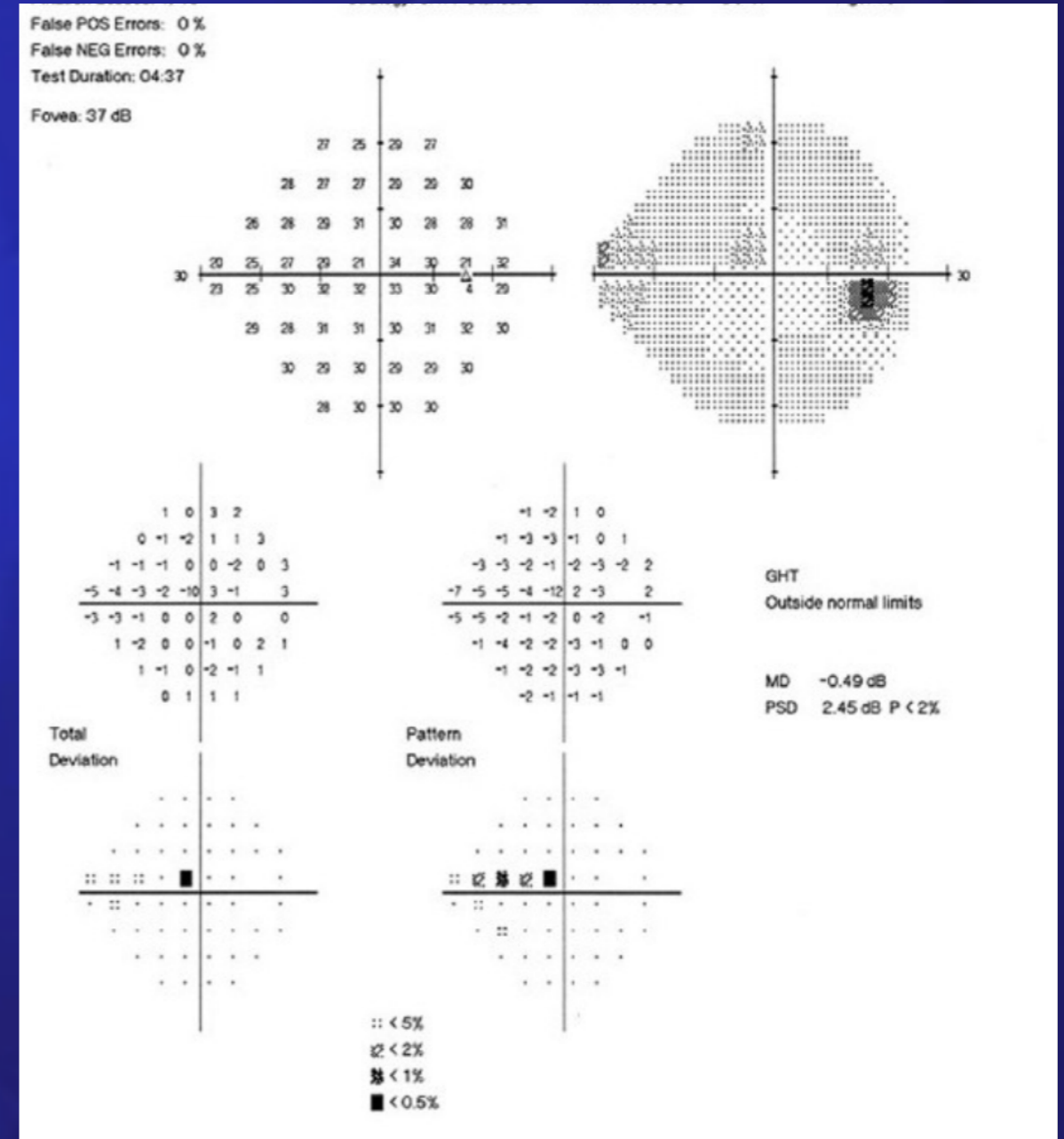
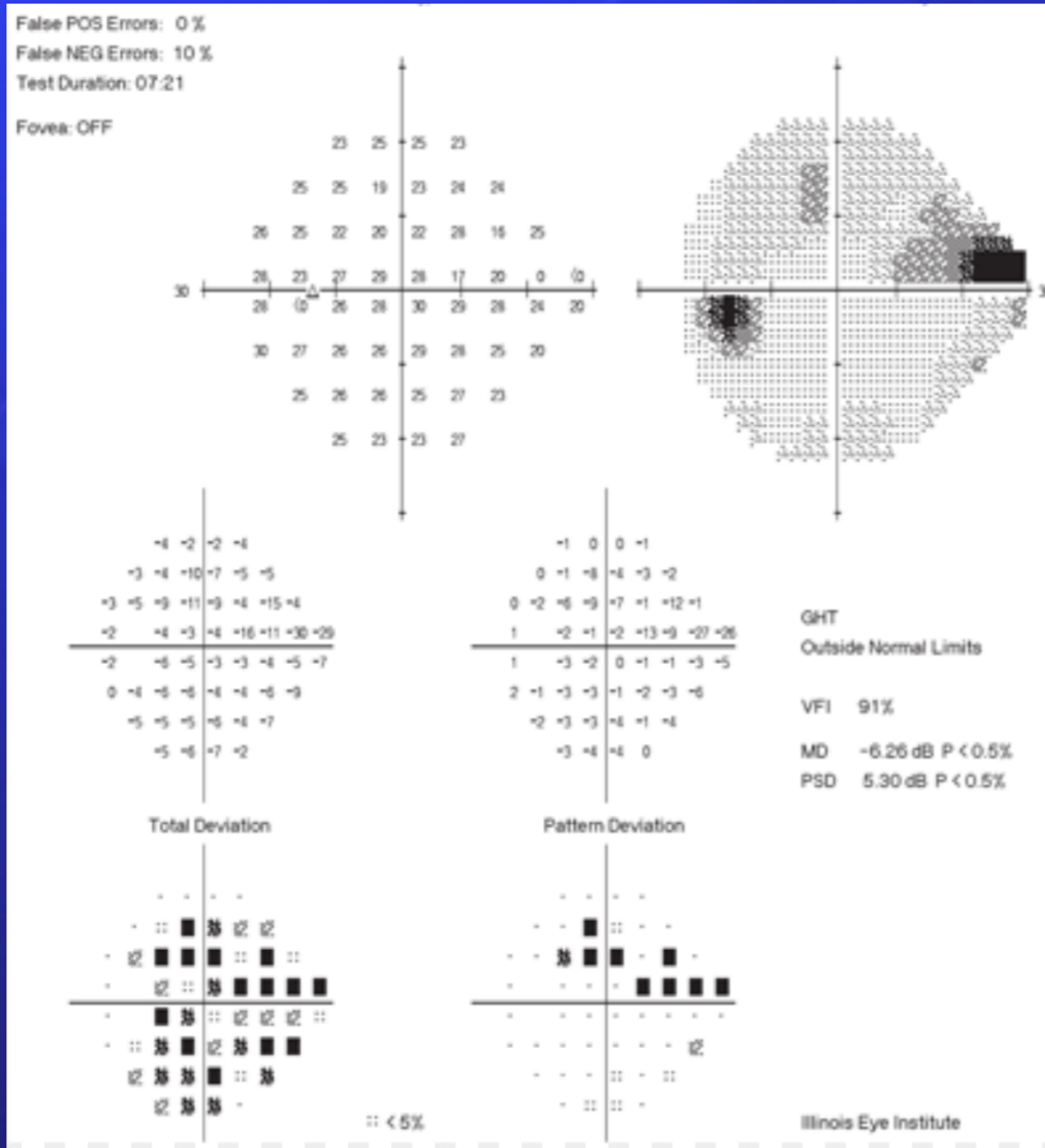
# Case 1

- DFE: retina flat OU
- CD OD: 0.6 OS: 0.75
- Next test?
- Next step?



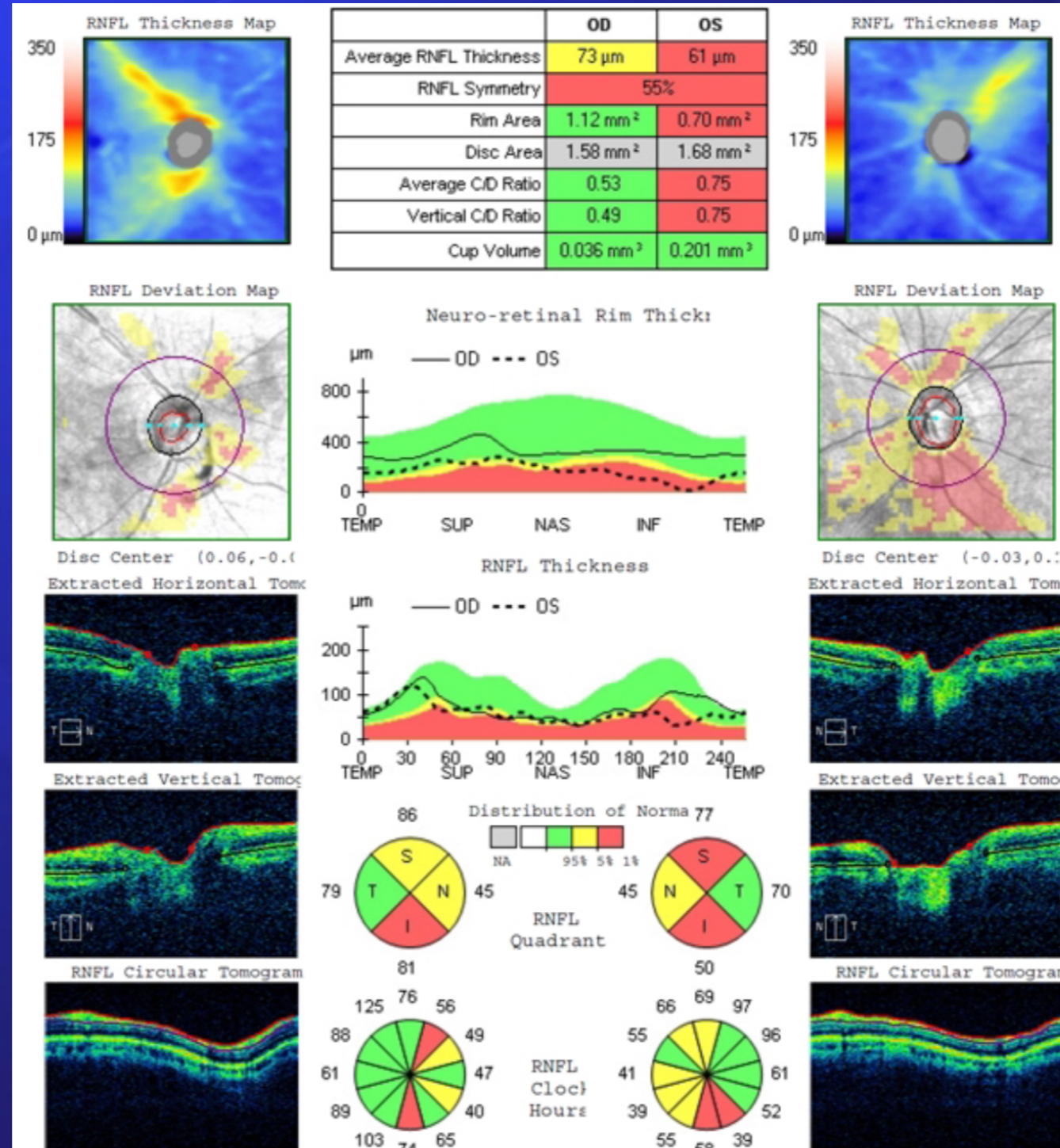
# Case 1

- Visual field:



# Case 1

- OCT:



# Case 1

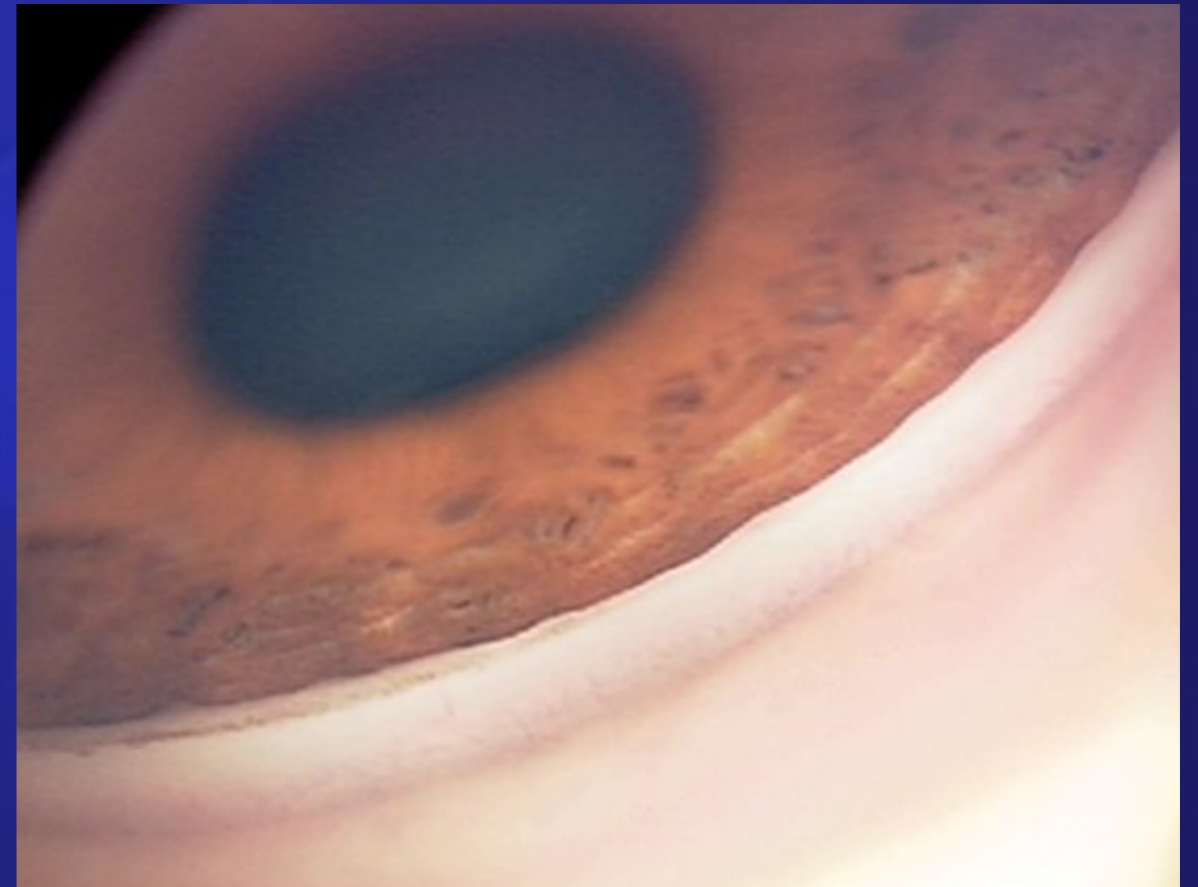
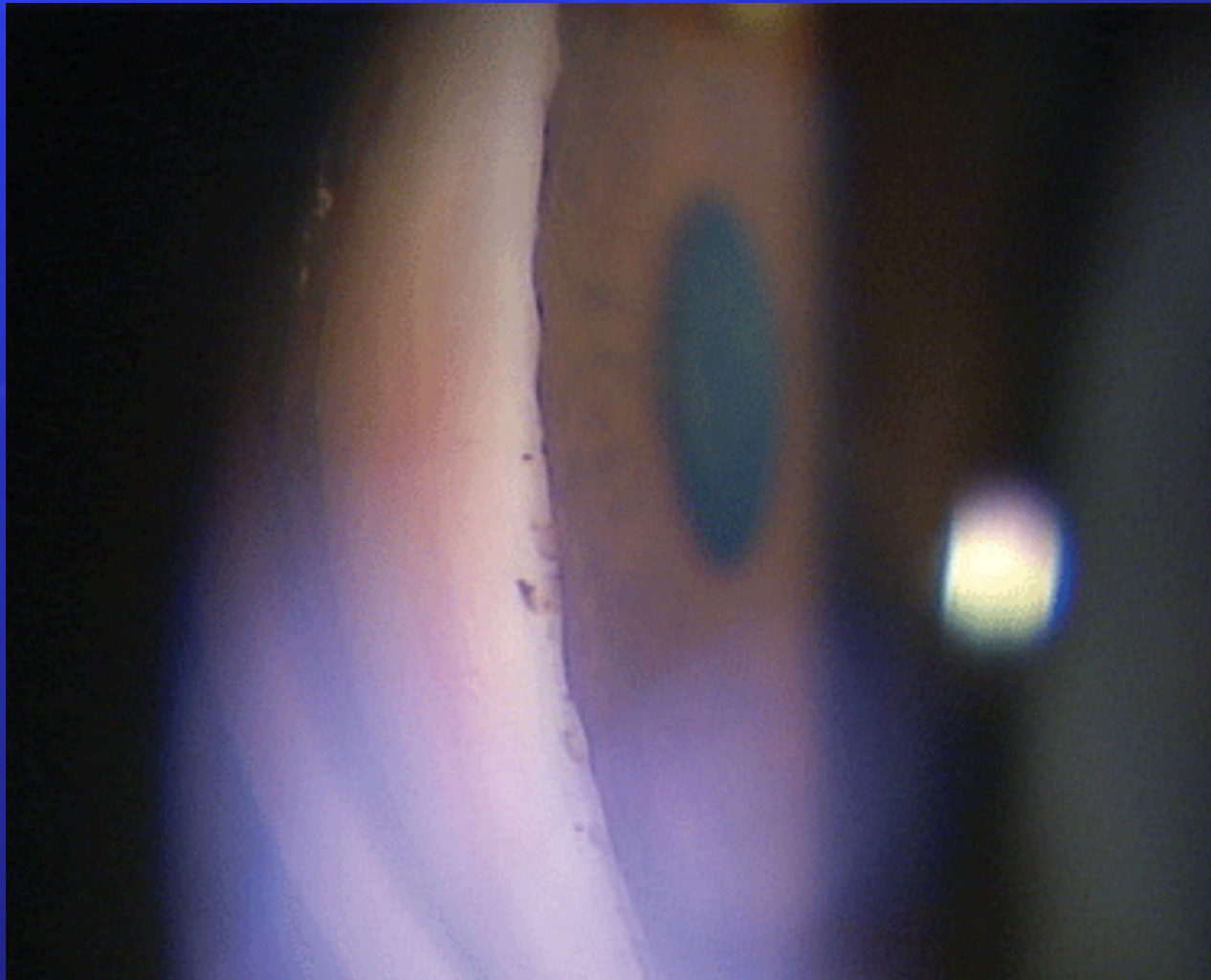
- Unknown untreated max IOP
- Target?

# Case 1

- Set target at mid teens OU
- Next test?
- Treatment?

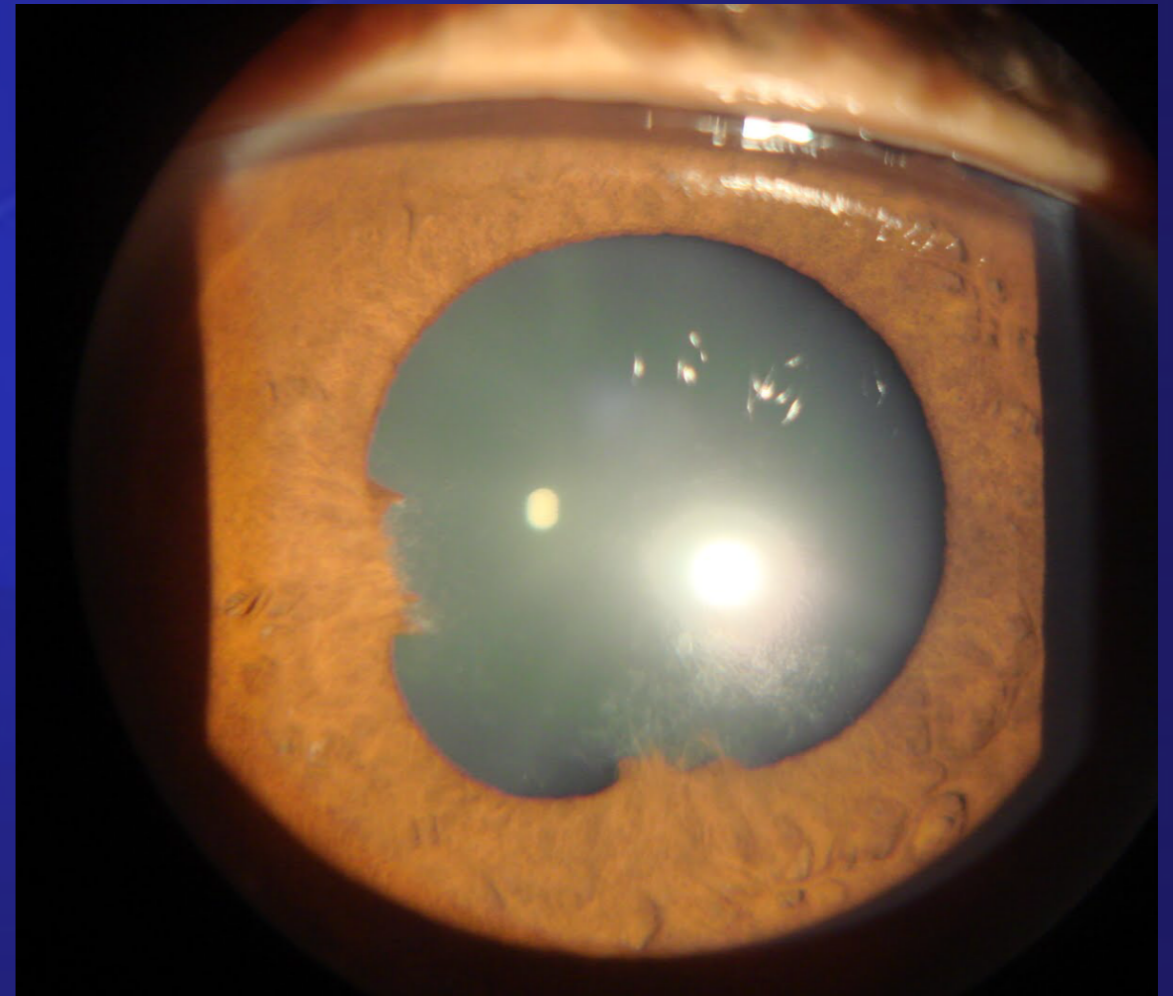
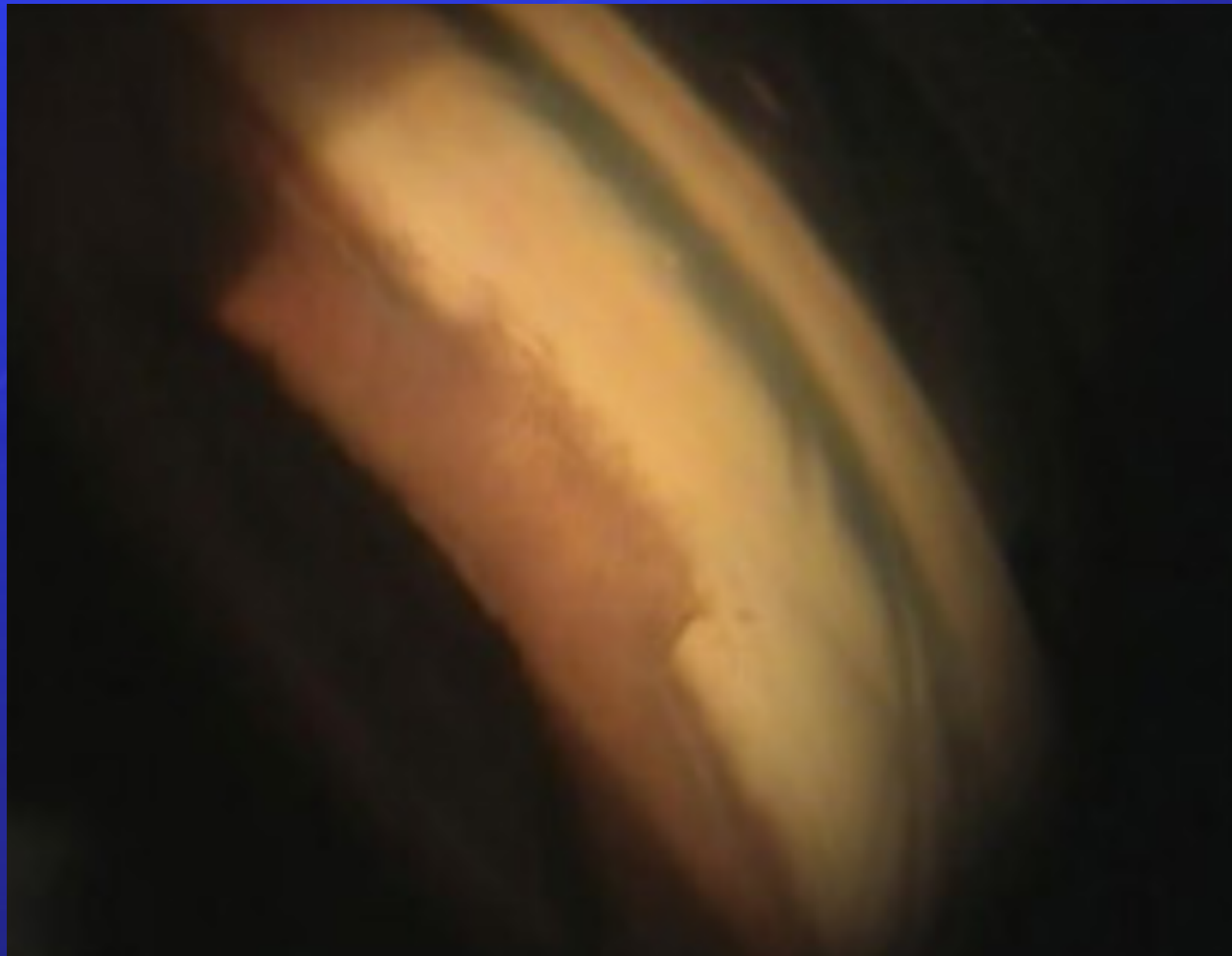
# Case 1

- Gonio: see photo



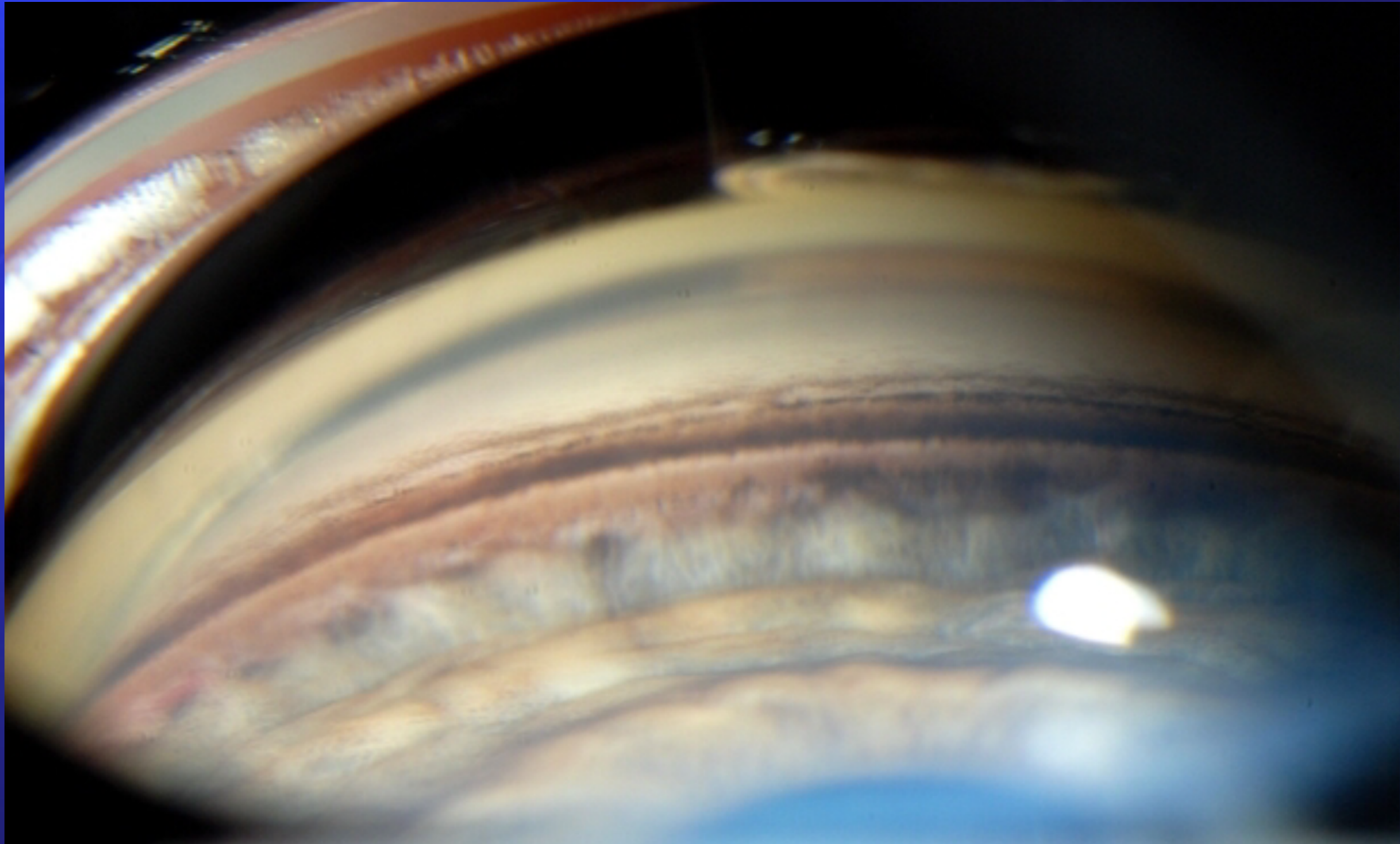
# Case 1

- What if gonio looked like this?



# Case 1

- Ok their gonio really looks like this: see photo

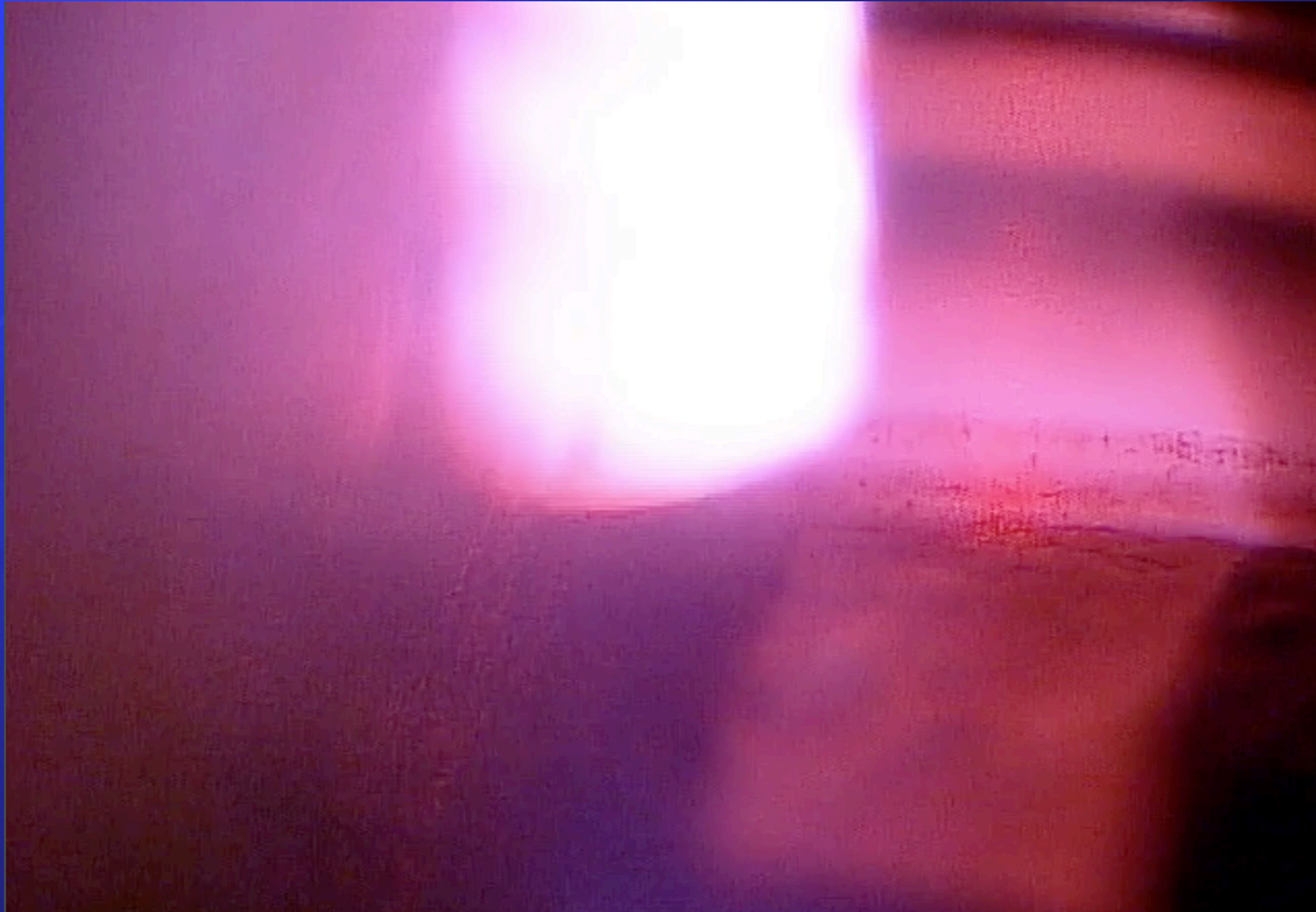


# Case 1

- Perform SLT OS
- Brimonidine 0.2% pre op



# SLT Video



# Case 1

- Operation note
- 105 spots
- 0.8 mj per spot
- Total energy 84 mj
- Diclofenac 0.1% tid x 3 days

# Case 1

- IOP 1 hour after procedure OS: 36!
- Now what?

# Case 1

- Give drop of latanoprost and simbrinza
- Recheck in 30 mins
- IOP 30 mins later OS: 39!
- It went up!
- Now what?

# Case 1

- What is the next thing we need to ask?
- Any allergies?
- “No.”
- Give 1000 mg diamox, another drop of latanoprost and simbrinza
- Give Rhopressa (netarsudil 0.02%)
- Also give timolol 0.5% with punctal occlusion (one drop in the office isn't going to cause prolonged breathing problems)
- Recheck IOP in 1 hour

# Case 1

- IOP in 1 hour OS: 32
- Ok its heading down
- Now what?
- Recheck in 1 day
- IOP at 1 day post op OS: 24
- Great! See you in 6 weeks to see if SLT worked

# Case 1

- But .... patient calls 6 days later
- “My eye hurts. It’s red, painful, and I can’t see out of it. There are a lot of halos around lights.”
- Work patient into schedule to be seen that day

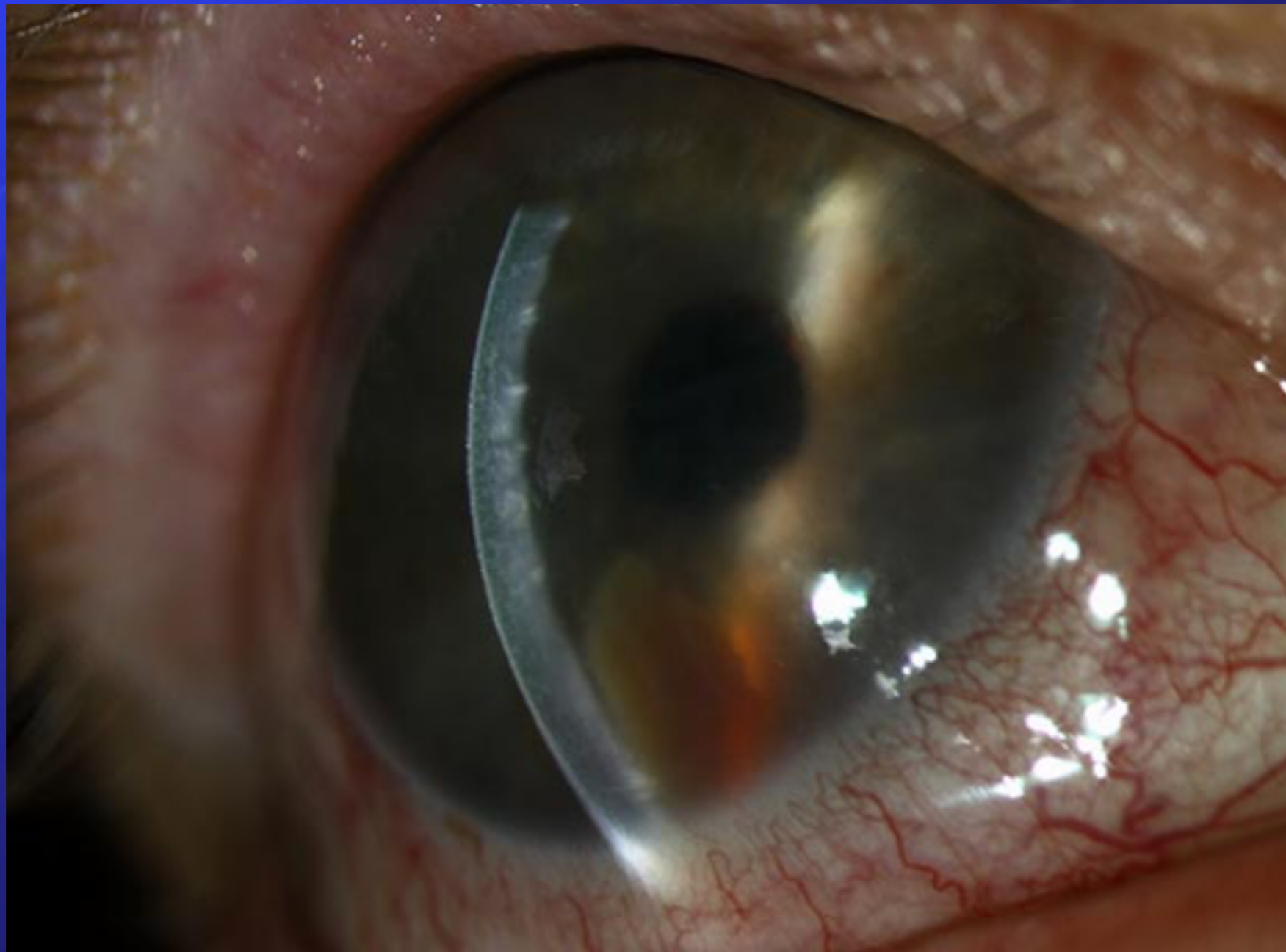
# Case 1

- VA OD:20/20 OS:20/50
- EOM: Full
- CF OD: Full OS: nasal constriction
- IOP OD: 16 OS: 49



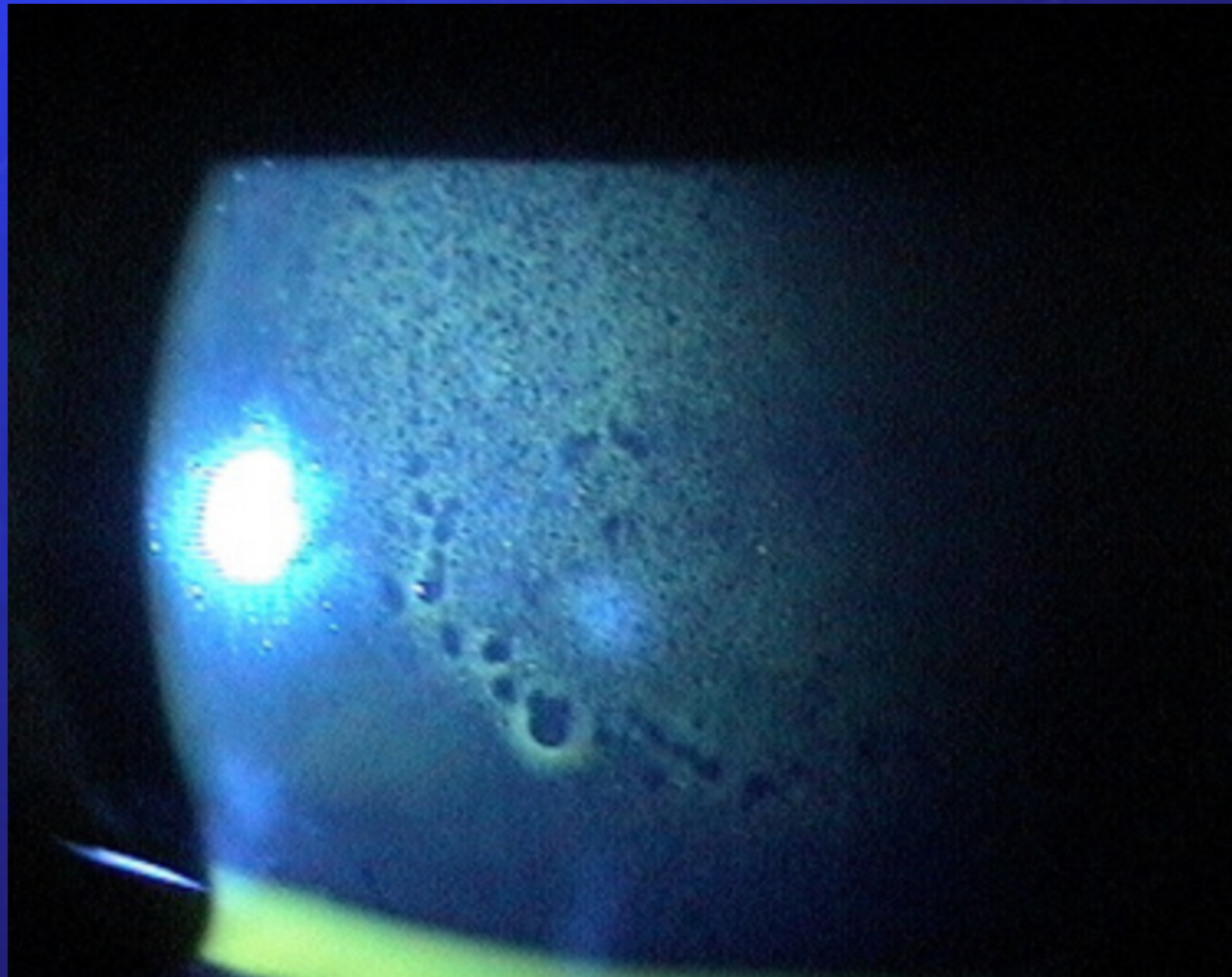
# Case 1

- Slit lamp: see photo



# Case 1

- Slit lamp: see photo



# Case 1

- Slit lamp: see photo

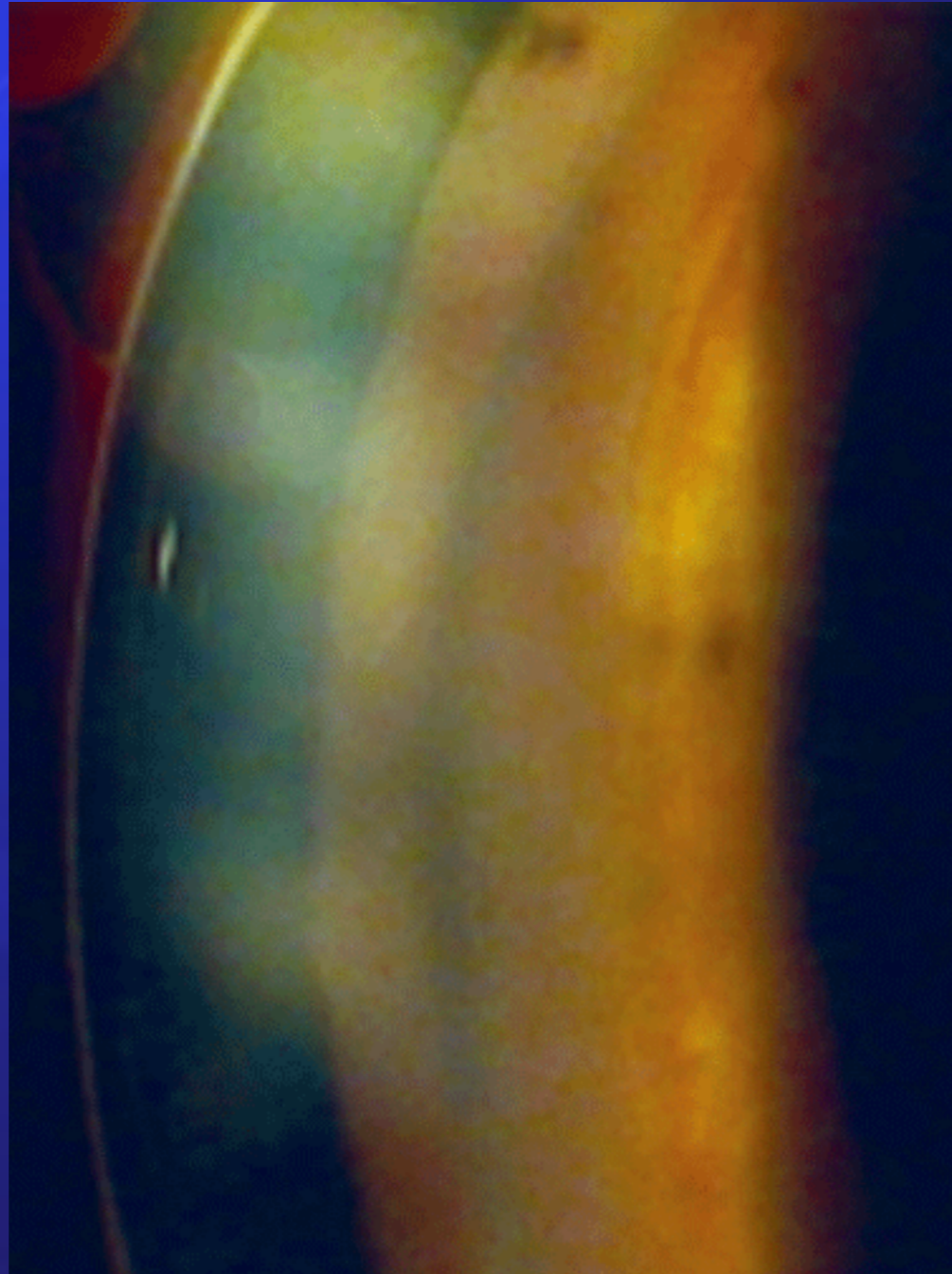


# Case 1

- Now what?
- Corneal edema, uveitis, IOP spike
- Next test?

# Case 1

- Gonio: see photo

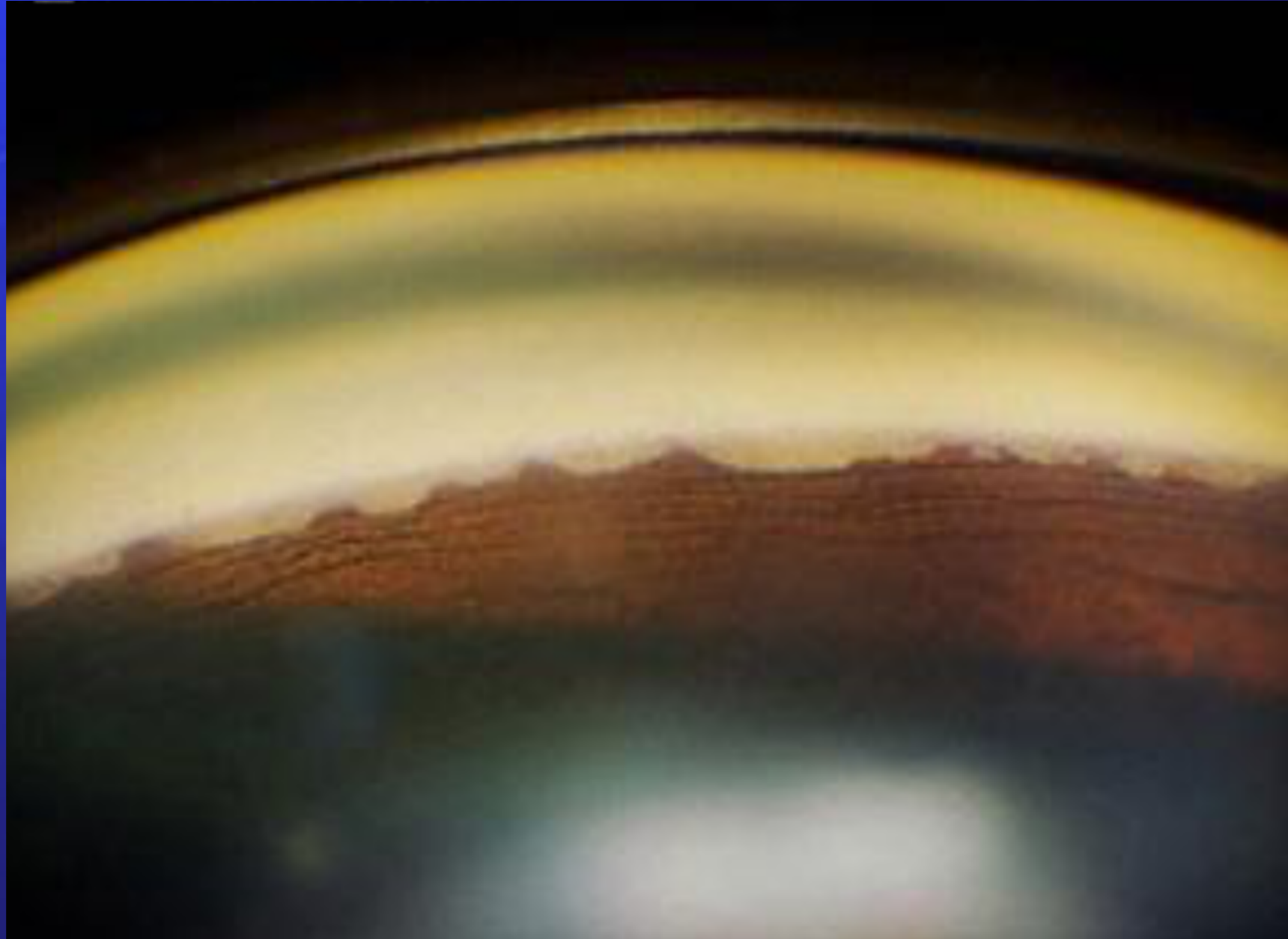


# Case 1

- Gonio: can't see anything, now what?
- Topical glycerin

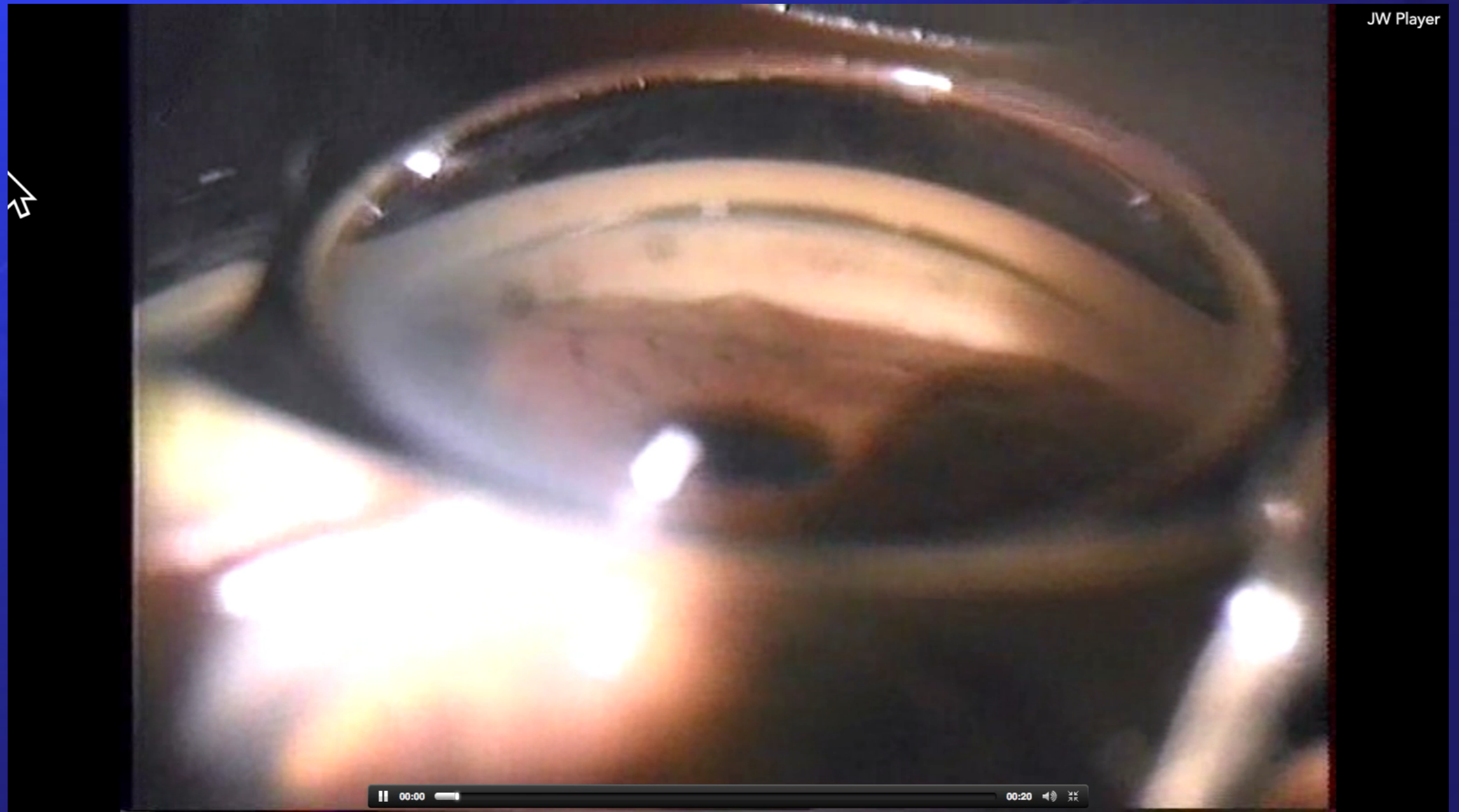
# Case 1

- Gonio: now see photo



# Case 1

- Gonio: now see video





# Case 1

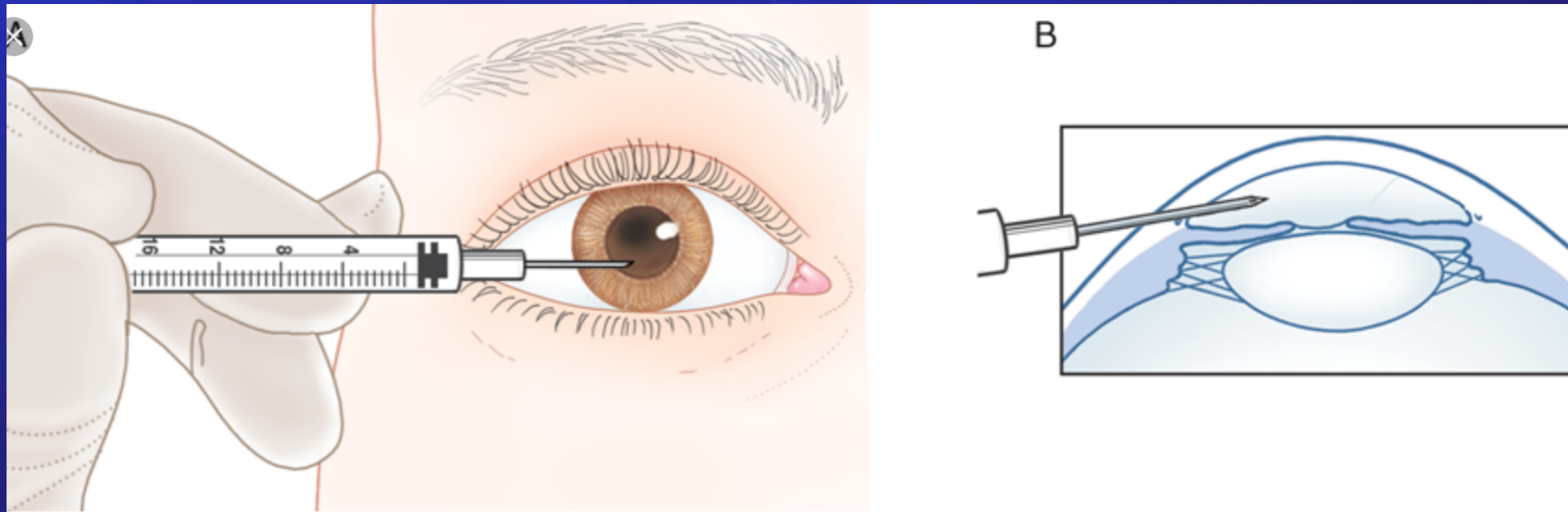
- Next treatment?
- Everything.
- 1000 mg Diamox, latanoprost, simbrinza, timolol 0.5%, Rhopressa, durazol (would give drops every 5 minutes)
- Recheck IOP in 1 hour
- IOP in 1 hour OS: 47
- Now what?

# Case 1

- Paracentesis
- Lid speculum, proparacaine, betadine before and after
- Ocuflax qid x 3 days

# Case 1

- 30g needle, bevel up, tangential to iris, longest track as possible, count to 30
- Rechecked IOP in 30 min
- IOP in 30 mins OS: 10



# Case 1

- Recheck IOP in 1 day
- IOP in 1 day OS: 15
- Stop diamox, stop timolol
- Taper durazol qid x 1 week, tid x 1 week, bid x 1 week, qd x 1 week
- Continue latanoprost and simbrinza
- Recheck IOP in 1 week

# Case 1

- What if patients IOP was back up to 45 on 1 day IOP check?
- Schedule for tube shunt

# Case 1

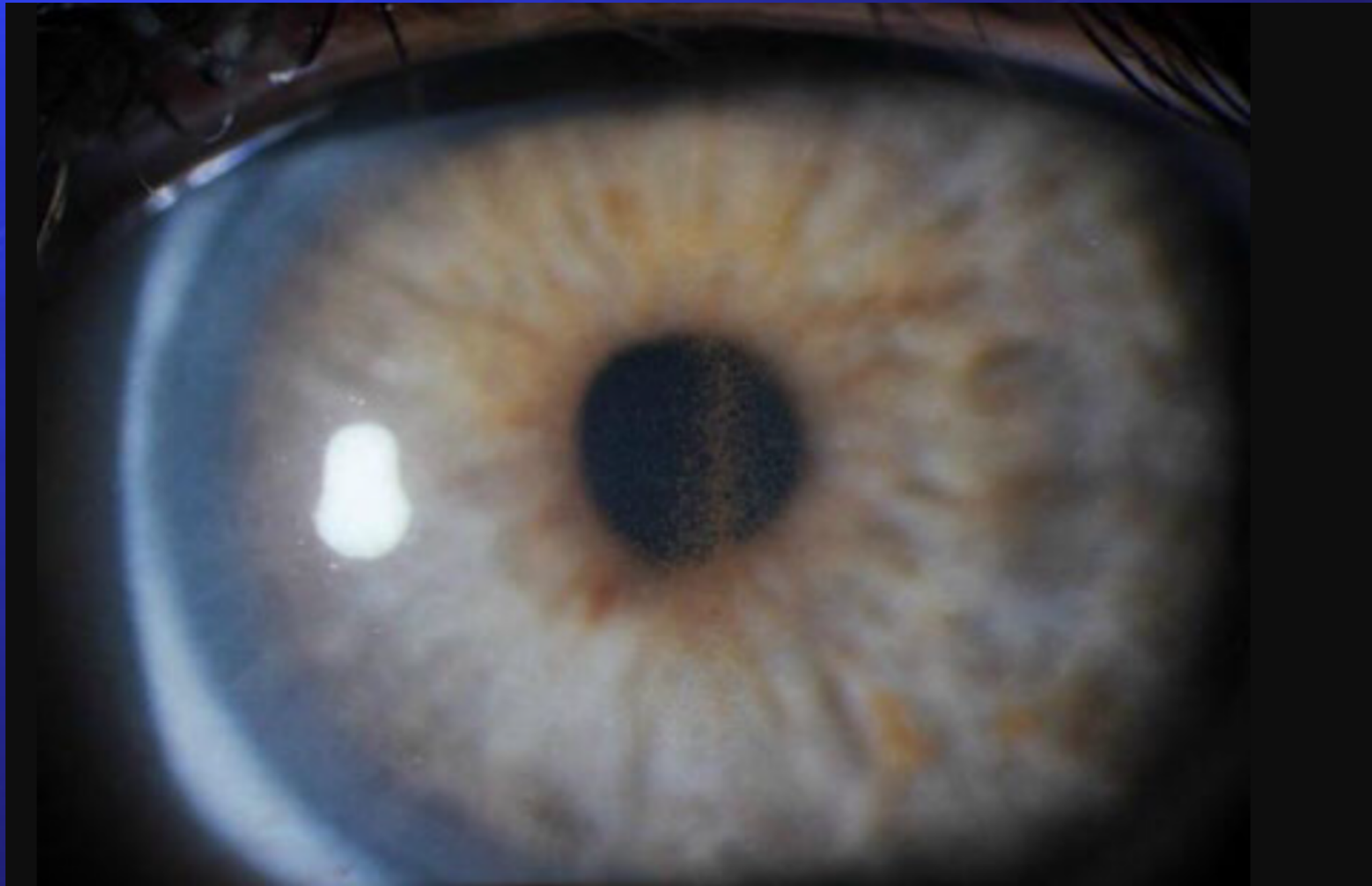
- IOP check in 1 week OS: 20
- Great, you are in the clear. Check back in 6 weeks to see if SLT worked

# Case 1

- IOP check in 6 weeks OS: 17
- Great!
- “But hey doc, my vision is blurry.”
- BCVA OD: 20/20 OS 20/60
- Now what?

# Case 1

- Slit lamp: see photo





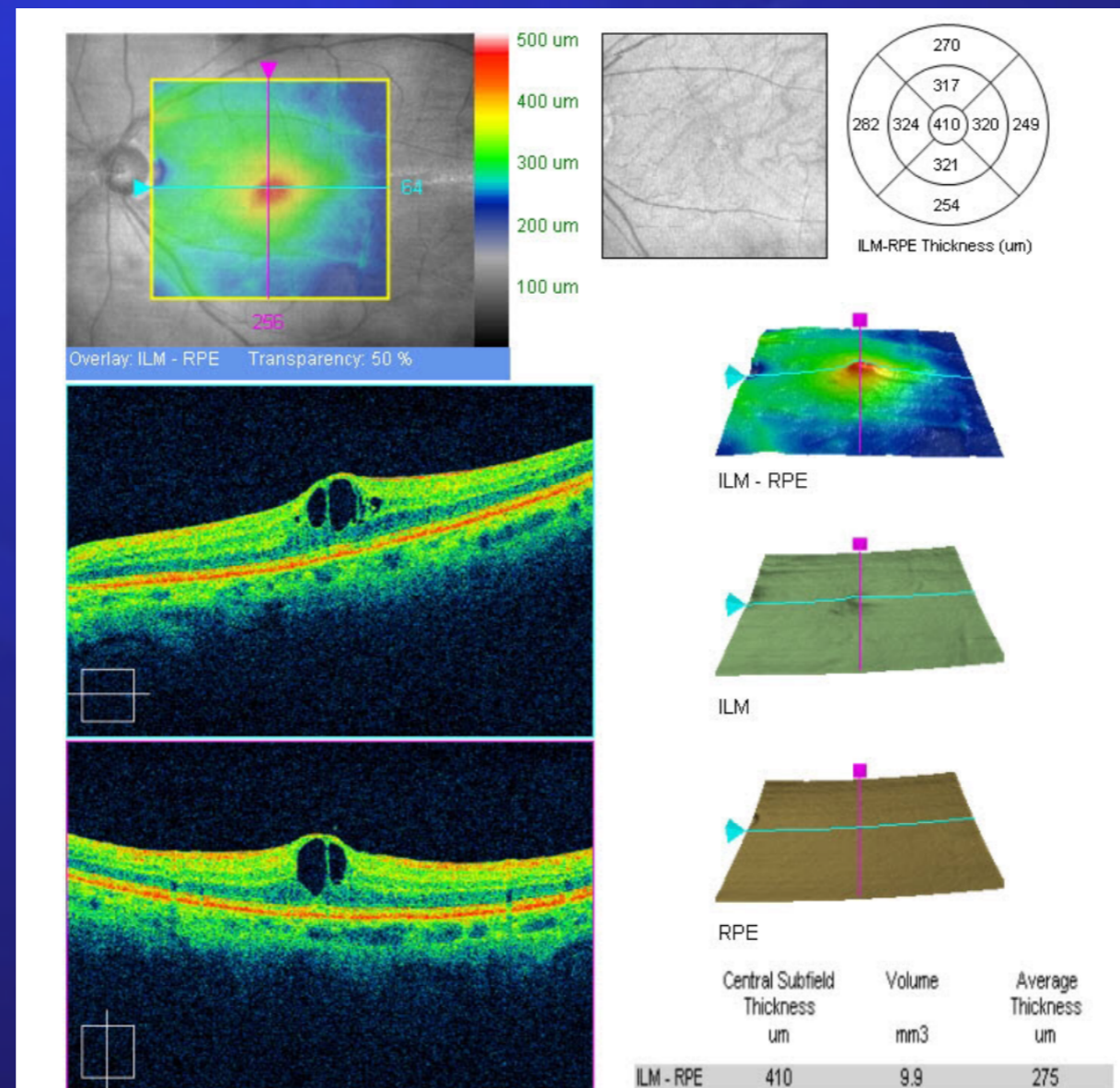
# Case 1

- DFE: see photo



# Case 1

- Next test?
- OCT: see photo



# Case 1

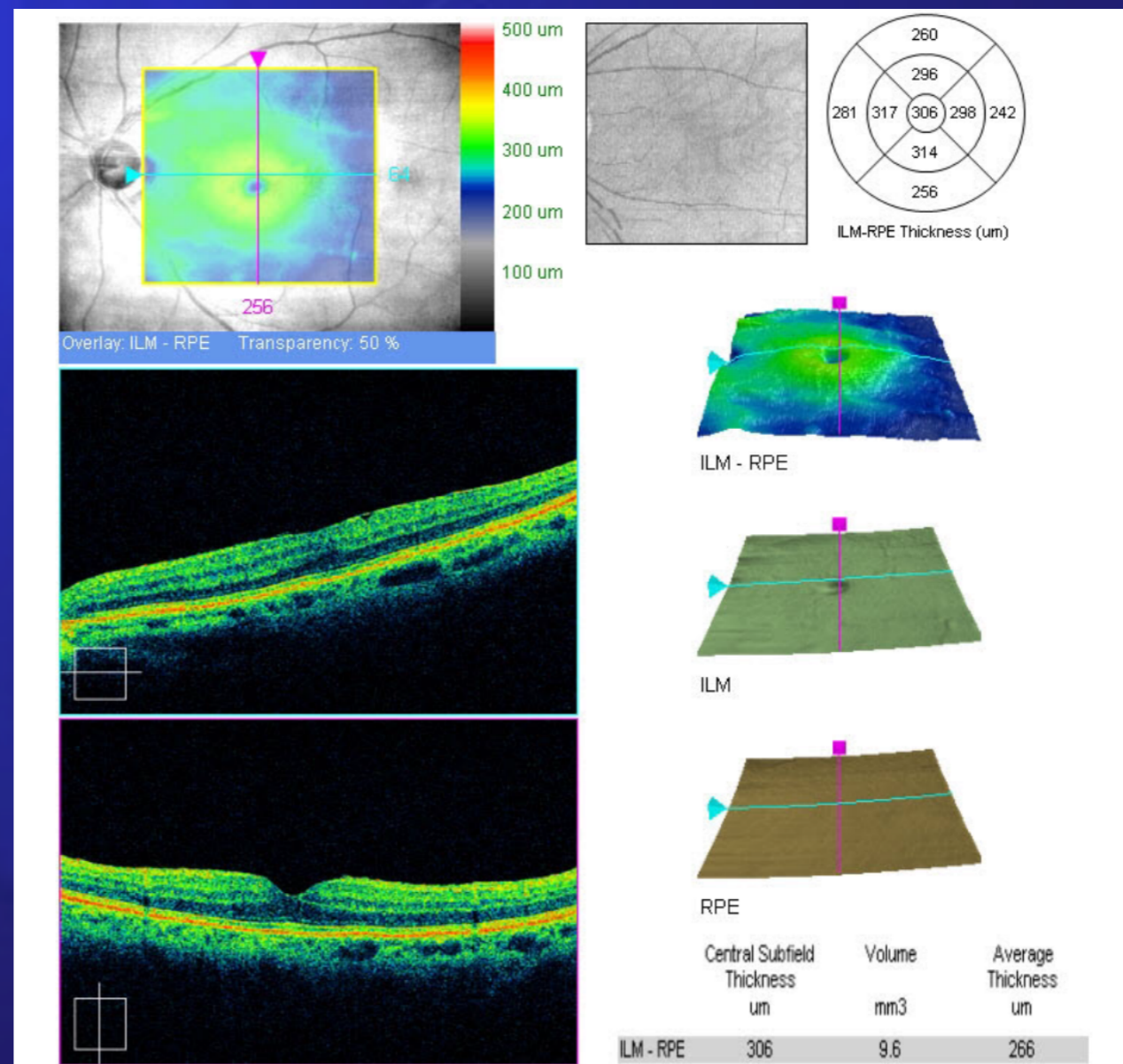
- Treatment?
- Durazol q2h x 2 weeks then taper
- Diclofenac 0.1% tid
- Recheck in 2 weeks

# Case 1

- 2 week follow up
- Vision improved
- VA OD: 20/20 OS: 20/25
- IOP OD: 16 OS: 17
- No evidence of steroid response

# Case 1

- Slit lamp: unremarkable
- DFE: unremarkable
- OCT: see photo



# Case 1

- Taper durazol qid x 1 week, tid x 1 week, bid x 1 week, qd x 1 week then stop
- Diclofenac 0.1% tid x 1 month then stop
- Recheck in 1 month
- If CME wasn't improved in 2 weeks with topical anti-inflammatories, send to retina for sub tenons kenalog....or you could do it in Kentucky...

# Case 1

- You survived!
- Now onto the patient in room 2

# Case 2

- 72 yo W Female
- CC: blurred vision OD
- Medical Hx: HTN
- Ocular Hx: PCIOL OU 2007
- Ocular Meds: Artificial tears qd OU

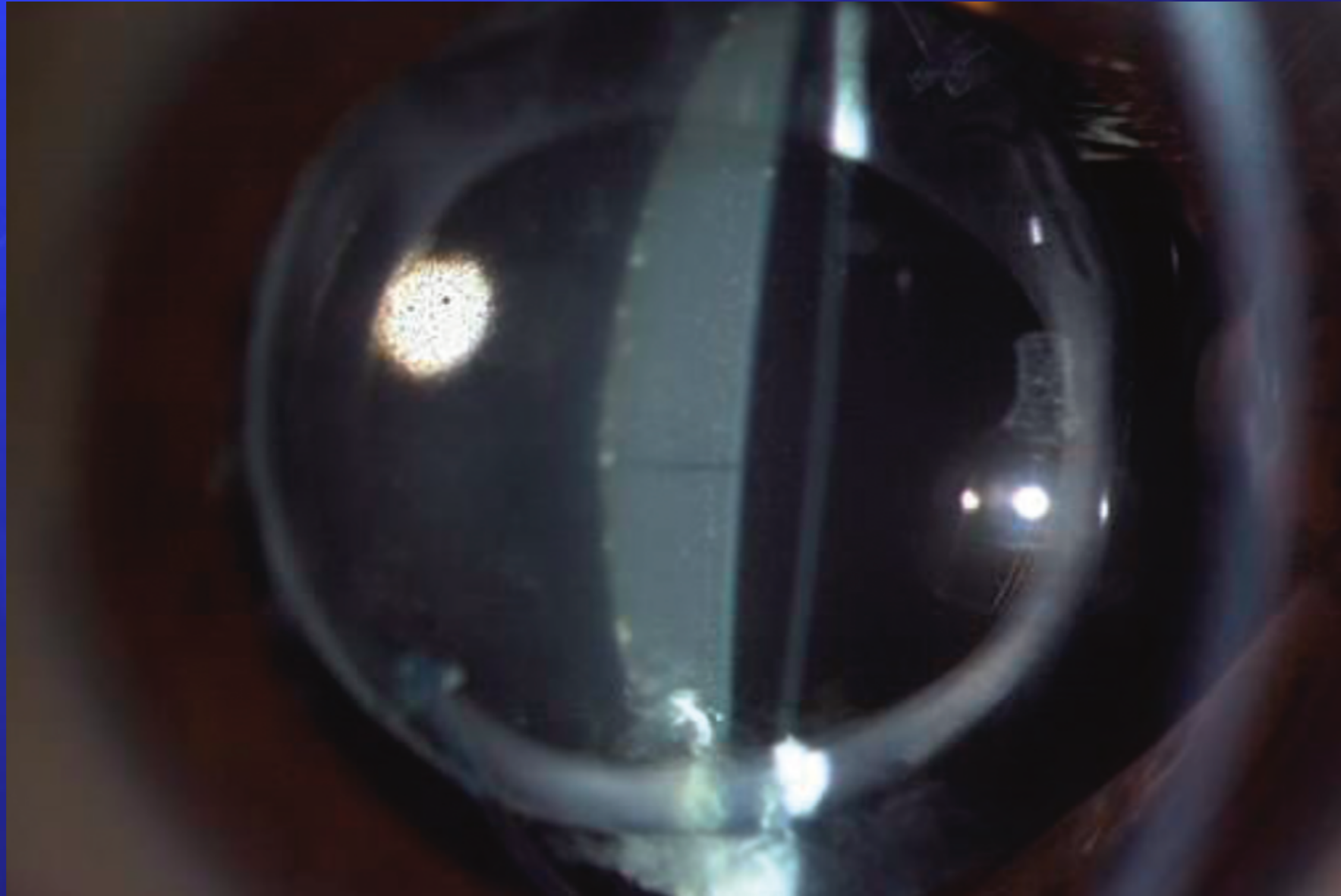


# Case 2

- VA OD:20/40 OS:20/25
- Glare OD: 20/60 OS: 20/30
- EOM: Full
- CF OD: Full OS: Full
- IOP OD: 16 OS: 15

# Case 2

- Slit Lamp: See photo



# Case 2

- DFE: retina flat OU
- CD OD: 0.5 OS: 0.5
- Diagnosis?
- Treatment?

# Case 2

- Perform Yag Cap OD
- Brimonidine 0.2% pre op

# Yag Cap Video



# Case 2

- Operation note
- 51 spots
- 1.9 mj per spot
- Total energy 96.9 mj
- Diclofenac 0.1% tid x 3 days

# Case 2

- IOP 1 hour after procedure OD: 17

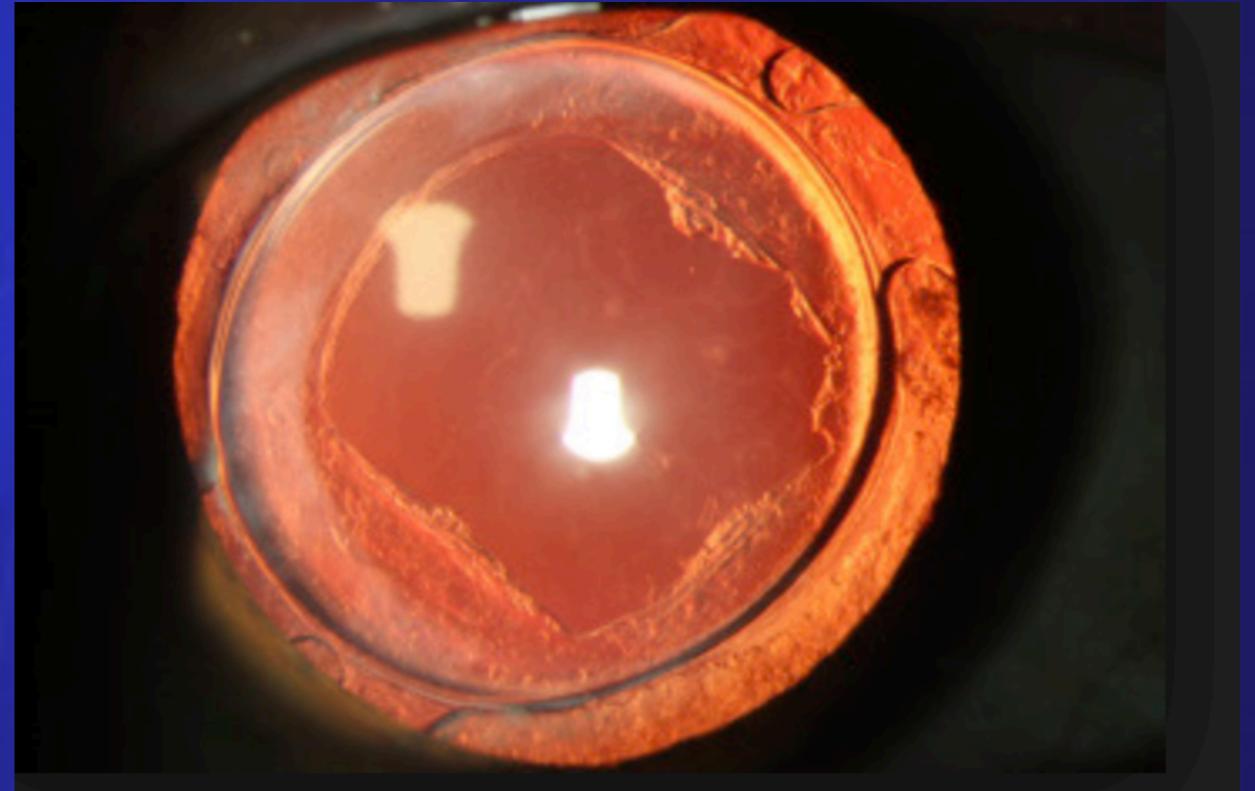
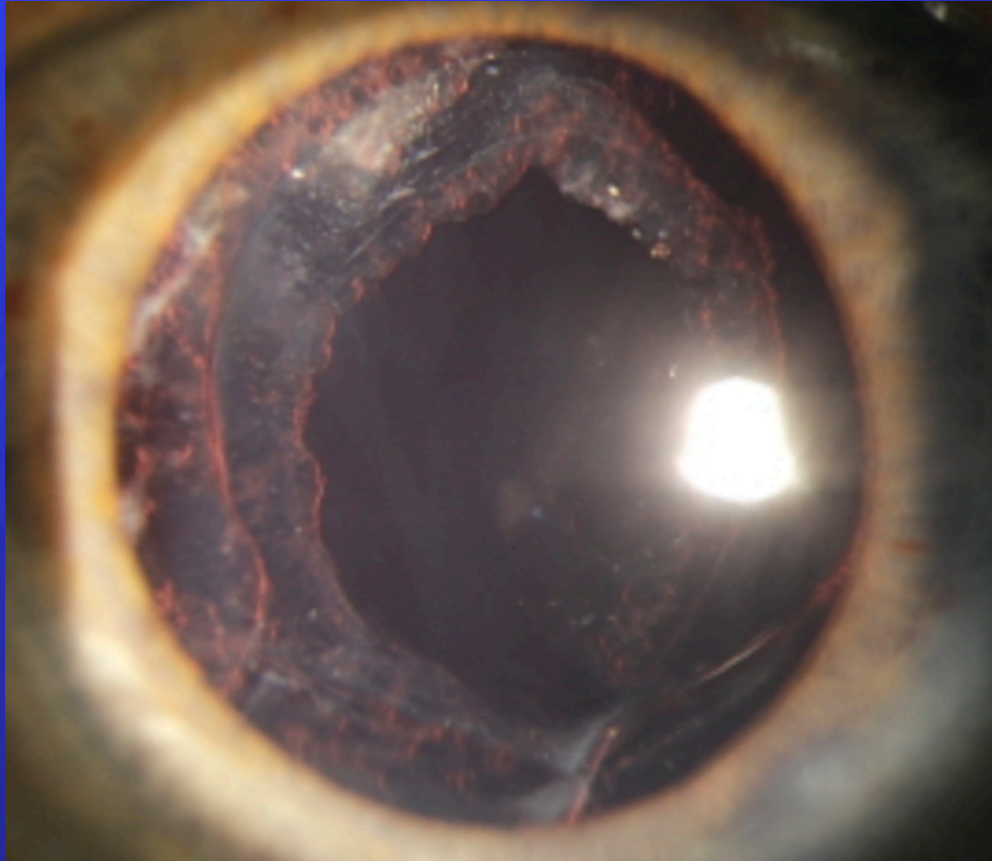
# Case 2

- 2 week DFE Post Op
- CC: “My vision improved but now I see a spot?”
- VA OD:20/25 OS:20/25
- EOM: Full
- CF OD: Full OS: Full
- IOP OD: 16 OS: 17



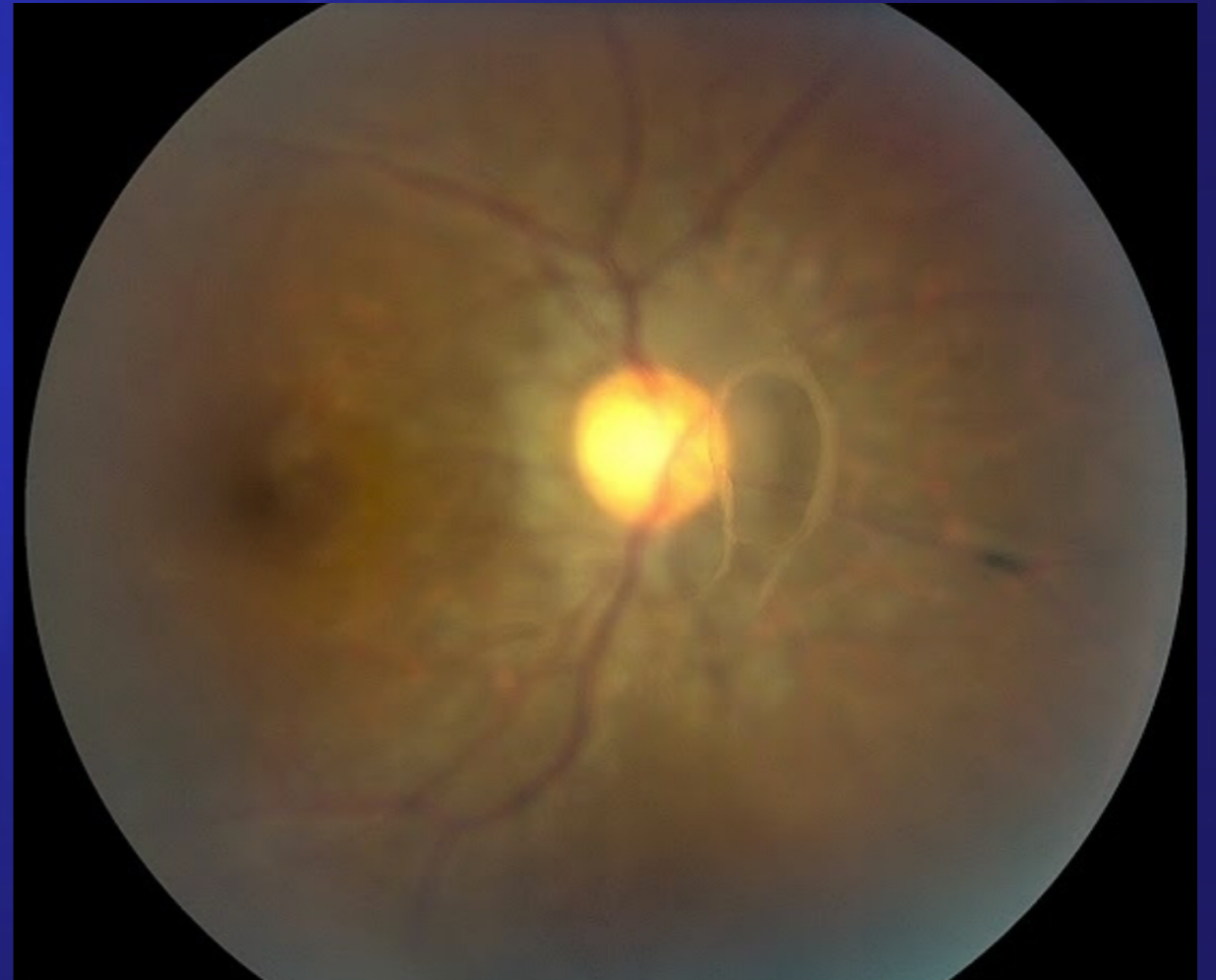
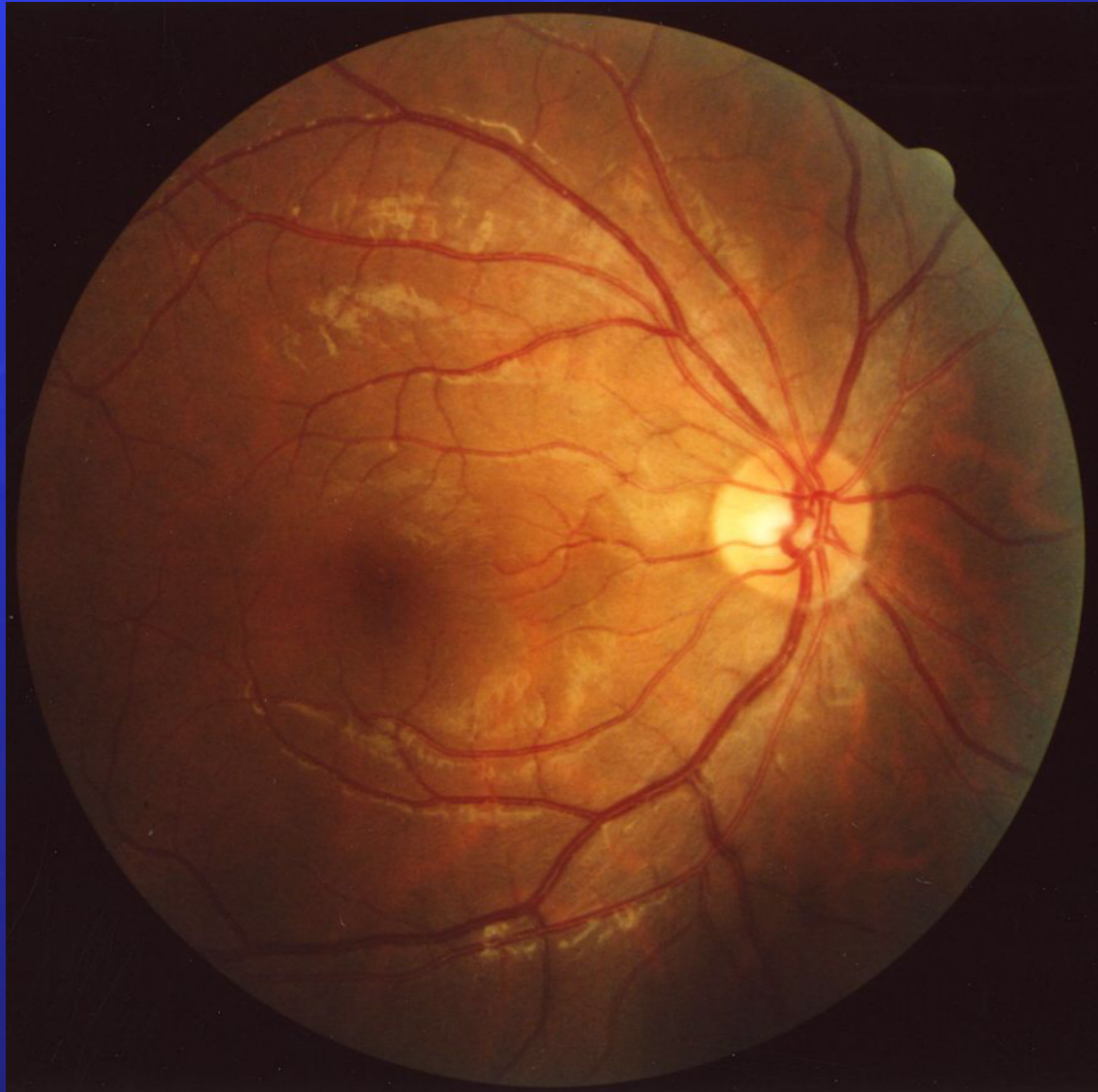
# Case 2

- Slit lamp: see photo



# Case 2

- DFE: see photo



# Case 2

- New onset PVD
- Next test?
- Sclera Depression
- Retina flat no breaks or RD
- Follow up?

# Case 2

- 1 month DFE
- CC: “Floater improved”
- VA OD:20/25 OS:20/25
- Slit lamp: unremarkable
- DFE: unremarkable

# Case 2

- If still symptomatic, give a few more months, then consider PPV
- Any tear found, send to retina for laser retinoplexy
- Now onto the patient in room 3

# Case 3

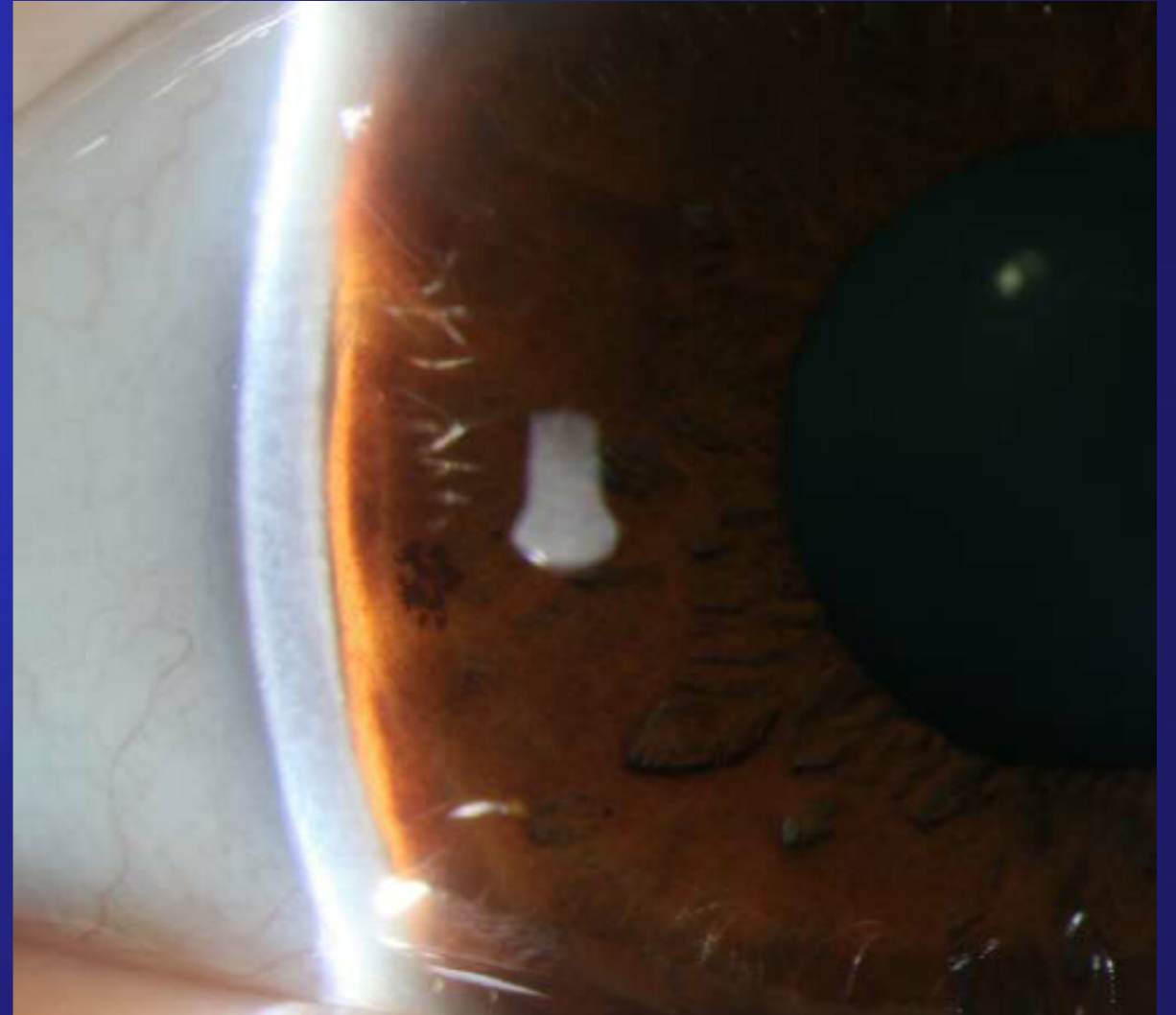
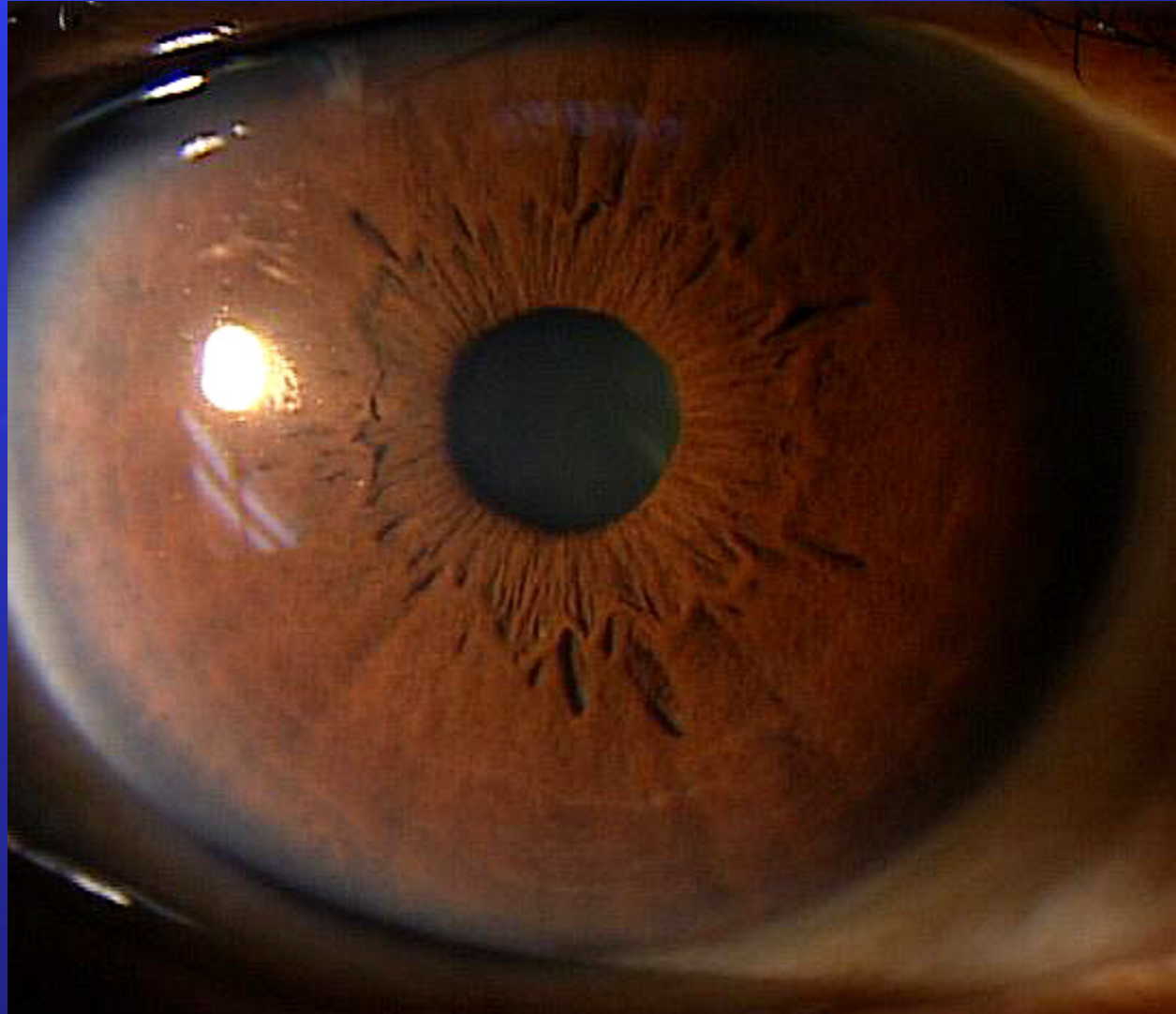
- 40 yo H Female
- CC: “intermittent headaches”
- Medical Hx: None
- Ocular Hx: None
- Ocular Meds: None

# Case 3

- VA OD:20/20 OS:20/20
- MRx OD: +2.50 OS: +3.00
- EOM: Full
- CF OD: Full OS: Full
- IOP OD: 21 OS: 21

# Case 3

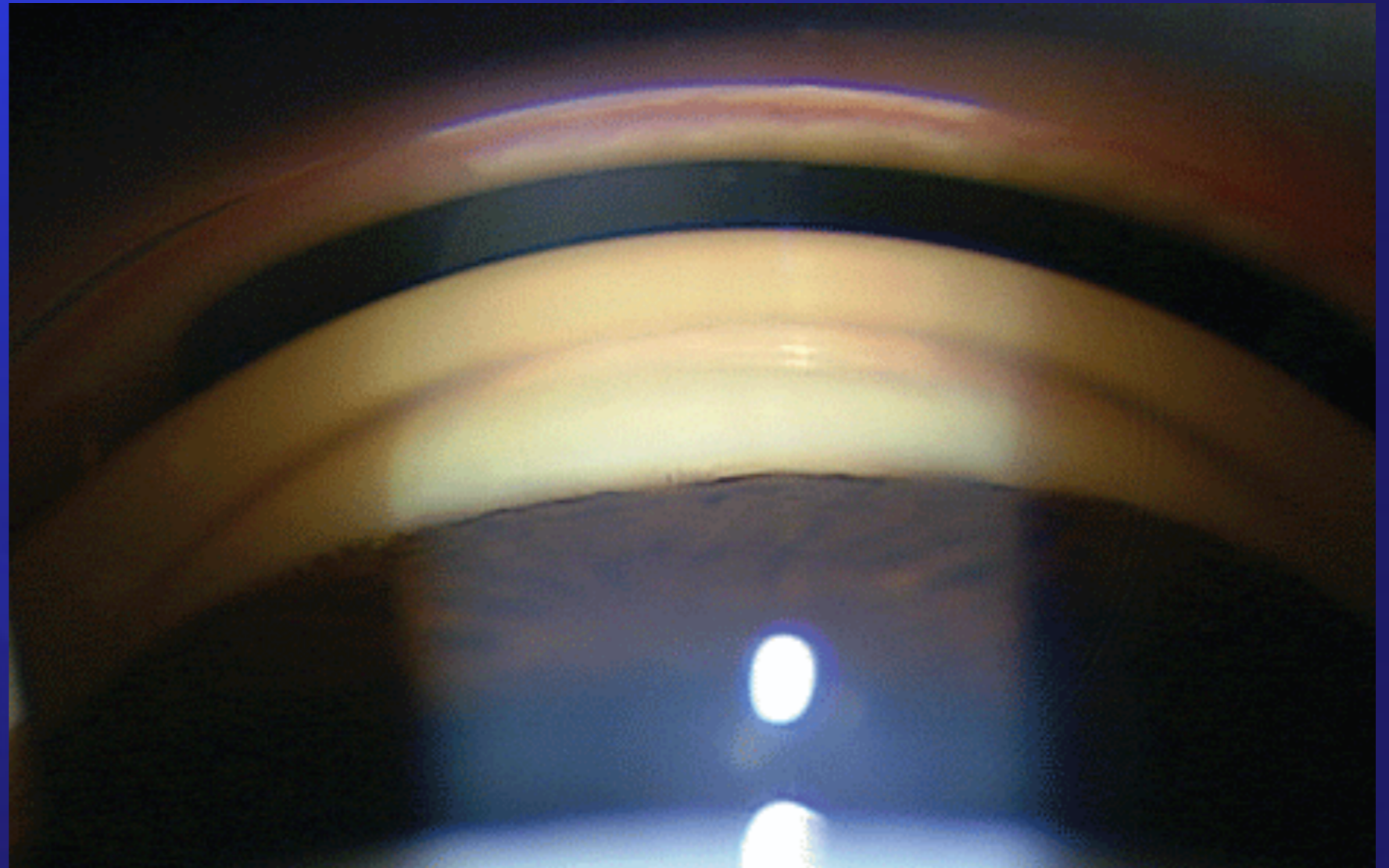
- Slit lamp: see photo





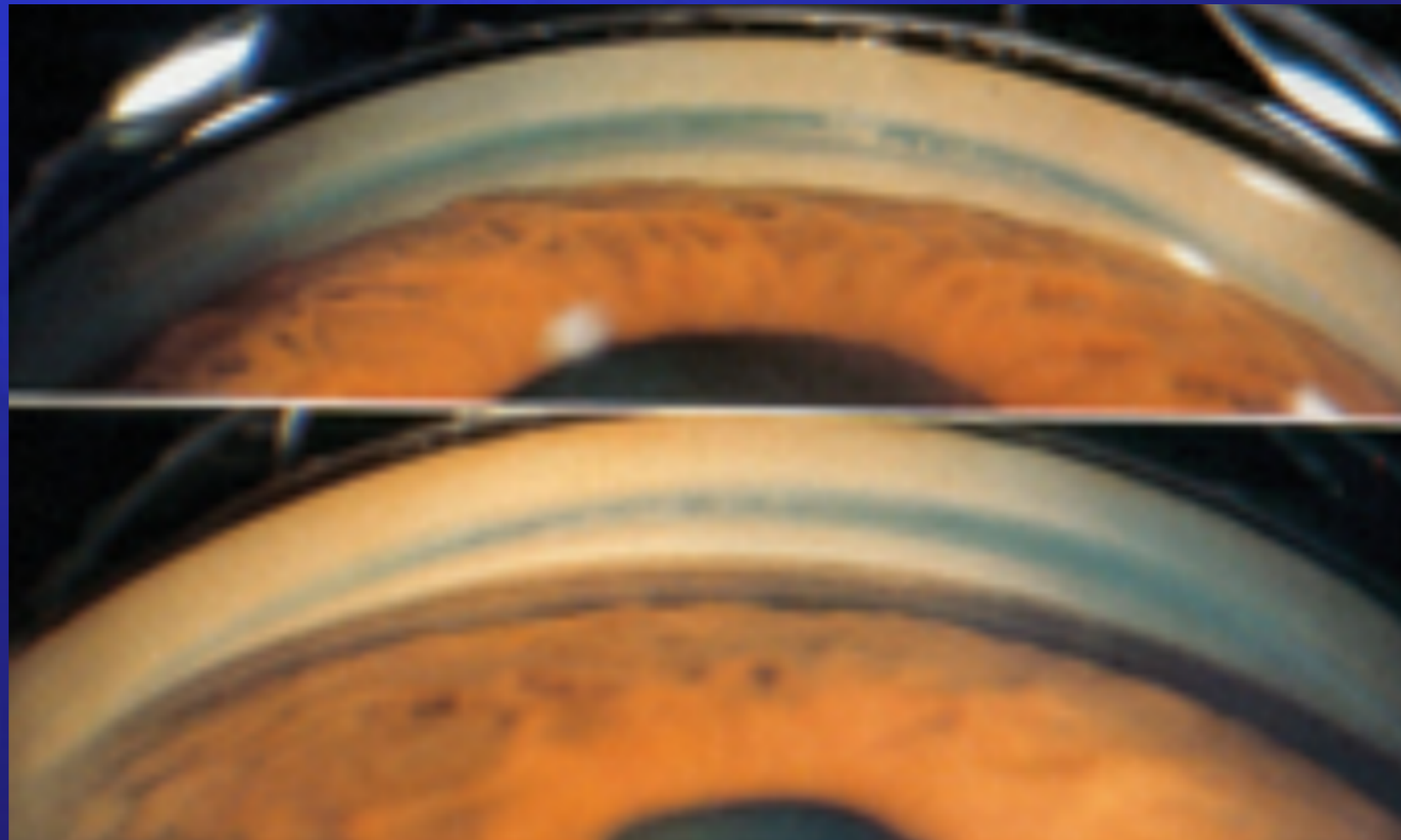
# Case 3

- Next Test?
- Gonio: see photo
- Next step?



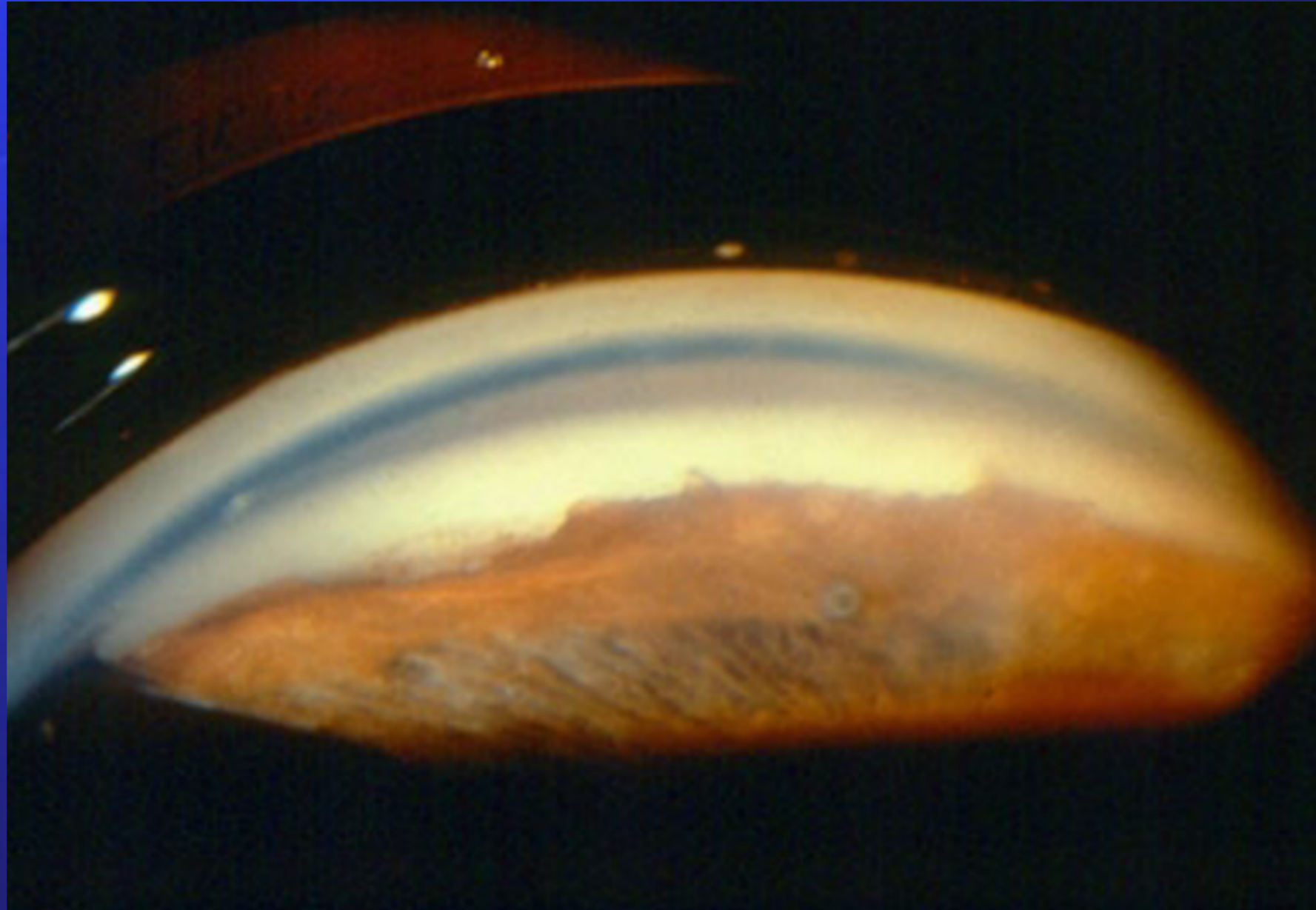
# Case 3

- Gonio: indentation
- Diagnosis?
- Treatment?



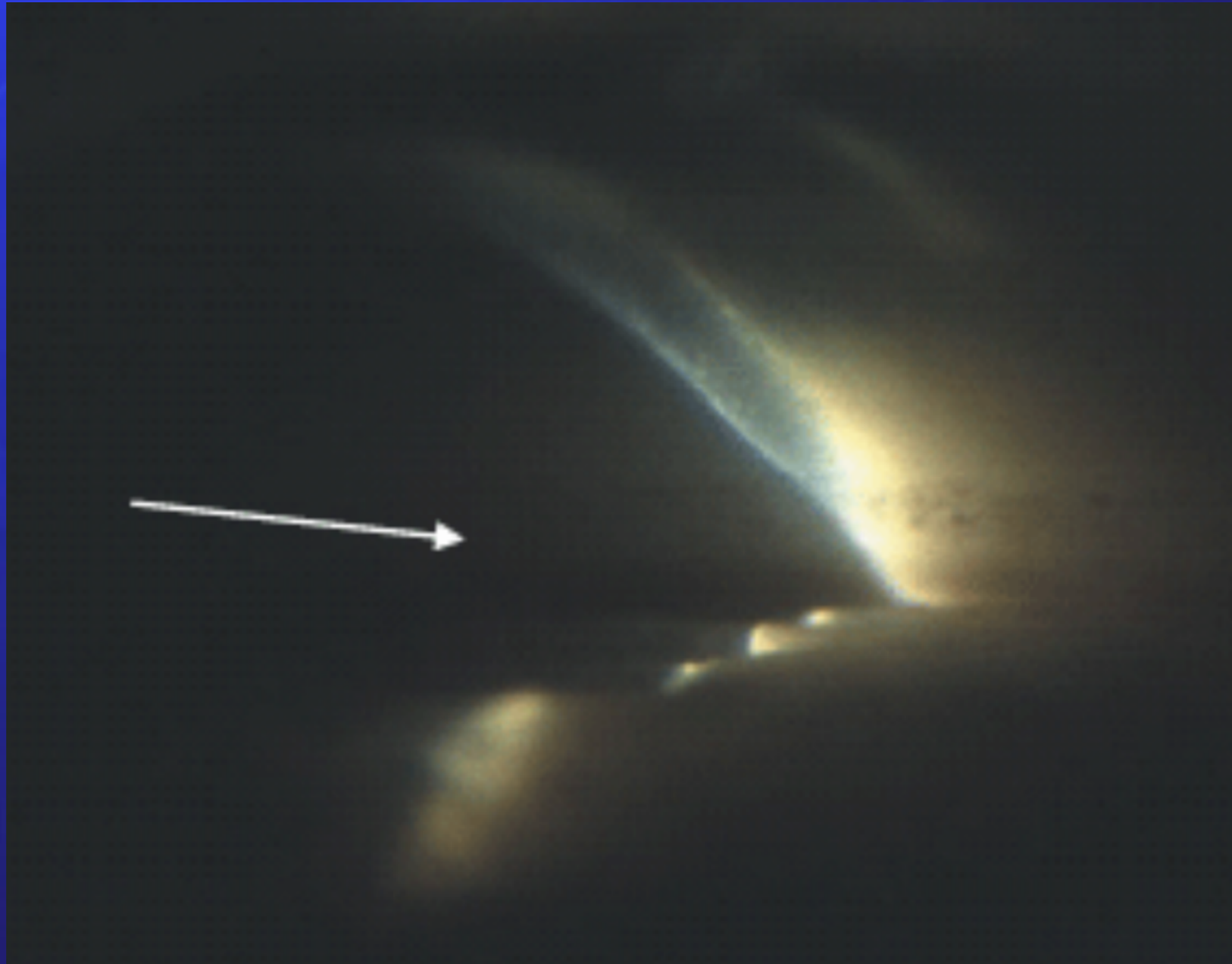
# Case 3

- Gonio: but what if it looked like this?



# Case 3

- If you don't know where you are, use the corneal wedge



# Case 3

- Perform prophylactic LPI OS
- Brimonidine 0.2% pre op

# LPI Video



# Case 3

- Operation note
- 19 spots
- 5.2 mj per spot
- Total energy 119.6 mj
- Pred 1% qid x 1 week

# Case 3

- IOP 1 hour after procedure OS: 24

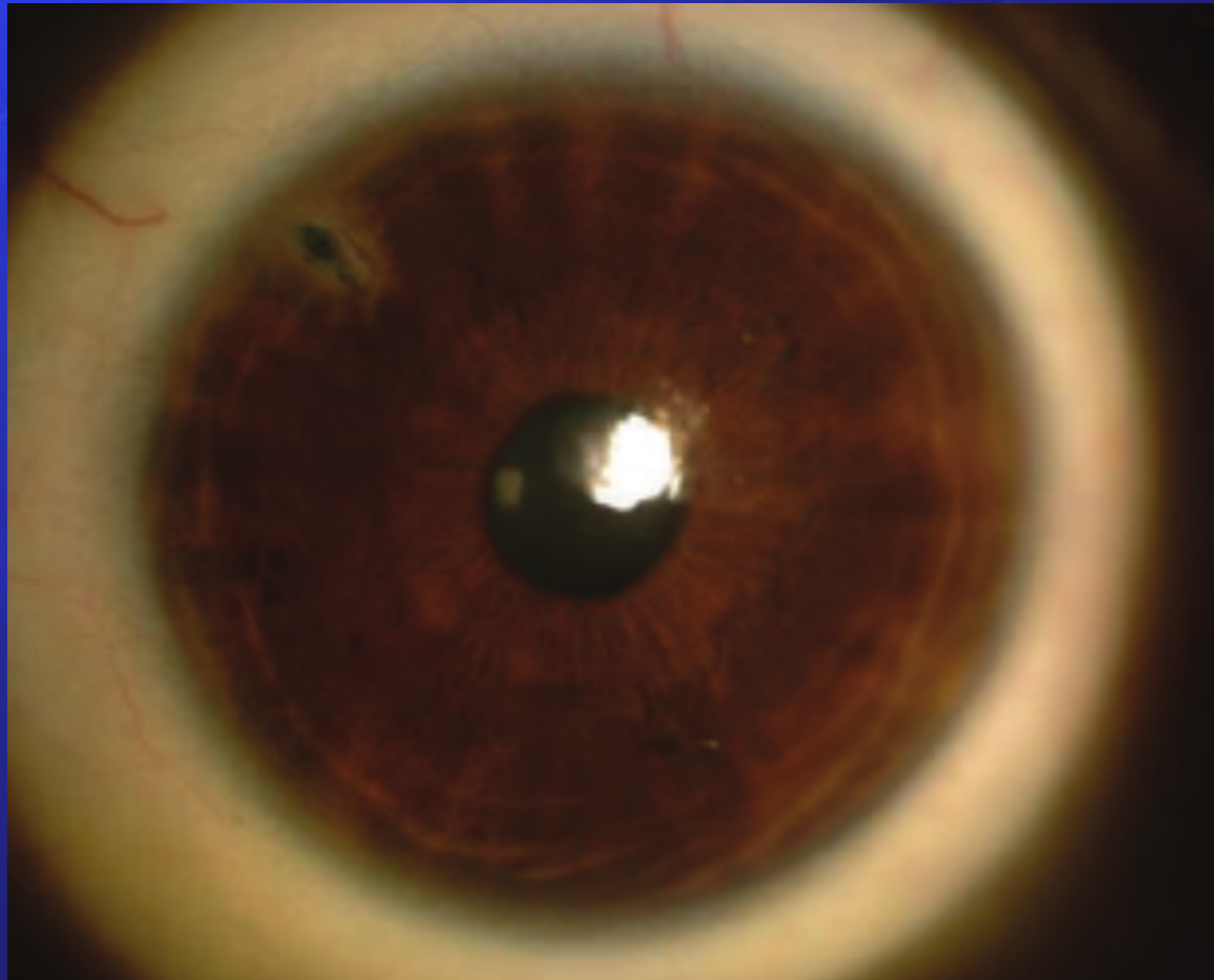


# Case 3

- Other eye performed in 1 week without complication
- 2 week follow up (not post op)
- CC: “My headaches are gone! But i’ve had a few flashes of light in my left eye”
- VA OD:20/20 OS:20/20
- EOM: Full
- CF OD: Full OS: Full
- IOP OD: 20 OS: 20

# Case 3

- Slit Lamp: see photo



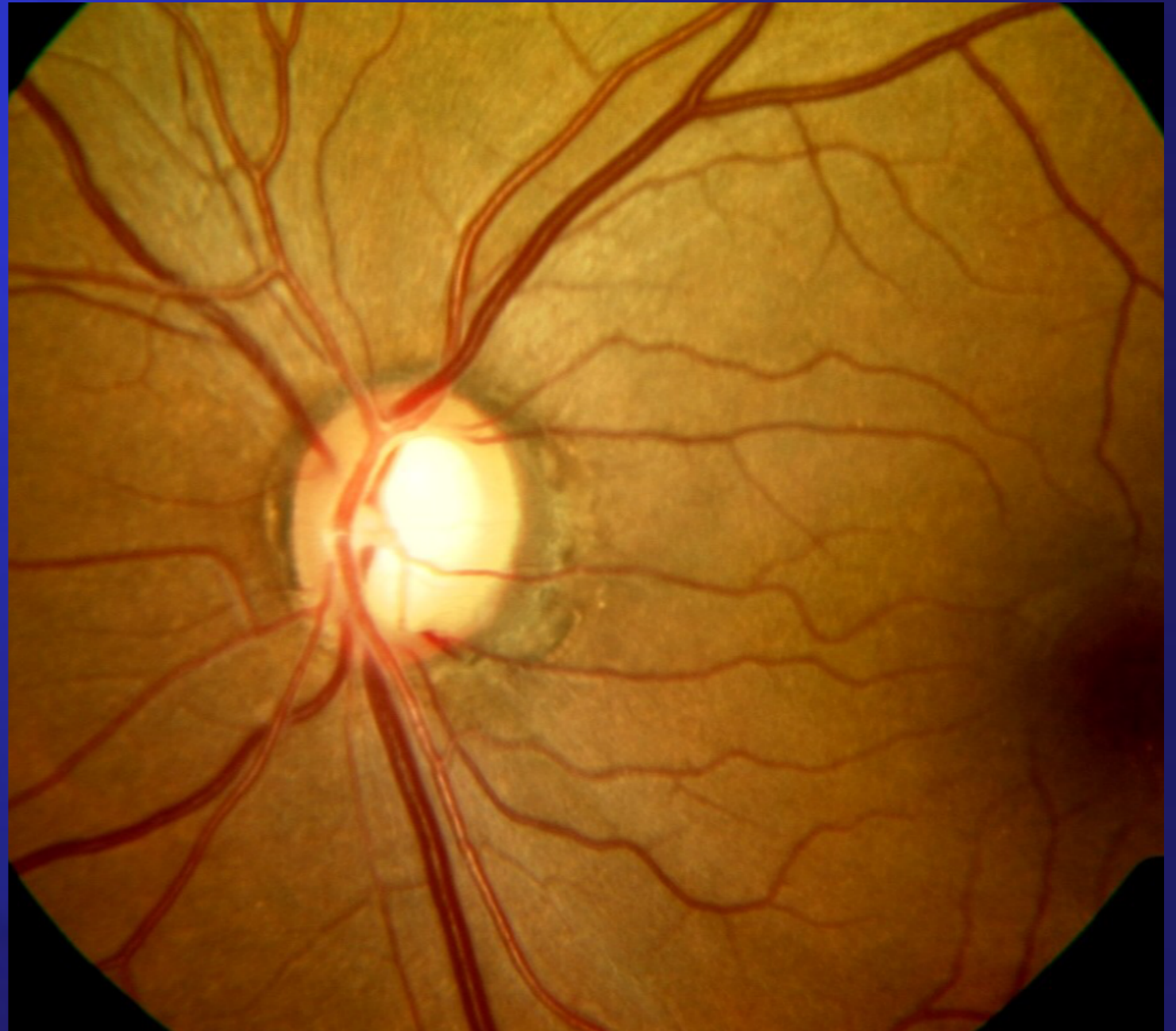
# Case 3

- Gonio: see photo



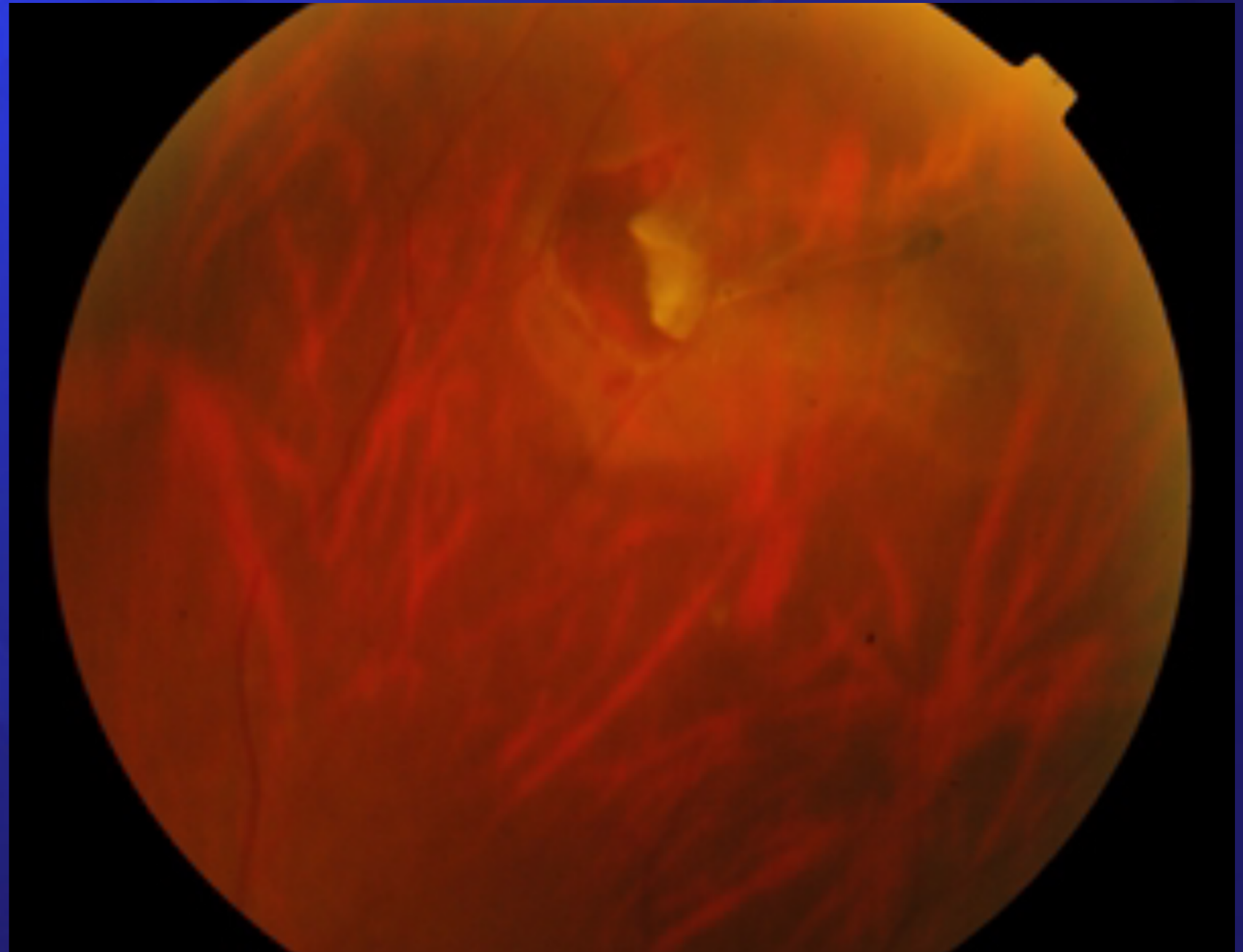
# Case 3

- Angles open, safe to dilate
- DFE: see photo
- Next test?



# Case 3

- Scleral depression: see photo
- Diagnosis?
- Treatment?



# Case 3

- Send to retina for laser retinoplexy
- If turns into RRD, will need PPV



# Case 4

- Which patient would benefit from SLT?



# Case 4

- Neither
- Both are too narrow
- High risk for PAS
- Need LPI



# Case 4

- Remember the corneal light wedge, Open



# Case 4

- Remember the corneal light wedge, Closed



# Case 4

What if these are PAS,  
not just a narrow angle?

**PI may not help.**

If a TM is “normal”, how  
much angle must be closed  
in chronic ACG before the  
IOP rises above normal?

**270 degrees**

What quadrant closes last in  
CACG from narrow angles?

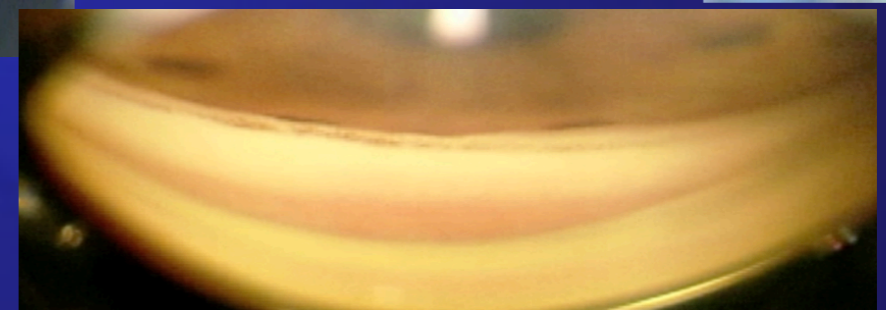
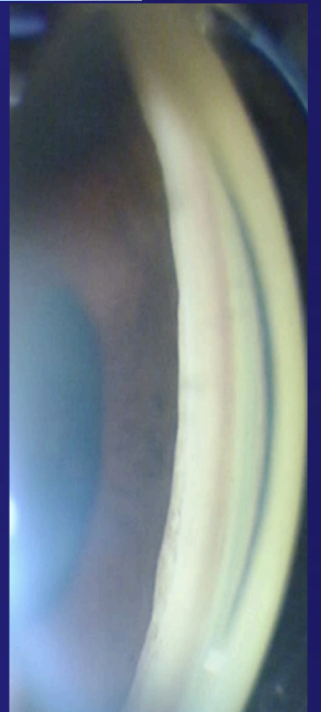
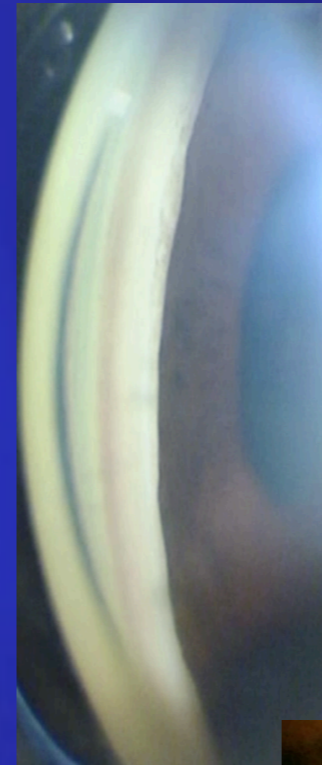
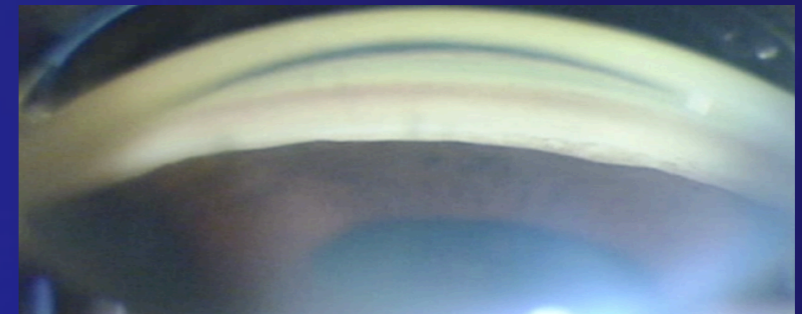
**Inferior**

What iris type sheds the most  
pigment with a PI (*pigment storm*)?

**Dark brown iris**

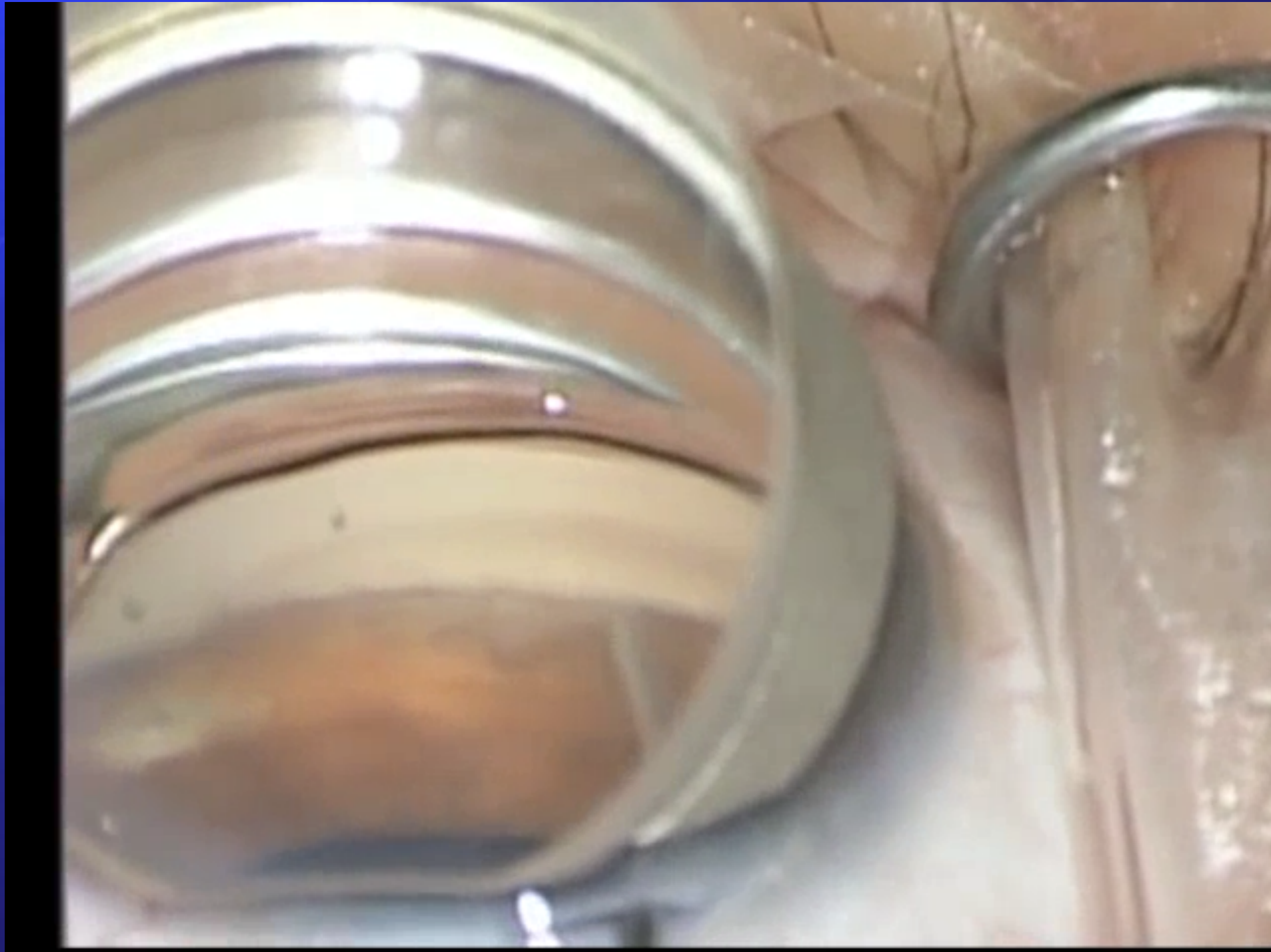
Which direction does  
gravity pull the pigment?

**Inferior**

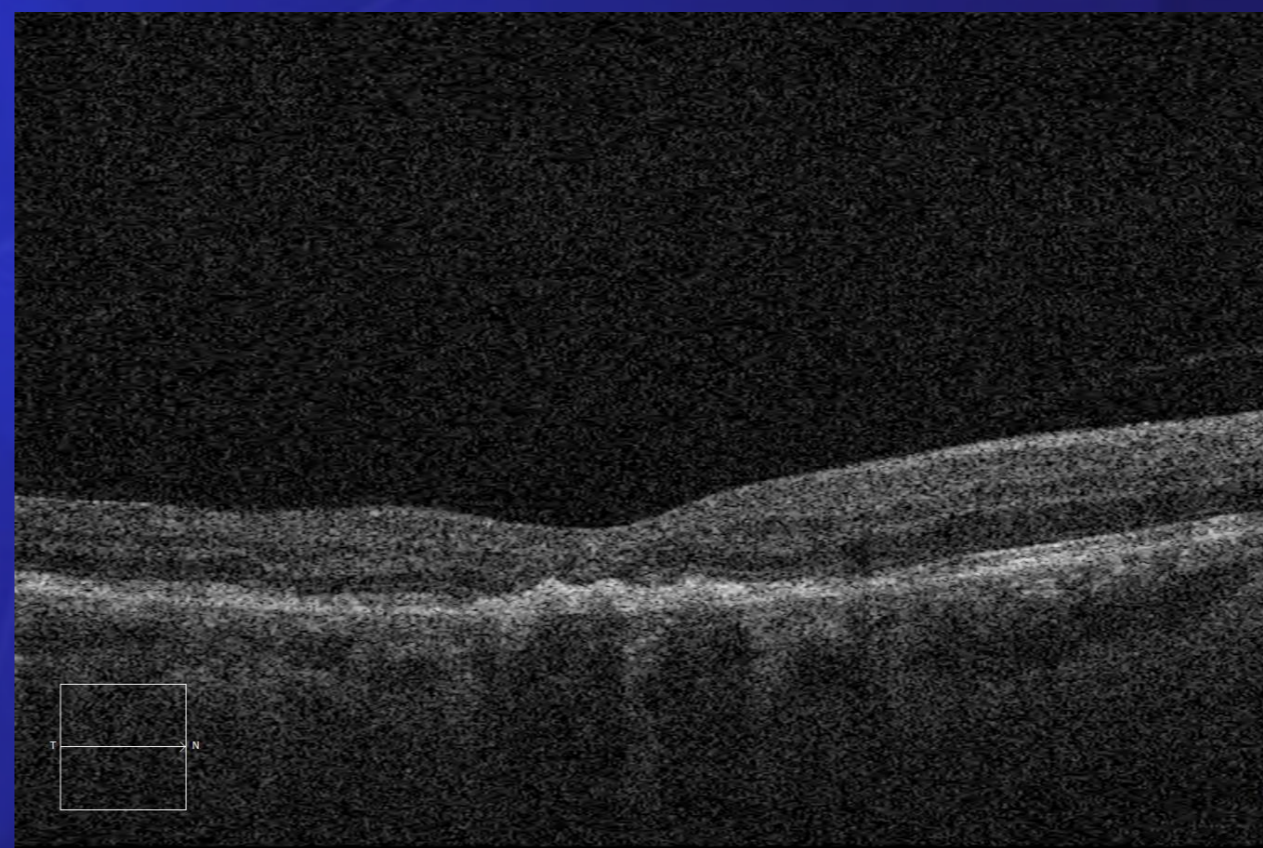
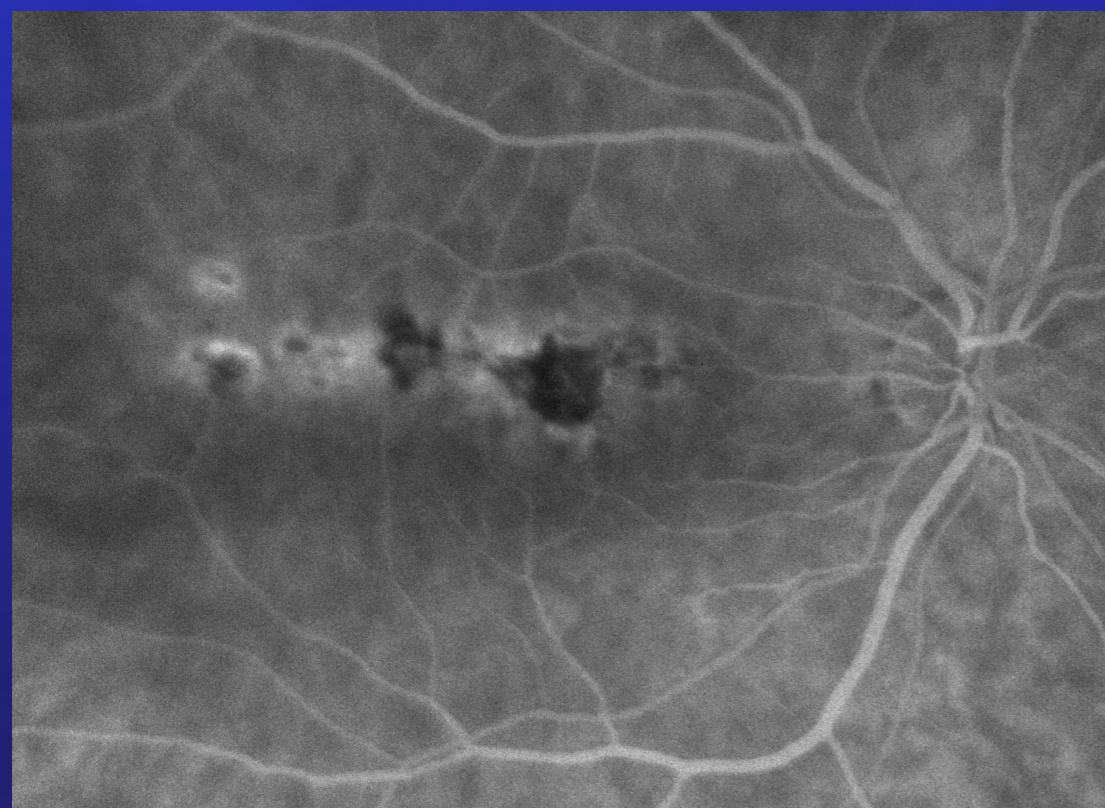


# Case 4

- PCIOL with goniosynechialysis: see video



# Combo Laser Warning



Thank you!  
Questions?