

FROM RED EYES TO RETINA

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CASE 1: TRAUMATIC HYPHEMA

- 18 yo wf
- Trauma OS from thrown softball
- Facial lacerations
- X-ray positive: nasal fracture, no orbital fracture
- Acuity 20/30 OS
- EOM/Restrictions: FROM
- Pupils: sluggish response to light OS



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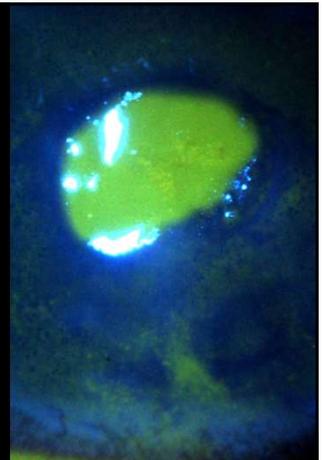
TRAUMATIC HYPHEMA

- Threats to vision
 - secondary bleed / 8 ball hypHEMA
 - IOP/Glaucoma
 - Initial trauma causing other issues (i.e detachment)
- Treatment
 - cyclopentolate
 - Pred forte
 - Rest
 - Fox Shield
 - IOP/gonioscopy?

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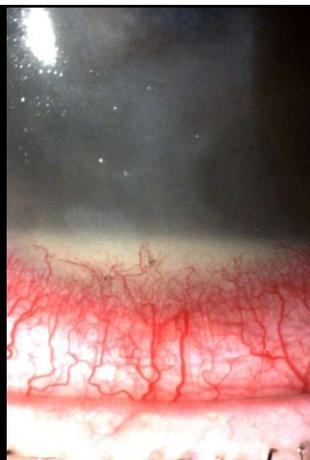
HYPOPYON WITH RCE

- 27 yo WM presents with decreased vision and redness OD
- h/o trauma from firework x 2 years earlier
- Med hx: Type 1 DM
- Meds: Glucagon, Levemir, Novolog
- Allergies: PCN



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- Acuity OD: CF @ 1M, OS: 20/30
- Pupils: ERRLA (-APD OU)
- 2-3+ circumlimbal flush OD
- Hypopyon OD
- Recurrent Corneal Erosion OD



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RCE AND HYPOPYON

- Threats to vision
 - Hypopyon: IOP/Glaucoma
 - RCE: longstanding corneal scarring
- Treatment
 - AB (Tobramycin q5 min x 1 hr then hourly)
 - Cyclopentolate
 - Oral Doxycycline 50mg BID
 - Liberal PF artificial tears
 - BCL?
 - f/u?

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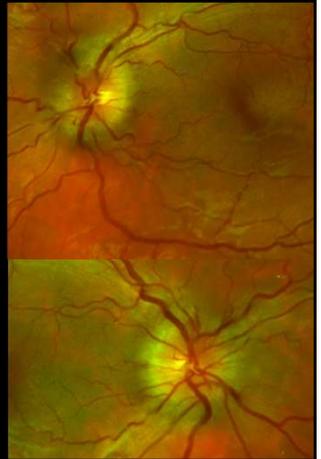
IDIOPATHIC INTRACRANIAL HYPERTENSION

- 18 yo WF
- Diplopia x 5 days
- Persistent migraine x 5 days
- Ocular health normal 3 weeks prior
- Med HX: Asthma, ADHD, Migraines
- Meds: Adderall
- NKDA



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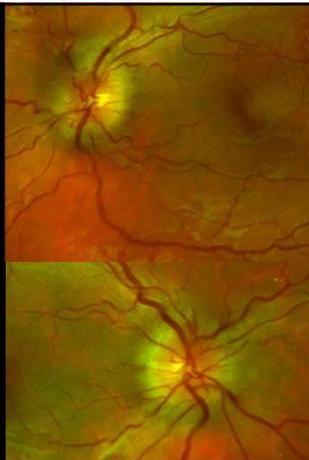
- BCVA: 20/25 OD, OS, OU
- Esotropic: D>>N
- EOM: no pain or restriction
- Pupils: ERRLA (- APD OU)
- Posterior segment: see photos



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IDIOPATHIC INTRACRANIAL HYPERTENSION

- Threats to vision/life
- Diplopia: space occupying lesion (mass, aneurysm). Overall health (DM).
- Papilledema: same as above; infection
- Treatment
- imaging
- LP?
- Diamox



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DIABETIC RETINOPATHY

- 60 yo WF presents for annual DM and Glaucoma eval
- Medical Hx: HTN, DM type II, Glaucoma
- Pt reported HbA1c 6.6, Gluc 135 that morning.
- Current Meds: Aleve, Celexa, Humalog, Levemir, Lisinopril, Metformin, Norvasc, OcuVite, Requip, Victoza, B-12, Xalatan
- NKDA



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- BCVA: 20/20 OD, 20/25 OS
- EOM: FROM
- Pupils: ERRLA (-APD) OU
- IOP 16/17

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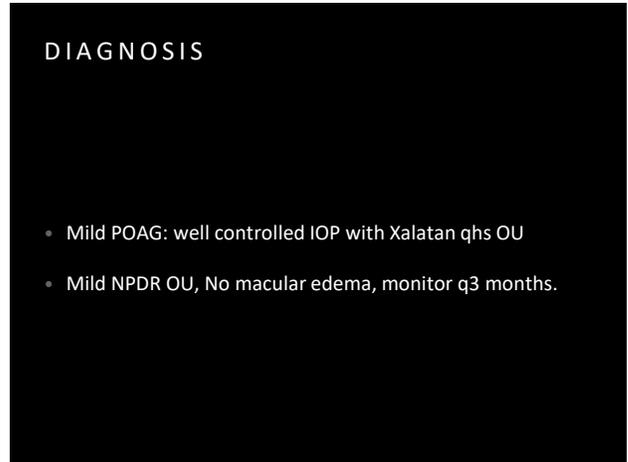
DIABETIC RETINOPATHY POSTERIOR SEGMENT OD



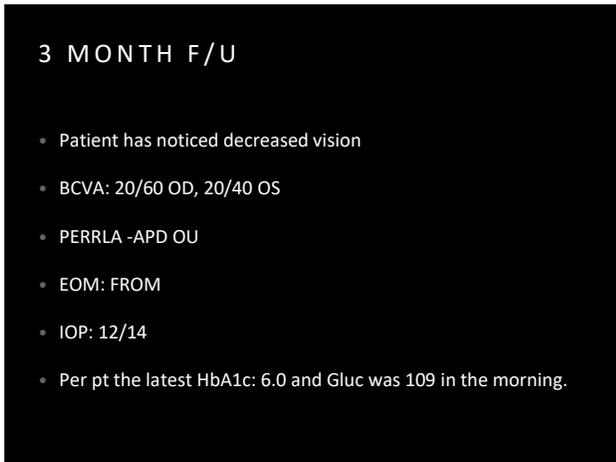
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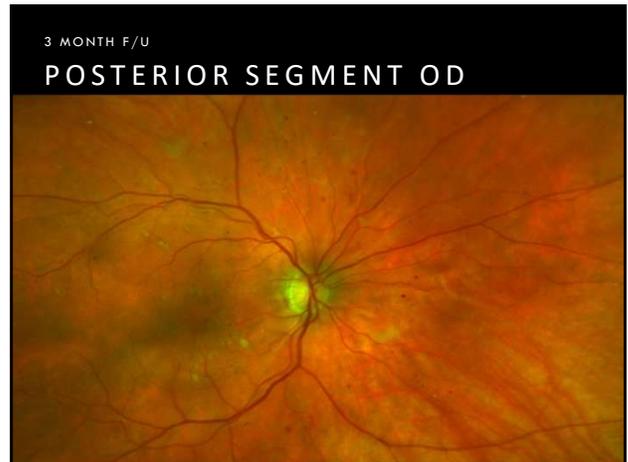
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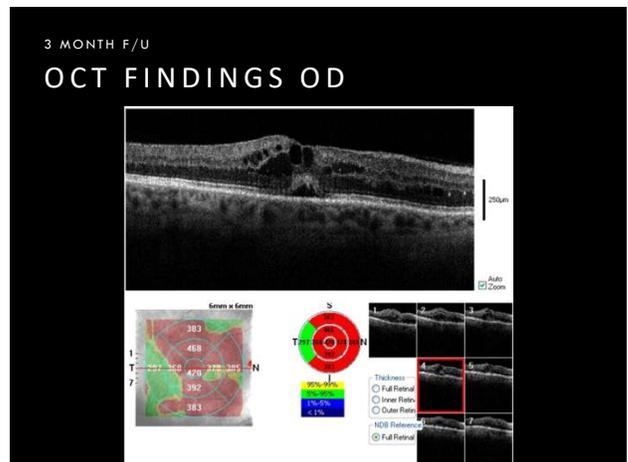
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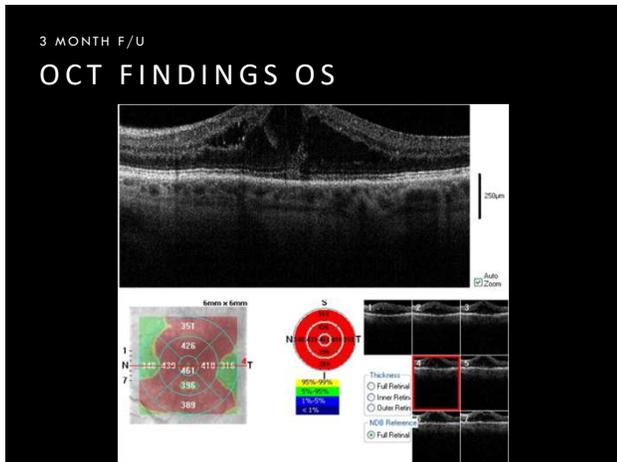
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- Mild NPDR OD, OS
- Clinically Significant Macular Edema OU
- Retinal consult
- Avastin injection

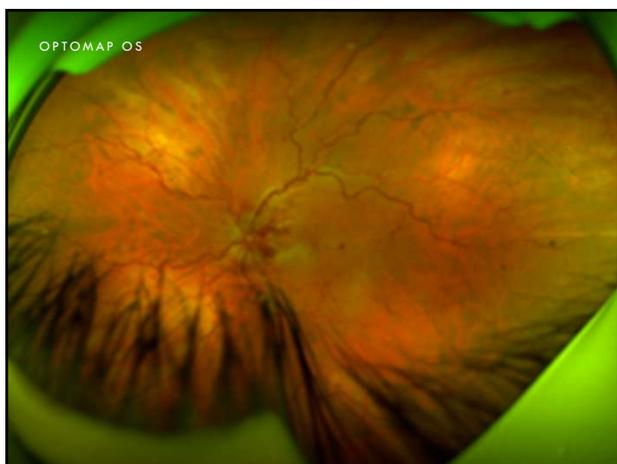
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- CENTRAL RETINAL VEIN OCCLUSION
- 42 yo WM presenting for an emergency
 - CC of blurred vision OS x 3 days
 - Med Hx: Heart valve disease, aortic aneurysm
 - Meds: none reported
 - NKDA

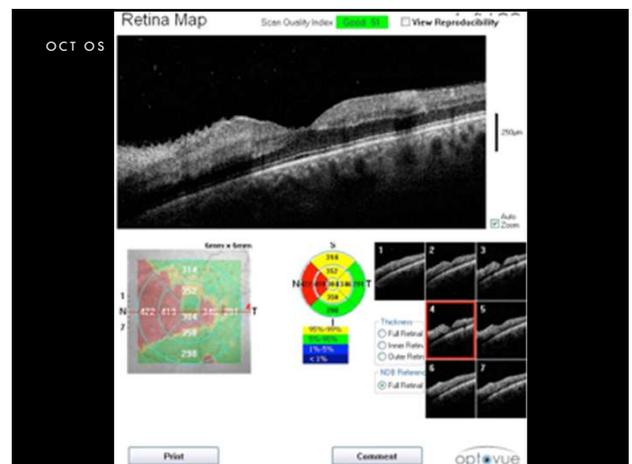
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- CENTRAL RETINAL VEIN OCCLUSION
- BCVA 20/20 OD, 20/30 OS
 - EOM: FROM
 - Pupils: ERRLA -APD OU
 - IOP 10/9

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CENTRAL RETINAL VEIN OCCLUSION

- Note engorged vessels, dot blot hemes, ONH congestion
- Threats to vision/life:
 - overall vascular health
 - macular edema
 - neovascularization
- Treatment
 - immediate referral to cardiologist for echo and carotid w/u
 - initial report suggested a-fib vs. arrhythmia
 - Retinal referral - received anti-VEGF Eylea, will have Ozurdex steroid

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OPHTHALMIC ARTERY ANEURYSM

- 62 yo WM reported for general examination with CC of "spot" in his vision x 1.5 months.
- Med hx: HTN, Kidney Stones, Headaches
- Current meds: unknown blood pressure meds

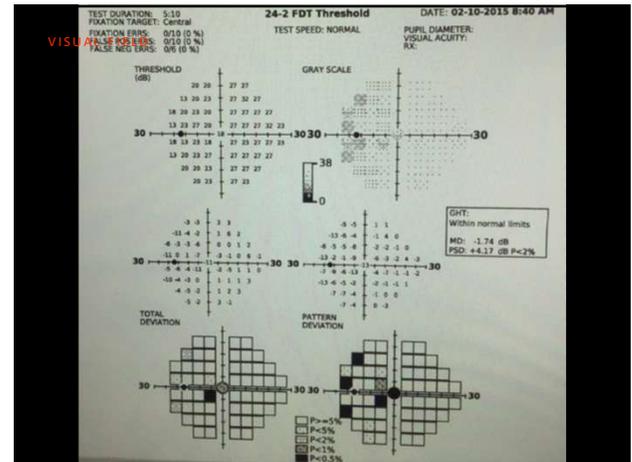


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OCULAR EXAMINATION

- BCVA: 20/20 OD, 20/30 OS - noted having issues seeing letters on left side of chart
- EOM: FROM
- Pupils: ERRLA -APD OU
- Color vision: WNL
- CVF: FTFC
- Anterior segment: WNL
- Posterior segment: WNL
- What next?

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NEXT STEPS

- Given patient symptoms (HA, possible VF defect) and lack of ocular pathology a CT of the head and orbit was ordered.
- Report: 1.5x1.5mm supracellar mass - radiology suggested MRI and MRA. Patient was transferred to KU Med for full workup.

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KU NEUROLOGY IMPRESSION

- Large left ophthalmic artery aneurysm
- recommended tx with flow diversion due to size and high risk of recanalization
- Plan: flow diversion completed by KU Neurology. Was followed at KEC for any longstanding VF defects over time.



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ORBITAL CELLULITIS

- 12 yo WM reported on an emergency basis
- Parents reported illness the week prior and the patient awoke with his OS eye swollen shut.
- No pain, just "orbital numbness"

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Med Hx: Sinus congestion
Systemic Meds: Childrens Motrin
BCVA: 20/20 OD, OS, OU
EOM: FROM OD, OS superior restriction and diplopia on upgaze
Pupils: ERRLA -APD OU
Orbit: OD WNL, OS proptosis



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IMPRESSION AND PLAN :

- Given patients symptoms and signs (globe proptosis, EOM restriction, h/o illness) a tentative dx of Orbital Cellulitis was suspected.
- STAT MRI was ordered in cooperation with pets PCP
- Pt was immediately started on AB and once final diagnosis was made the patient was flown to Childrens Mercy for surgical drainage.

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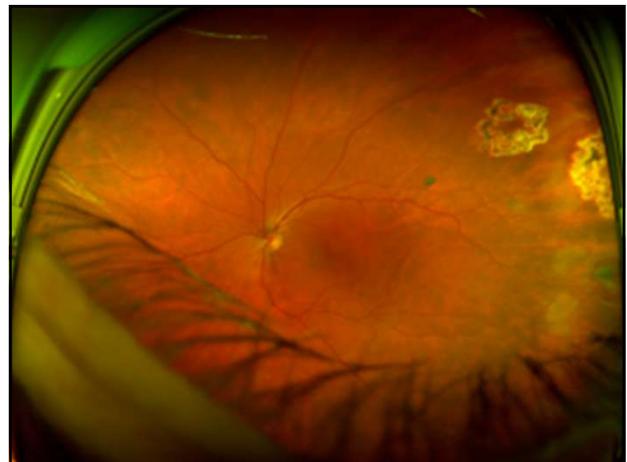
HORSESHOE RETINAL TEAR

- 56 yo WM presenting for annual vision and ocular health examination
- No complaints
- Medical hx: no pertinent past med hx
- Ocular hx: operculated tear May 2016
- *Patient declined \$15 retinal screening

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- BCVA: 20/20 OD, OS, OU
- Pupils: ERRLA - APD OU
- EOM: FROM OU
- Screening VF: Full OU
- Anterior Segment: 1+ NS OU
- Posterior Segment: see Optos photos

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- Important points to note:
 - Even with prior diagnosis, the patient had no complaints or symptoms of retinal tear
 - Technology helped in this case to verify the issue
 - Retinal specialist couldn't see the tear during their examination - patient noted that he "saw" the tear on our photo and knew it was there. After second look - specialist noted it.

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