

ETP – NOW WHAT?

DRS. PATEL AND FINDLEY
COMMONWEALTH EYE SURGERY, LEXINGTON, KY

FINANCIAL DISCLOSURES

- ▶ NONE

ETP – NOW WHAT?

- ▶ Sometimes things don't go as expected.
- ▶ You just did an ETP on this patient and things went sideways
- ▶ NOW WHAT!
- ▶ "These things DO happen!"
Madame Giry.



ETP - LPI

- | | |
|---|---------------------------------|
| ▶ Indications | ▶ Contraindications |
| ▶ Pupil block from Primary Angle Closure or Acute PAC | ▶ Completely flat AC |
| ▶ Mechanism | ▶ Corneal edema precluding view |
| ▶ Allows aqueous trapped in PC an alternate route to AC which allows iris to recede from occluding TM | ▶ PAS 360 degrees |
| | ▶ NVG |
| | ▶ ICE |

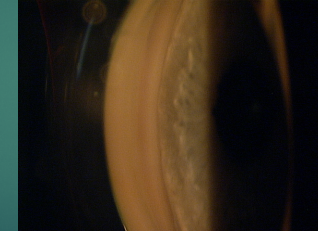
ETP – Now What

- ▶ Complications of LPI
- ▶ Acute IOP spike
- ▶ Anterior uveitis
- ▶ Closure of the LPI
- ▶ Posterior synechiae
- ▶ Corneal burns
- ▶ "Ghosting," dysphotopsia
- ▶ BCSC. Vol. 10, p.193
- ▶ Wills Eye Manual



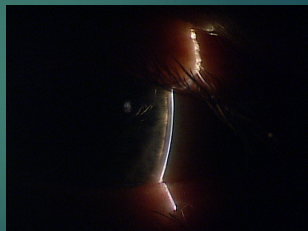
ETP – LPI #1 IOP spike

- ▶ G.G. (45622) 71 yoM
- ▶ COAG controlled many years on Travatan and Alphagan with IOP in low 20s
- ▶ 12/30/08 with narrow angles
- ▶ TA – 23,23
- ▶ LPI OD – Diamox 250 x2, lolidine
- ▶ Argon 27 shots, 1200mW, 50 mic., 2 mSec. YAG 20 shots, 4 mJ, 80 TE
- ▶ Post LPI TA 35 mmHg



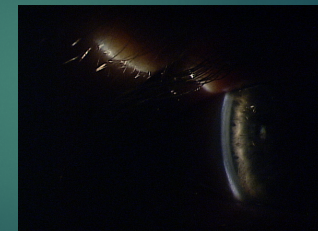
ETP – LPI #1 IOP spike

- ▶ TA 35 mmHg
- ▶ Diamox 250 x 2 tabs
- ▶ TA 32 mmHg @ 4:00 pm
- ▶ Sent home with 2 tabs Diamox



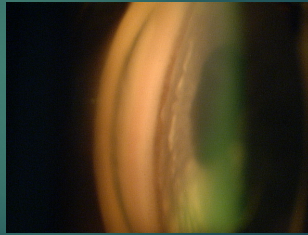
ETP – LPI #1

- ▶ On Call services 7:00 pm - Pain OD. Took a pain pill but did not help.
- ▶ Advised to take 2 more Diamox and instill Travatan and Alphagan
- ▶ On Call services 12:00 am – Pain and nauseated.



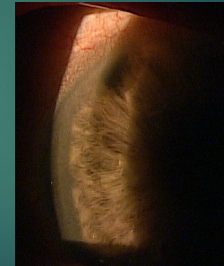
ETP – LPI #1

- ▶ 12/31/08
- ▶ TA – 54 mmHg 12:34 am
- ▶ Istalol and lolidine instilled
- ▶ Gonio showed angle open TM to SS
- ▶ Sent to ER for oral meds



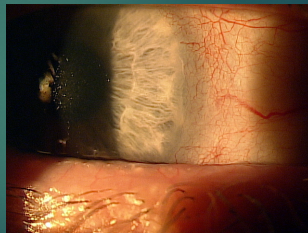
ETP – LPI #1

- ▶ 12/31/08 – returns to clinic. Still has a painful OD and nausea
- ▶ VA -20/80
- ▶ SLE – patent LPI
- ▶ Gonio – TM to SS
- ▶ TA – 58 mmHg



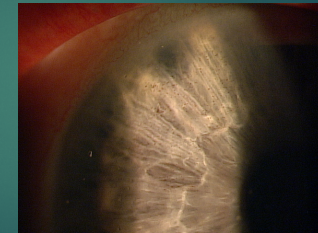
ETP – LPI #1

- ▶ TA -54
- ▶ Paracentesis



ETP – LPI #1

- ▶ 2/3/09 – returns to clinic after spending a month in Destin, FL. While there he saw an ophthalmologist who told him the LPI was non-patent and repeated LPI OD
- ▶ SLE – non-patent LPI OD
- ▶ TA – 22 mmHg
- ▶ Supplemental LPI OD
 - YAG 3 shots, 4 mJ
- ▶ Post supplemental LPI 22 mmHg



Take home points

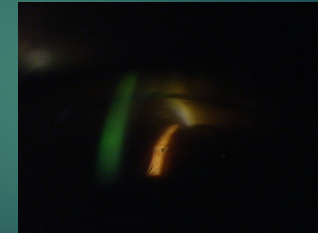
- Over time COAG can become NAG
- ▶ Oral glycerin 50%
1 -1.5 g/kg
- ▶ osmotic gradient → dehydrate vitreous → Lower IOP
- ▶ NOT in pts with renal failure ,on dialysis
- ▶ HA,CHF, MI, nausea, vomiting...
BCSC 2016-17. Vol.10. P. 182.



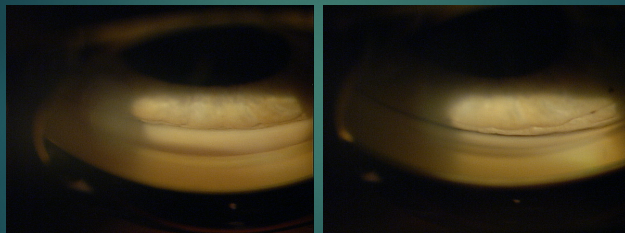
ETP – LPI #2

(different patient)(*)

- ▶ S.S. (110617) 56 yoM
- ▶ Referred for narrow angles
+1.75 -0.25 x 69 20/30+
+ 2.00 -0.50 x 156 20/20
- ▶ Slit lamp – narrow angles OU
- ▶ Gonio :
OD CBB visible with anterior
insertion of iris to CBB, ant. bowing →
deeper with pressure
OS TM visible with anterior insertion
and bowing → deeper
- ▶ TA : 18,18 @ 11:24 am

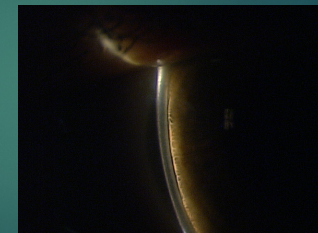


Dynamic gonioscopy ETP – LPI #2 (*)



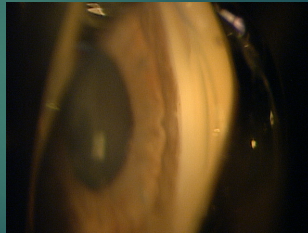
ETP – LPI #2

- ▶ Discussed LPI vs Lensectomy → he preferred LPI OS.
- ▶ LPI OS
- ▶ Argon -
- ▶ 10 shots, 1100mW, 15mS, 50mic
- ▶ YAG
- ▶ 4 shots, 2.5mJ, 13mJ TE
- ▶ TA post LPI 23 mmHg



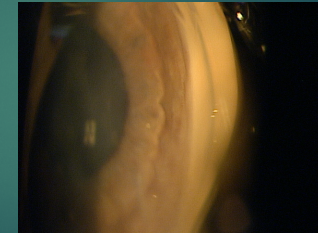
ETP – LPI #2

- ▶ 2/11/22 - narrow with patent LPI OS
- ▶ TA – 16,23 9:37 am
- ▶ LPI OD
 - Argon
 - 6 shots, 1100mW, .15mS, 50 mic YAG
 - 11 shots, 3.2 mJ, 35mJ TE
- ▶ TA post LPI 21 mmHg

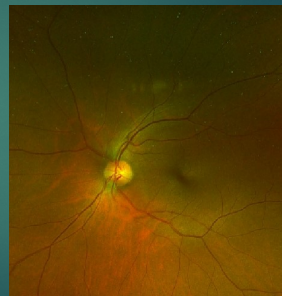


ETP – LPI #2

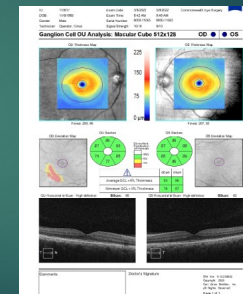
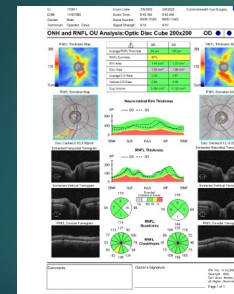
- ▶ 3/8/22 Returns for DST
- ▶ SLE – moderate depth OD shallow OS and quiet with patent LPI OU
- ▶ TA – 18,28 pre dilation
 - 23,23 post dilation
- ▶ Gonio post dilation
 - OD – TM nasal, ATM other quads
 - OS – SL superior, ATM inferior, TM nasal and temporal



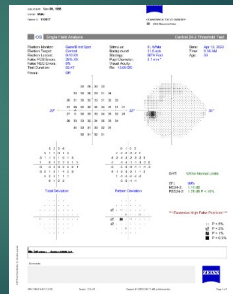
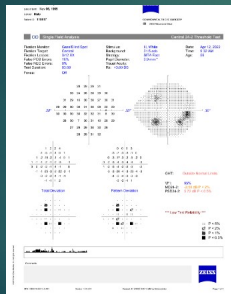
ETP – LPI #2



ETP – LPI #2



ETP – LPI #2



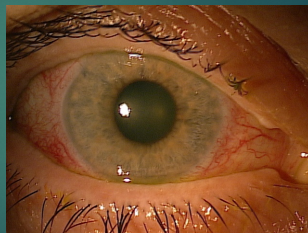
Take home ETP – LPI #2

- ▶ Follow off meds (IOP higher OS post LPI)
- ▶ Early GCL/VF OD (?)
- ▶ Next step
- ▶ RTC 4 m repeat VF OCT



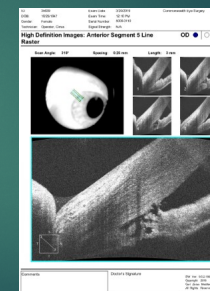
ETP – LPI #3 Failed LPI

- ▶ D.M. (35639) 73 yof
- ▶ Hx of ACG OS
- ▶ S/P LPI OU, CE OS @ UK
- ▶ 3/19/19 – Routine dilated exam by local doc. ACG OD.
- ▶ VA 3/200
- ▶ SLE – injection, MCE, Shallow AC, mid-dilated pupil with LPI
- ▶ TA - 55 mmHg



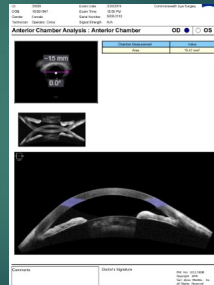
ETP – LPI #3

- ▶ Gonio
 - OD – no structures visible
 - OS – PAS inferior, SS other quads, iris flat.
- ▶ Diamox 250 x 2 tabs, Combigan, lolidine, Rhopressa, Pilo



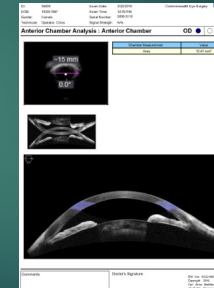
ETP – LPI #3

- ▶ Repeat LPI OD
Argon
14 shots, 15mS, 1100mW, 50mic
- ▶ YAG
72 shots, 2.3mJ, 165mJ TE
- ▶ TA – 40mmHg post LPI
45 mmHg 30 min later
36 mmHg
34 mmHg



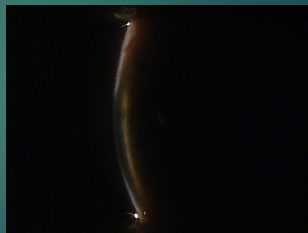
ETP – LPI #3

- ▶ 3/20/22 Phaco with IOL OD
TA 22 mmHg
- ▶ 3/21/22 –
▶ UnCorVA 20/40;
▶ SLE – moderately D & Q, trace cell
- ▶ TA 7, Combigan
- ▶ 4/9/22 – UnCorVA 20/30
- ▶ TA 13 off meds (ran out)



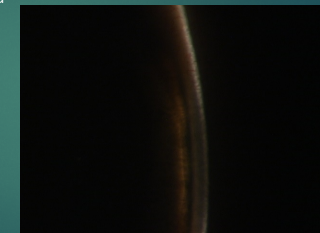
Take home ETP – LPI #3

- ▶ LPI doesn't prevent subsequent angle closure by lens (Phacomorphic)



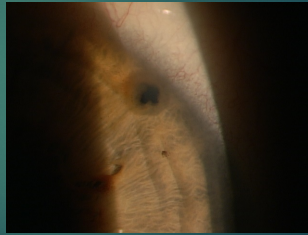
ETP – LPI #4 Failed LPI

- ▶ A.A. (105443) 50 yoF
- ▶ 3/31/22 At routine exam told she had narrow angles
- ▶ UnCVA : OD 20/20; OS 20/30→20
- ▶ Slit lamp – narrow, Trace NS
- ▶ TA – 8 mmHg, 12 mmHg 10:40am
- ▶ Gonio – Anterior to SL OD, TM inferior angle



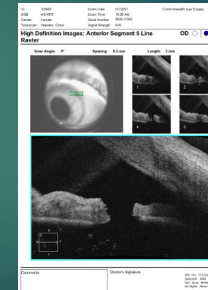
ETP – LPI #4

- ▶ LPI OD (4/16/22)
- ▶ Iopidine, Diamox pre
- ▶ Argon – 12 shots, 1100mW
- ▶ YAG – 20 shots 4.0 mJ
- ▶ Post LPI 19 mmHg
- ▶ Pred qid x 1 week, bid,qd
- ▶ Reports fired multiple days with low BP and HR



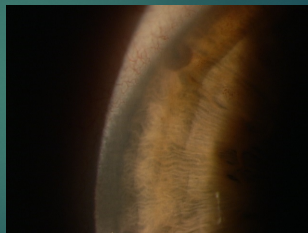
ETP – LPI #4

- ▶ 4/30/22 – Slit lamp shows moderate depth with patent LPI OD
- ▶ TA – 16 mmHg, 19 mmHg
- ▶ LPI OS (no Diamox)



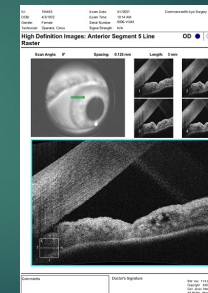
ETP – LPI #4

- ▶ 5/7/22 – Saw primary doc for red OD. Told LPI non-patent
- ▶ Slit lamp – Non-patent LPI OD, patent LPI OS
- ▶ TA – 13 mmHg, 15 mmHg 10:24
- ▶ Repeat LPI OD
- ▶ Argon – 6 shots, 1100 mW
- ▶ YAG 15 shots, 3.6 mJ, 54mJ TE



Take home ETP – LPI #4

- ▶ Unusual for LPI to occlude, especially so soon after initial laser
- ▶ Possible uncontrolled inflammation?
- ▶ Pred qid x 1 wk, bid x 1 wk, qd x 1 wk.



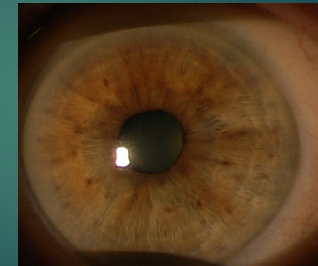
ETP – LPI #5 Dysphotopsia

- ▶ G.D.(87198) 68 yoF
- ▶ 9/15/71 – Referred for nausea with multiple episodes described "feels like black curtain drawn over OS and she can't see out of it for a few minutes." When vision returns she has a headache. Also reports migraine-like symptoms "small colorful saw tooth halo OS that increases in size and eventually goes away."



ETP – LPI #5

- ▶ BVA 20/20
- ▶ Slit lamp – shallow and quiet, cortical and 1+N
- ▶ TA – 15 mmHg, 15 mmHg 11:17
- ▶ Gonio – ATM visible with anterior bowing of iris. Danger of closure
- ▶ LPI OS
- ▶ Argon – 35 shots, 110 mW
- ▶ YAG – 44 shots, 5 mJ
- ▶ Post LPI TA – 22 mmHg



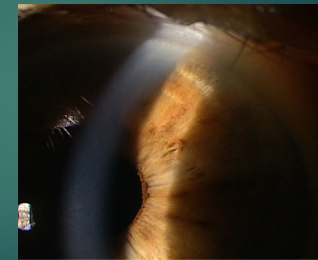
ETP – LPI #5

- ▶ 10/6/17 – Seeing a "white halo" in bottom half of vision since LPI.
- ▶ Slit lamp – moderate depth, patent LPI
- ▶ TA – 14 mmHg, 18 mmHg
- ▶ Symptoms may be 2ary to LPI
- ▶ DELAY LPI OD
- ▶ 11/15/17 – Sx persists
- ▶ TA – 14 mmHg, 18 mmHg
- ▶ Gonio – CBB with 2+ PTM
- ▶ Mx – colored CL, cat surg



Take home ETP – LPI #5

- ▶ Dysphotopsia after LPI is a thing
- ▶ Prismatic effect of superior tear meniscus
- ▶ Consider LPI temporal



ETP - LTP

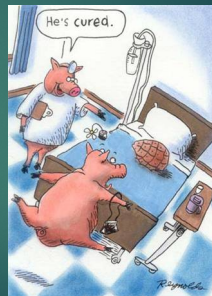
- ▶ ALT
- ▶ Argon laser
- ▶ 50 um spots, .1 sec, 300-1000mW
- ▶ 40-50 spots over 180 degrees
- ▶ Treat at junction of anterior pigmented and posterior non-pigmented TM
- ▶ Thermal damage to collagen fibers causes stretching of adjacent fibers increasing outflow
- ▶ SLT
- ▶ Frequency doubled Q-switch Nd:YAG 532 nm
- ▶ 400 um spot size, 3.0 nS, 0.4-1.5 mJ
- ▶ Treat 360 degrees, titrate to appearance of bubbles
- ▶ Selectively absorbed by pigmented cells in TM sparing adjacent tissue from thermal damage
- ▶ Increased monocytes and macrophages in TM increasing outflow

ETP - SLT

- ▶ Indications
- ▶ First line of tx
- ▶ Patient can't tolerate or non-adherent to meds
- ▶ Not controlled on meds
- ▶ Good for
- ▶ POAG
- ▶ Pigmentary glaucoma
- ▶ PEX
- ▶ +/- Angle recession glaucoma
- ▶ Contraindications
- ▶ Inflammatory glaucoma
- ▶ Iridocorneal endotheliopathy syn
- ▶ NVG
- ▶ Posterior synechial angle closure
- ▶ Developmental glaucoma
- ▶ Results
- ▶ May take 4-6 weeks for full effect
- ▶ 80% get decrease in IOP
- ▶ 50% maintain lower IOP for 5 yrs
- ▶ Best in older patients and PEX

ETP - SLT

- ▶ Complications
- ▶ IOP spike – 20%, 50-60mmHg
- ▶ Pre-op apraclonidine, CAI
- ▶ Low grade anterior uveitis –
- ▶ Hyphema
- ▶ Corneal inflammation, edema (DLK like)
- ▶ Persistent elevated IOP
- ▶ Reactivation of HSK
- ▶ BCSC 2016-17, Vol. 1, P. 190-191.



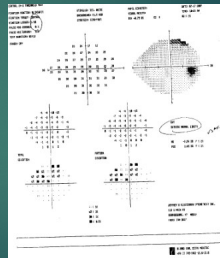
ETP – SLT #1 Uncontrolled IOP

- ▶ G.W. (4982) 55 yoM
- ▶ 7/7/07 -Pigmentary glaucoma on Lumigan and Azopt. Spotty F/U.
- ▶ TA – 20 mmHg, 17 mmHg
- ▶ VF progression OU
- ▶ 7/31/07 – CES SLT OD
- ▶ SLT 120 shots, 1 mJ, 270 degrees (had previously had 1 quadrant tx with 32 shots)
- ▶ Post SLT TA 24 mmHg



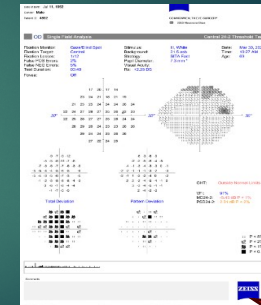
ETP – SLT #1

- ▶ 8/14/07 – SLT OS
- ▶ SLT 160 shots, 1 mJ, 180 degrees
- ▶ Post SLT TA – 20 mm Hg
- ▶ Continue Lumigan
- ▶ 5/8/15 Returns for repeat SLT
- ▶ TA – 21, 18 on latanoprost
- ▶ SLT OD 104 shots, 1.1mJ
- ▶ TA – 12 mmHg



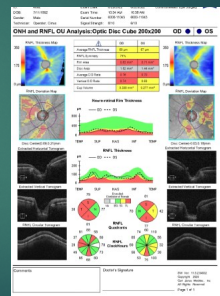
ETP – SLT #1

- ▶ Oct 2017 Phaco with IOL OU
- ▶ 3/30/22 YAG eval
- ▶ TA – 29 mmHg, 20 mmHg off meds
- ▶ 4/1/22 YAG OS; 5/13/22 OD
- ▶ No post YAG TA recorded
- ▶ VF 3/22 →



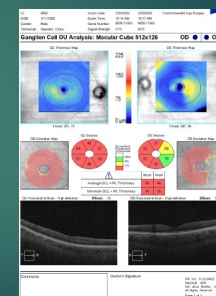
ETP – SLT #1

- ▶ 5/13/22 Vision OS dimmer and more blurred than OD since YAG.
- ▶ VA – 20/30 OD, 20/20 OS
- ▶ TA – 22, 18 mmHg on latanoprost
- ▶ Gonio CBB with PTM OU
- ▶ Cup/disc – 0.7 OD; .5 x .6 OS
- ▶ VF unreliable
- ▶ SLT OD – 170 shots, TA 24



ETP – SLT #1

- ▶ 6/22/22 – Vision is foggy
- ▶ VA – 20/50, 20/20
- ▶ TA – 50, 16 mmHg (Diamox)
- ▶ TA – 38, 14 mmHg (sample Rhopressa)
- ▶ 6/24/22 – Eye feels better but really red (Rhopressa, latanoprost)
- ▶ VA – 20/200
- ▶ TA – 50 mmHg, 18 mmHg (D250)
- ▶ TA – 46 mmHg (Betimol)
- ▶ TA – 42 mmHg (Rocklatan)



ETP – SLT #1

- ▶ 6/28/22 – Vision much better and eye feels good
- ▶ VA – 20/25 OD 20/15 OS
- ▶ Slit lamp – 1+ cell in AC OD
- ▶ TA – 12 mmHg, 22 (Sim, Bet, Rocklatan)
- ▶ 7/14/22 on Betimol OU, Rocklatan OD, Latanoprost OS
- ▶ TA – 29mmHg, 13 mmHg
- ▶ TO GLAUCOMA SUB.



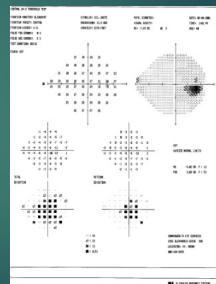
Take Home ETP – SLT #1

- ▶ Third times a charm
- ▶ Know when to fold em
- ▶ S/P SLT x 3 and still on 3 meds with uncontrolled IOP
- ▶ Glaucoma subs need work too



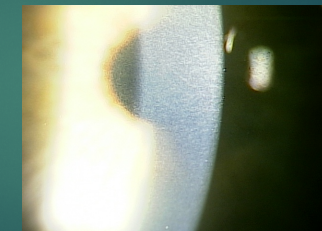
ETP – SLT #2 Keratitis

- ▶ R.Y. (15926) 40 yoM
- ▶ Myopic degeneration and COAG
- ▶ VA - 20/50, 20/40 (-10.00)
- ▶ TA – 26 , 24
- ▶ C.D. - .8 OU
- ▶ VF – large blind spots
- ▶ Followed 5 yr with TXE and Lumigan added
- ▶ TA – range 15 -20 mmHg



ETP – SLT #2

- ▶ Allergic response to meds
- ▶ 9/6/05 SLT OS – 100 shots, 1mJ, 360 degrees → Acular bid x 1 w.
- ▶ 9/8/05 "Foggy vision with red eye"
- ▶ VA – 20/400
- ▶ SLE – conj injection, epi intact with 3+ stromal cells, AC cells
- ▶ TA – 14



ETP – SLT #2

- ▶ Switch Acular to PF qid
- ▶ Improved over 2 weeks
- ▶ 9/23/05 TA – 16, 32 → taper PF
- ▶ 10/4/05 TA – 16, 14
- ▶ 10/10/05 SLT OD
- ▶ 100 shots, 0.8 mJ, 360 degrees
- ▶ PF qid post SLT (mild keratitis)
- ▶ 11/06/05 TA 13,14 on TXE only



Take home ETP – SLT #2

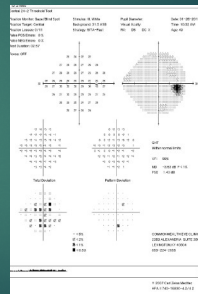
Some (mild) inflammation after SLT is good. That's how it works.

- ▶ Control with NSAID bid x 7 days
- ▶ If too much inflammation, keratitis switch to steroid
- ▶ "Overkill"



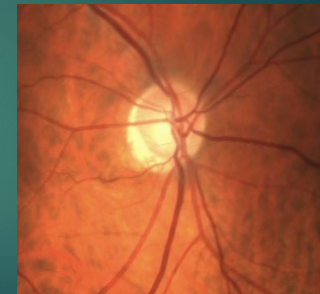
ETP – SLT #3 DLK and uncontrolled IOP

- ▶ K.P. (21550) 43 yoM
- ▶ S/P Lasik 1/30/03
- ▶ S/P Enhancement OU 7/16/09
- ▶ Pigment dispersion with OHT pre Lasik

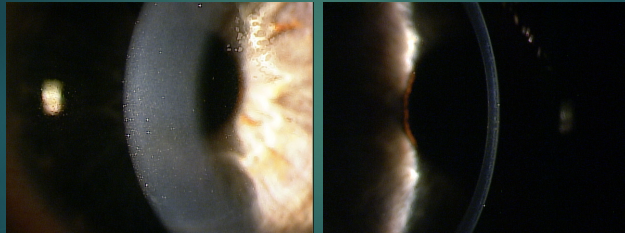


ETP – SLT #3

- ▶ Jan. 2010 – Returns for evaluation for Pigmentary Glaucoma.
- ▶ TA – 23, 17 on Xalatan
- ▶ 2/2/10 SLT OD – 1.0mJ, 167 shots, 360
- ▶ TA – 8 mmHg
- ▶ 3/9/10 SLT OS – 1.0 to 1.5 mJ, 163 shots
- ▶ TA – 12
- ▶ 2/11/11 TA – 26.21 on Travatan Z
- ▶ VF inferior nasal step

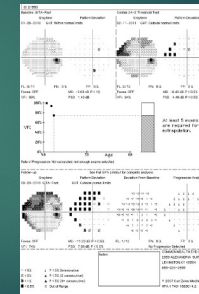


Post SLT → DLK (post Lasik x 2 OU) ETP – SLT #3



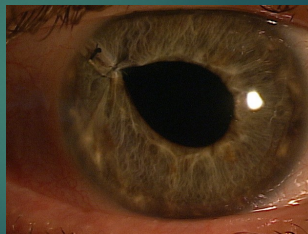
ETP – SLT #3

- ▶ 4/19/11 Consult Dr. Sanders
- ▶ Paradoxical IOP rise after SLT in PDS/PG
- ▶ 3+ PTM OU
- ▶ CD - .6 OD , .7 OS
- ▶ TA - 27 , 18
- ▶ Resume Xalatan, target 18, no laser



ETP – SLT #3

- ▶ Several yrs later – On Travatan Z qhs, Combigan q12h, Alphagan q12h
- ▶ VA – 20/20, 20/20
- ▶ TA – 12, 14 mmHg
- ▶ Tube shunt OD 10/2011
- ▶ OS 4/2012
- ▶ Cataract OD 2014, OS 2012



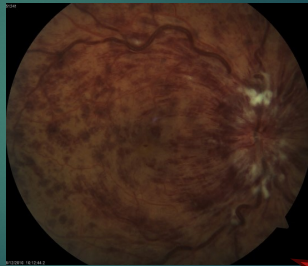
ETP – SLT #3 Take home

- ▶ Paradoxical rise in IOP after SLT in PDS
- ▶ Special attention to monitoring IOP in post KRS patients



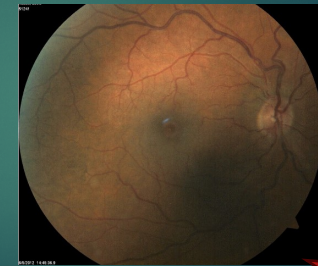
ETP – SLT #4 AC Reaction

- ▶ D.H. (51241) 60 yoM
- ▶ 8/10/11 CRVO OD



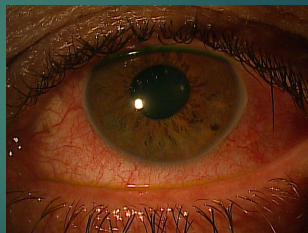
ETP – SLT #4

- ▶ 6/5/12 returns for SLT.
- ▶ Retina cleared. Small CD.
- ▶ SLT OD 1.1 mJ, 161 shots, 360
- ▶ Post SLT TA – 26
- ▶ 6/15/12 TPC. Fever and nausea. Dx sinusitis. Then saw PCP who told him he had not been on the antibiotic long enough for effect. Called CES – "Did SLT cause...?"



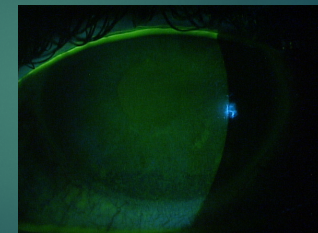
ETP – SLT #4

- ▶ 7/31/12 TA 16,15
- ▶ SLT OS 1.2-1.4 mJ, 168 shots, 360 degrees
- ▶ RTC with complaint of burning sensation after SLT



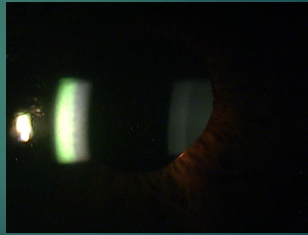
ETP – SLT #4

- ▶ SLE with fluorescein shows diffuse keratopathy
- ▶ Continue Lumigan and Combigan
- ▶ Bromday qd x 3 days



ETP – SLT #4

- ▶ RTC 3 days later
- ▶ No FBS but has a dull ache.
- ▶ SLE show AC cells
- ▶ Continue Lumigan and Combigan
- ▶ Continue Bromday qd



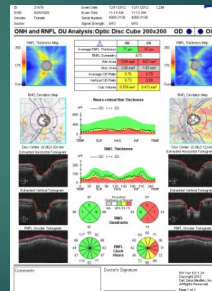
ETP – SLT #4

- ▶ Take home
- ▶ Keratopathy after SLT (from all the gitts and lens)
- ▶ Inflammation post SLT is expected.
- ▶ "If some is good, more is (not) better."



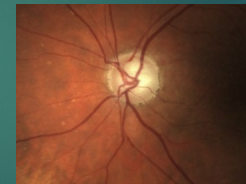
ETP – SLT #5 Corneal Abrasion

- ▶ D.G. (21478) 83 yoF
- ▶ CE – OD 6/26/08, YAG 12/11/12
- ▶ OS 1/27/03, YAG 8/18/06
- ▶ "Glaucoma suspect" on Travatan



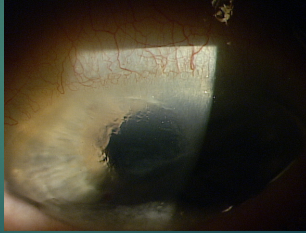
ETP – SLT #5

- ▶ 2/17/09 Returns for SLT
- ▶ TA – 27, 21 on Travatan OS
- ▶ CD - .6 OD , .8 OS
- ▶ OCT – NFL normal range OD, thin nasal and inferior OS



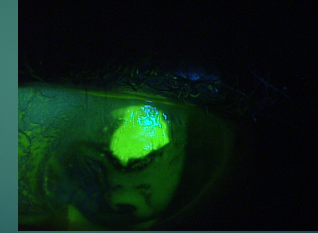
ETP – SLT #5

- ▶ 2/17/09 SLT OS 1.1 mJ, 140 shots, 360 degrees
- ▶ Patient returns to clinic after SLT with FBS
- ▶ SLE – Corneal abrasion
- ▶ Zymar and Acular instilled
- ▶ BCL



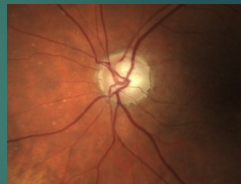
ETP – SLT #5

- ▶ 2/23/09 -Note from referring doc
- ▶ Abrasion healed in, BCL removed



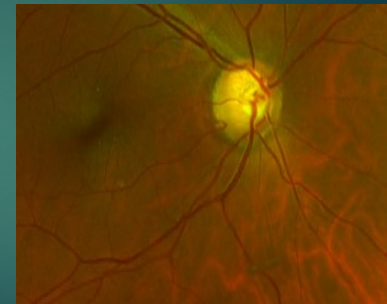
ETP – SLT #5 Take home

- ▶ Can have keratopathy (previous case) or corneal abrasion after SLT
- ▶ Treat the same as any abrasion (+/- antibiotic), BCL

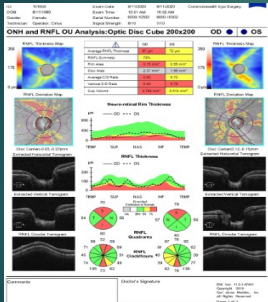


ETP – SLT #6 No Decrease in IOP

- ▶ M.R. (101650) 60 yoF
- ▶ + Family history of glaucoma. Currently using latanoprost qhs and brimonidine qhs OU.
- ▶ Very little reduction in IOP on 2 meds per patient.
- ▶ TA – 15, 15
- ▶ Gonio – CBB visible with anterior insertion of iris to CBB. Angles are open and candidate for SLT
- ▶ CD .75 OU, no Drance heme

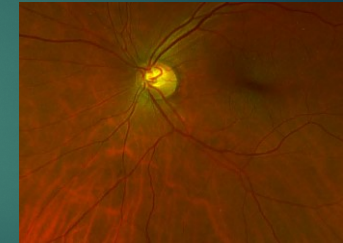


ETP – SLT #6



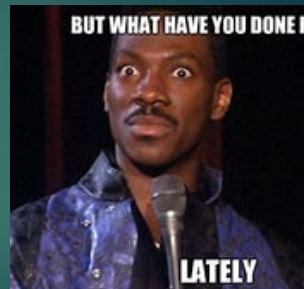
ETP – SLT #6

- ▶ 7/24/20 – SLT OD, 228 shots, 1.2mJ
- ▶ 9/11/20 – Returns for F/U
- ▶ TA – 16, 14 latanoprost only
- ▶ IOP unchanged but on less meds
- ▶ Patient wants to delay SLT OS
- ▶ 10/23/20 Returns for F/U
- ▶ TA – 15, 17 latanoprost only
- ▶ Patient wants to further delay SLT OS



ETP – SLT #6 Take home

- ▶ SLT did not reduce IOP but allowed patient to discontinue 1 glaucoma med
- ▶ Success from the doctor's point of view
- ▶ Not so much from the patient
- ▶ Continue meds, maybe change

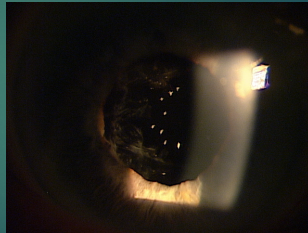


ETP - YAG

- ▶ Indications
 - ▶ Symptomatic decreased vision from PCO
 - ▶ Hazy PC blocking view of fundus
 - ▶ Monocular diplopia
 - ▶ Anterior capsular phimosis
 - ▶ Capsular block syn
 - ▶ Vitreolysis
 - ▶ Anterior hyaloidotomy
 - ▶ Removal of IOL ppt/membranes
 - ▶ Fragmentation of retained lens cortex
- ▶ Contraindications
 - ▶ Inadequate visualization of PC
 - ▶ Patient or eye movement
 - ▶ Active inflammation
 - ▶ Uncontrolled glaucoma
 - ▶ Suspected CME
 - ▶ High risk for RD

ETP - YAG

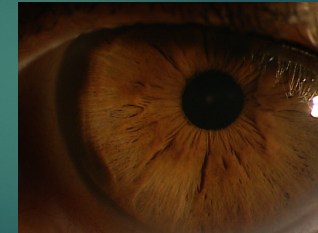
- ▶ Complications
- ▶ IOL pits
- ▶ IOP spike
- ▶ RD – axial myopia, young males, trauma, vitreous prolapse, Fam hx RD, pre-existing vitreo-retinal path
- ▶ CME
- ▶ IOL dislocation
- ▶ Corneal edema, abrasion



▶ Wills Eye Manual, P. 424. BCSC Vol. 11, 2014-17. p. 143, 154-57.

ETP – YAG #1 Corneal Abrasion, Hypopyon

- ▶ D.S. (42780) 76 yoF
- ▶ S/P Phaco w Toric IOL
- ▶ OD 7/24/08
- ▶ OS 6/26/08
- ▶ 11/20/14 Returns for YAG OS
- ▶ BVA – 20/100
- ▶ YAG OS – 70 shots 1.0 mJ Abraham lens

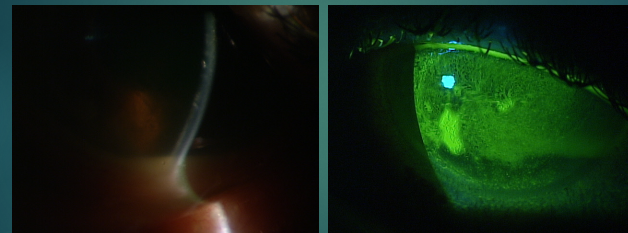


ETP – YAG #1

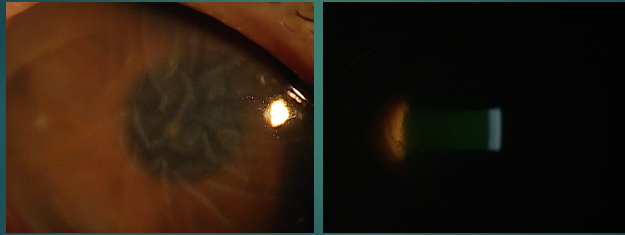
- ▶ 11/22/14 Reports pain and decreased vision
- ▶ VA CF OS
- ▶ SLE – 2+ injection, 4mm corneal abrasion, edema, hypopyon
- ▶ TA – 13 mmHg
- ▶ Fundus grossly normal
- ▶ No apparent ulcer; hypopyon uveitis vs endophthalmitis
- ▶ Tx – Ciprofloxacin q1h, Durezol qid, BCL



ETP – YAG #1



ETP – YAG #1



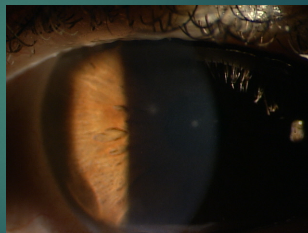
ETP – YAG #1

- ▶ 11/23/14 – Continued pain
- ▶ VA – CF
- ▶ SLE – hypopyon resolved, otherwise same
- ▶ Tx – switch to Vigamox q1h, cont. Durezol qid, BCL
- ▶ 11/24/14
- ▶ SLE – abrasion, deep stromal folds
- ▶ Vigamox tid, Durezol qid, E-mycin ung p



ETP – YAG #1

- ▶ 11/24,25,26/14 – Epi defect resolved, edema remained but improved, added Medrol dosepack, removed and replaced BCL. TA 18.
- ▶ 12/1,4,11,19/14 Continued slow improvement.
- ▶ VA 20/125
- ▶ SLE – SEI-like infiltrates. TA – 16.
- ▶ Durezol bid x 1 w, qd x 1 w



ETP – YAG #1

- ▶ 1/20/15 – Much better
- ▶ VA – 20/60 MRx -2.00 -0.75 x 150 20/30 (Monovision)
- ▶ Tx – artificial tears
- ▶ 3/24/15 – Doing well.
- ▶ VA – 20/60, J1+
- ▶ SLE – cornea clear
- ▶ Tx – Release to local O.D.



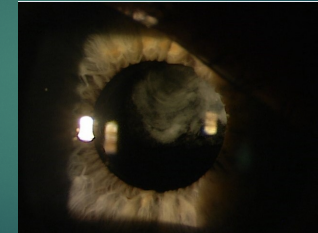
ETP – YAG #1 Take home

- ▶ Stuff happens



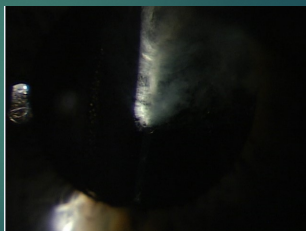
ETP – YAG #2 Retained Lens, IOP Elevated

- ▶ R.P (42952) 53 yoM
- ▶ S/P Phaco with IOL OD 2008
- ▶ 3/8/19 – RTC for YAG OD; COAG on latanoprost qhs
- ▶ VA – 20/50
- ▶ SLE – IOL with PCO, retained lens material OD
- ▶ TA – 15
- ▶ YAG – 59 shots, 1.7 mJ, 164 TE



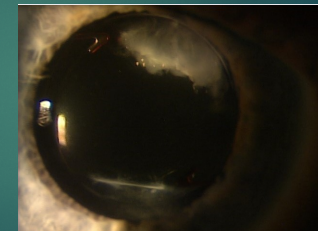
ETP – YAG #2

- ▶ Post YAG TA
- ▶ TA – 40, 42 @ 2:09 pm → Simbrinza
- ▶ TA – 34 @ 2:44 pm
- ▶ TA – 32 @ 3:32
- ▶ Sampled Simbrinza bid
- ▶ Diamox 250 mg 6 tabs (qid)
- ▶ Durezol qid
- ▶ F/U local O.D. in 3 days



ETP – YAG #2

- ▶ Take Home
- ▶ Monitor post YAG TA in patients with COAG and patients with retained lens material or posterior capsule distention
- ▶ These patients may need topical steroids post YAG (retained lens material, PCD)



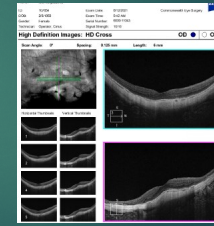
ETP – YAG #3 IOP Spike, CNVM

- ▶ L.W. (107834) 59 yoF
- ▶ Cataract surgery in Malaysia OU
- ▶ Myopic degeneration
- ▶ 8/2/21 – Sent for YAG OD
- ▶ BVA - 20/30 BAT 20/400
- ▶ SLE – IOL with anterior capsular phimosis, PCO
- ▶ TA – 17
- ▶ YAG OD – 128 shots, 3.6 mJ, 461



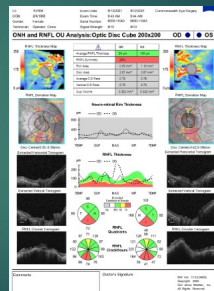
ETP – YAG #3

- ▶ 8/3/21 – Nauseated and dizzy, vision blurred. Using pred qid x 4 days, bid x 4 days
- ▶ VA – CF (after paracentesis 20/60)
- ▶ SLE – MCE
- ▶ TA – 68 mmHg @ 11:34
- ▶ Post paracentesis → 21 (Diamox,lopidine)
- ▶ TA – 37 mmHg @ 12:41
- ▶ Post 2nd paracentesis – 19 (Comb)
- ▶ TA – 20 mmHg @ 2:12
- ▶ Home with Diamox, Combigan,pred



ETP – YAG #3

- ▶ 8/4/21 – Feels much better. Diamox, Combigan, pred
- ▶ VA – 20/20
- ▶ TA – 11 mmHg
- ▶ Tx – Cont. pred bid, Combigan
- ▶ 8/12/21 – Returns reporting straight lines look wavy
- ▶ VA – 20/25
- ▶ Mx – Directly to retinal sub



ETP – YAG #3 Take home

- ▶ Comorbidities happen
- ▶ Improved BVA after YAG but new onset metamorphopsia
- ▶ Did the YAG cause the CVM?



ETP – YAG #4 Subluxed IOL

- ▶ M.L. (93661) 59 yoM
- ▶ Hx of trauma (divulged later)
- ▶ 11/14/18 CE + IOL OD – IOL in sulcus centered slightly inferior
- ▶ 12/17/18 CE + IOL OS – zonular laxity but IOL in bag
- ▶ 3/15/09 – Returns for YAG
- ▶ BVA – 20/30 BAT 20/150
- ▶ YAG – 64 shots, 2.5 mJ, 164 TE



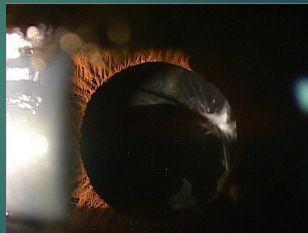
ETP – YAG #4

- ▶ 3/21/19 – Returns post YAG. He was told "something moved" during YAG.
- ▶ VA – 20/40
- ▶ MRx - Plano -1.00x1.68 20/20
- ▶ SLE – IOL edge visible thru undilated pupil
- ▶ TA – 18
- ▶ Mx – Schedule reposition or exchange



ETP – YAG #4

- ▶ 6/27/19 – Returns reporting on 6/11 he was run over by a car in his apt. complex
- ▶ 11/19/20 – Reposition IOL with iris sutures
- ▶ 11/20/20 – 1 Day post-op
- ▶ VA – 20/20
- ▶ SLE – IOL centered with iris sutures
- ▶ TA – 19 mmHg
- ▶ 12/17/20 – 4 week post-op
- ▶ 20/20



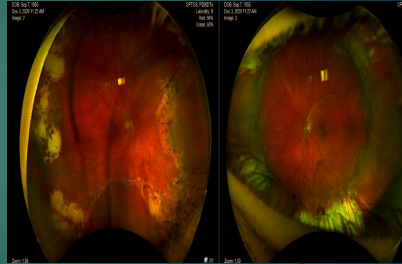
Take Home ETP – YAG #4

- ▶ If difficulty at CE may also have problem with YAG (IOL in sulcus, zonular laxity)
- ▶ Hx of trauma
- ▶ Evaluate IOL position and check for pseudophakodonesis before and after YAG



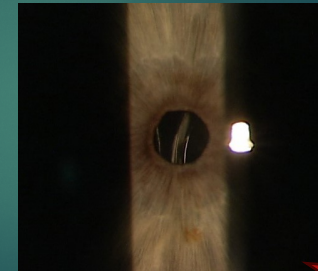
ETP – YAG #5 Subluxed IOL

- ▶ H.F. (29185) 66 yoM (not me)
- ▶ Phaco + IOL OD 2/7/05
- ▶ OS 7/16/96
- ▶ MSPPV/SBP OD 7/14/05 RRD
- ▶ OS 8/11/05 RRD
- ▶ YAG OD 10/17/06 81 shots, 1.0mJ
- ▶ OS 8/5/16 62 shots, 2 mJ
- ▶ IOL OD (12/3/20)→



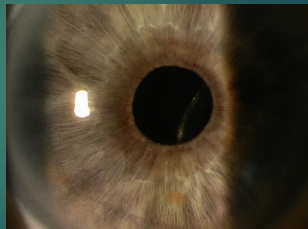
ETP – YAG #5

- ▶ 12/3/20 – Returns with sudden decreased vision OD x several days.
- ▶ BVA – OD 20/50
- ▶ OS 20/150, J2(monovision)
- ▶ SLE – iridodonesis with IOL visible thru undilated pupil
- ▶ TA – 22 mmHg OU
- ▶ Retina flat on buckle
- ▶ Mx – reposition IOL OD (12/8/20)



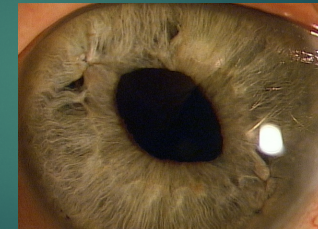
ETP – YAG #5

- ▶ 12/9/20 1 day post-op
- ▶ VA – 20/150
- ▶ SLE – moderate corneal edema, 4+ cell, iridodonesis, IOL centered with iris sutures
- ▶ TA – 31 mmHg → Combigan



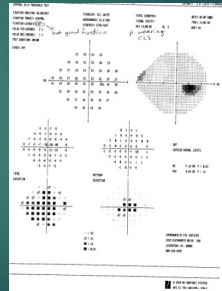
ETP – YAG #5

- ▶ 12/11/20 – Reports vision better
- ▶ BVA – 20/60 → 30
- ▶ SLE – mild corneal edema, 3+ cells, iris sutured PCIOL
- ▶ TA – 18 mmHg
- ▶ Tx – Cipro 500 mg bid, PGB
- ▶ F/U local optometrist 1 week



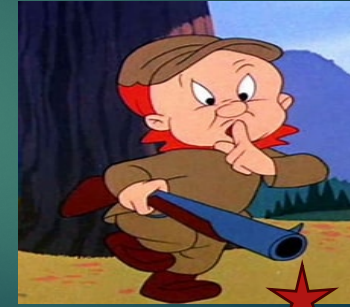
ETP – YAG #5

- ▶ 12/16/20
- ▶ BVA – 20/40
- ▶ TA – 46 → Diamox, Combi → 26
- ▶ 12/18/20
- ▶ BVA – 20/30
- ▶ TA – 26 on Combigan
- ▶ 1/19/21 - TA 18 → d/c Combi
- ▶ 2/2/21 – BVA -20/20
- ▶ TA – 33 mmHg → latanoprost



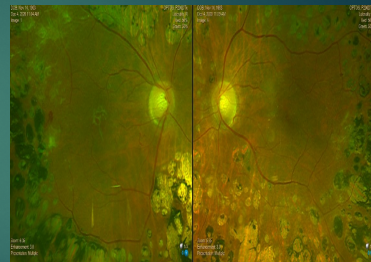
ETP – YAG #5 Take Home

- ▶ When performing YAG after MSPPV and SBP
- ▶ "Be vewwy, vewwy careful..."
- ▶ CE OD 2/5/05 → RD with SBP → 7/14/05 → YAG 10/17/06 → IOL subluxed 12/3/20



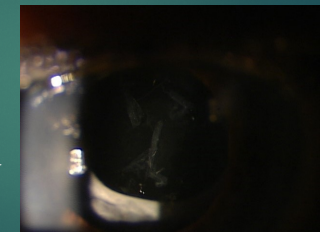
ETP – YAG #6 Capsular Remnants

- ▶ R.H. (101044) 58 yoF
- ▶ PDR s/p PRP OU
- ▶ Phaco + IOL OD 8/17/20
- ▶ OS 8/24/20
- ▶ 12/4/20 – Returns for YAG eval
- ▶ BVA - OD 20/40 BAT 20/400
- ▶ OS 20/25 20/80
- ▶ SLE PCO OD > OS



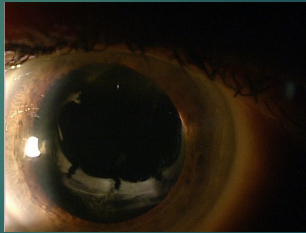
ETP – YAG #6

- ▶ 12/4/20 YAG OD 37 shots, 3.6mJ
- ▶ 12/11/20 OS 44 shots, 3.6mJ
- ▶ 1/22/21 – Returns for decreased vision OD that started 2 weeks after YAG OD
- ▶ VA – 20/50-2
- ▶ SLE – Salzmann's nodules, capsular remnant on visual axis OD
- ▶ TA – 20 mmHg



ETP – YAG #6

- ▶ Supplemental YAG OD
- ▶ 36 shots, 3.6 mJ
- ▶ BVA post supplemental YAG 20/25
- ▶ Note anterior capsule as well



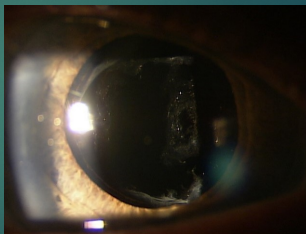
ETP – YAG #6 Take Home

- ▶ Can have capsular remnants after YAG that are visually bothersome to patient.
- ▶ Confirm capsular remnants vs vitreous opacities
- ▶ "You said I would never have to do this again!"
- ▶ Bill ?
- ▶ "If you like your insurance, you can keep your insurance."



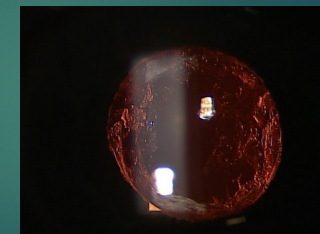
ETP - YAG #7 Capsular Remnants Take 2

- ▶ C.C. (94623) 67 yoF
- ▶ S/P RK – 2 incisions superior cornea OU (???)
- ▶ Phaco + IOL OD 3/11/19
- ▶ OS 3/18/19
- ▶ 11/13/19 – Returns for YAG eval
- ▶ 11/15/19- YAG OD 51.2.7mJ
- ▶ 11/27/19 OS 18.2.8
- ▶ (Photo 10/8/21) →



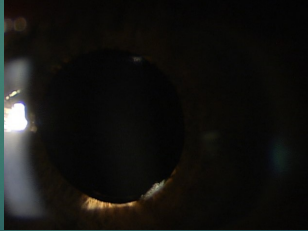
ETP - YAG #7

- ▶ 2/6/21 – Vision in OD is like looking thru a film, changes with blink
- ▶ BVA – 20/30
- ▶ To retina for vitrectomy
- ▶ 10/8/21 Return again for YAG
- ▶ BVA - 20/20
- ▶ SLE – capsular remnant
- ▶ Warn – MAY have floaters again
- ▶ YAG OD – 60 shots, 3.6 mJ



ETP - YAG #7 Take Home

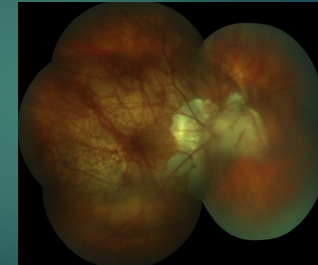
- ▶ Confirm whether symptoms are from capsular remnants or vitreous debris
- ▶ Best candidates for Floaterectomy are pseudophakes post YAG
- ▶ YAG after Floaterectomy may reintroduce floaters



ETP – YAG # 8 Lens Remnants

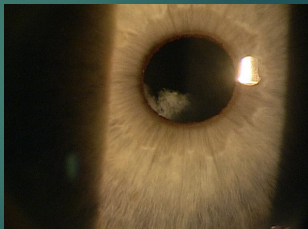
(25844) 56 yoF

- ▶ Hx of Staphylocoma OU and laser for peripheral retinal tears OS.
- ▶ Phaco + IOL OD 6/17/14
- ▶ OS 4/29/14
- ▶ Axial length – OD 33.83, OS 33.22
- ▶ IOL power OD -3.0, OS -2.0
- ▶ YAG OD somewhere, sometime

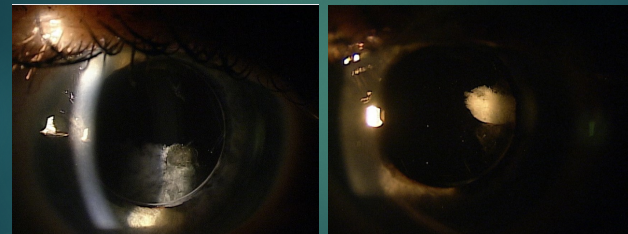


ETP – YAG # 8

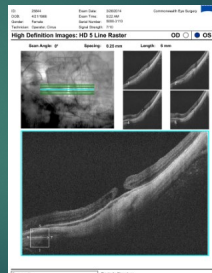
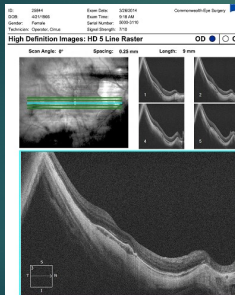
- ▶ 11/23/21 Returns for YAG eval
- ▶ CC of decreased vision and floaters, told she had debris behind IOL
- ▶ BVA – 20/30 OD, 20/60 OS
- ▶ SLE showed cortical material inferior OD and temporal OS



ETP – YAG # 8

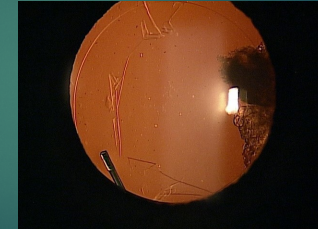


ETP – YAG # 8

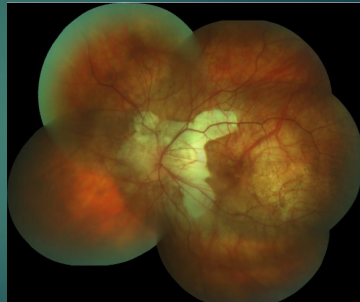


ETP – YAG # 8

- ▶ NO SUPPLEMENTAL YAG
- ▶ Back to retina for floaters
- ▶ If they dare they can remove the cortical remnants along with vitrectomy

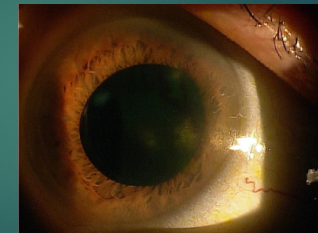


Take Home – NO.
JUST NO.



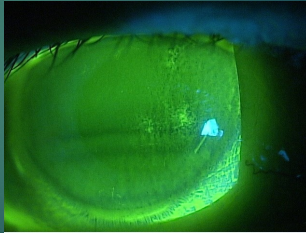
ETP – YAG #10 “Dendrites” or YAG

- ▶ M.B. (98937) 74 yoF
- ▶ RCS with AK OD 12/12/19
- ▶ OS 12/19/19
- ▶ 3/19/21 – Returns for decreased vision, YAG eval. Dx HZO OD 6 weeks ago. Treated with pred and Valtrex. Finished course.
- ▶ BVA – OD 20/20 BAT 20/50
- ▶ OS 20/20 20/70
- ▶ SLE – OD 3 corneal scars. PCO OU.



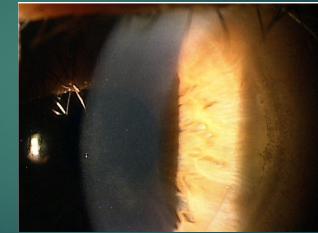
ETP – YAG #10

- ▶ SLE – Fluorescein pattern as shown OD.
- ▶ Tx – resume pred qid and Valtrex 500 tid po. NO YAG OD. BUT CAN YAG OS.
- ▶ YAG OS – 39 shots, 3.6 mJ
- ▶ Follow up with local eye doc 1 week
- ▶ RTC 2 weeks. Clinic before YAG.



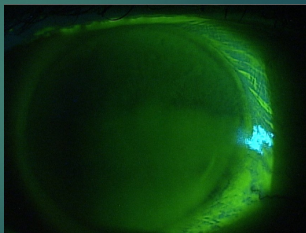
ETP – YAG #10

- ▶ 4/9/21 – Returns for possible YAG OD. Post YAG OS. Reports she is seeing better since YAG. Using pred qid and finished Valtrex.
- ▶ BVA – OD 20/30, OS 20/20
- ▶ SLE – clear cornea OD, dendrites resolved
- ▶ YAG OD – 61 shots, 3.4 mJ
- ▶ Continue pred qid and resume Valtrex 500 tid x 14 days



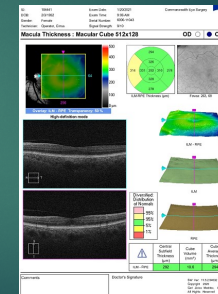
ETP – YAG #10 Take Home

- ▶ Potential for reactivation of HSK after YAG.
- ▶ This patient had reactivation before YAG.
- ▶ No YAG until eye is quiet.
- ▶ Treat prophylactic to try to prevent recurrence.



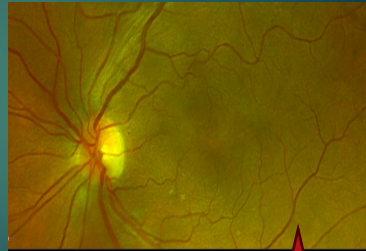
ETP – YAG #11 CME after YAG

- ▶ L.A. (104441) 70 yoF
- ▶ Phaco + IOL OD 3/4/21
- ▶ OS 2/25/21
- ▶ At pre-op visit 3/4 VA 20/25 OS
- ▶ 7/8/21 – Returns for decreased VA and YAG eval.
- ▶ BVA – OD 20/70, OS 20/150
- ▶ SLE – IOL with PCO OU.
- ▶ TA – 8, 10 mmHg



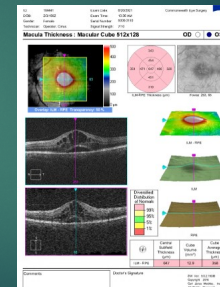
ETP – YAG #11

- ▶ YAG OS – 45 shots, 3.4 mJ
- ▶ 8/20/21 Returns for YAG OD but reports VA no better since YAG OS.
- ▶ BVA OS – 20/400
- ▶ SLE – shows normal anterior segment with open capsule
- ▶ Fundus – CME OS



ETP – YAG #11

- ▶ Sample Durezol qid OS
- ▶ Cancel YAG OD
- ▶ Refer to retina (saw her same day)
- ▶ Retinal eval:
- ▶ Trace CME OD, VMA + CME OD
- ▶ Continue Durezol add ketorolac
- ▶ Follow up 4-6 weeks



ETP – YAG #11 Take Home

- ▶ CME post YAG treated same as post CE.
- ▶ May involve retinal sub. We did in this case because of degree of CME.
- ▶ Consider delay second eye YAG (or CE) until first eye clear.
- ▶ Prophylactic treatment of fellow eye for YAG.



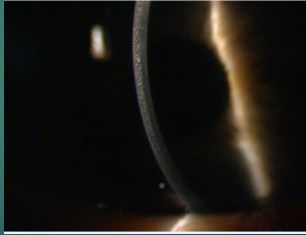
ETP – YAG #12

- ▶ M.W. (101443) 67 yoF
- ▶ Phaco + IOL OD 7/23/20 (NEAR)
- ▶ OS 8/24/20
- ▶ 11/12/21 – Returns for decreased vision OU, YAG eval.
- ▶ BVA – OD 20/50 BAT 400
- ▶ OS 20/40 70
- ▶ SLE – IOL with PCO OU
- ▶ YAG OD – 65 shots, 3.6 mJ



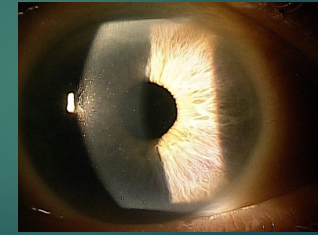
ETP – YAG #12

- ▶ 11/16/21 – OD red, swollen, aches and vision blurred. Was started on pred acetate q2h. Redness and swelling better but discomfort continues.
- ▶ BVA – 20/50, J3
- ▶ SLE – stromal cells OD
- ▶ TA – 18, 16 mmHg
- ▶ Tx – stop pred and resume PGB q2h x 2 days then qid
- ▶ RTC 3 days



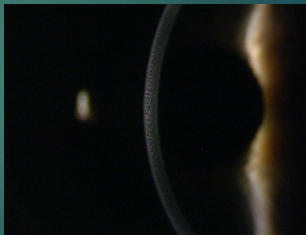
ETP – YAG #12

- ▶ 11/19/21 – Reports vision a little better but has to strain to read.
- ▶ BVA – 20/30, J1
- ▶ SLE – stromal cells remain but improved
- ▶ TA – 18 mmHg
- ▶ Tx – Continue PGB qid.
- ▶ RTC 4-6 days



ETP – YAG #12

- ▶ 11/23/21 – Vision is better but not as good as before YAG.
- ▶ BVA – 20/50, J2
- ▶ SLE – stromal cells much improved
- ▶ Tx – Taper PGB bid x 4 days, qd x 4 days
- ▶ RTC 1 week
- ▶ 12/2/21 – NO SHOW



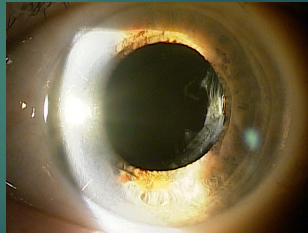
ETP – YAG #12

- ▶ Take Home



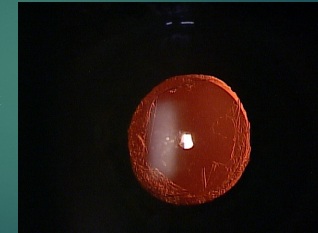
ETP – YAG #13

- ▶ M.B. (46162) 73 yoF
- ▶ Phaco + IOL OD 4/6/09
- ▶ OS 4/27/09
- ▶ Returns for YAG
- ▶ 1/8/13 YAG OD – 81 takes, 1.0mJ
- ▶ 12/17/12 OS – 106, 1.0 mJ
- ▶ Note capsular runout

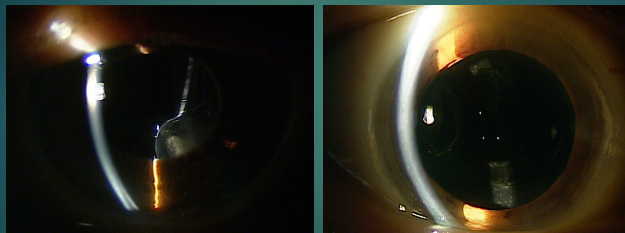


ETP – YAG #13

- ▶ Take Home
- ▶ If the capsulotomy extends past the edge of the IOL then vitreous can migrate into the posterior and anterior chamber and increase risk of ...



ETP – YAG #13 (**)



ETP – YAG #13

- ▶ Vitreous in AC
- ▶ Other fish to fry



"Ya'll Come Back Now, Ya Hear"

