

Lasers and More

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Financial Disclosures

▶ No financial disclosures



YAG Repeated – A second Bite at the Apple

- ▶ A.H. (98196) 58 yoF
- ▶ CC – Decreased vision from cataracts
- ▶ Med Hx – MS
- ▶ S/P Phaco w IOL
- ▶ OD 11/6/19
- ▶ OS 10/30/19)
- ▶ YAG OD 5/21/21 80 shots, 3.4 mJ
- ▶ YAG OS 5/19/21 54 shots, 3.4 mJ

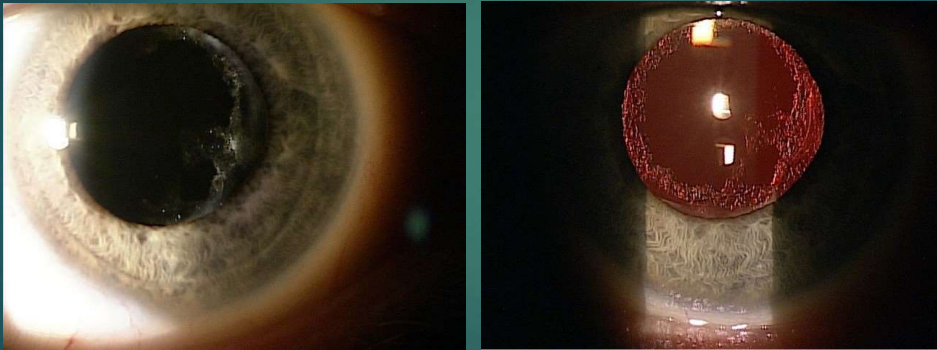


#1 A.H.

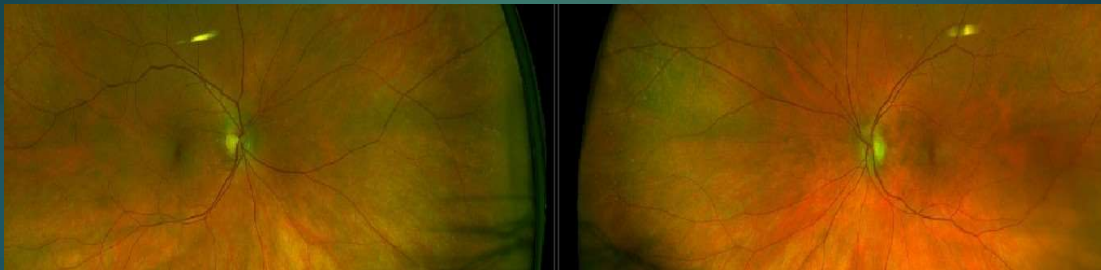
- ▶ 4/14/23 CC: Ill defined shadow, haze, decrease in temporal and superior vision OS.
- ▶ BVA – OD 20/25; OS 20/50
- ▶ Color vision - 14/14; 11/14
- ▶ Pupils ?
- ▶ Slit lamp – peninsula of capsular remnant temporal margin



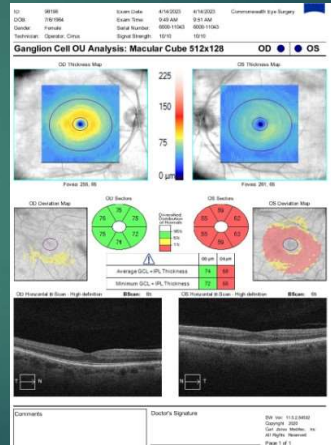
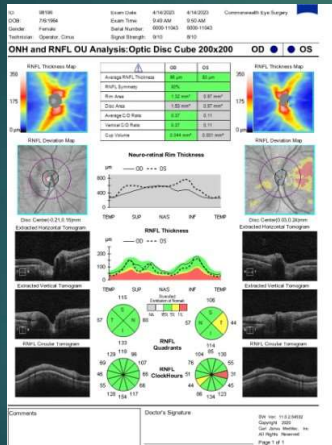
#1 A.H. Slit lamp view of residual PCO OS



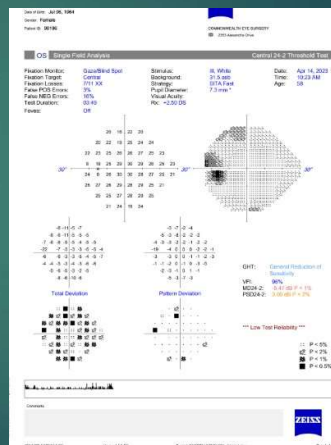
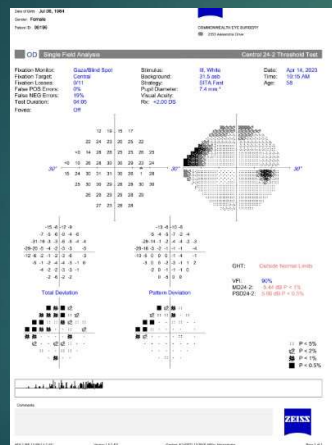
#1 A.H. Disc photos



#1 A.H. OCT



#1 A.H. VF

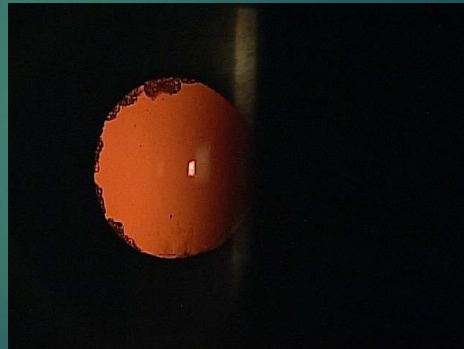
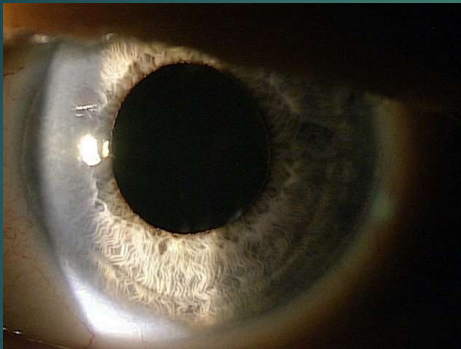


#1 A.H. Decision

- ▶ Etiology of symptoms?
- ▶ PCO? – slit lamp findings
- ▶ M.S.? – disc, color vision, VF, NFL, GCL
- ▶ Enlarge capsulotomy OS? – easily accomplished, removes one potential source of symptoms
- ▶ Supplemental YAG – 42 shots, 2.6 mJ



#1 A.H. Post 2nd YAG OS



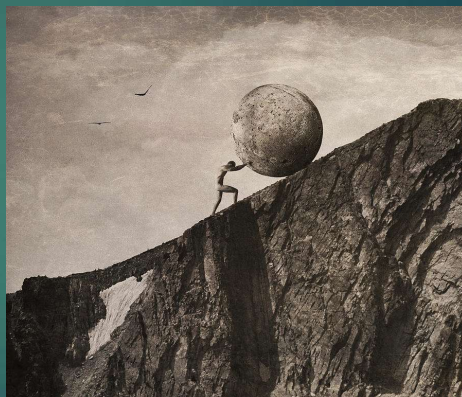
#1 A.H. The POINT

- ▶ Schedule with neuro-ophth
- ▶ Sometimes the YAG can aid in diagnosis as well as be therapeutic



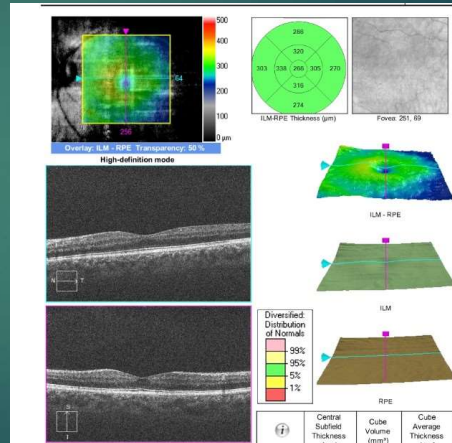
#2 L.L. YAG Repeated

- ▶ L.L. (93368) 45 yoF
- ▶ Med Hx – DM
- ▶ NonPDR w/o DME OU
- ▶ Phaco w IOL
- ▶ OD 12/11/18 NEAR
- ▶ OS 12/18/18 DISTANCE
- ▶ YAG OD 4/12/19 41 s, 2.7 mJ
- ▶ YAG OS 4/26/19 55 s, 2.4 mJ

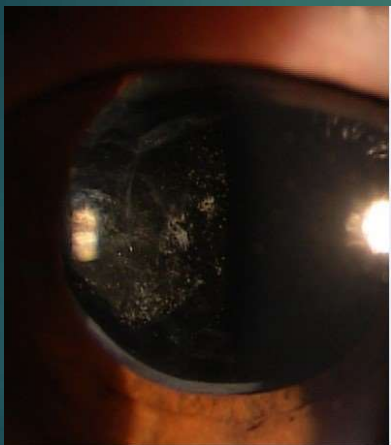


#2 L.L.

- ▶ 4/11/23 CC decreased vision OS
- ▶ BVA 20/25 BAT 20/400
- ▶ Slit lamp OS – PCO
- ▶ Fundus – nonPDR w/o DME



#2 L.L. Recurrent PCO

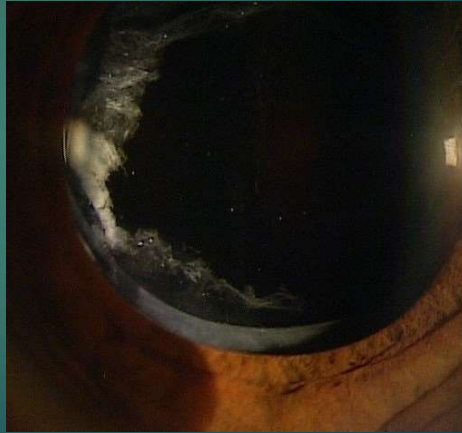


#2 L.L.

- ▶ Repeat YAG OS
- ▶ 115 shots
- ▶ 2.6 mJ

- ▶ 4/14/23 Post- YAG
- ▶ CC: Vision improved, no Sx
- ▶ BVA – 20/25+2, J3

- ▶ Point: Sometimes the capsule can reform (?). May just be epi cells.



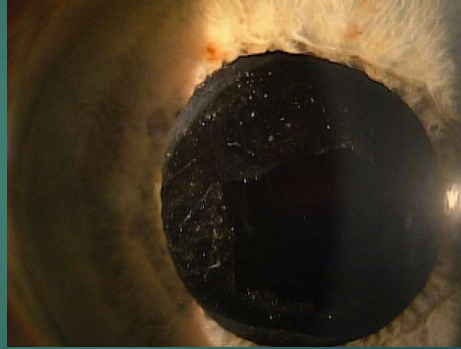
#2 L.L.

The POINT

- ▶ PCO may recur (regrowth of epi cells?)

#3 D.P. YAG by O.D.

- ▶ D.P. (90641) 73 yoM
- ▶ S/P Phaco w IOL OS 5/1/18
- ▶ 3/14/23 CC Decreased vision OD
- ▶ BVA – OD 20/25 BAT 20/400
- ▶ OS 20/20
- ▶ SLE – OD 1+ NS, 2+ cortical
- ▶ OS s/p YAG



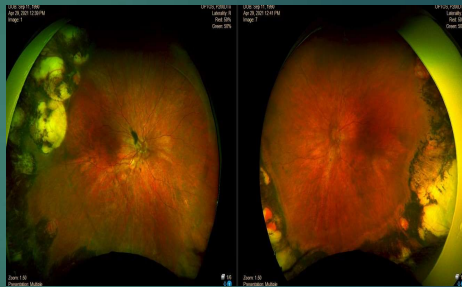
#3 D.P. The POINT

- ▶ S/P YAG OS retro-illumination
- ▶ YAG nicely done. Could have extended a little more superior and if remains symptomatic consider that.



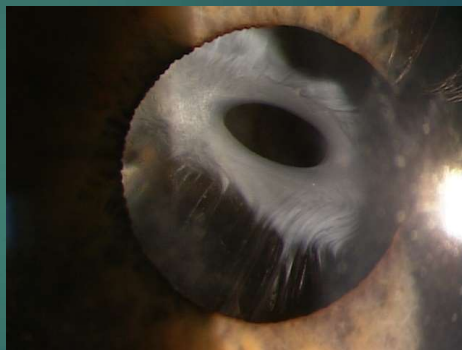
#4 W.D. YAG Anterior Phimosis then PCO

- ▶ W.D. (105179) 32 yoF
- ▶ Hx of R.O.P. S/P cryo and injections.
- ▶ OS -10.50 -1.50 x 172 20/200
- ▶ A.L. 25.15; ACD 2.18
- ▶ Phaco with IOL 5/4/21

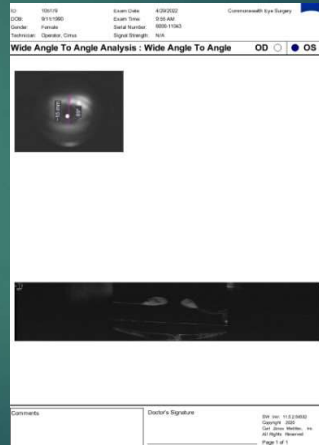
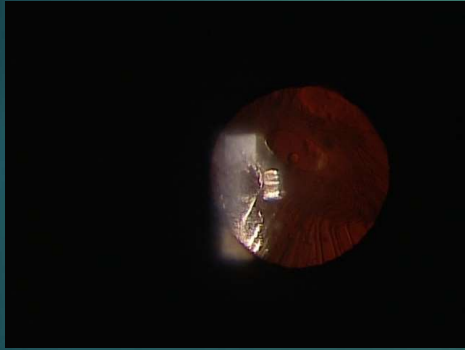


#4 W.D.

- ▶ 4/29/22 - Decreased vision OS
- ▶ BVA – 20/400
- ▶ SLE – Anterior capsular phimosis OS



#4 W.D. Anterior Phimosis Retro and OCT



#4 W.D. Post YAG

- ▶ YAG Anterior capsulotomy
- ▶ 69 shots
- ▶ 2.6 mJ
- ▶ Undilated pupil basically clear of anterior capsular phimosis

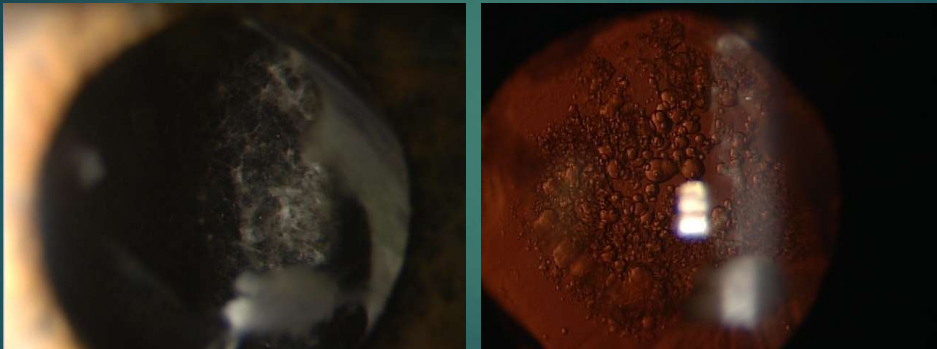


#4 W.D. Returns for PCO

- ▶ 11/10/22 Decreased vision again OS.
- ▶ BVA – 20/150
- ▶ SLE – anterior capsular phimosis clear, PCO
- ▶ YAG PCO
- ▶ 154 shots 2.6 mJ
- ▶ Post YAG 20/40



#4 W.D. PCO



#4 W.D. Post YAG for PCO

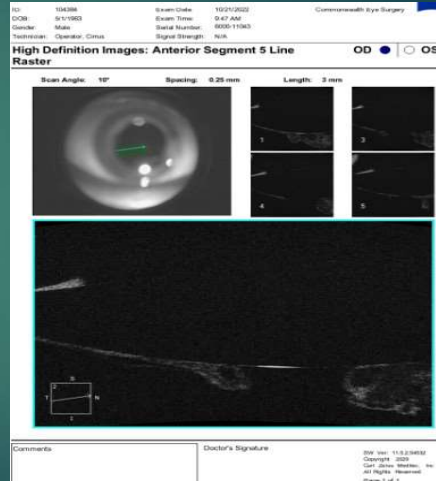


#4 W.D. The POINT

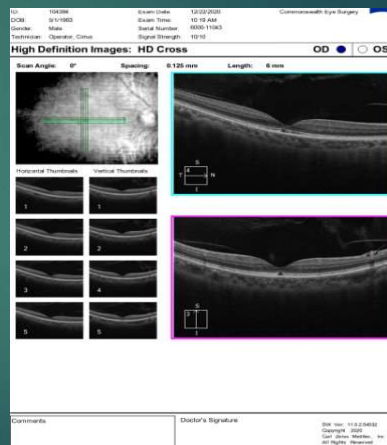
- ▶ Severe anterior capsular phimosis can:
 - ▶ Result in decreased VA
 - ▶ Cause irregular astigmatism
 - ▶ Cause subluxation of IOL w/i the capsular bag
 - ▶ Can be in conjunction with or independent from PCO

#5 E.J. PC Dehiscence

- ▶ E.J. (104384) 59 yoM
- ▶ Solar maculopathy OU (retina confirmed)
- ▶ Phaco with IOL
 - ▶ OD – 2/1/21 PC dehiscence
 - ▶ Made opening circular to prevent tear runout
 - ▶ OS – 1/25/21
- ▶ BVA – OD 20/25
 - ▶ OS 20/25



#5 E.J. Solar Maculopathy

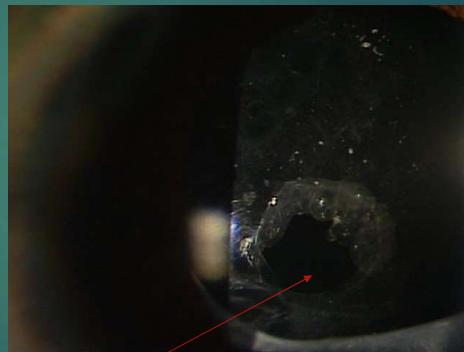


#5 E.J. Solar Maculopathy



#5 E.J. Pre YAG

- ▶ 10/21/22 returns for decreased vision OU
- ▶ YAG
- ▶ OD 10/21/22 – 67 shots, 2.6mJ
- ▶ OS 10/28/22 - 64 shots, 2.6 mJ



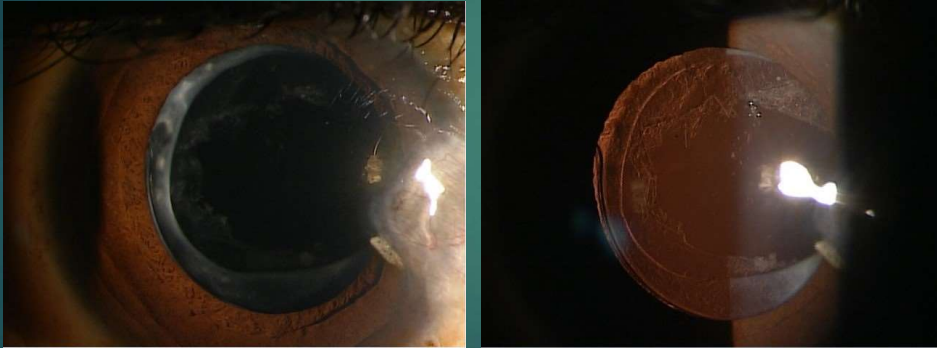
#5 E.J. Pre YAG



#5 E.J. Pre YAG



#5 E.J. Post YAG



#5 E.J. The POINT

- ▶ If PC dehiscence is noted during surgery surgeon may attempt to “round out” the edges for greater integrity
- ▶ IOL may still be placed “in the bag” if PC thought strong enough to remain secure.
- ▶ May still experience PCO and need YAG

#6 J.K. YAG and Swollen Disc (*)

- ▶ J.K. (58721) 54 yoF
- ▶ S/P Floaterectomy OU
- ▶ Med Hx – Polycystic Ovarian Syn.
- ▶ Meds: Metformin, elfornithine topical cream, oral contraceptive
- ▶ Phaco w IOL
- ▶ OD – 11/30/20
- ▶ OS – 11/23/20



#6 J.K.

- ▶ 8/17/21 Decreased vision OS>OD
- ▶ BVA – OD 20/20 BAT 20/40
- ▶ OS 20/25 BAT 20/400
- ▶ SLE – PCO 1+ OD, 2+ OS
- ▶ Fundus – Tilted disc w drusen OU
- ▶ A.L. – OD 27.51, OS 29.04
- ▶ YAG OS – 47 shots, 3.6 mJ



#6 J.K.

- ▶ 9/3/21 – Reports better central vision but sees a crescent-shaped darkness in nasal field OS and says vision loss was sudden OS and before YAG. Sent back for supplemental YAG.
- ▶ BVA OS same – 20/25,20/400
- ▶ CVF reduced sup, temp, inf OS
- ▶ Swollen disc OD, pallor OS



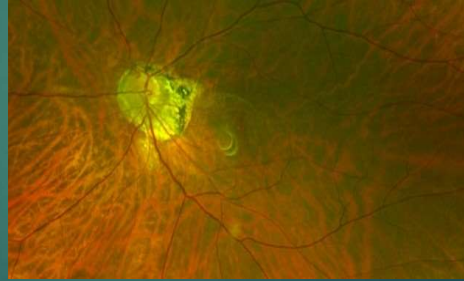
#6 J.K. 8/17/21

9/3/21

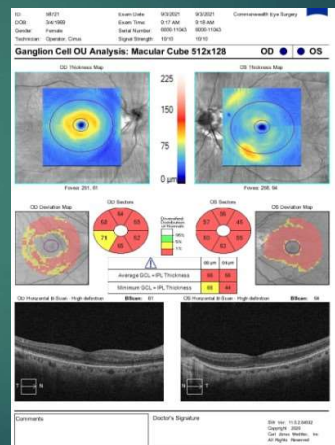
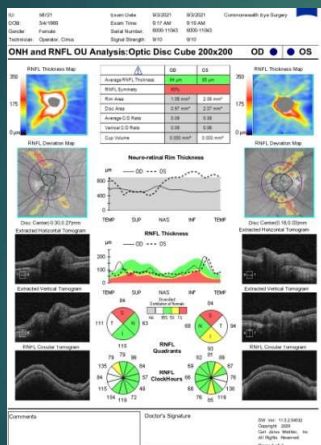


#6 J.K. Discs 8/17/21

9/3/21



#6 J.K. OCT 9/3/21



#6 J.K. The POINT

- ▶ Comorbidities may exist with PCO. If degree of PCO is not in keeping with VA look for other causes and/or contributors.
- ▶ If symptoms persist post YAG look for other causes. Do not automatically assume it is due capsular remnants.
- ▶ Color vision, pupils, VF, OCT are your friends – use them.

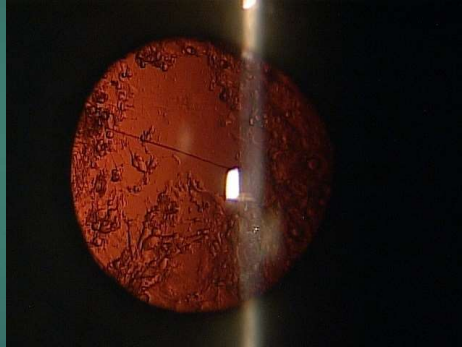
#7 J.S. Posterior Capsule Distention

- ▶ J.S. (87121) 77 yoF
- ▶ Phaco w IOL
- ▶ OD – 10/18/17
- ▶ OS – 10/17/17
- ▶ 10/30/20 Decreased vision
- ▶ YAG OS – 102 shots, 3.6 mJ
- ▶ YAG OD cancelled (illness)

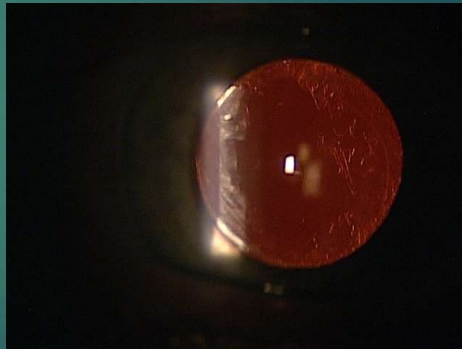


#7 J.S.

- ▶ 3/10/23 Decreased vision OD
- ▶ BVA OD – 20/40, 20/400
- ▶ SLE – IOL w PC distention OD
- ▶ IOL s/p YAG OS
- ▶ YAG OD – 86 shots, 2.6 mJ
- ▶ Tx – Pred forte qid OD x 1 week

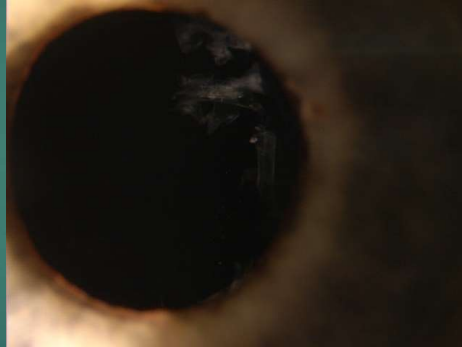


#7 J.S. Immediately Post YAG



#7 J.S. Post YAG OD 1 week

- ▶ 3/17/23 Vision improved
- ▶ UnCVA – 20/25
- ▶ BVA - 20/20
- ▶ Anterior vitreous clear
- ▶ Couple of capsular remnants
- ▶ Taper off Pred forte

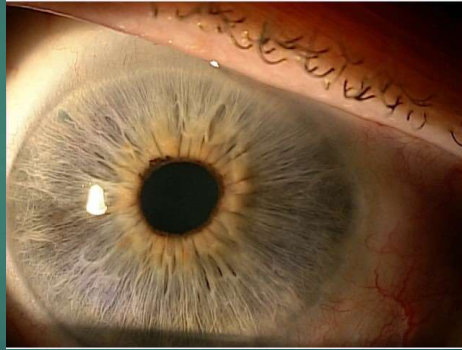


#7 J.S. The POINT

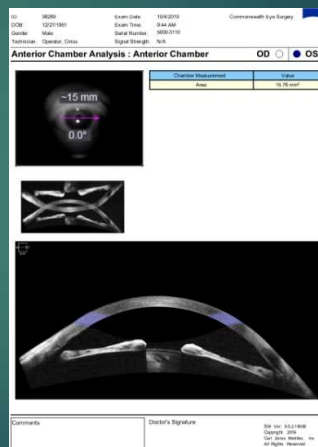
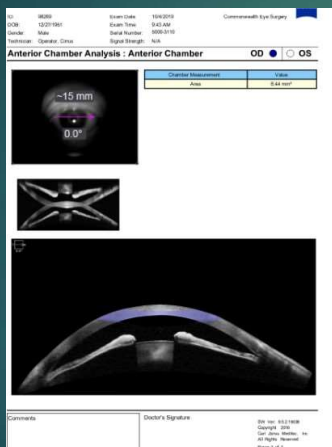
- ▶ Posterior Capsular Distention Syndrome associated with a milky fluid captured between posterior IOL surface and PC.
- ▶ Post YAG VA will not immediately be clear, likely still hazy due to residual milky haze. Symptoms will continue until vitreous is clear.
- ▶ May precipitate ocular inflammation – add pred qid x 1 week and taper as needed.

#8 W.B

- ▶ W. Be. (98269) 71 yoM
- ▶ 10/4/19 – Cataract evaluation
- ▶ Hx – PRP and injections for retinal/vitreous hemorrhages
- ▶ LPI (2) OD and (2) OS
- ▶ SLE – patent LPI(?), posterior synechiae. NS 2+ OU
- ▶ Gonio – ATM OU
- ▶ Surgery delayed



#8 W.B. OCT Narrow Angles 10/4/19

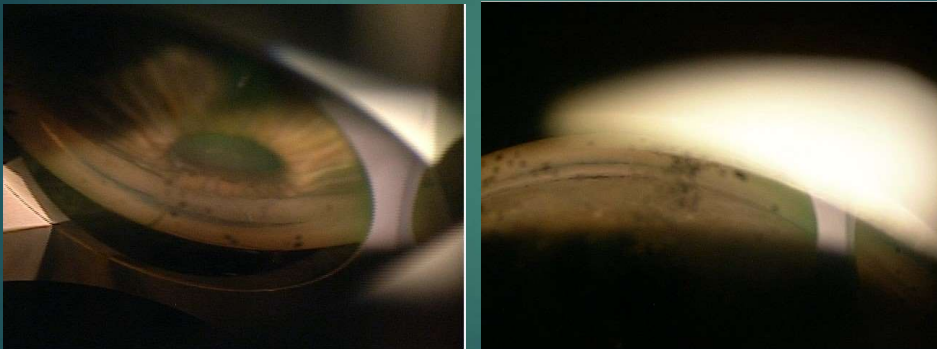


#8 W.B.

- ▶ 7/30/21 Returns for cataracts
- ▶ Hx: Laser for retinal tears and floaters. Reports throbbing pain in eyes from time to time. Using timolol/brimonidine q12h OU.
- ▶ SLE – 2 LPI, 3+ NS OD; 3 LPI, 2+ NS OS
- ▶ TA – 32 mmHg OD, 10 mmHg OS
- ▶ Gonio – OD ant to SL, OS SS

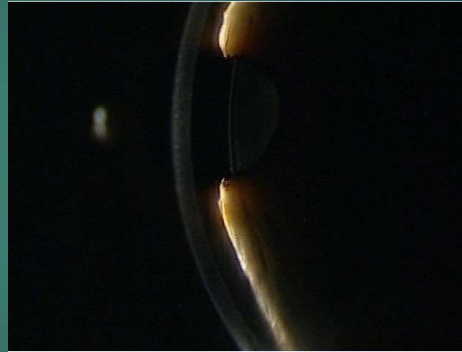


#8 W.B. Gonio Pre Phaco OD



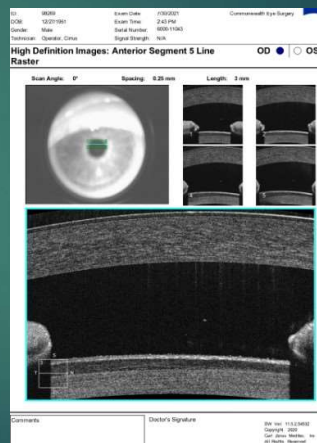
#8 W.B.

- ▶ A.L. – OD 21.53, OS 21.13
- ▶ ACD – OD 1.74 mm , OS 2.61mm
- ▶ IOL Power – 28 OD, 30 OS
- ▶ Phaco w IOL
- ▶ OD 8/26/21 target emmetropia
- ▶ OS 9/2/21 same target



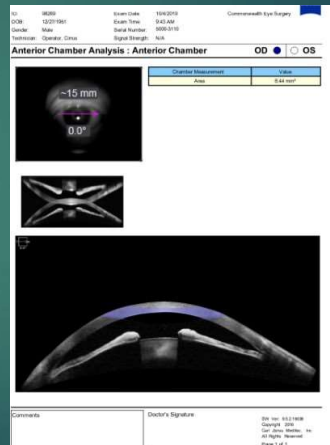
#8 W.B.

- ▶ 9/2/21 Reports vision OD foggy yesterday and today
- ▶ BVA 20/70
- ▶ MRx -2.00
- ▶ SLE – Shallow AC OD
- ▶ TA – 16 mmHg (timolol/brimonidine gtts)
- ▶ Proceed with Phaco OS
- ▶ 9/3/21 – UnCVA OS 20/30
- ▶ Note – pic is phakic pre CE OD



#8 W.B.

- ▶ 9/9/21 CC monocular diplopia OD
- ▶ BVA – 20/30 OD
- ▶ MRx : -2.75 DS
- ▶ SLE – AC shallow
- ▶ TA - 30 mmHg OD, 10 mmHg OS
- ▶ Note – pic is phakic pre CE OD



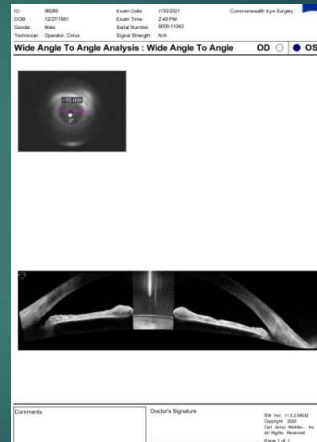
#8 W.B.

- ▶ 9/17/21 Continue blurred vision OD>OS.
- ▶ UnCVA – 20/150, 20/60
- ▶ MRx – OD -4.75 20/25
- ▶ OS -1.00 20/25
- ▶ SLE – Shallow AC OD
- ▶ TA – 33 mmHg
- ▶ Repeat LPI OD – 1 shot, 3.6 mJ
- ▶ Tx: Diamox 500 mg po bid; Pred forte qid
- ▶ Note – pic is phakic pre CE OD



#8 W.B.

- ▶ 9/22/21
- ▶ SLE – Deeper AC
- ▶ TA – 13 mmHg
- ▶ 10/8/21 Vision much better
- ▶ UnCVA – 20/30 OD and OS
- ▶ SLE – AC deep and quiet OU
- ▶ TA – 11 mmHg
- ▶ Note – pic pre CE OS

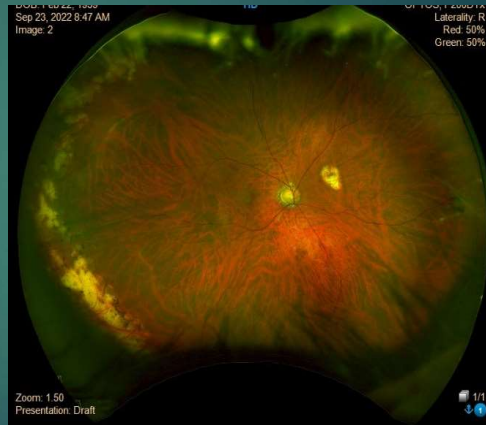


#8 W.B. The Point

- ▶ Posterior synechiae may form after LPI if inflammation not controlled and/or patient on pilocarpine.
- ▶ Prevents good pupil dilation and may result in complicated surgery, must be dissected away from lens capsule at cataract surgery.
- ▶ LPI does not protect against phacomorphic angle closure. (This patient had 3.)
- ▶ Post-op CE – shallow anterior chamber + myopic shift → Aqueous Misdirection Syndrome, Malignant Glaucoma. Usually tx with meds including dilation.

#9 R.R. RDs, Retained Lens, COAG

- ▶ R.R. (112431) 64 yoM
- ▶ Hx: Trauma OS →RD 1975
- ▶ Phaco w IOL OS 2009
- ▶ Phaco w IOL OD 2014
- ▶ RD OD 2014
- ▶ YAG OU
- ▶ COAG on timolol/brimonidine
- ▶ A.L. – OD 27.90, OS 27.88



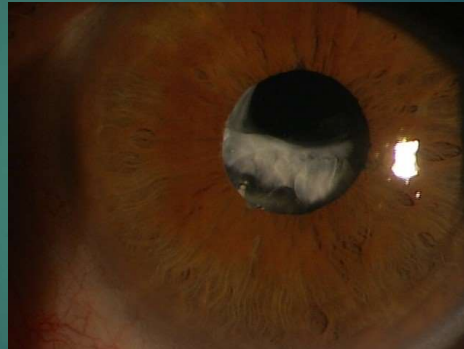
#9 R.R.

- ▶ 9/23/22 Decreased vision OS > OD.
- ▶ BVA – OD 20/20 BAT 20/30
- ▶ OS 20/60 BAT 20/400
- ▶ SLE – OD PC open with small nasal remnant. OS anterior phimosi and retained lens material
- ▶ TA – 15,14

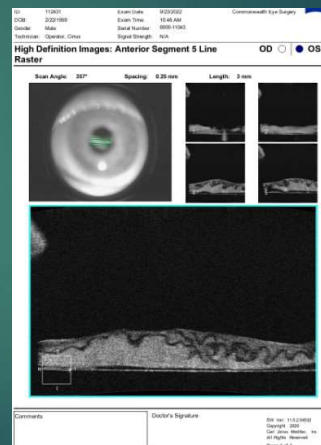
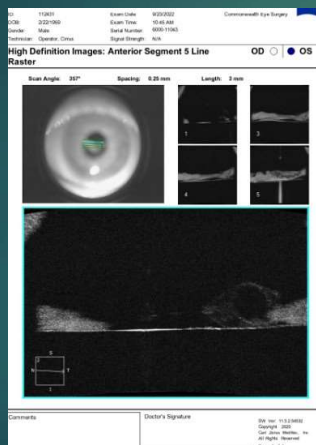


#9 R.R.

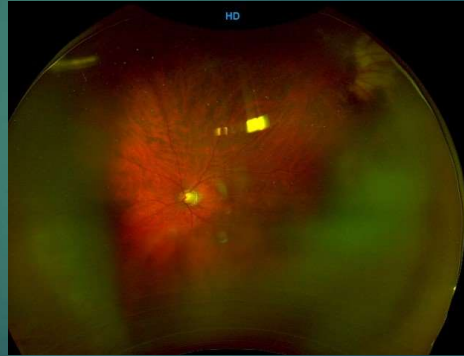
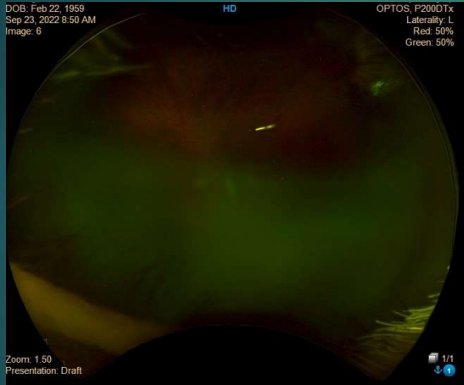
- ▶ Fundus
- ▶ Cup-disc .85, no disc heme
- ▶ Retina flat OU
- ▶ YAG OS – 179 shots, 2.6 mJ
- ▶ Post YAG TA – 15 mmHg
- ▶ Continue glaucoma meds, add Pred forte qid



#9 R.R. OCT of Retained Lens Material



#9 R.R. Fundus Pre and Post YAG



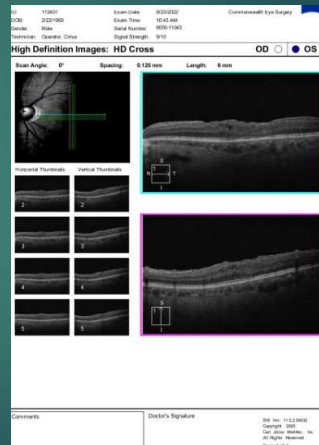
#9 R.R.

- ▶ 9/30/22 YAG Post-op
- ▶ Vision is improved subjectively.
Using pred acetate qid,
timolol/brimonidine q12h.
- ▶ BVA – 20/60
- ▶ SLE – visual axis clear
- ▶ TA – 14 mmHg, 15 mmHg
- ▶ Taper pred bid x 1 week, qd x 1 week



#9 R.R.

- ▶ Advanced glaucoma based upon VF
- ▶ Decreased VA OS ERM
- ▶ TA – 15 mmHg OD,OS
- ▶ Want IOP lower
- ▶ Sample netarsudil/latanoprost
- ▶ Refer to glaucoma sub.

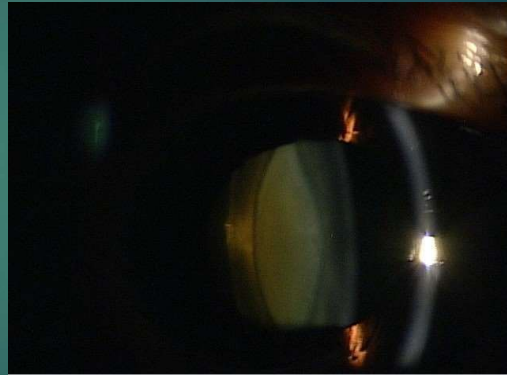


#9 R.R. The POINT

- ▶ If retained lens material and or PC distention YAG debris may stimulate inflammation. Use topical steroid.
- ▶ There may be a limit to how much YAG you want to do in a given situation. May want to send back to surgeon.
- ▶ If the face of comorbidities – “Will YAG make it better? Will YAG improve visualization of posterior segment for continued monitoring and/or treatment?”

#10 T.V. YAG Plus Homonymous Hemianopsia

- ▶ T.V. (105370) 65 yoF
- ▶ Hx: Macular pucker peel with vitrectomy and gas bubble OS.
- ▶ CC: Decreased vision OS>OD
- ▶ BVA – OD 20/25 BAT 20/60
- ▶ OS 20/80
- ▶ MRx – OD -4.00
- ▶ OS -10.00
- ▶ Phaco w IOL OS 10/11/21

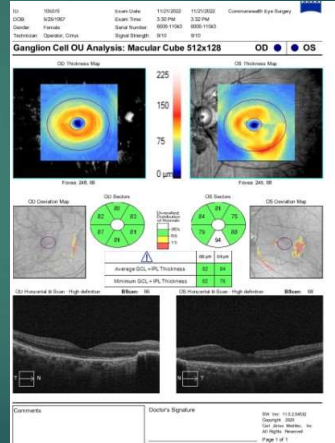
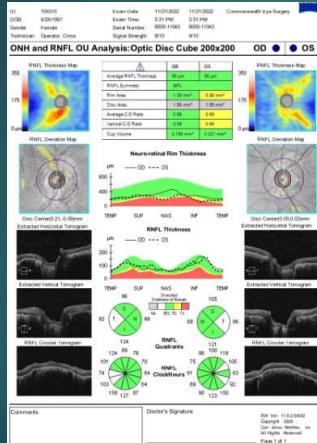


#10 T.V.

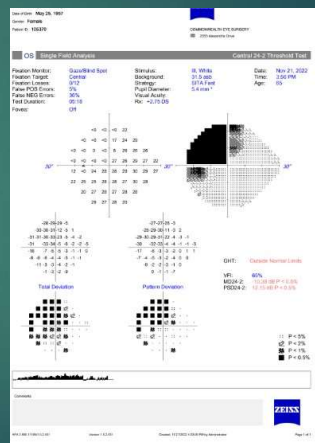
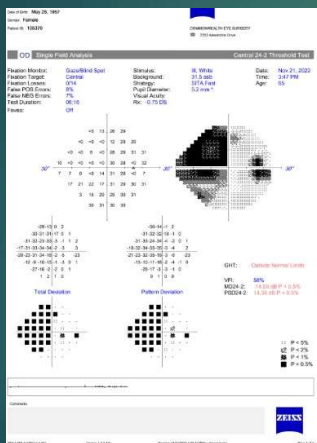
- ▶ 10/14/22 Decreased vision OS
- ▶ BVA – 20/20 BAT 20/200
- ▶ SLE – PCO OS
- ▶ YAG OS – 47 shots, 2.6 mJ
- ▶ 11/21/22 Reports seeing lights in her superior temporal visual field and peripheral area of “dripping water”



#10 T.V. OCT



#10 T.V. VF



#10 T.V.

- ▶ Added history
- ▶ Saw primary OD in September who did VF reported normal
- ▶ Auto accident after that in which she said she could not see oncoming vehicle.
- ▶ LEFT superior homonymous hemianopsia.
- ▶ PCP to coordinate imaging
- ▶ Neuro consult

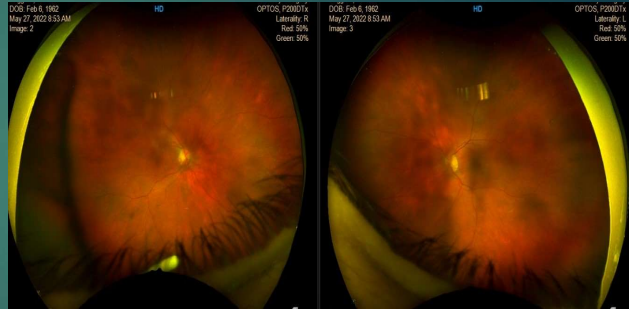


#10 T.V. The POINT

- ▶ Vitrectomy stimulates cataract development.
- ▶ Nuclear sclerotic cataracts produce a myopic shift.
- ▶ Macular surgery, ERMs and other macular pathology may affect the Ganglion Cell Layer inhibiting its usefulness for monitoring glaucoma.
- ▶ Are symptoms consistent with PCO or post YAG? Retinal issues? Higher up the visual pathways?

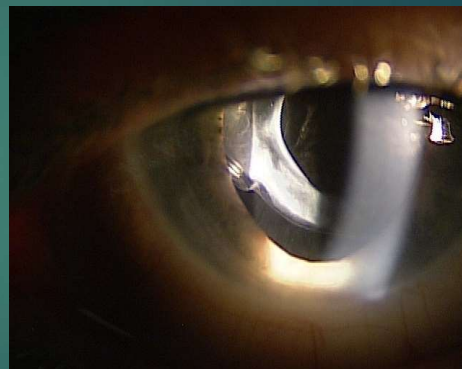
#11 M.H. YAG and Chronic Uveitis

- ▶ M.H. (102667) 61 yoF
- ▶ 9/30/20 Cataract eval
- ▶ Hx: DM, stage 2 kidney failure.
- ▶ Chronic uveitis on difluprednate
- ▶ SLE – 2+NS OU, posterior synechiae OD.
- ▶ Fundus – no DR. ERM OS.
- ▶ Phaco w IOL
- ▶ OD – 10/5/20 diflupred post-op
- ▶ OS – 10/19/20 diflupred post-op

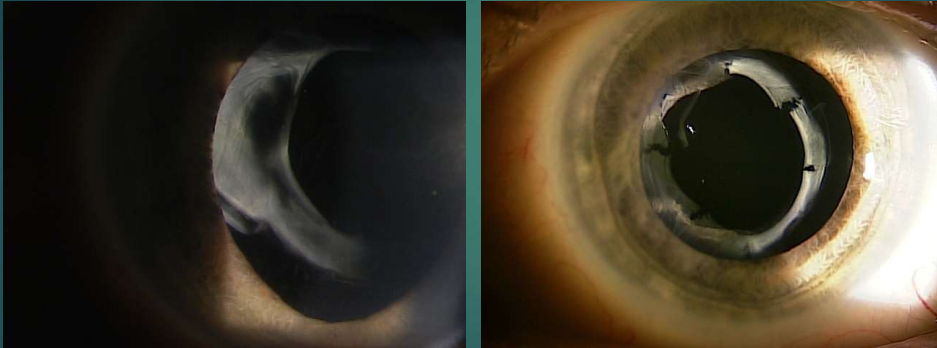


#11 M.H.

- ▶ 5/27/22 Decreased VA OU. Dex intravit implant OD. CME OD.
- ▶ BVA – 20/150 OD, 20/200 OS
- ▶ SLE – PCO and anterior phimosia
- ▶ YAG OS – 153 takes, 2.6 mJ Pred
- ▶ 6/1/22 YAG Post-op.
- ▶ BVA – 20/30
- ▶ Taper pred bid x 4 days, then qd
- ▶ YAG OD when cleared by retina



#11 M.H. Pre and Post YAG OS

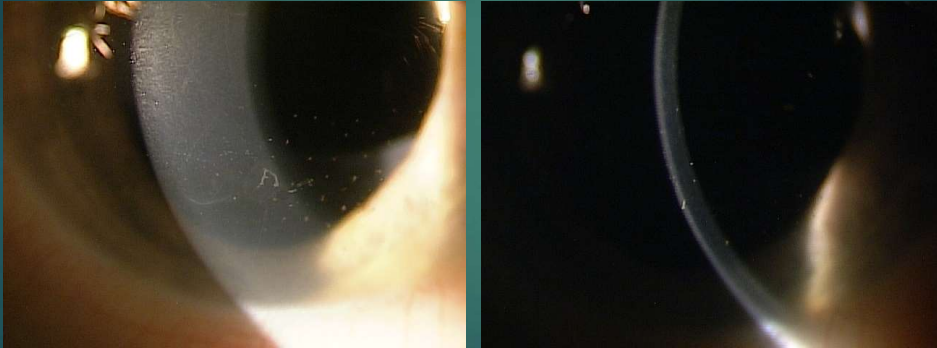


#11 M.H.

- ▶ 7/22/22. Cleared for YAG OD.
- ▶ Using atropine qd, pred qid OD along with dex intra vit implant.
- ▶ BVA – 20/150 OD, 20/30+2 OS
- ▶ SLE – EBMD, KP, PCO OD. S/P YAG OS
- ▶ TA – 19 mmHg OD, 18 mmHg OS
- ▶ YAG OD – 94 spots, 3.0 mJ



#11 M.H. EBMD and KP OD

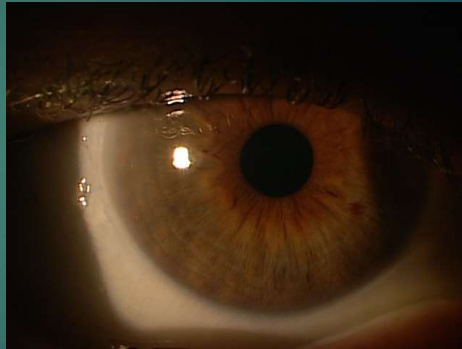


#11 M.H. The POINT

- ▶ Patients with a history of uveitis who undergo cataract surgery need extra steroid coverage post-op. Consider difluprednate or orals.
- ▶ Anterior capsular phimosis puts stress on the IOL and can affect IOL positioning within the capsular bag. YAG "relaxing" incisions relieve this.
- ▶ In patients with CME delay YAG until clear or retina says OK to go ahead.

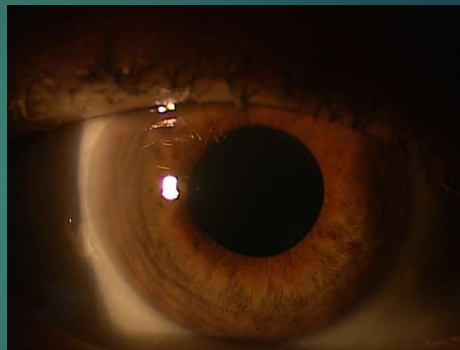
#12 J.D Aqueous Misdirection

- ▶ J.D. (114391) 63 yoF
- ▶ 11/29/22 Cataract eval
- ▶ Med. Hx: DM, +tobacco
- ▶ SLE – AC d+q, NS 2+ OU
- ▶ TA – 20 mmHg, 15 mmHg
- ▶ A.L. - 22.49 OD, 22.42 OS
- ▶ ACD – 3.11 OD, OS
- ▶ Phaco w IOL
- ▶ OD 3/8/23 target emmetropia



#12 J.D

- ▶ 3/15/22 Post-op OD
- ▶ UnCVA – 20/25
- ▶ SLE – AC deep, 1+ cell, PCIOL
- ▶ TA – 13 mmHg, 19 mmHg
- ▶ Proceed with CE OS
- ▶ 3/15/22 Phaco w IOL OS



#12 J.D

- ▶ 3/16/23 Patient sent back to CES for elevated IOP and decreased vision. TA 29. Myopic shift. IOP med given by referring doc.
- ▶ UnCVA – 20/100 OD, 20/200 OS
- ▶ SLE – OD shallow chamber with closure peripheral. OS deep with 1+ cell.
- ▶ TA – 22 mmHg, 21 mmHg
- ▶ Gonio – OD No structures visible. OS slit angle in periphery.



#12 J.D

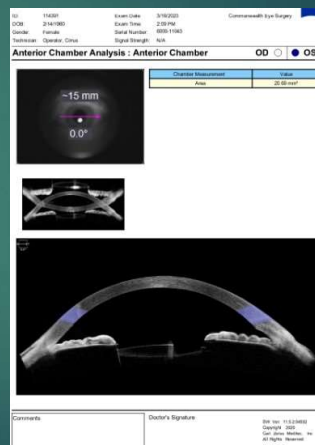
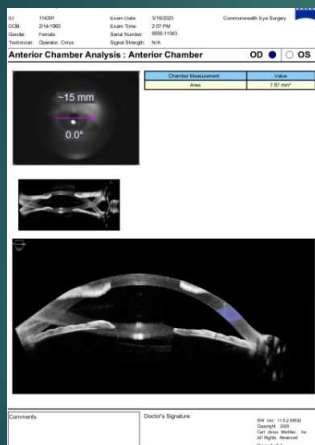
- ▶ Dx: Aqueous misdirection OD, possibly beginning OS
- ▶ Tx: Continue PMB qid OU, cyclopentolate instilled OU, acetazolamide 250 mg 2 tabs PO and 3 given for dinner, bedtime, breakfast
- ▶ RTC 1 day



#12 J.D



#12 J.D Shallow AC OD, Deeper OS



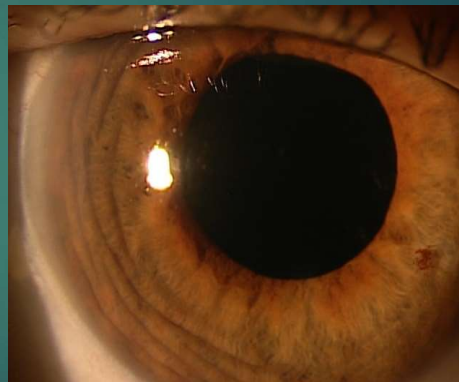
#12 J.D

- ▶ 3/17/23 day 2 post-op OS, 9 OD
- ▶ Vision still blurred. Meds as scheduled.
- ▶ UnCVA – OD 20/150, J2
- ▶ OS 20/200, J1
- ▶ SLE – unchanged OU
- ▶ TA – 11 mmHg, 12 mmHg
- ▶ Tx: PMB, cyclopentolate bid, acetazolamide 500 mg bid
- ▶ RTC 4 days



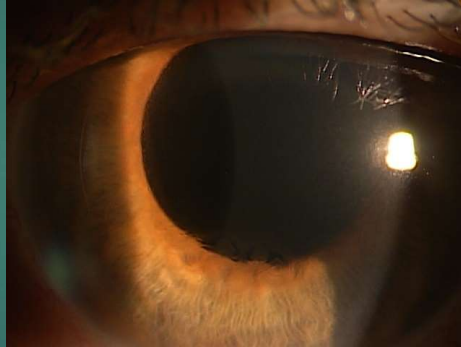
#12 J.D

- ▶ 3/21/23. Vision slightly better.
- ▶ Meds as scheduled
- ▶ UnCVA – 20/30 OD, 20/40 OS
- ▶ SLE – same
- ▶ TA – 11 mmHg OD, 13 mmHg OS
- ▶ Tx: stop acetazolamide, sample bimatoprost qhs, cont. cyclopentolate, PMB
- ▶ RTC 1 week

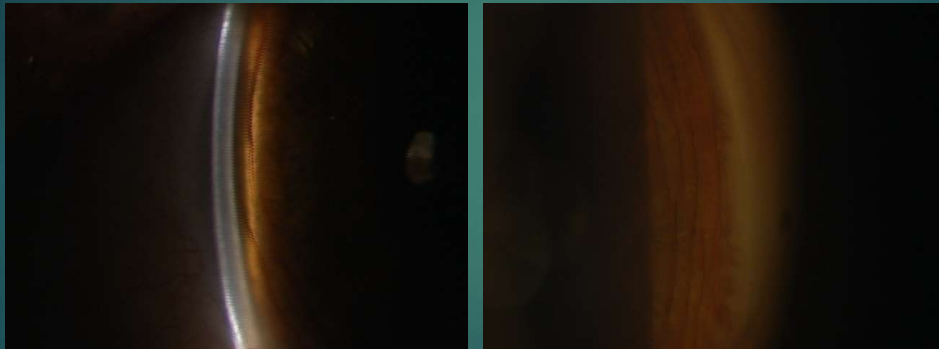


#12 J.D

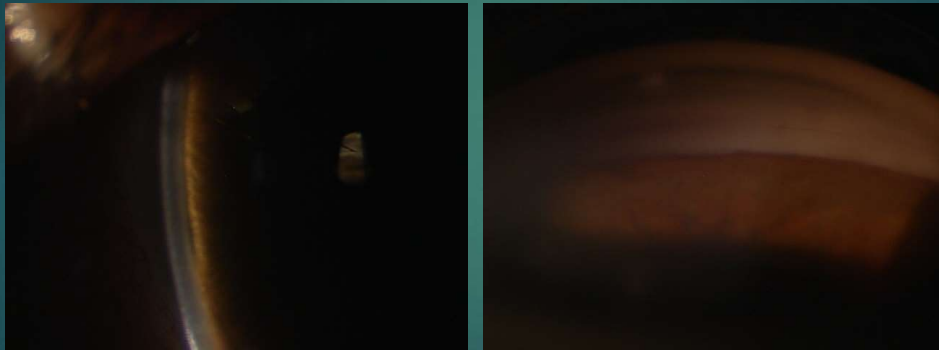
- ▶ 3/29/22 OD about the same but very blurred VA OS and headache
- ▶ UnCVA – 20/30+ OD, 20/250 OS
- ▶ SLE – OD AC deep and quiet. OS microcystic corneal edema and very narrow angles.
- ▶ TA – 13 mmHg OD, 55 mmHg OS
- ▶ Gonio – OD deep to SS. No structures seen OS.



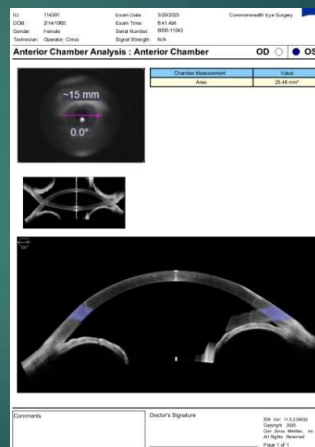
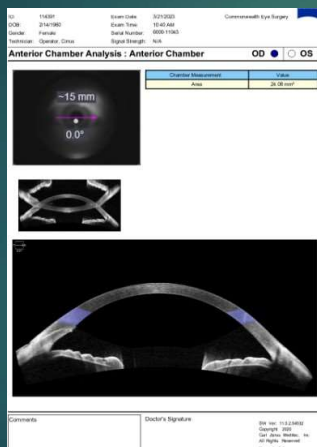
#12 J.D OD deeper AC and Angle



#12 J.D Shallow to Closed Angle OS

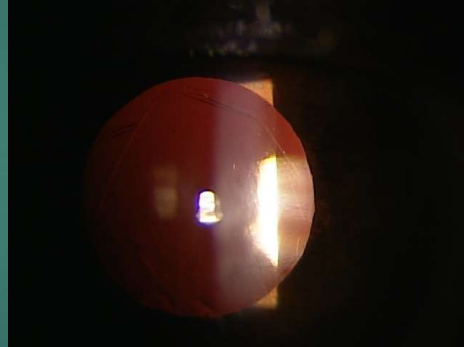


#12 J.D OCT Open Angle, Pupil Block



#12 J.D

- ▶ Dx: Aqueous misdirection resolved OD, pupil block OS
- ▶ Mx: acetazolamide 250 2 tabs po
- ▶ YAG anterior vitrolysis and capsulotomy OS. 33 takes, 2.6 mJ
- ▶ SLE – AC deepened and IOP reduced to 13.
- ▶ Tx: Cont. PMB. Stop bimatoprost, sample timolol/brimonidine.



#12 J.D Immediately Post YAG



#12 J.D

- ▶ 4/5/23. Slight headache. Vision better but still a little blurred. Using timolol and a dilating drop.
- ▶ UnCVA – 20/30 OD, 20/40 OS
- ▶ SLE – AC deep and quiet OD, shallow and quiet OS. S/P YAG OS.
- ▶ TA – 13 mmHg OD, 11 mmHg OS
- ▶ Mx: Stop all other meds, cont. PMB as scheduled
- ▶ RTC 2 weeks



J #12 J.D

- ▶ UnCVA – 20/25 OD, 20/40 OS
- ▶ SLE – Pseudophakic anterior segment, AC deep + quiet
- ▶ TA – 14 mmHg OD, 9 mmHg OS
- ▶ Gonioscopy – CBB visible OU
- ▶ Release to Primary Eye Doc



#12 J.D. The POINT

- ▶ Narrow anterior chamber angle and shallow anterior chamber centrally after ocular surgery - think about Aqueous Misdirection.
- ▶ Aqueous misdirection → treat medically with DILATION, hyperosmotics.
- ▶ May require LPI and/or laser anterior hyaloidotomy, PPV.
- ▶ Pseudophakic pupil block shows an anterior billowing of peripheral iris.
- ▶ Pseudophakic pupil block → DILATION, LPI

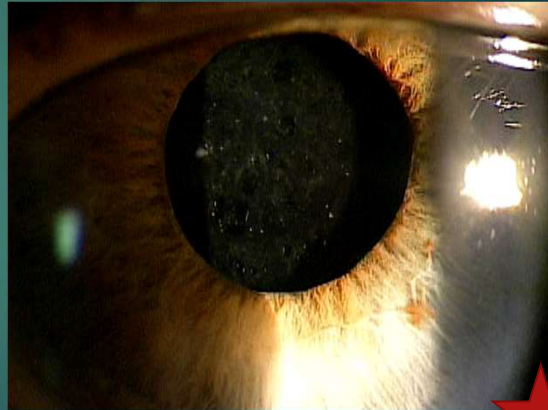
#13 R.P. YAG and Pseudophacodonesis/ RCVC

- ▶ R.P. (94464) 61 yoF
- ▶ Hx of CRVO with RCVC OD
- ▶ Phaco w IOL
- ▶ OD 4/26/19 – lax zonules
- ▶ OS 3/26/19 – lax zonules
- ▶ 1/14/22 Returns for YAG
- ▶ BVA – 20/80 OU
- ▶ SLE – IOL w PCO + pseudophacodonesis OU



#13 R.P.

- ▶ YAG OD 1/14/22 – 111 s, 2.6 mJ
- ▶ 2/18/22 – Improved vision OD
- ▶ UnCVA – 20/30+ OD
- ▶ YAG OS 2/18/22 – 88 s, 2.6 mJ
- ▶ Post YAG – No pain, improved VA
- ▶ UnCVA – 20/30+ OS



#13 R.P. The point

- ▶ Be careful with YAG when lax zonules and pseduophacodonesis
- ▶ It can subluxate the IOL

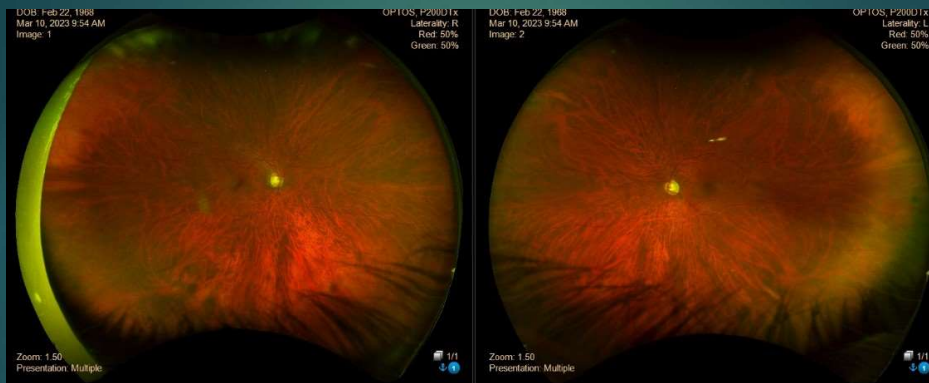
#14 J.P. Glaucoma?

(*)

- ▶ J.P. (116134) 50 yoM
- ▶ 3/10/23
- ▶ FmHx: MGM had glaucoma
- ▶ Med Hx: Surgery for arachnoid cyst pressing on ON 30 and 25 yrs ago. Using Lumigan qhs. Sent for possible SLT.
- ▶ BVA – 20/15 OD, 20/100 OS
- ▶ No APD recorded (?)
- ▶ TA – 17 mmHg, 18 mmHg

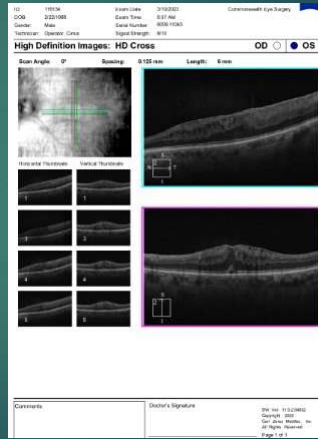


#14 J.P.

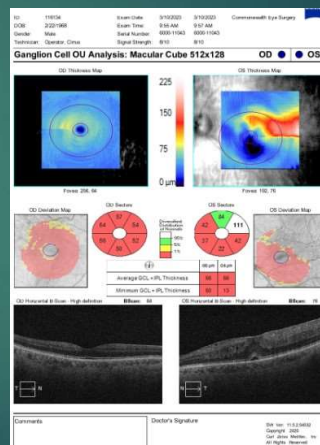
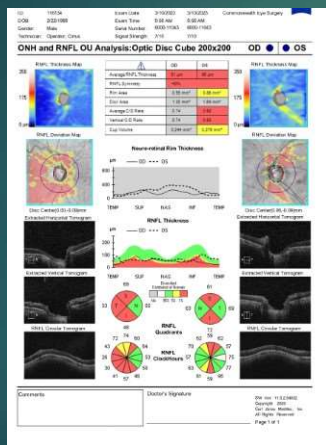


#14 J.P.

- ▶ Gonio – SS visible with 2-3+ PTM
- ▶ Fundus
- ▶ OD - .7 cup, no disc heme
- ▶ OS - .7 cup, no disc heme, ERM
- ▶ OCT – ERM with Macular pucker
- ▶ SLT OS – apraclonidine, acetazolamide
- ▶ 102 takes over 360 degrees, 98 mJ, 3 nsec, 400 mic spot size
- ▶ Post TA 10 mmHg
- ▶ Tx – ketorolac .4% qid x 3 days



#14 J.P. NFL and GCL 3/10/23



#14 J.P.

- ▶ Retinal consult for ERM OS
 - ▶ Retina specialist ordered MRI
- ▶ 4/11/23 Returns. No glaucoma meds.
- ▶ BVA – 20/15 OD , 20/80 OS
- ▶ Color plates – 13 OD, 2 OS
- ▶ TA – 17 mmHg, 18 mmHg
- ▶ Wants to proceed with SLT OD
- ▶ SLT OD – 91 takes over 360 degree, 97 mJ, 3 ns, 400 mic spot

Study Result

Impression

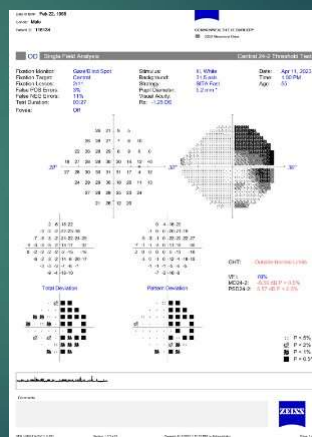
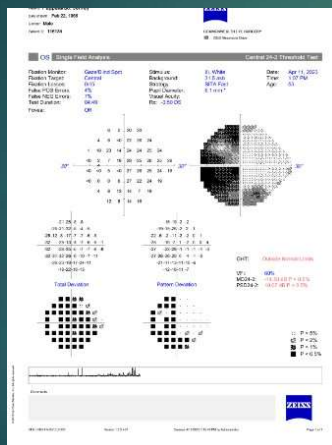
Postoperative changes, as above.

Cystic change in the region of the sella which may be postoperative or less likely neoplastic in nature. Optic chiasm is deviated inferiorly and there may be a discrete cyst superior to the optic chiasm.

Comparison with previous imaging would be of value. Repeat imaging in the pituitary protocol with and without contrast may be of value. The optic nerves are atrophic.



#14 J.P. Bitemporal defect



#14 J.P

- ▶ Hx of chiasmal lesion with depression of chiasm on current MRI along with ON atrophy OU
- ▶ Bitemporal VF defect
- ▶ Reduced VA OS (ERM?) and color vision OS
- ▶ Significant cupping of optic nerves
- ▶ ??? Not sure if he had glc
 - ▶ Tx b/c of optic atrophy
- ▶ Referred to neurology – MRI showed inferior displaced optic chiasm and empty sella. No Tx recommended



#14 J.P. The POINT

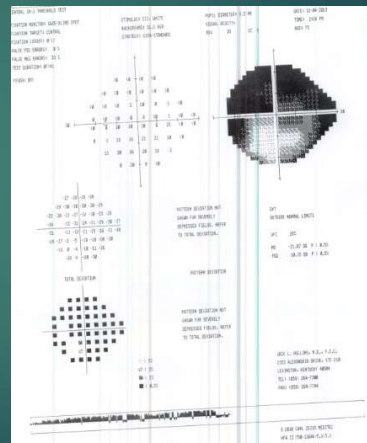
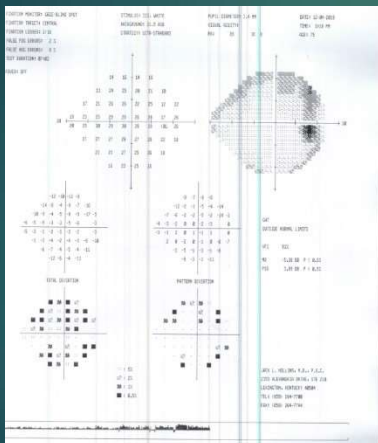
- ▶ Immediately after SLT measured TA may be lower from acetazolamide, apraclonidine.
- ▶ Treat with topical NSAID qid x 5 days.
- ▶ Pharmacy may have NSAID Txed but not in designated %. Inconvenient for patient and doctor. Consider to switching to what pharmacy has in stock. Consider dispensing from your office.
- ▶ Asymmetric glaucoma, color defect, disc pallor → consider non-glaucomatous disease.

#15 S.M.

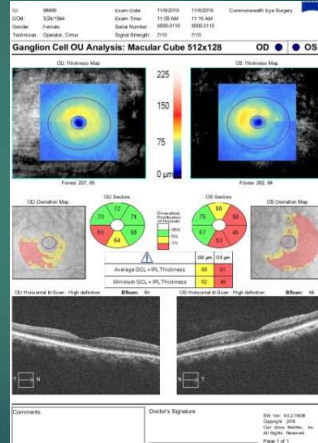
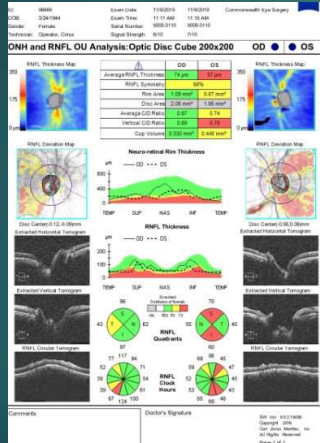
- ▶ S.M. (98466) 79 yoF
- ▶ Inherited from retiring doc who followed for DR and glaucoma.
- ▶ Color plates – 14/14 OD,OS
- ▶ Phaco w IOL
- ▶ OD - 11/11/20; YAG 6/24/22
- ▶ OS - 12/2/20; YAG 7/1/22
- ▶ Followed on latanoprost qhs OU



#15 S.M. VF 12/4/19



#15 S.M. OCT 11/19



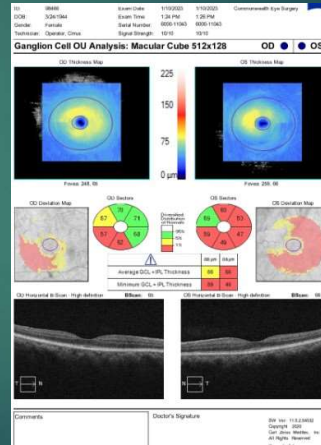
#15 S.M.

- ▶ 9/21/22 – ran out of drops last night.
- ▶ BVA – 20/20 OD, 20/30 OS
- ▶ TA – 20 mmHg, 22 mmHg
- ▶ SLT OS – 98 takes over 360, 89 mJ, 3 ns, 400 spot size
- ▶ 10/11/22
- ▶ TA – 14 mmHg, 16 mmHg

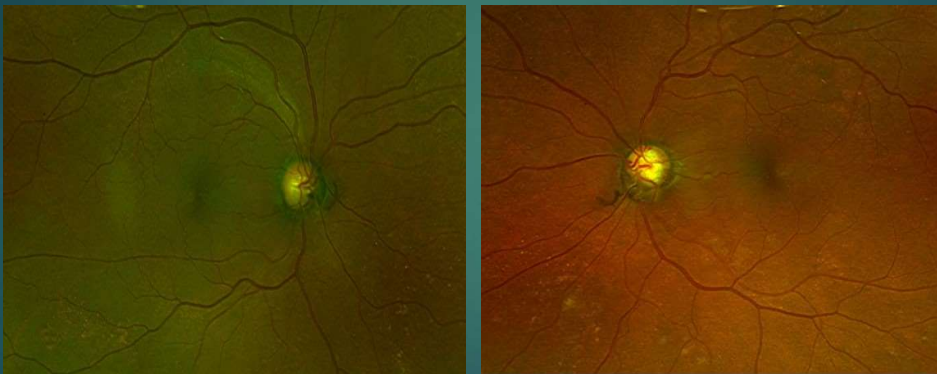


#15 S.M.

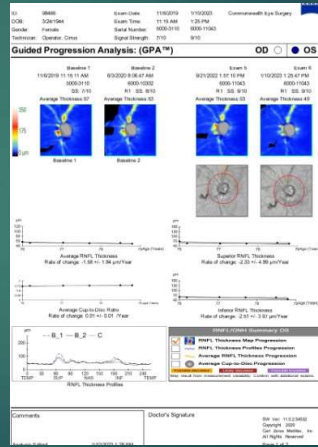
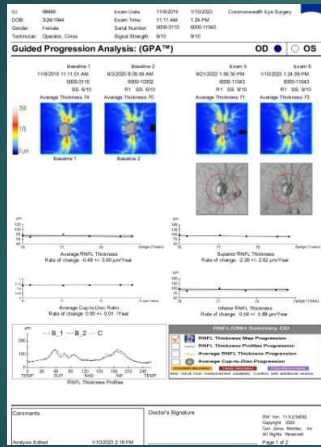
- ▶ 1/10/23 Reports decreased vision OS since last exam.
- ▶ BVA – 20/25 OD, 20/40 OS
- ▶ APD OS reported
- ▶ SLE – K spindles, pseudophakia, s/p YAG
- ▶ TA – 16 mmHg, 16 mmHg
- ▶ Send to glaucoma sub – ordered MRI to R/O non-glaucomatous vision loss



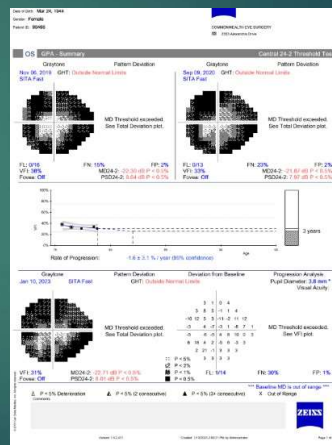
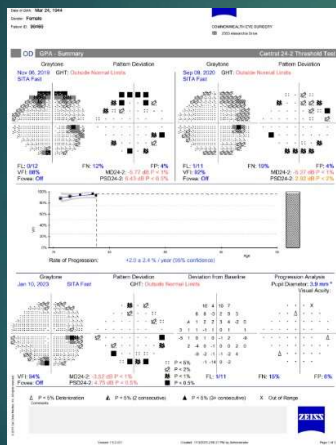
#15 S.M. Disc 1/10/23



#15 S.M. OCT 1/10/23



#15 S.M. VF 1/10/23

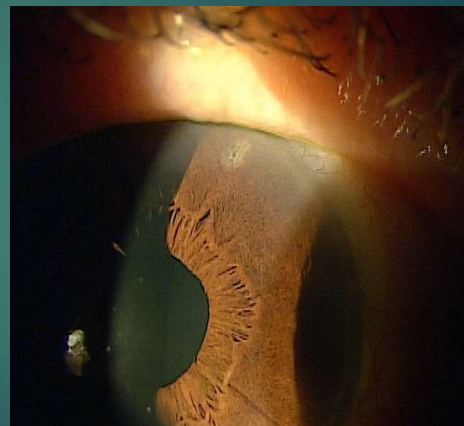


#16 S.M. The POINT

- ▶ When patient noncompliant with meds or office visits → consider SLT and/or referring to glaucoma subspecialist
- ▶ Asymmetric glaucoma → consider non-glaucomatous vision loss

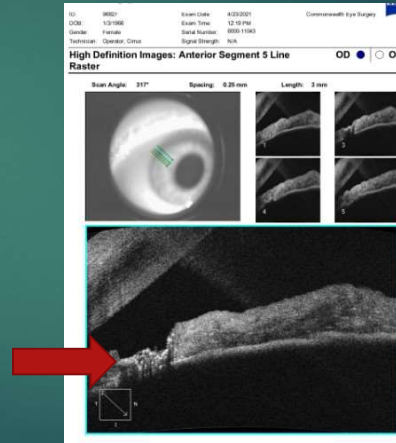
#16 A.W. Non Patent LPI (*)

- ▶ A.W. (96827) 57 yoF
- ▶ 10/16/19 Referred for evaluation of narrow angles and possible LPI. No visual complaints.
- ▶ UnCVA – 20/25 OD,OS
- ▶ SLE – narrow angles OU
- ▶ TA – 19 mmHg, 18 mmHg
- ▶ Gonio
- ▶ OD – ATM, anterior bowing of iris, 3+ PTM
- ▶ OS – TM, anterior bowing, 3+ PTM



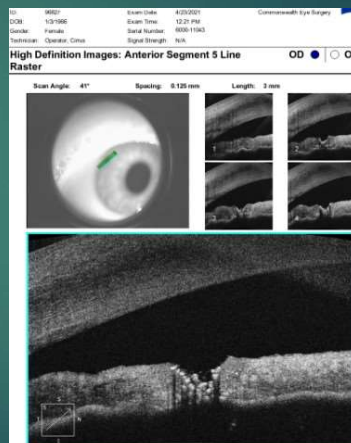
#16 A.W.

- ▶ 11/8/19 returns for LPI OD
- ▶ Argon – 3 takes, 1100mW, .15 msec, 50 micron spot size
- ▶ YAG – 6 takes, 2.8 mJ
- ▶ Multiple cancellations and No Shows



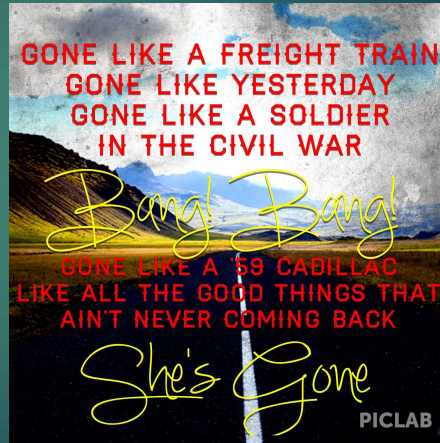
#16 A.W.

- ▶ 4/23/21 Returns for narrow angle OS. No visual complaints.
- ▶ UnCVA – 20/30 OD, OS
- ▶ SLE – narrow angles OU. NON patent LPI OD, metallic corneal FB OD.
- ▶ TA – 16 mmHg, 15 mmHg
- ▶ Repeat LPI OD
- ▶ Argon – 9 takes, 1100mW
- ▶ YAG – 3 takes, 3.4 mJ



#16 A.W.

- ▶ Multiple cancellations and No Shows.

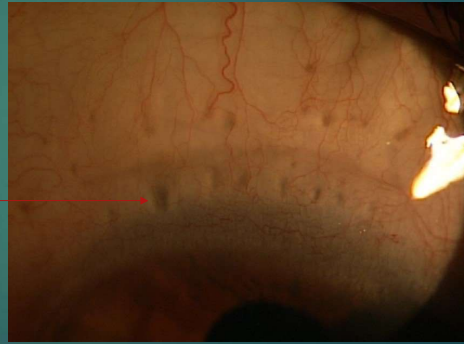


#16 A.W.

- ▶ See previous case.
- ▶ Multiple cancellations and no shows
- ▶ Referred to glaucoma subspecialist
- ▶ Consider sending patient registered letter explaining seriousness of glaucoma and potential for permanent irreversible vision loss and need for follow up exams.

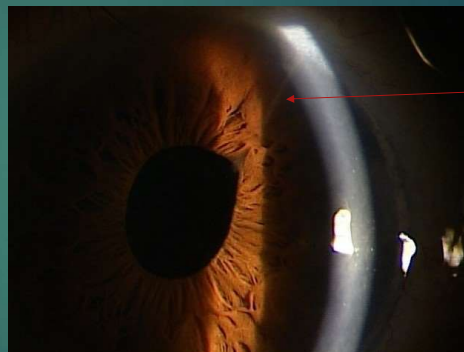
#17 B.B. YAG Anterior Vitreolysis and PCO

- ▶ B.B. (114101) 80 yoF
- ▶ 11/11/22 referred for PCO OU
- ▶ Hx: ECCE with IOL 1988,1989
- ▶ BVA – OD 20/25 BAT 20/400
- ▶ OS 20/20 BAT 20/400
- ▶ SLE – Suture marks on sclera superior OU, IOL w PCO OU, peaked pupil with vitreous to wound OD

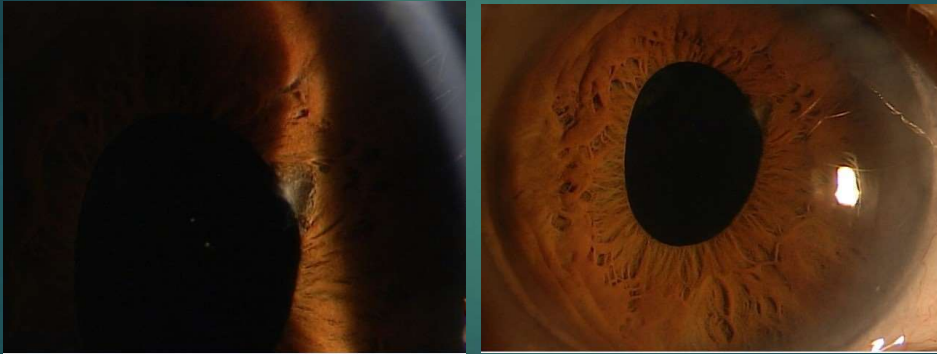


#17 B.B.

- ▶ 11/11/22 YAG OD
- ▶ Vitreous strand to wound
- ▶ PCO
- ▶ 98 shots, 1.8 mJ

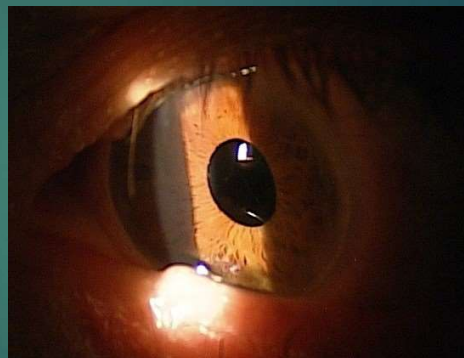


#17 B.B. Pupil rounds out post YAG



#17 B.B.

- ▶ 12/9/22. YAG OS
- ▶ 104 spots, 2.8 mJ
- ▶ 12/19/22 Post-op YAG
- ▶ OD - -1.25 -2.25 x 112 20/20
- ▶ OS - +8.75 -1.75 x 19 20/40
- ▶ SLE – IOL subluxed inferior nasal OS.
- ▶ Referred to retina for removal via posterior approach. They implanted ACIOL.



#17 B.B. The POINT

- ▶ Peaked pupil after cataract surgery → iris or vitreous to the wound, iris may be "caught" on lip of anterior capsule (miotic gtt).
- ▶ Iris or vitreous to the wound increases risk of CME, endophthalmitis if extends through incision.
- ▶ Subluxed lens or IOL → consider retina to remove from a posterior approach if significant (IOL edge visible through undilated pupil?)
- ▶ Secondary IOL options include ACIOL (angle fixation), iris sutured, scleral sutured, Yamane technique, aphakic CL

#18 R.B. Chronic Angle Closure

- ▶ R.B. (116095) 58 yoM
- ▶ Referred for dyscoria OD. Denies ocular trauma other than minor corneal FBs when welding. About 1 year ago his Right pupil began changing shape and his vision became blurred.
- ▶ Med Hx – DM x 7 yrs, AIC 7
- ▶ BVA – 7/200 OD, 20/20 OS



#18 R.B.



#18 R.B.

- ▶ SLE – moderate corneal edema OD

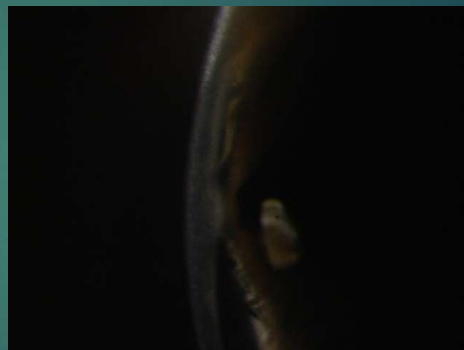


#18 R.B. Moderate Corneal Edema



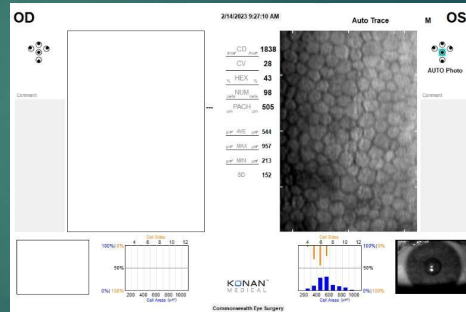
#18 R.B.

- ▶ AC - shallow and quiet.
- ▶ Iris dyscoric with iridocorneal adhesions, no rubeosis
- ▶ NS 1+
- ▶ TA – 22 mmHg, 18 mmHg
- ▶ Fundus detail obscured by corneal edema



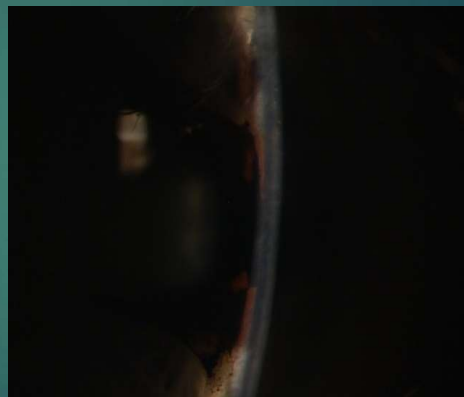
#18 R.B. Differential Diagnosis

- ▶ Trauma
- ▶ HZO or maybe HSK
- ▶ NVG – Hx of DM.
- ▶ Chronic angle closure
- ▶ Iridocorneal endotheliopathy



#18 R.B.

- ▶ Treatment
- ▶ Angle closure → LPI?
- ▶ No. Secondary angle closure mechanically zippered shut by abnormal endo cells growing across the angle onto anterior surface of iris
- ▶ SLT?
- ▶ No. Can't visualize angle. Won't work due to mechanism of condition



#18 R.B.

- ▶ Also had Floppy Eyelid Syndrome
- ▶ Referred to corneal sub due to corneal edema
- ▶ No definitive Dx
- ▶ Started valcyclovir



#18 R.B. The POINT

- ▶ Iridocorneal endotheliopathy syndromes → Chandler's, Progressive Iris Atrophy, Cogan-Reese. Endothelial cells migrate over angle and iris surface. May cause corneal edema, iris atrophy, secondary glaucoma.
- ▶ Usually affects adult women, unilateral
- ▶ Etiology not certain, possible HSV link
- ▶ Treat symptoms of corneal edema, IOP with meds.
- ▶ May ultimately need glaucoma filtering surgery and EK

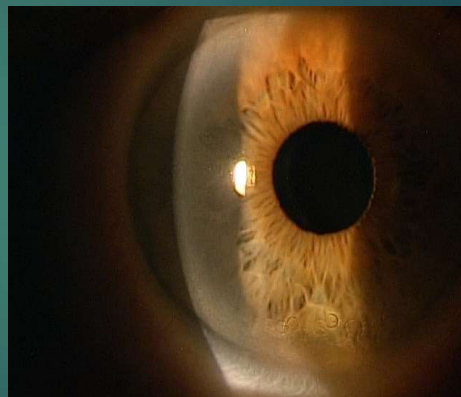
#19 G.C. YAG, SLT and More

- ▶ 12/21/22 G.C. (113261) 69 yoM
- ▶ Hx: RD with repair Kuwait City 2017. Phaco with IOL OU. Color blind. Glaucoma suspect. Was on brimonidine. Last used Sept. 22.
- ▶ Med Hx: DM with A1c 7.8
- ▶ BVA – 20/20, 20/40
- ▶ Color plates 1/14, 1/14

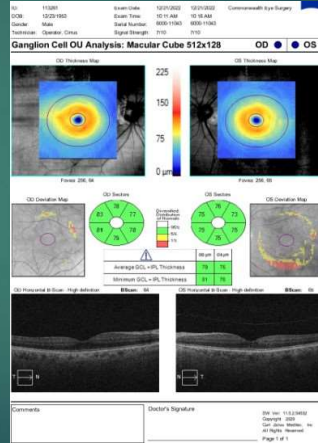
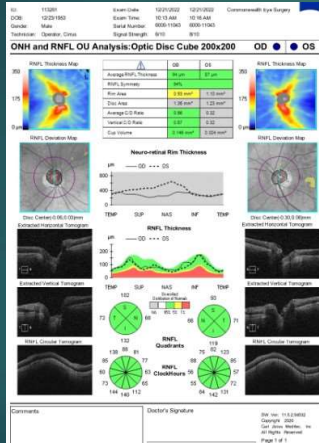


#19 G.C.

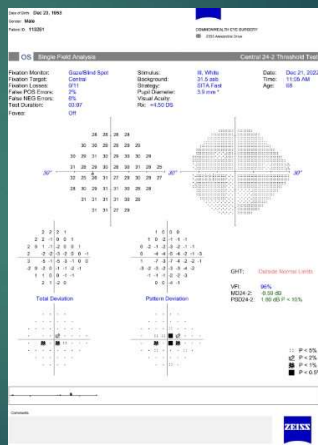
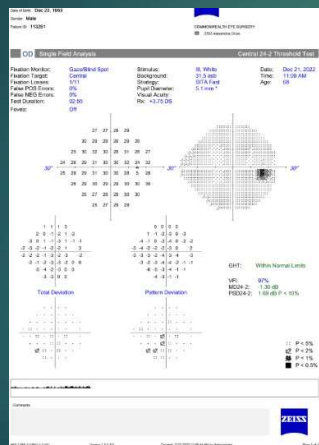
- ▶ SLE – corneas clear, AC deep and quiet, iris flat, IOL with PCO
- ▶ TA – 18 mmHg, 18 mmHg
- ▶ Pach – 632, 629
- ▶ Fundus – C.D. .6 OD, .55 OS. Retina flat with CR scars OD, normal OS
- ▶ OCT
- ▶ VF
- ▶ Return for YAG eval



#19 G.C. OCT



#19 G.C. VF



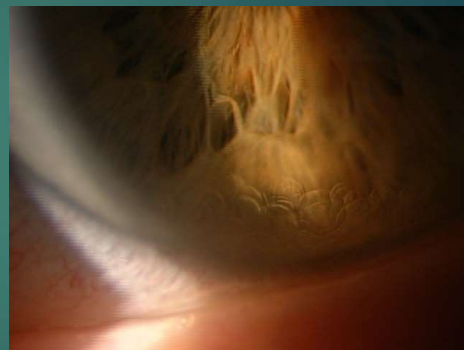
#19 G.C.

- ▶ 1/6/23 YAG Eval. No gtts. Decreased vision OS>OD.
- ▶ BVA – OD 20/20 BAT 20/50
- ▶ OS 20/20 BAT 20/70
- ▶ TA – 28 mmHg, 24 mmHg
- ▶ YAG OS – 30 shots, 2.6 mJ
- ▶ 1/13/23
- ▶ YAG OD – 14 shots, 2.6 mJ



#19 G.C.

- ▶ 3/14/23 Returns for F/U glaucoma suspect. No gtts. No FmHx of glaucoma. VA improved since YAGs.
- ▶ SLE – s/p YAG OU. Silicone oil droplets inferior angle OD.
- ▶ TA – 28 mmHg, 22 mmHg
- ▶ Gonio – CBB visible with 4+ PTM all quadrants OU with silicone oil droplets inferior angle OD.

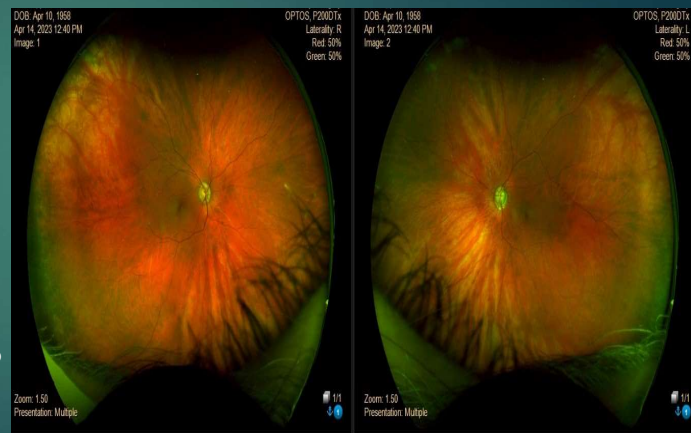


#19 G.C. The POINT

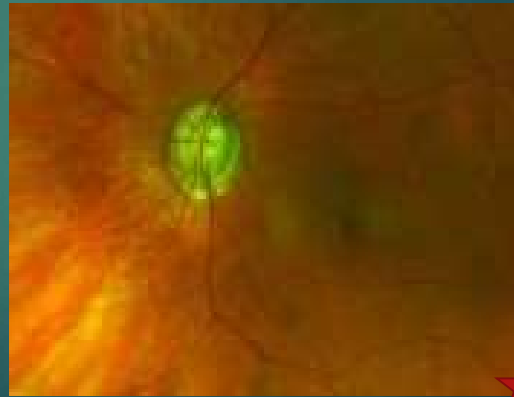
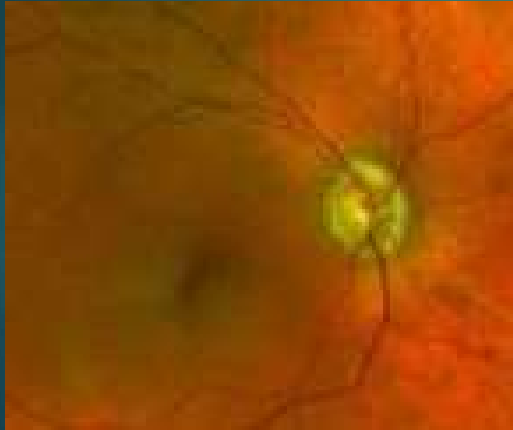
- ▶ Not really sure, but an interesting presentation.
- ▶ Thick corneas, mid to high 20's IOP off meds. Small discs with moderately large cups. No definite glaucomatous VF defect. Normal range NFL and GCL.
- ▶ SLT lowered IOP into middle teens, allows to continue to monitor off glaucoma meds.
- ▶ Consider SLT for first line treatment in patients with glaucoma or glaucoma suspects.

#20 P.W.

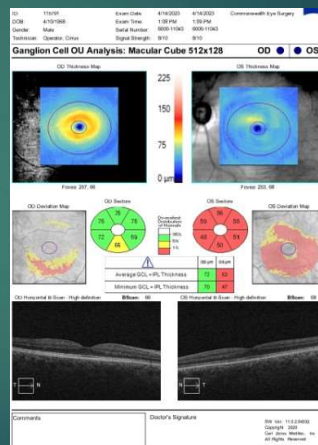
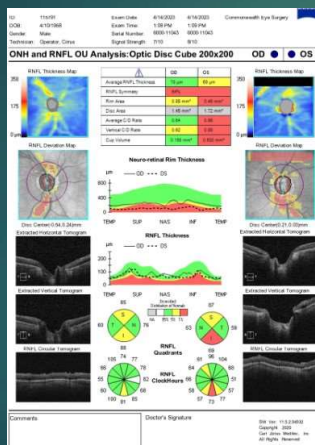
- ▶ P.W. (115791) 65 yoM
- ▶ Hx of COAG x 4 yrs OS > OD. Latanoprost qhs OU. +FmHx for glaucoma.
- ▶ BVA – 20/25 OD, 20/30+2 OS
- ▶ CVF – FTFC OD, reduced nasal and superior OS.
- ▶ TA – 13 mmHg, 15mmHg
- ▶ Gonio – Anterior insertion of iris to CBB, iris bowed anterior with SS to CBB visible all quads, 2+ PTM. Candidate for SLT OU.



#20 P.W. Discs



#20 P.W. OCT



#20 P.W.

- ▶ Dx: Technically Glaucoma Indeterminant stage (no HVF). Based upon CVF – mild to mod OD and mod to adv OS.
- ▶ SLT OS – 80 takes, 79 mJ
- ▶ Post SLT TA – 10 mmHg
- ▶ RTC 4-6 weeks follow up and possible SLT OD
- ▶ TA – 15 mmHg, 14 mmHg
- ▶ SLT OD – 131 takes, 136 mJ

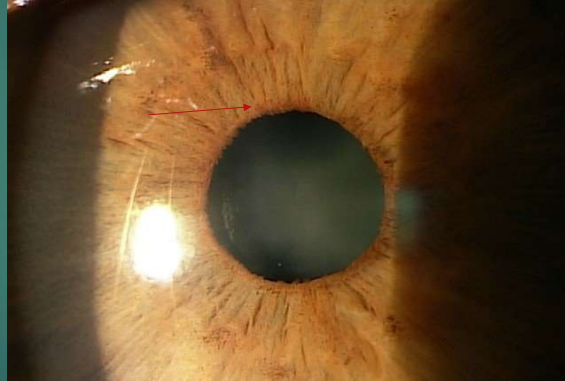


#20 P.W. The POINT

- ▶ Glaucoma severity stages mild, moderate, severe are based upon VF. If no VF or patient unable to do VF then indeterminate.
- ▶ Based upon disc presentation, OCT NFL and GCL. Estimated mild to moderate glaucoma OD and moderate to severe OS.
- ▶ TA mid teens on latanoprost qhs. Given presentation would like lower IOP. Options include switching to name brand gtts, add name brand or generic gtts, SLT.
- ▶ Due to ease of SLT (and no generic) along with difficulty of getting patients on name brand glaucoma meds along with the fact that as number of meds increases compliance decreases chose SLT.
- ▶ Immediate drop in TA post SLT red herring. At 1 month IOP lower by 1 mmHg. MAY improve over time.
- ▶ Patient wanted to go ahead with SLT OD.

#21 S.J. Bi-Nasal VF Defect

- ▶ S.J. (114438) 56 yoF
- ▶ Hx: **Laser for glaucoma**
- ▶ BVA – OD 20/30 BAT 20/400
- ▶ OS 20/20 BAT 20/400
- ▶ SLE – AC shallow and quiet, rubeosis at pupil margin 12:00 OD, NS OU
- ▶ TA – 19 mmHg, 17 mmHg
- ▶ Gonio – Anterior bowing of iris with ATM visible, no NVI in angle



#21 S.J.

- ▶ Dx:
- ▶ Cataracts
- ▶ Narrow angle with danger of closure. Benefit LPI or CE.
- ▶ RCS Plus with Vivity toric
- ▶ OD – 12/5/22
- ▶ OS – 11/21/22

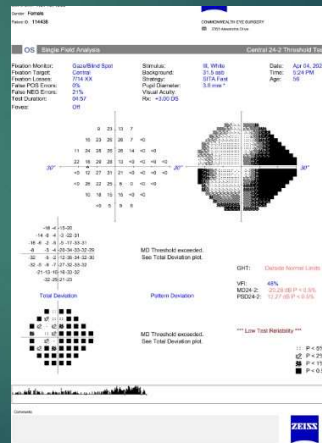
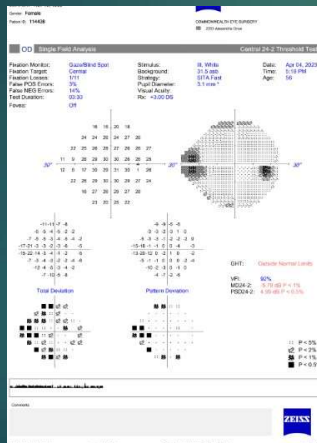


#21 S.J.

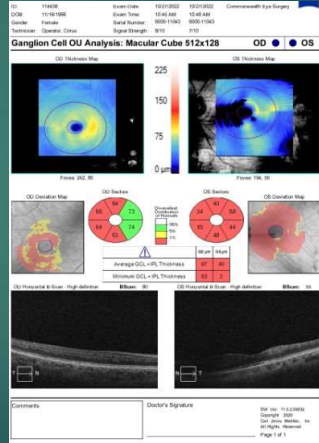
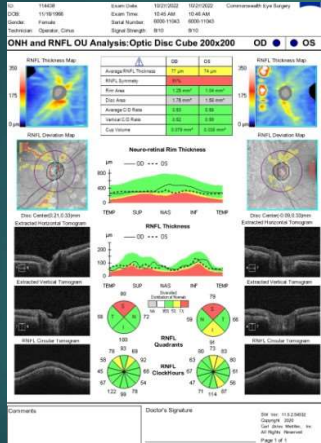
- ▶ 4/4/23 - Returns for enhancement eval. "See less in the top of my vision OS."
- ▶ BVA – OD 20/30, 20/12.5, J1
- ▶ OS 20/40, 20/32, J3
- ▶ CVF – reduced sup nasal OD, Reduce sup-temp, inf nasal OS
- ▶ SLE – PCO
- ▶ C.D. .4 OD, .45 OS



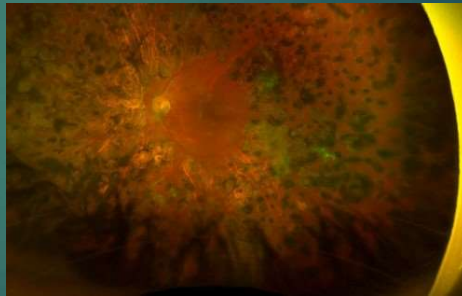
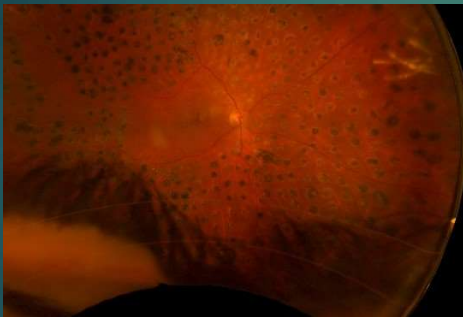
#21 S.J. VF



#21 S.J. OCT



#21 S.J. Fundus



#21 S.J.

- ▶ Symptoms of reduced superior VF and bi-nasal VF defect likely secondary to PRP.
- ▶ Proceed to YAG OD
- ▶ 97 takes, 2.6 mJ



#21 S.J. The POINT

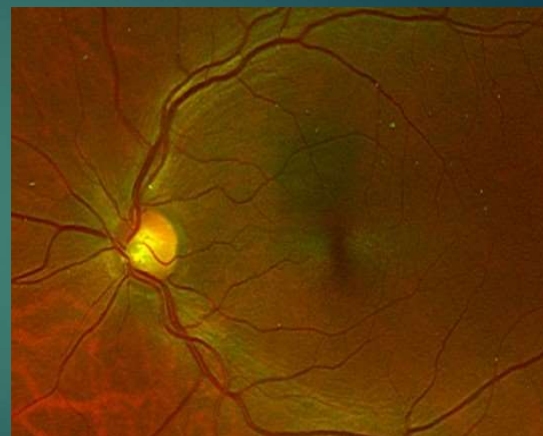
- ▶ Narrow angle and narrow angle glaucoma are better treated with lensectomy than LPI.
- ▶ With angle open, and if no NV of angle could have SLT.
- ▶ VF defect glaucomatous, retinal, neurologic?
- ▶ Make CERTAIN there will be no IOL exchange BEFORE doing YAG. MUCH more risky to exchange an IOL with an open capsule.

#22 E.H. Stent, YAG, SLT Trifecta

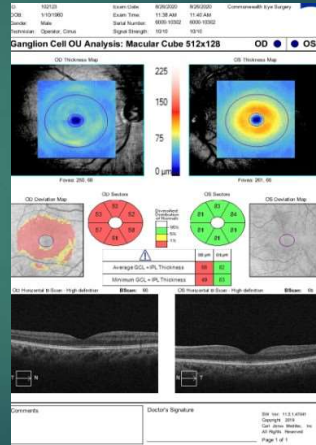
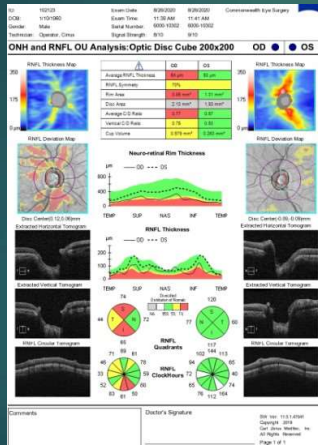
- ▶ E.H. (102123) 63 yo M
- ▶ 8/6/20 – Glaucoma eval. No gtts.
- ▶ BVA - 20/20 OD, OS
- ▶ SLE – shallow AC, 1+ NS
- ▶ TA – 26 mmHg, 14 mmHg
- ▶ Pach – 484 OD, OS
- ▶ Disc - .75 with thin inferior rim OD, .6 OS. Macular cysts OD



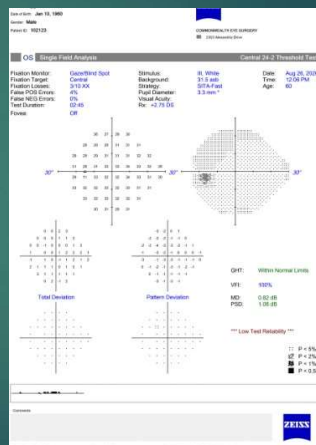
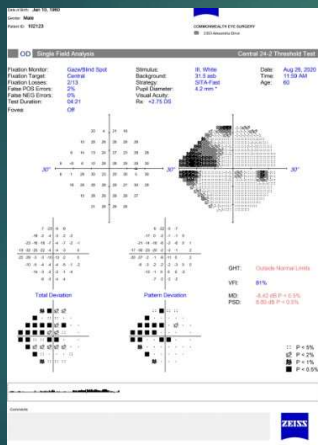
#22 E.H. Disc Photos



#22 E.H. OCT



#22 E.H. VF 8/6/20

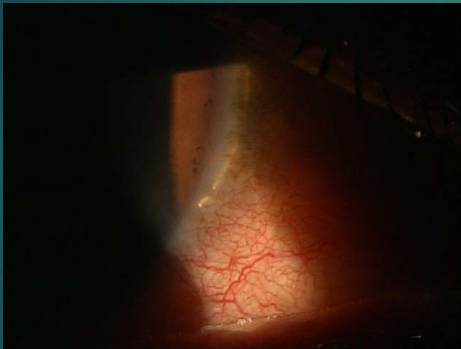


#22 E.H.

- ▶ Dx – NAG OD, NA OS
- ▶ Tx – Sample latanoprost qhs OD;
 - ▶ Discuss LPI vs CE
- ▶ 9/25/20 – Returns for Cat Eval.
Reports decreased vision OD > OS.
- ▶ SLE – NS OU, 1+ injection OD
- ▶ TA – 20 mmHg, 13 mmHg
- ▶ Stop latanoprost → Start timolol/brimonidine q12h during cataract sx process.
- ▶ 10/14/20 - RCS w AK, Hydrus OD



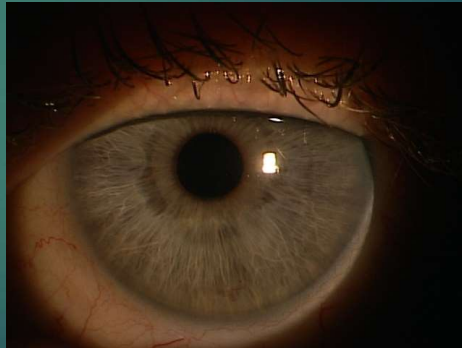
#22 E.H. Hydrus



#22 E.H.

- ▶ 11/11/20 – Vision is better but still not completely clear OD.
- ▶ BVA – 20/20 OD
- ▶ SLE – well healed. Hydrus in place
- ▶ TA – 12 mmHg, 10 mmHg. NO meds.
- ▶ 2/10/21 – Decreased VA, PCO
- ▶ + RIGHT APD
- ▶ TA - 12 mmHg, 11 mmHg off meds

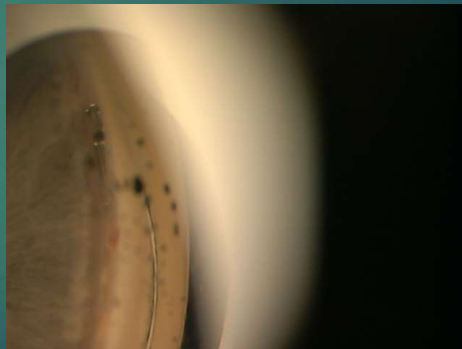
Different patient. Hydrus not visible on SLE.



#22 E.H.

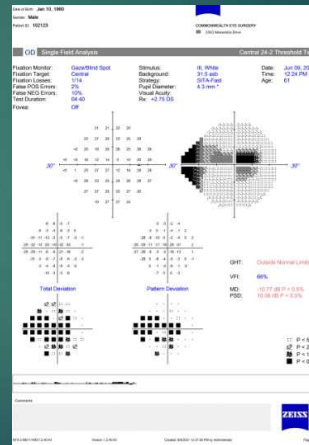
- ▶ 2/19/21 – YAG. 39 shots, 3.6 mJ
- ▶ 3/10/21 – Reports not much improvement in vision after YAG
- ▶ BVA – 20/20
- ▶ TA – 17
- ▶ 4/13/21 - Hydrus with iris in the inferior opening
- ▶ TA – 12 mmHg, 14 mmHg

Different patient. Hydrus visible on gonio.



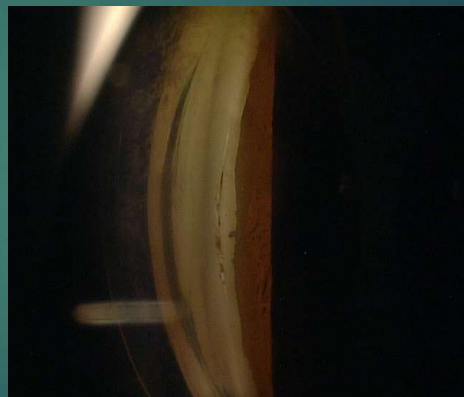
#22 E.H.

- ▶ 6/9/21
- ▶ TA – 12 mmHg, 16 mmHg
- ▶ Right APD
- ▶ Color vision – 0/14, 14/14
- ▶ Refer for glaucoma sub consult
 - ▶ Concerned about nonglaucomatous vision loss due to asymmetry, APD and color vision. Ordered MRI. Patient did not get scan.



#22 E.H.

- ▶ 9/22/21, 3/23/22 – No change
- ▶ 9/28/22 –
- ▶ TA – 16 mmHg, 15 mmHg
- ▶ Gonio – open angle OD with iris to Hydrus. Moderately narrow OS with suggestion of broken PAS or iridocorneal adhesions.
- ▶ Tx: SLT OD



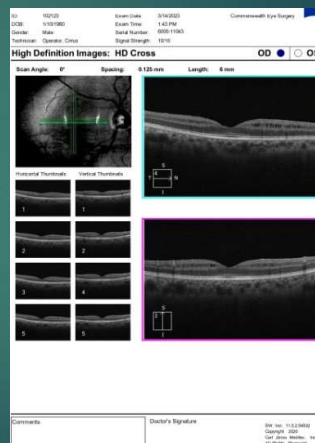
#22 E.H.

- ▶ 10/28/22
- ▶ SLT – 105 spots over 360, 1.0 mJ
- ▶ AND YAG to iris obstructing Hydrus
- ▶ 63 shots, 2.1 mJ
- ▶ 11/30/22
- ▶ TA – 10 mmHg, 11 mmHg off meds

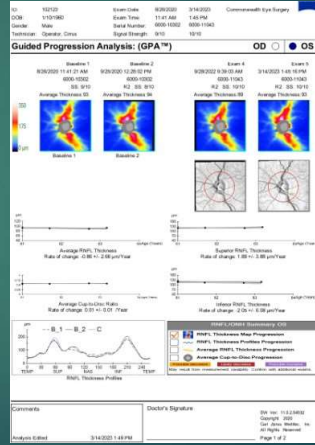
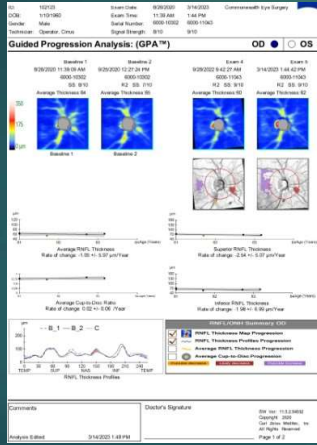


#22 E.H.

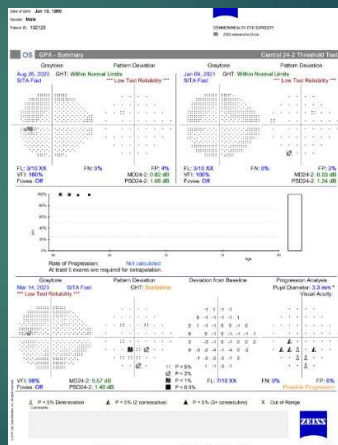
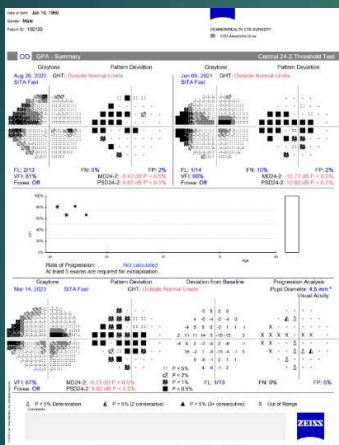
- ▶ 3/14/23 – Reports headache since having SLT. Vision reduced OD.
- ▶ BVA – 20/20, 20/20
- ▶ TA – 13 mmHg, 15 mmHg
- ▶ Referred back to glaucoma sub to complete evaluation
- ▶ Retinal consult for macula OD



#22 E.H. OCT



#22 E.H. VF



#22 E.H. The POINT

- ▶ Patients 73% controlled on no glaucoma meds at 2 yrs after Hydrus.
- ▶ Mild to moderate glaucoma.
- ▶ Can still have SLT with MIGS
- ▶ Sometimes you can see the Hydrus externally on SLE, sometimes only on gonioscopy.

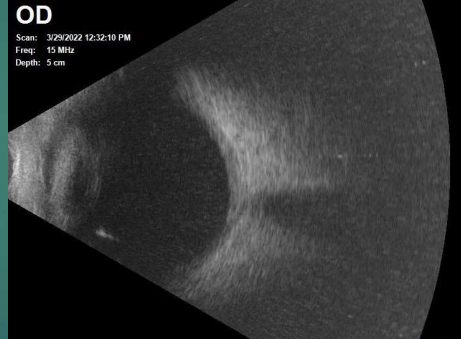
#23 A.G. Maximum Medical Therapy

- ▶ A.G. (111775) 85 yoM
- ▶ Nursing home patient. Comes to us for cataract evaluation. History of glaucoma and injections for macular degeneration.
- ▶ Reports 1 month ago vision went black OD. Saw a glaucoma sub. TA was 35 mmHg. Started on netarsudil.
- ▶ Next visit vision was gray. TA 14.



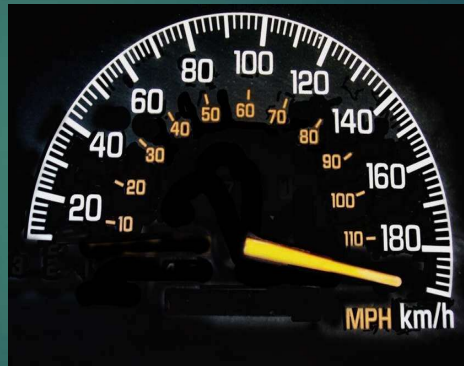
#23 A.G.

- ▶ 3/29/22
- ▶ BVA – LP OD; 20/200 OS
- ▶ SLE – White cataract OD, 4+ NS OS.
- ▶ TA – 13 mmHg, 15 mmHg
- ▶ 4/14/22 – Phaco w IOL OD
- ▶ 5/5/22 – Phaco w IOL OS



#23 A.G.

- ▶ 1/17/23 Returns for F/U
- ▶ Meds: brimonodine bid OD, dorzolamide-timolol tid OU, latanoprost qhs OS, netarsudil qhs OU
- ▶ Wonders if he need to continue using all these drops



#23 A.G. (*)

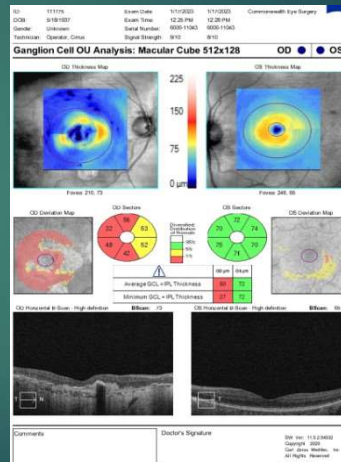
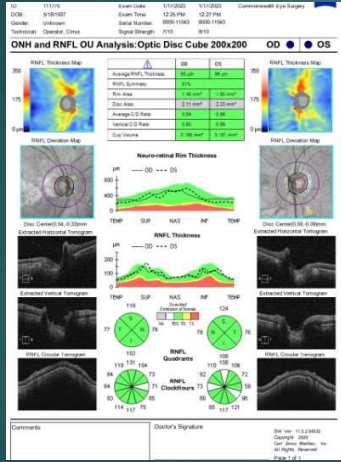
- ▶ SLE – well healed pseudophakic anterior segment OU.
- ▶ TA – 16 mmHg, 16 mmHg
- ▶ Gonio- CBB visible all quadrants with 2+ PTM. Angles are open and candidate for SLT OU.



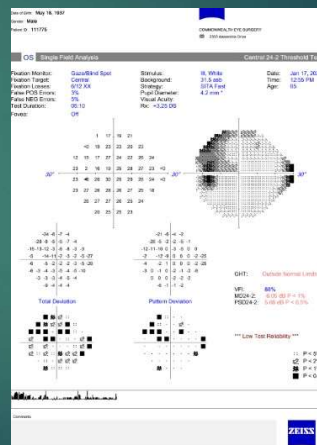
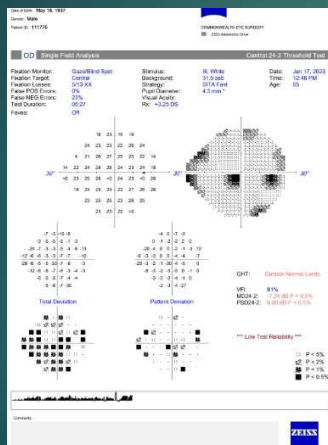
#23 A.G. Fundus



#23 A.G. OCT



#23 A.G. VF



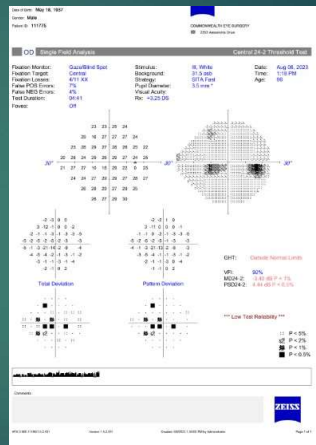
#23 A.G.

- ▶ Tx: Stop ALL gtts EXCEPT latanoprost qhs OU
- ▶ 2/2/21 Thinks he (caretaker) is getting his drop in.
- ▶ Tx: continue med for now but consider SLT



#23 A.G.

- ▶ 2/21/23 – on latanoprost qhs OU
- ▶ TA – 18,19 mmHg
- ▶ CPM, consider SLT
- ▶ 6/27/23 – trouble with nurses getting drops in regularly
- ▶ TA – 22, 20 mmHg
- ▶ SLT OD – 101 takes, 97 mJ



THE END

▶ Another chapter in the books...