

46 W F

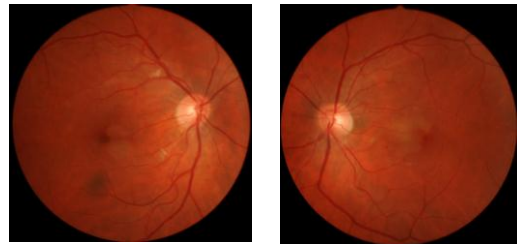
Retina Mysteries Revealed

Michael Feeser, OD, FAAO
 Leo Semes, OD, FAAO

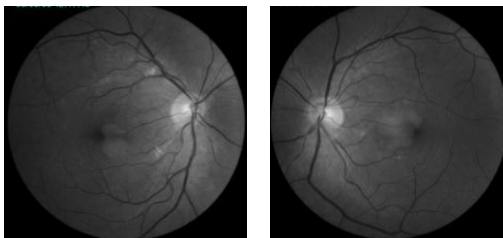
- C/O “central blindness” both eyes
- Released from hospital
 - Acute pancreatitis
 - Dyslipidemia
 - Uncontrolled systemic hypertension
 - Suspected to be 2^o to alcohol abuse

46 W F “central blindness”

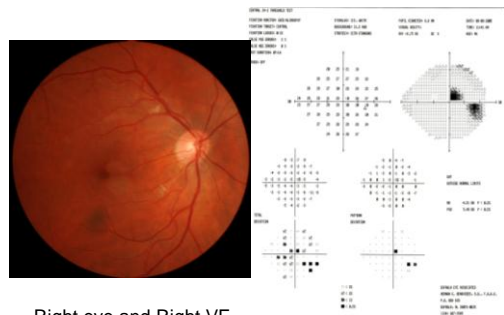
- BSCVA: 20/25(OD)
20/30 (OS) [EV]
- Pertinent lab results
 - Triglycerides > 4000
 - CBC w/diff, ESR, CRP (WNL)
 - Fundi showed cotton wool spots



- The optic discs are unaffected
- The foveal reflex is absent
- There is evidence of disruption at the level of the nerve fiber layer that is more evident in the right eye

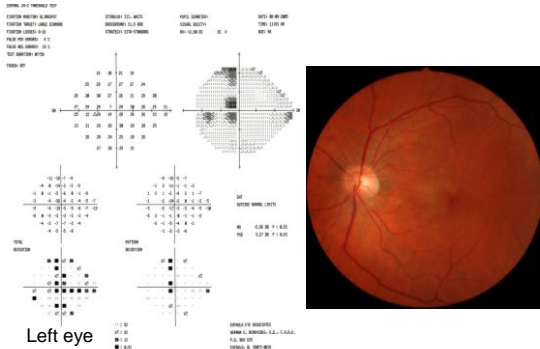


Red-free images of the right and left eyes enhances infarcts of the nerve fiber layer.



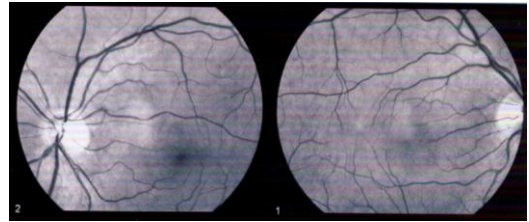
Right eye and Right VF

Notice the deep central depression.



Notice the deep central depression.

FA study – Red Free

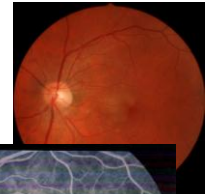
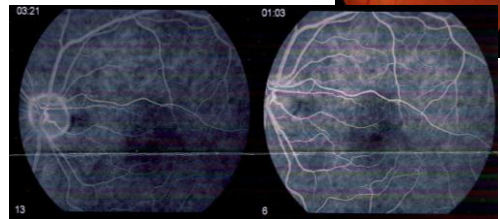


FA study



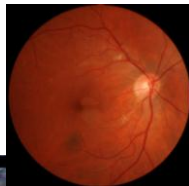
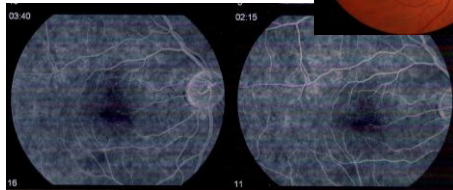
No leakage at 47 sec
Note: patchy choroidal filling

FA study



No leakage from retinal or choroidal vessels at 1:03 and 3:21
Patchy choroidal filling still evident

FA study



No late leakage in the right eye, either

46 WF with decreased central VA and abnormal choroidal filling

- Purtscher Retinopathy
- PubMed search: “visual field defect,” “cotton wool spots”
- Meyer CH, Callizo J, Schmidt JC, Mennel S. [Functional and anatomical findings in acute Purtscher's retinopathy.](#) Ophthalmologica. 2006;220(5):343-6.
- www.pubmed.gov

Purtscher Retinopathy

- Initially associated with head trauma and crush injuries
- Current thinking
 - Micro circulatory defects secondary to endothelial cell damage (ischemic macula)

46 WF Purtscher Retinopathy

- W/in 3 weeks VA 20/20 (OD) and 20/25 (OS)
- Fundus picture improved
 - Medications include:
 - Diovan 160 mg. po qd (Valsartan and Hydrochlorothiazide) for HBP
 - Pravachol 40 mg po qd
 - Zocor 80 mg po ad
 - Librax 2 tab po qhs (Librium (chlordiazepoxide hydrochloride) + the anticholinergic/spasmodic effects of Quarzan (clidinium bromide)

Purtscher Retinopathy

- Questions
- Comments

28 W/M

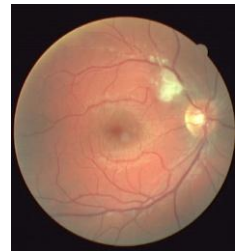
- History / RFV
 - Healthy Dental Student II
 - 2-day observation of “floater” OD only
 - No current medications/allergies
 - No chronic or acute medical problems

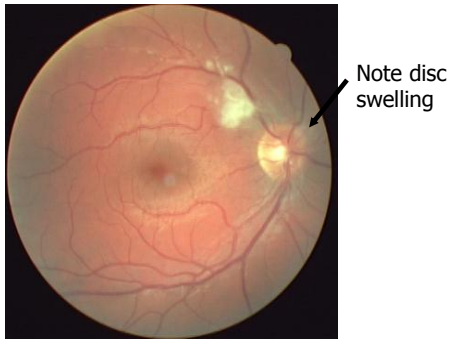
28 W/M

- Findings
 - UCVA 20/20 in each eye
 - Normal motility
 - VF - FFCF
 - PERLA (-) APD
 - Anterior segment unremarkable OD/OS
 - T_A 14/14 mm Hg (OD/OS)

28 W/M

- Findings (con't) DFE
 - 1-2⁺ Vitritis (OD)
 - Granuloma



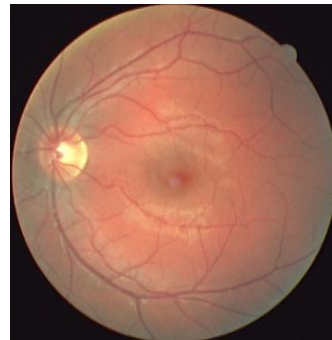


28 W/M

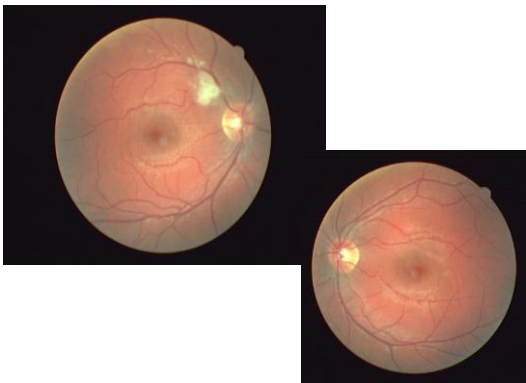
- What are some differential diagnoses?
 - Toxoplasmosis
 - Histoplasmosis
 - Toxocariasis
 - Cat-scratch neuroretinitis

28 W/M

- DFE (OD)
 - Granuloma +
 - Elevated nasal disc margin +
 - parapapillary retinal edema
 = Neuroretinitis !



Uninvolved Fellow eye



28 W/M

- Cat-scratch neuroretinitis
 - Granuloma @ optic disc (OD)
 - Slight optic nerve head edema with spread to retina on nasal side (OD)
 - *History of new kittens with scratch (still healing) on back of left hand*

28 W/M

• Treatment

- Bactrim DS
- 1 tab, PO, bid X 4 wks.

28 W/M

Discussion

- Optic nerve swelling as an early sign in cat-scratch disease

Wade NK, Levi L, Jones MR, et al. Optic disk edema associated with peripapillary serous retinal detachment: an early sign of systemic *Bartonella henselae* infection. Am J Ophthalmol 2000; 130: 327-334.



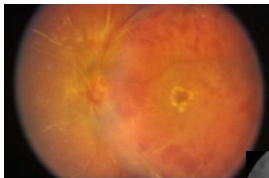
S/P 2 days of Bactrim tx.

Case Example 28 W/M

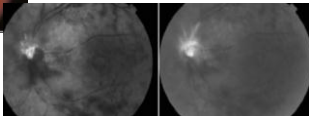
• Cat-scratch neuroretinitis

- Treatment with Bactrim DS [sulfmethoxazole + trimethoprim] bid X 2 weeks and re-check
- Serology to confirm diagnosis
- Resolution is sometimes spontaneous without ocular consequences

Neuroretinitis with CRAO, CRVO, (& NVG)



Arterial attenuation, sclerosis, disc edema, pale retina, resolving macular exudates



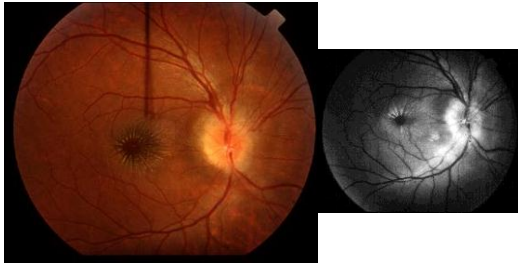
FA @ 49 sec fails to reveal retinal perfusion

Neuroretinitis with CRAO, CRVO, & NVG

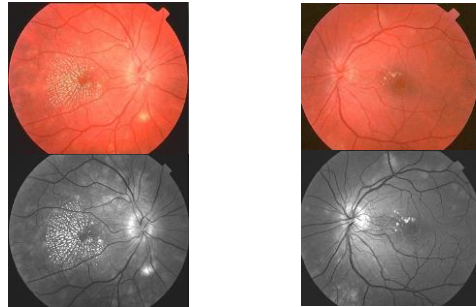


- @ 1 month
- Disc edema
- Dilated tortuous veins
- Thin arteries
- Intraretinal hemorrhages
- Retinal pallor

Neuroretinitis (optic disc edema with macular star, ODEMS)

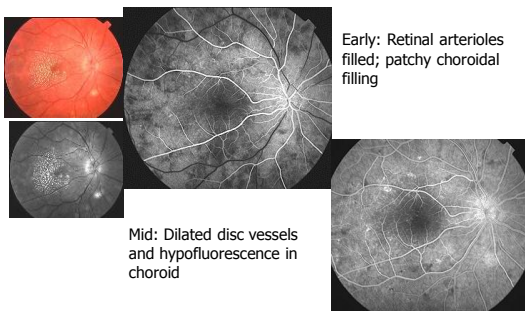


ODEMS (May be bilateral)

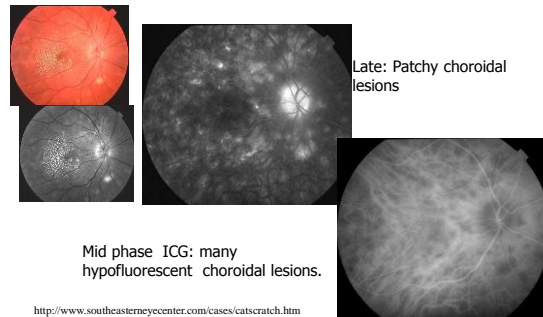


Note choroidal lesions on the RF photo

ODEMS: FA



ODEMS: FA

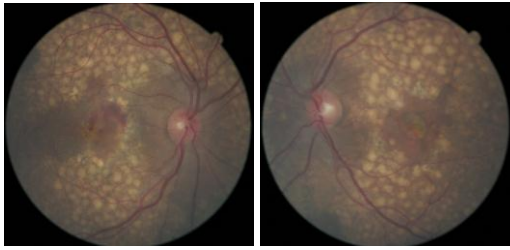


<http://www.southeasterneyecenter.com/cases/catscratch.htm>

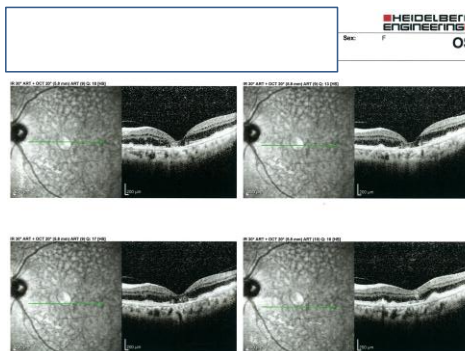
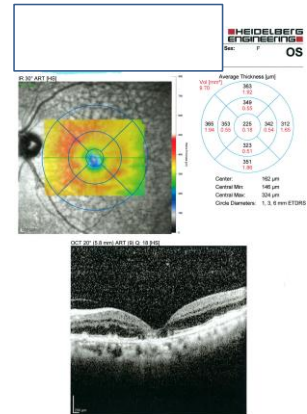
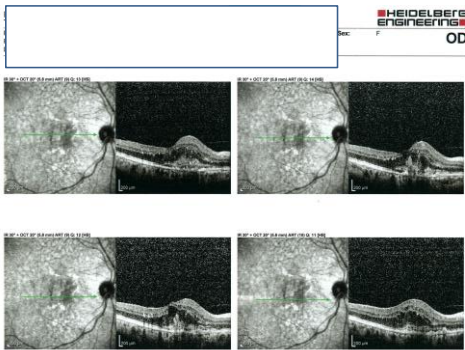
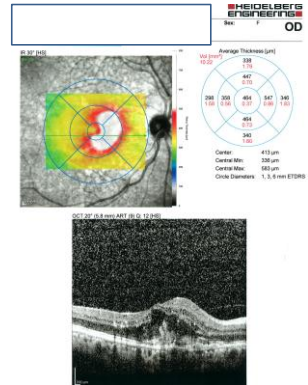
57 AA F

- Questions
- Comments

- Presents to UABSO with a history of reduced VA (OD> OS)
- Had been told elsewhere that she had glaucoma that was coming in from the left side of her eyes.
- Ocular and family histories non-contributory
- Medical history: Tx for HTN X 12 yrs.
- VA 20/200, 20/80



What's the cause of her reduced VA?
 What's your diagnosis?
 What's next?



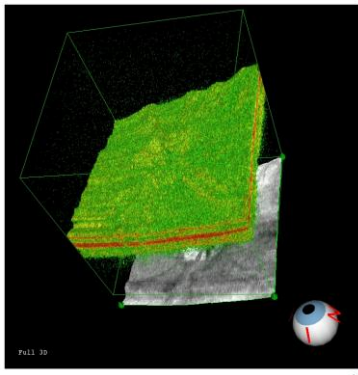
- Questions
- Comments

52 WF – 4/22/2011

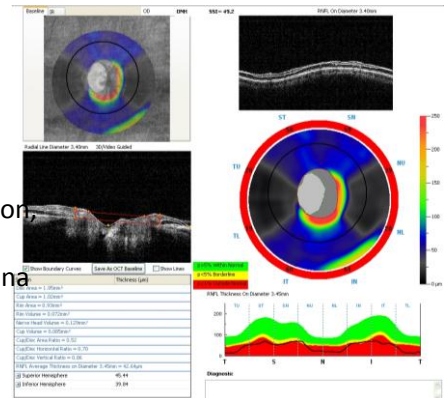
- Medical history
 - DM X > 5yrs
 - HTN X > 5 yrs
 - (both uncontrolled)
 - Morbidly obese
 - Father and mother died at early age 2^o heart disease; brother also X 2 yrs ago.
- VA
 - OD20/area code
 - OS 20/20
- Woke up 3-4 years ago with painless vision loss RIGHT eye, waited 2 days without resolution; “treated” by a retina specialist.



Note loss of inner retinal layers



Note RNFL attenuation and thin inner retina



56 W/M

- Questions
- Comments
- C/O sl blur @ D in each eye (=)
- S/P trauma to each eye (fist)
- Hx. Prison X 5 yrs; out X 10
- Takes no meds; homeless
- VA 20/20 – (OD, OS)
- IOP normal



49



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Differentials and Diagnosis

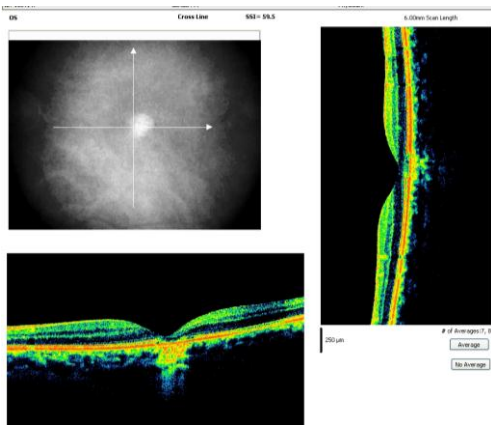
- A. AMD
- B. AOBVD (Adult-onset Best Vitelliform Dystrophy)
- C. Stargardt
- D. How about PED?

51

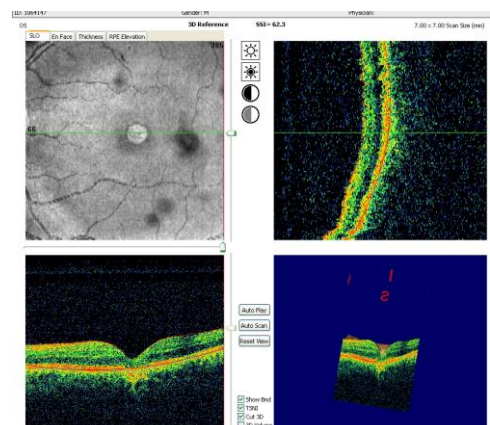
Differentials and Diagnosis

- A. AMD
- B. AOBVD (Adult-onset Best Vitelliform Dystrophy)
- C. Stargardt
- D. How about PED?

52



53



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- Questions
- Comments

50s OD w/reduced VA S/P successful scleral buckle OD

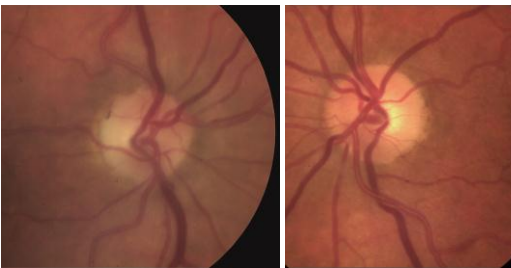
- VA = 20/200
- Had million \$ work-up at Wills
 - CV
 - ERG
 - FA
 - VF



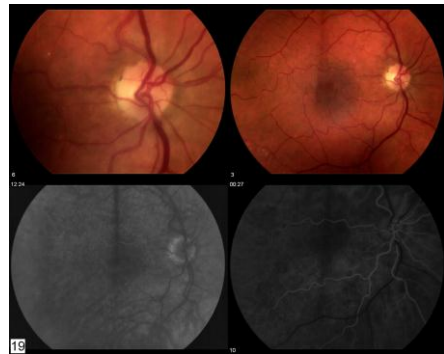
(all reported as normal)

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Compare temporal aspect of each ONH noting subtle pallor OD



Normal retinal vascular perfusion; reperfused ONH with residual atrophy explaining decreased VA



- Questions
- Comments



DX: POAG, ???

-59

- Questions
- Comments



Playlist

- Purtschers
- Neuroretinitis
- Fam dom drusen
- AION / art / occl
- AOBVMD
- Another AION
- Ischemic retina w/ hole and glaucoma

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