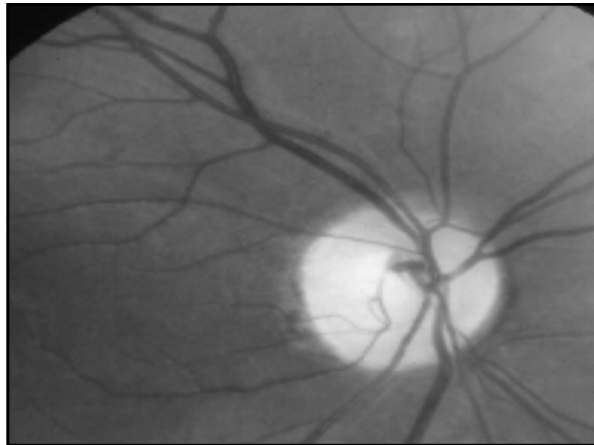


Glaucoma Interactive Grand Rounds 2012

J. James Thimons, O.D.,FAAO
Chairman, National Glaucoma Society
www.nationalglaucomasociety.org

The Case of the Missing Connection!

- 18 year old Hispanic female referred from OD for “suspicious optic nerves”
- c/o blurred vision for many years, reportedly getting worse
- No significant POH
- No significant PMH except “allergies”
- FH of glaucoma in grandparent, grandmother blind, reason unknown
- No known drug allergies



Examination Findings

- Mild myopia, BVA 20/60 OU

		WNL	Abnormalities	
		OD	OS	OS
External	Conf VF	✓	✓	
	Motility	✓	✓	
	Pupils	✓	✓	
	Lids	✓	✓	
SLE	Conjunctive			
	Cornea			
	A/C			
	Iris			
	Lens			
66 78 90	OD			
	Macula			
	Vessels			
Indirect	Retina			
	Vitreous			

Handwritten notes: "notched cup on RAO", "healthy RNS", "RMS", "Slight focal atrophy", "PAM", "Dior", "PAM", "low 15/5-64".

Mood Orientation
 with X
 Other:

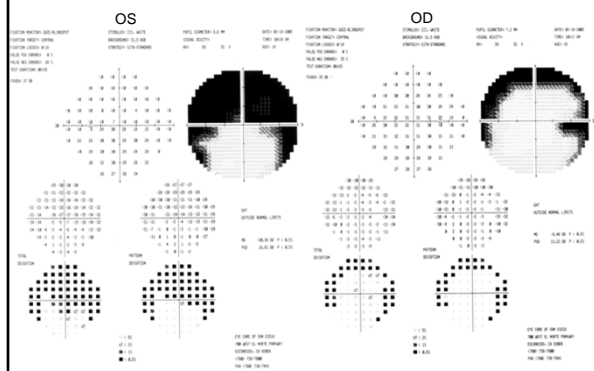
TOP: 10 ip
 OD 13
 OS 14
 Time: 0947
 CCT
 OD
 OS

Not dilated
 Dilated with
 Tropicamide 0.5% 1x
 Phenylephrine 2.5%
 Time: 10:15

Sunglasses Offered
 Accepted
 Declined
 Patient will wear own

Zonioscopy / Drawings / Comments / Other: binocular vision normal / abnormal (specify test)

Visual Fields

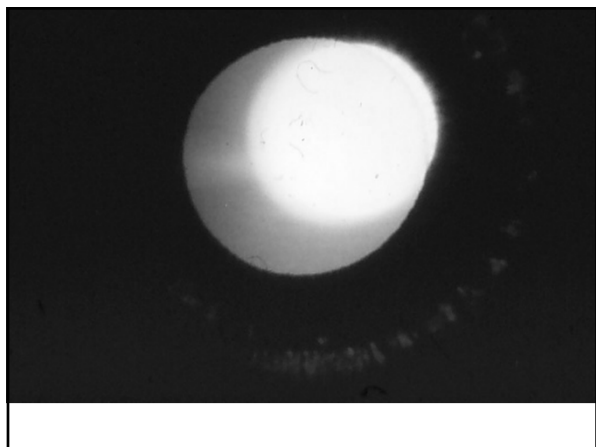


Questions

- Is the visual loss real?
- Is this glaucoma?
- Is treatment indicated?
- Anything else to be considered?
- What to do now?

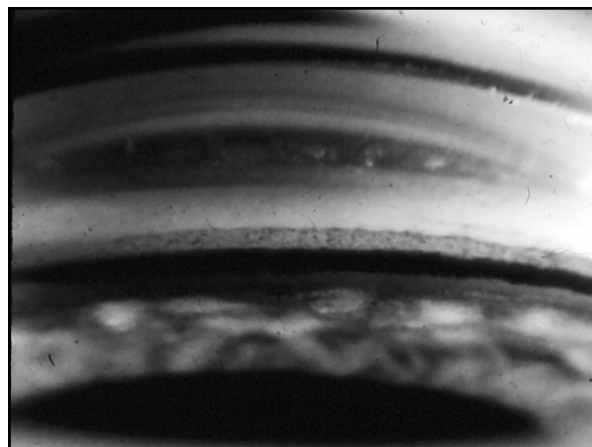
In the Blink of an Eye

- JH a 19 year old Caucasian male was seen for routine eye care. Examination wa normal except for IOP 28/23 @ 10:00. ONH unremarkable at 0.4 OU.
- Refractive error -3.50 OD/ -4.00 OS
- Pachymetry 560 OU
- Visual fields: Questionable nasal step OD



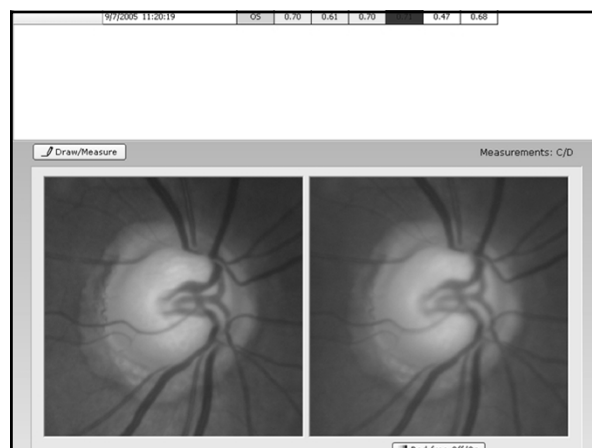
In the Blink of an Eye

- Follow-up visit 2 weeks
 - IOP 29/22
 - RNFL: OD 81 / OS 94
- Tx: Patient started on qd am BB OD (no insurance)
- Follow up 2 weeks:
 - IOP 18/19
 - Follow up 3 months



In the Blink of an Eye

- Patient NS at next visit
- Phone call made no response
- Patient returned at 8 months
 - IOP 52/ 25
 - C/D as shown
 - VA- HM @ 3 ft OD
 - VF- Not able OD



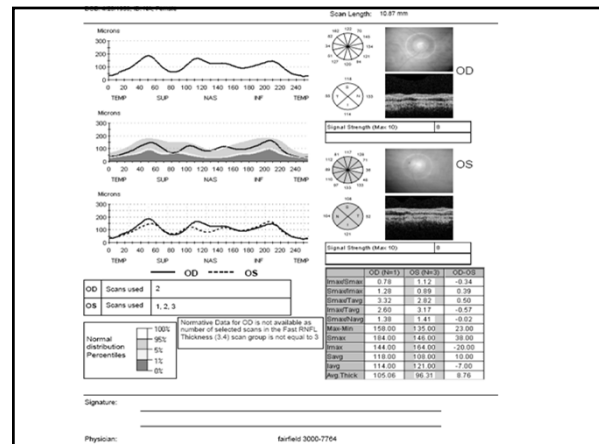


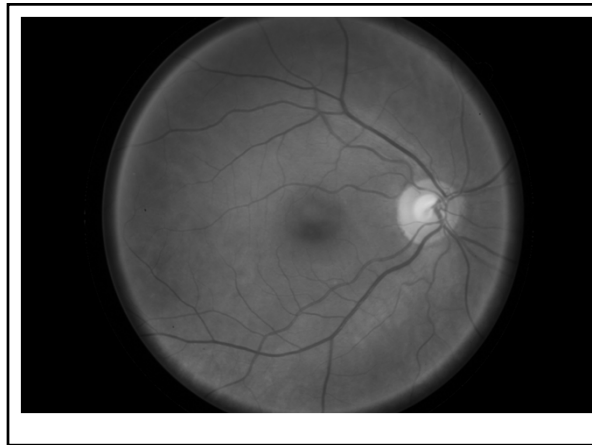
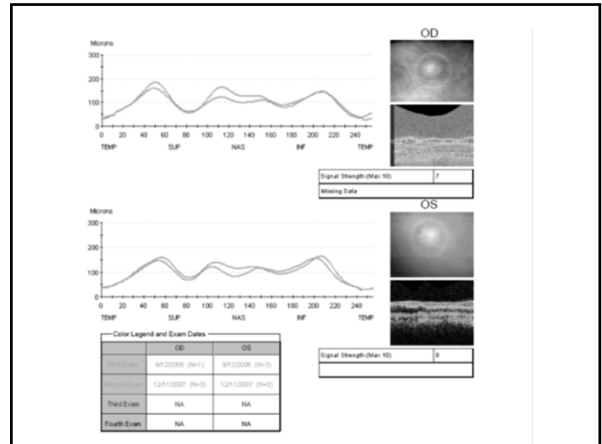
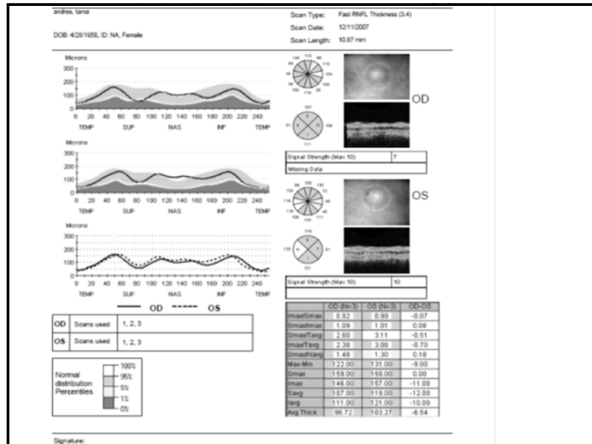
I Think I heard that before!

- TA a 48 y/o w female was referred for evaluation by GP.
- Previous h/o “possible glaucoma”
- Medical/ Family Hx negative
- IOP 21/22
- Pachs: 540/535
- Gonioscopy: CB /360/OU

I Think I Heard that Before

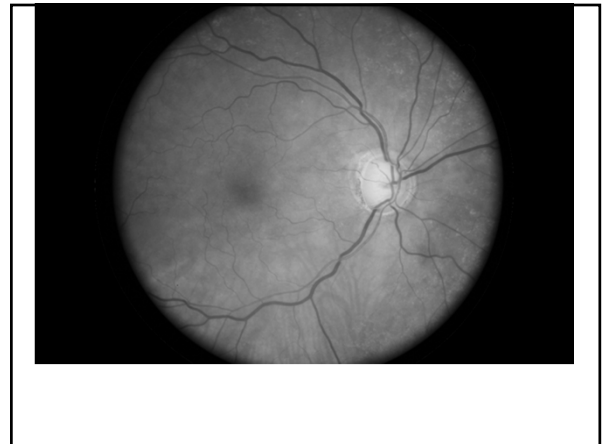
- Follow-up visit:
 - IOP 24/22 @ 10
 - VF: Normal OU
 - RNFL: slides
 - ONH: slides

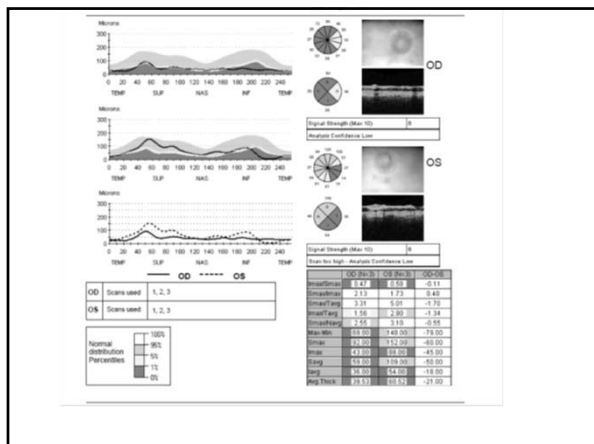




I just want to work in my garden!

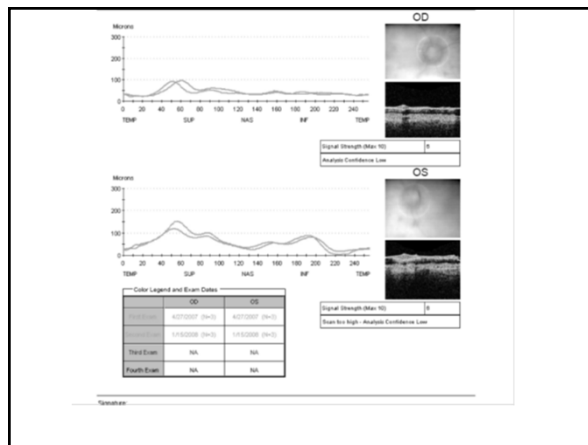
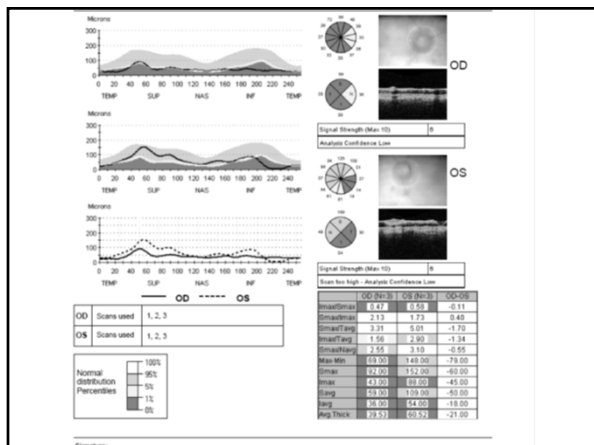
- AA a 70 y/o white female c/o decreased VA OU x 6 months
- VA 20/30 OD, 20/25 OS
- IOP 14/13 @2:00
- ONH as shown
- DFE: Mild RPE changes





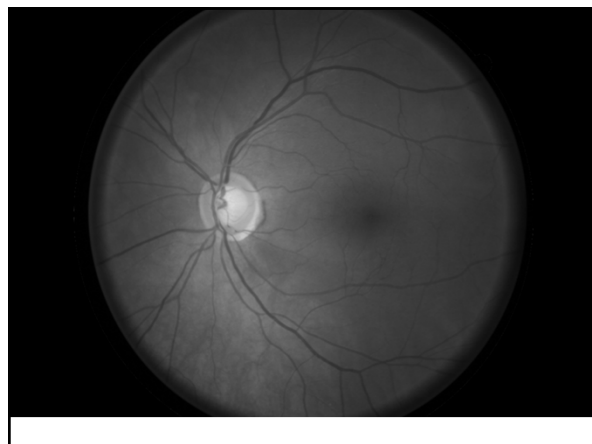
I just want to work in my garden

- 2 weeks:
 - IOP 12/12 5:00
 - VF; Severe loss OU OD>OS
 - RNFL: As shown
- Tx: ?



Case Three: How Low Can You Go!

- SM a 40 y/o white female was referred for evaluation of glaucoma. Current Tx was Betoptic-S and Alphagan.
- VA 20/20 OD/OS
- Ta 12/12 @ 10
- SLE: wnl
- DFE: 0.7 OD / 0.9 OS
- VF: Early near fixation loss OS
- Gonioscopy: CB 360 OU
- Medical Hx: LBP (100/65), pulse 54, Raynaud's, Migraine HA
- Family Hx: Negative
- Treatment ?



Case Three

- 4/15/02
 - Meds: Betoptic S, Travatan, Alphagan P
 - Ta: 14/14
 - VF: Increased loss OS(20%)
 - ONH: ? Progression OS
- Treatment ?

Case Three

- Given the patients vascular status is there any additional therapy that would be appropriate?
 - Non-selective BB
 - CAI
 - Laser therapy
 - Gingko Biloba

Case Three

- 12/19/02
 - Meds : CPM = Gingko 400 mg po
 - Ta: 13/14 @ 8:00 am
 - VF: stable
 - ONH: stable, no pit observed
- Treatment ?

Case Three

- 1/13/04
 - Ta: 10/11 @ 2:00
 - VF: Progression OS?
 - Meds: no change
 - ONH: Drance?
- Treatment ?

Nocturnal Hypotension: It's role in Visual Field Progression

- Graham SL, Drance S: Surv Ophthalmol Jun 1999
- 84 patients 24 hour ambulatory BP
- Nocturnal BP variables were lower in patients with progressive VF loss
- Patients with > nocturnal dips were more likely to show VF loss even with good IOP control
- Increased risk of disc hem's

NORMAL TENSION: ABNORMAL RESULTS

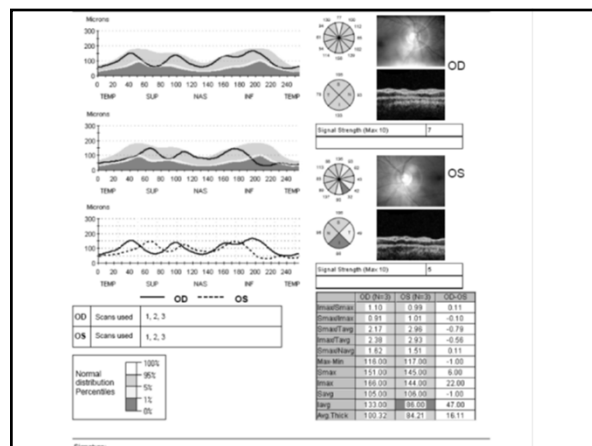
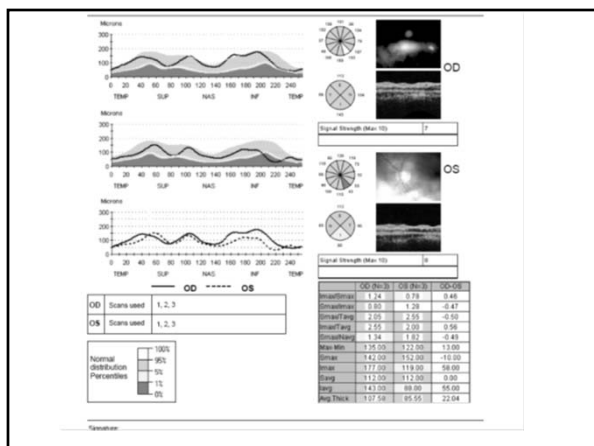
- ANDERSON et al AJO
- EXAMINED NTG'S FOR MULTIPLE VARIABLES (AGE, GENDER, BP AND MIGRAINES)
- MIGRAINES, DISC HEM'S MOST NOTABLE RISK FOR PROGRESSION
- AGE, RACE NEXT
- 230 PATIENTS/NTG/IOP < 20mm Hg

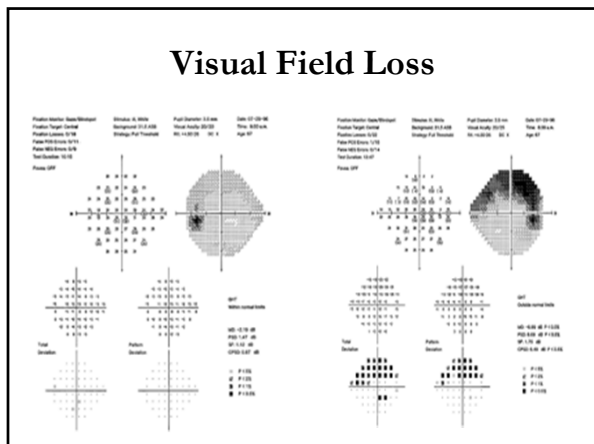
How Low Can You Go!

- 4/21/07
- Meds: Alphagan P, Lumigan, Ginkgo
- Ta:14/11 @ 9:30
- Migraines increased x 4 weeks, episode of syncope x 1 week
- Serial BP 2 AM 58/30/ pulse 54

NTG

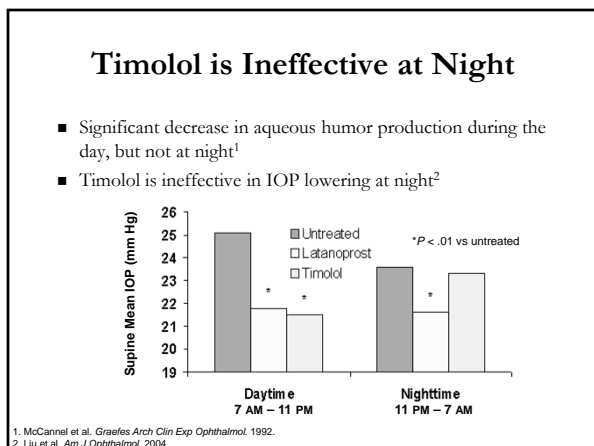
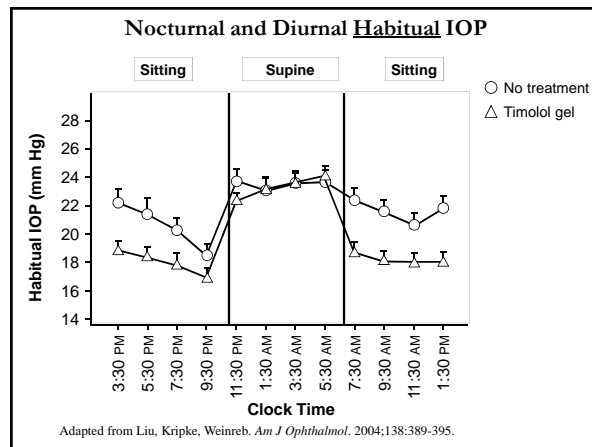
- 99 WOMEN/61 MEN
- 23 WOMEN WITH H/O MIGRAINES
- 2 MEN
- WOMEN WITH MIGRAINES HAD FASTEST RATE OF PROGRESSION





- ### Case Three
- 4/21/04
 - Meds: Betoptic-S, Alphagan, Xalatan, Ginkgo
 - Ta: 14/11 @ 9:30
 - Migraines increased x 4 weeks, episode of syncope x 1 week
 - BP: 95/58, pulse 54
 - VF: ? progression
 - Treatment ?

- ### NTG- Differential Diagnosis
- Diurnal Variation
 - Vasculitis
 - Optic Atrophy
 - Old AION
 - Previous RBN
 - Compressive ON
 - Chronic marijuana use
 - Prior Hypotensive episodes
 - Systemic Beta-Blocker
 - “Burned out” Glaucoma
 - Sub-acute angle closure
 - History steroid use
 - Ocular Ischemic Syndrome



1. McCannel et al. Graefes Arch Clin Exp Ophthalmol. 1992.
 2. Liu et al. Am J Ophthalmol. 2004.

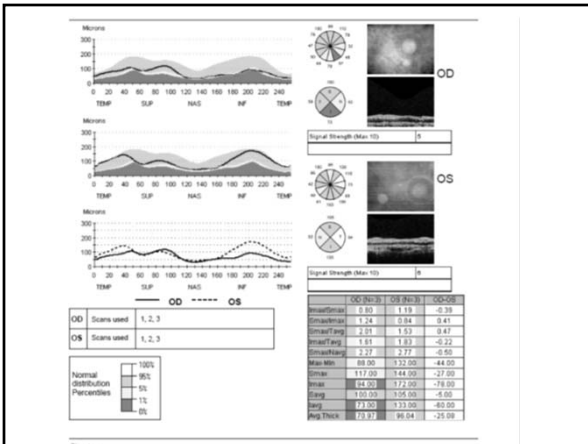
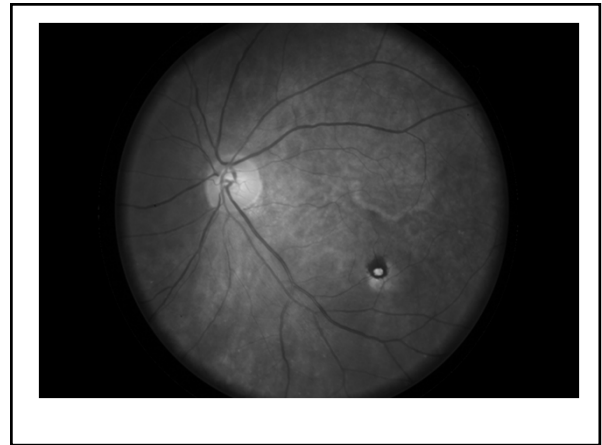
- ### Case Three
- 7/18/05
 - Patient s/p SLT OS x 2
 - Meds: Cosopt, Lumigan, Ginkgo
 - Ta: 15/11 @ 2:00
 - VF: stable
 - ONH: ? Change OS
 - Nocturnal BP 60/35
 - 6/15/06
 - Ta: 14/12 @ 8:00
 - Meds: Cosopt, Lumigan, Ginkgo
 - VF: 10-2 no visible progression
 - Treatment ?

It's not making any sense!

- ER a 39 y/o H deaf/mute male was first seen for referral 4/2004.
- PXE-
 - VA 20/20
 - IOP 26/17 @5:00
 - Gonioscopy: CB/ mild pigment
 - ONH: 0.6 0.4
 - Pachs: 540/538
 - DFE; CR scars

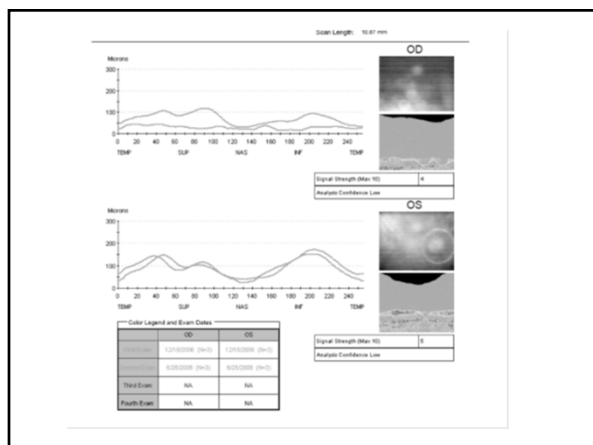
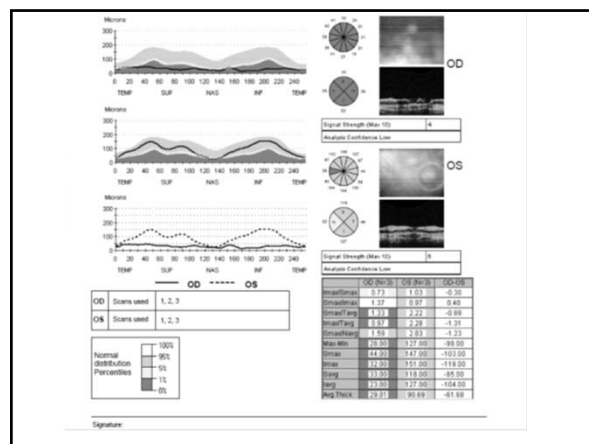
It's not making any sense!

- Follow up 3 wks:
 - IOP: 32/24 @10:00
 - VF: Nonspecific loss
- Tx: ?



Its not making any sense1

- Non-compliant/ No show intermittant x 2 years.
- IOP: 3/27/2008 40/27 @ 9:30
- C/D: as shown
- Tx: ?



Wow, I didn't know that could happen!

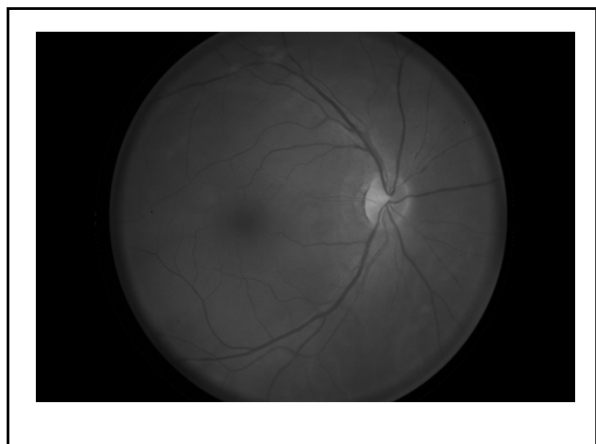
- JN a 50 y/o white male referred from ER with blunt trauma to the OS after an auto accident and air bag deployment!
- Pt. c/o blur, pain, photophobia and redness.
- VA: 20/100 ph no change
- Ta: 20/ 38 @ 4:00
- SLE: half chamber hyphema OS
- Corneal abrasion OS
- Conjunctival laceration OS (- seidel)

Wow!

- DFE: no view
- B-Scan: Flat with Vitreous hemorrhage
- Tx: ?

Wow!

- S/P Tx Hyphema and IOP x 10 days
- IOP 20/ 22@ 12:30
- SLE: Hyphema cleared
- Gonio: OD 360 OU CB / OS AR 270 degrees
- DFE: Retinal Tear superior temporal
- Tx: ?



Too thin to be in!

- 27 y/o white female referred for evaluation of increased ONH OU PTC ?
- BMI 14
- VA: 20/20
- SLE: wnl
- DFE: Drusen/ ONH edema
- IOP 29 /27
- Pachs: 560/550

Too thin to be in!

- VF: Defects scattered
- Tx?

