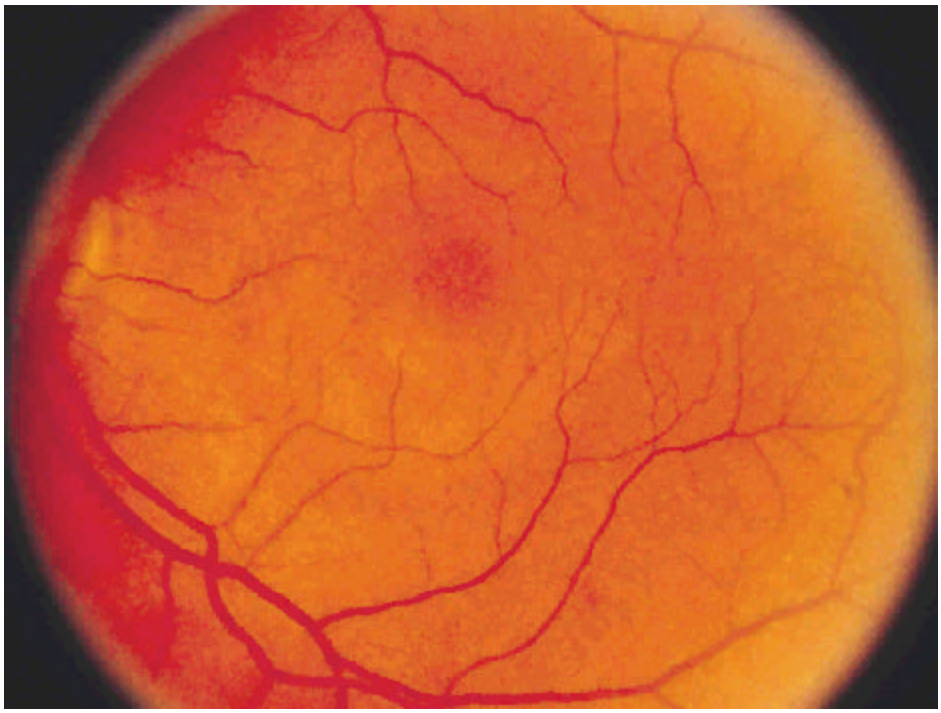

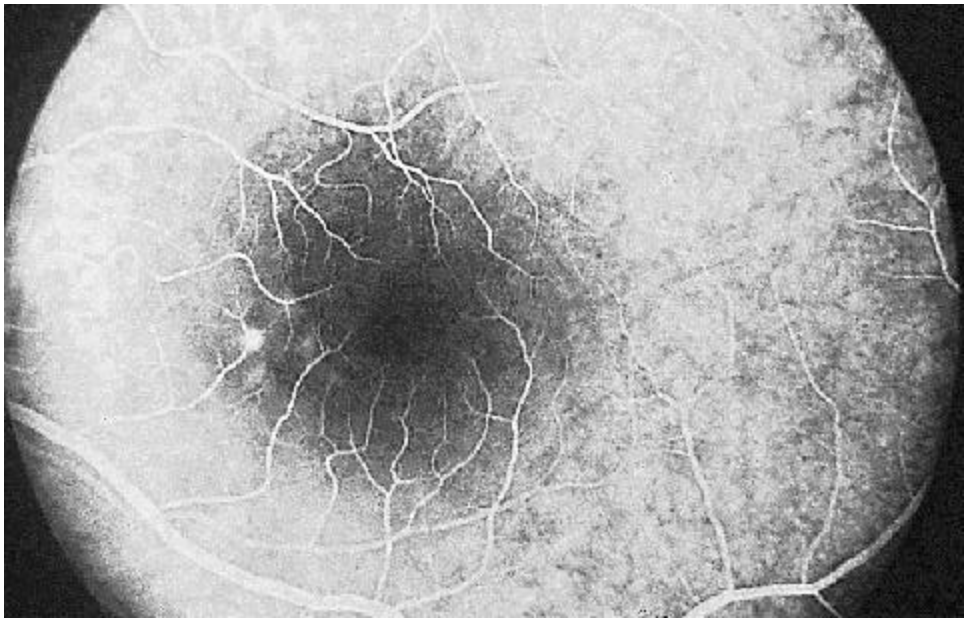

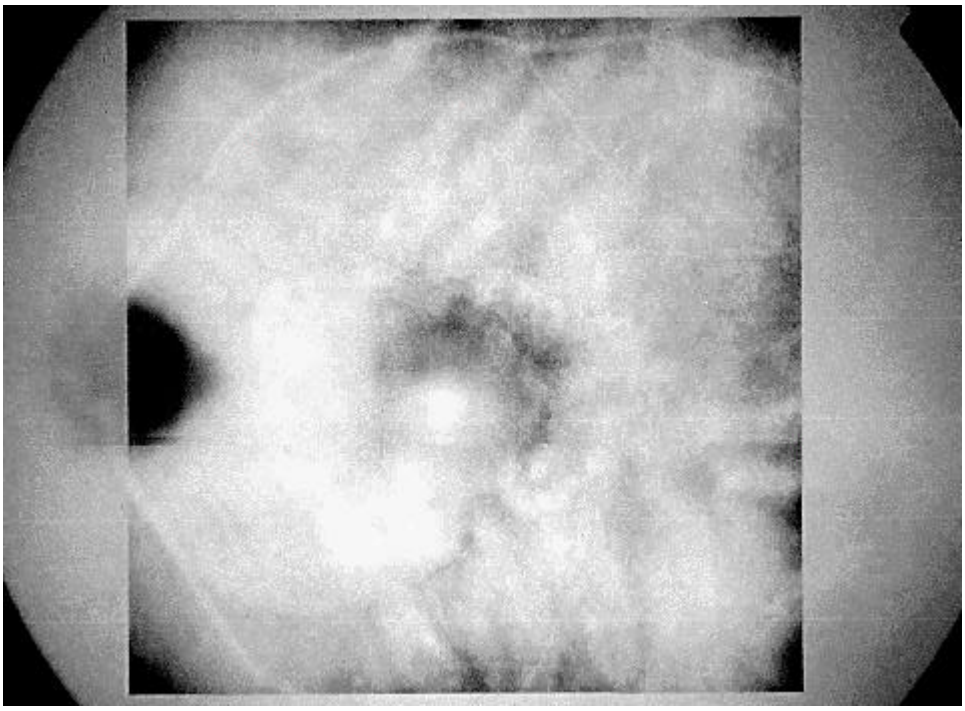

Q: 45 yo WM Pilot presents to your office complaining of central blurry vision OD.

- What is your workup?
- Above is a picture of his macula OD, what do you think?
- You obtain an IVFA E/M/L OD see above. What is your Dx?
- How would you counsel your patient?

A:

- A thorough Hx (1 point) about onset and type of blurry vision reveals the patient has metamorphopsia of recent duration (1 point). Uniocular (1 point). Micropsia (1 point). Bonus ? What causes micropsia? A: Seperation of rods and cones in macula, fewer receptors stimulated than usual by same object → brain percieves object as smaller. Further social Hx reveals patient is Type A personality under recent stress. (1 point)
- Amsler grid testing (1 point) should be done as part of full exam (1 point). Bonus ? How many degrees of vision does Amsler Grid test – answer central 20° at reading distance.
- Retinal exam should involve fundus contact lens (1 point) to look for edema. Point out that in addition to edema (1 point) you are looking for mottling of the RPE and yellow-white subretinal deposits (1 point).
- Give a guided Ddx for macular edema: CSR (1 point); CRNV (1 point); RPED (1 point); CME from DM, uveitis, trauma (1 point each); optic pit (1 point). (Max 5 points).

- On IVFA, we see early small leak (1 point), there is increase in size and intensity (1 point), and there is late pooling (1 point). CSR only gives the smokestack appearance in 10% (1 point).
- I would counsel the patient by telling him to try and relax and maybe take a vacation (1 point). I would tell him that the condition is called central serous retinopathy and describe the natural course (1 point) and prognosis (1 point) (see below). I would consider laser only if he absolutely needed to have his vision return to normal as soon as possible and would obtain informed consent (1 point) stating that it may not work and it will only work to help speed resolution (23 weeks → 5 weeks on average) (1 point), but would not alter endpoint (1 point). Other criteria for possible laser include (see below) (1 point).

Central Serous Retinopathy

Symptoms
—sudden onset **metamorphopsia/micropsia**
—blur (avg 20/30 range 20/15-20/200)
—dimmed vision, washed-out colours
—impaired dark adaption, delayed ret stress test, relative scotoma

Epid
—**M** >> F (4:1)
—Type A personality, visually demanding work under stress
—25-50 yo
—**pregnancy**, malignant HTN, dialysis, organ transplant, SLE
—**rare in blacks**
—Hx migraines
—vasoconstrictive agents, inc corticosteroids/Cushing's (5%)
—(in animals with repeat IV epi)

Signs
—serous detachment of sensory retina with gradual, sloping margins, oval yellow gray elevations (1/4 DD) beneath detachment (RPEDs)
—use fundus CL (wide beam off axis)
—RPE 's © previous leaks (yellow dot like deposits, pigment)

DDx serous macular detachment
1—**ARMD** (CRNV Ddx)
2—optic **pit**
3—choroid **tumor** (amelanotic melanoma)
4—**RPED**—margins more distinct
5—CME (DM, uveitis, trauma)

IVFA
—**early**—small, **focal leak**
—increases in **size** & **intensity**
—**late pooling**
—"**smokestack**" leak into pocket of SRF in only 10% of cases
—consider optical coherence tomography to quantify fluid

Pathophysiology
—altered barrier or pumping functions of RPE
—fluid from choroid through focal break in RPE
—ICG implies that impaired choroidal circ is the cause

Treatment/Followup

—**spontaneous resorption** of SRF in **80-90**% over **1-6** mo
—**Px worse** if
—**recurrent** dz
—**multiple areas** of serous detachment
—**prolonged** course (chronic form in 5%)
—**recurrent** in 40-**50**%
—final outcome or recurrence rate not affected by laser, but will speed up recovery [Watzke et. al, 1974, using ruby red laser] (23 weeks→5 weeks)
—examine every **6-8 wks**
—give pt **Aimsler** grid
—Consider **laser** if: (green, 6-12 spots, 50-200µm, 0.1s, 75-200mW focal to RPE leak point producing scar)
1—persistence **> 4-6 mo**
2—either eye has **permanent** visual **deficit** (metamorphopsia, decreased brightness perception, alt color vision) from **previous** episodes
3—patient **requires prompt restoration** of vision
4—multiple recurrences
—complications of laser
1—CRNV
2—central scotoma