Vitreomacular Traction Syndrome



February 15, 2021

Definition of syndrome:

 A group of signs and symptoms which occur together and characterize a particular abnormality or condition

Vitreomacular traction (VMT) syndrome requires:

- 1. an incomplete posterior vitreous detachment (PVD), which subsequently leads to...
- 2. vitreomacular traction

Symptoms of VMT syndrome include:

- 1. Metamorphopsia (distortion of images)
- 2. Micropsia (when images appears smaller than their actual size)
- 3. Photopsia (when a person sees flashes of light in their eye)
- 4. Decreased sharpness of vision

VMT syndrome may lead to:

- 1) Epiretinal membrane
- 2) Cystoid macular edema
- 3) Full-thickness macular hole

VMT syndrome is caused by:

- 1. Age-related liquefaction (ie, becoming liquid) of the vitreous gel along with continuous anterior-posterior and tractional forces on the macula.
- 2. Weakening of the attachments of the vitreous cortex and internal limiting membrane, which can potentially lead to partial detachment of the posterior hyaloid.

Treatment options

- 1. Watchful waiting and monitoring with OCT. Some patients will experience spontaneous resolution of VMT. Some will also develop full-thickness macular hole.
- 2. Pars plana vitrectomy. Success rate is near 100%, although this surgery may lead to full-thickness macular hole.
- 3. Intravitreal ocriplasmin (Jetrea). Success rate is 40%. This treatment may lead to full-thickness macular hole, retinal tear, or retinal detachment.
- 4. Pneumatic vitreolysis. Success rate is 80%. This treatment may lead to full-thickness macular hole, retinal tear, or retinal detachment.

Case presentations

- JC
- 60 y/o CM
- CC: blurred vision and distortion OD
- VA 11-08-19: 20/50-1 OD & 20/40+2 OS without correction, with trace cortical cataract OU
- Pt elects observation

Right eye 11-08-19

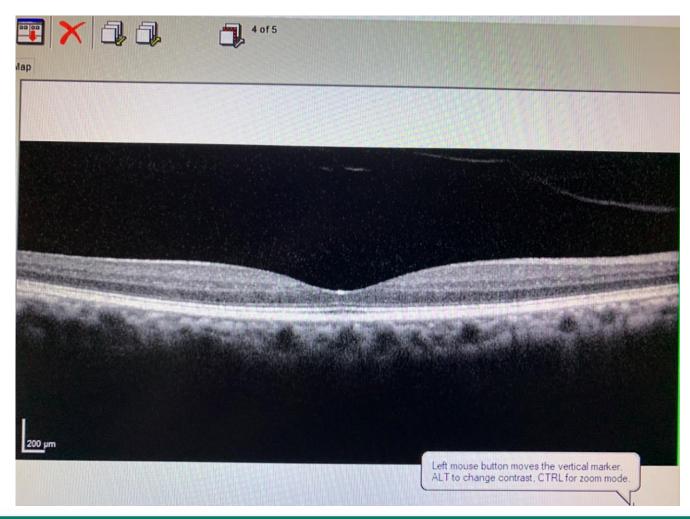




Left eye 11-08-19



VA 11-24-20: 20/30+2 OD & 20/30-1 OS with correction. Patient feels VA OS is worsening.



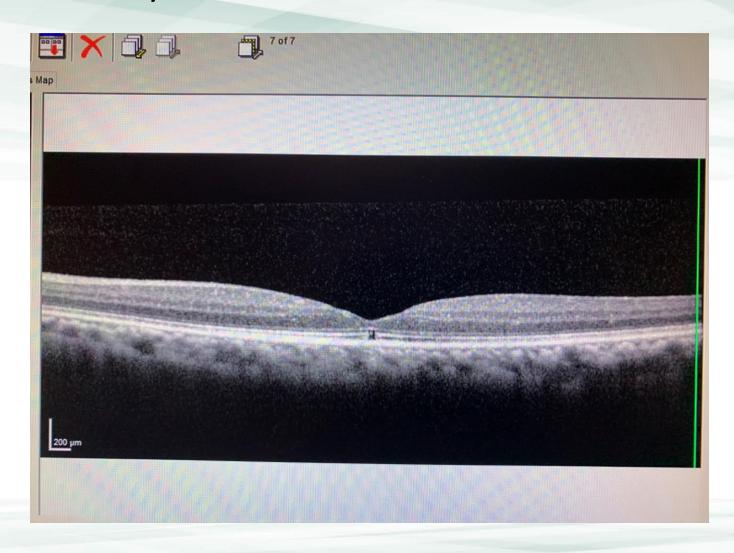
Left eye 11-24-20



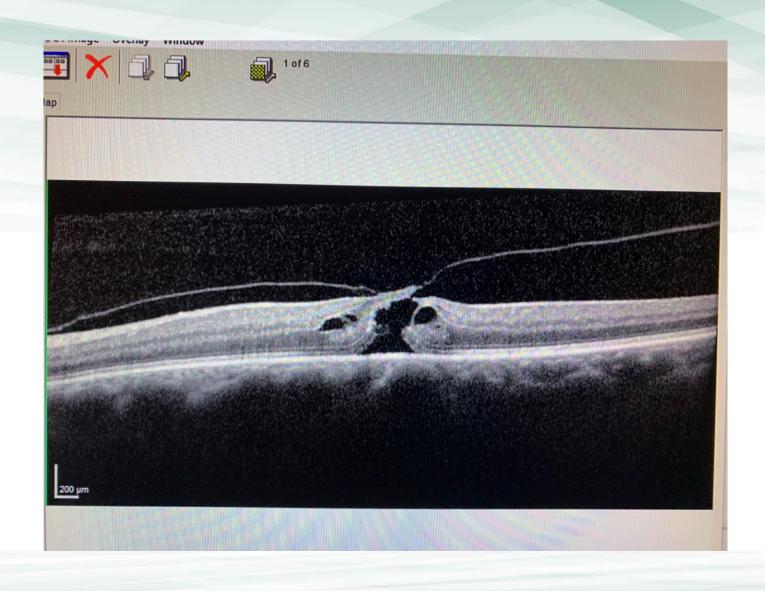
Left eye 12-01-20. VA OS 20/40-1



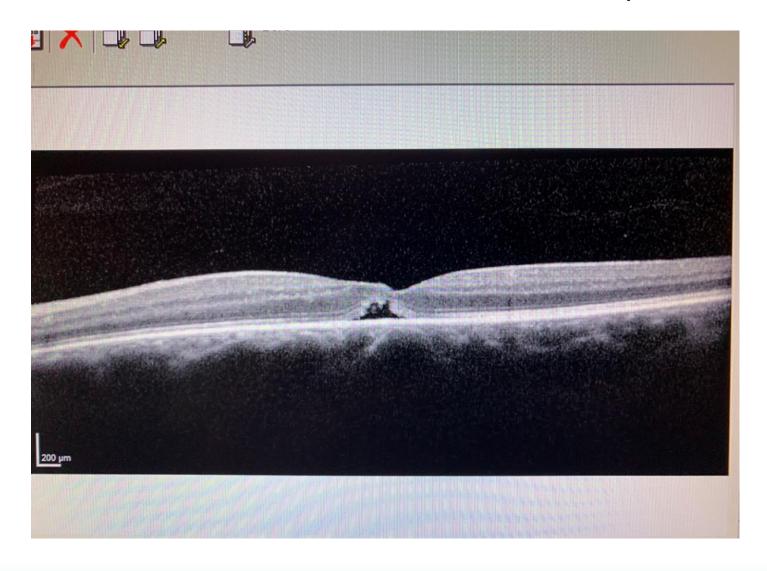
Left eye 2-10-21. VA OS 20/20-1



- DD
- 65 y/o CM
- CC: one week history of blurred and distorted vision OS
- 05-21-19, VA OD 20/20-2, VA OS 20/70+1, with correction (trace NS OU)
- OCT OS shows stage II full-thickness macular hole



OCT OS 05-29-19. VA OS 20/40-1



OCT OS 07-05-19. VA OS 20/40-2



OCT OS 6-10-20. VA OS 20/30-1



- AT
- 65 y/o CF referred for FTMH OS and VMT OD
- CC: 7 wk history of blurred vision OS; no complaints OD
- On 05-18-17, VA OD 20/30, and VA OS 20/70-2
- OCT shows VMT OD and stage II FTMH OS

Right eye



Left eye



VA OD 4-16-19 20/40; treatment recommended.



VA OD 6-4-19 20/30-2



VA OD 6-11-19 20/30



VA OD 7-9-19 20/40 (trace NS)



VA OD 6-9-20 20/40

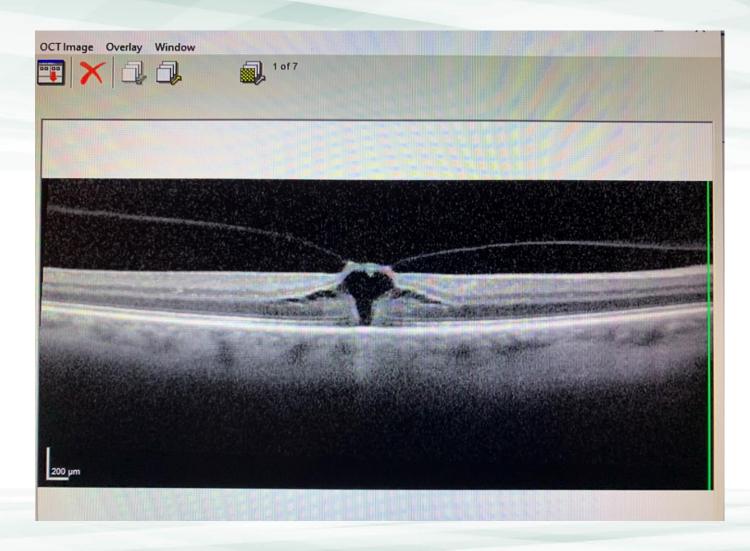


VA OS 6-9-20 20/60+1 (PC IOL)



- LS
- 65 y/o CF
- CC: vision becoming blurred gradually for years
- On 08-02-19, VA OD 20/50-1 and VA OS 20/40-1 with correction
- OCT shows stage Ib macular hole OD and vitreomacular adhesion OS

Right eye

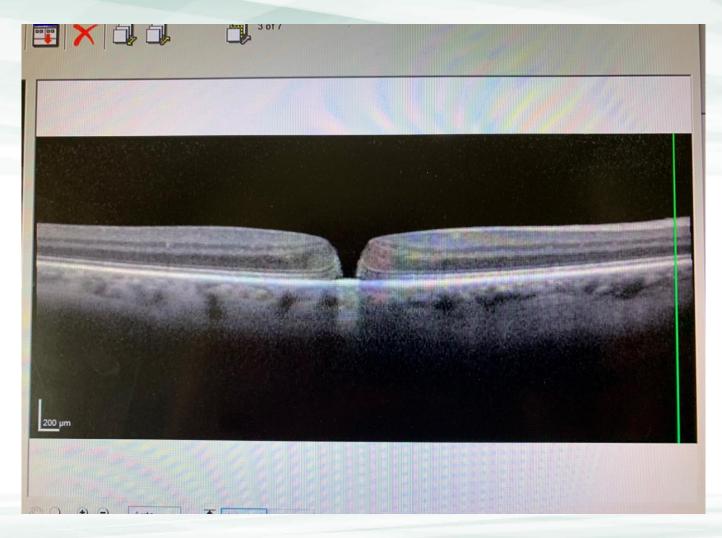


Left eye





Right eye 08-13-19. VA 20/50.



Right eye 08-21-19. VA 20/50.



PPV, ILM peel, gas OD on 09-23-19. Right eye 10-03-19. VA OD 20/50.



Right eye 09-15-20. VA OD 20/30+2, with PC IOL.

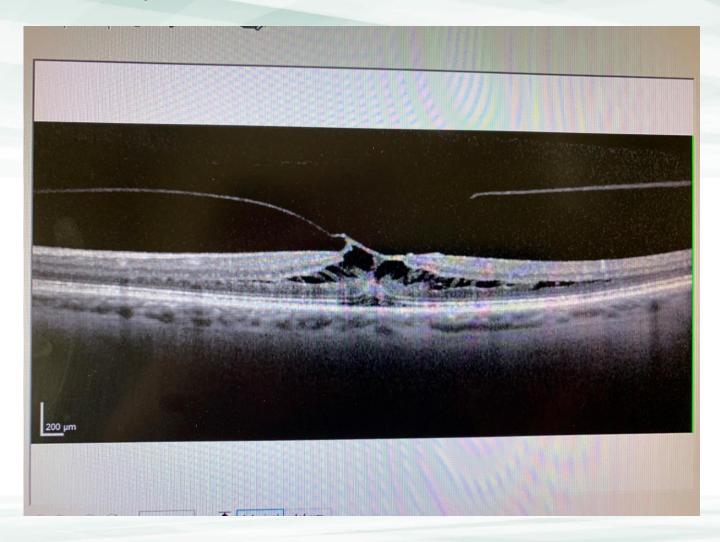


- MH
- 62 y/o CF
- CC: increasing distortion left eye
- On 10-31-19, VA OD 20/30+2 and VA OS 20/50+2, down from 20/20-1
- OCT shows ERM OD and VMT OS
- Patient is phakic OU

Right eye



Left eye



Left eye 11-06-19. VA 20/60+2.

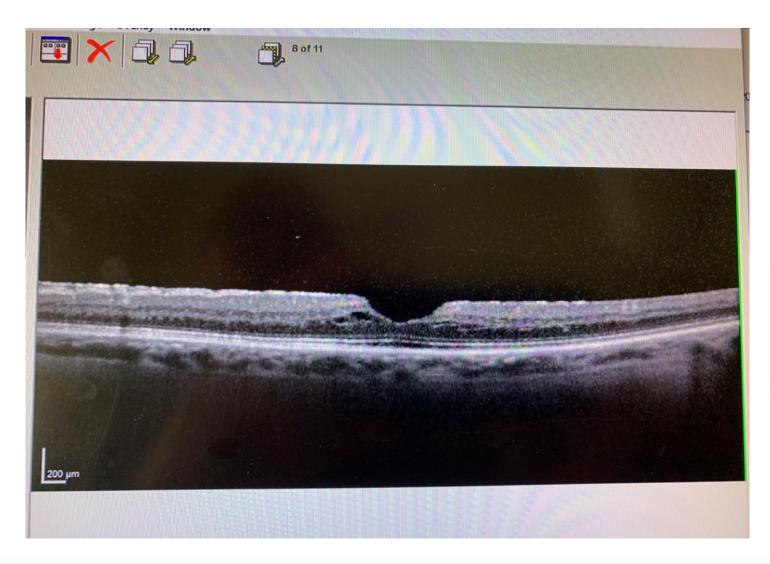




Left eye 12-04-19. VA 20/40+2.



Left eye 03-04-20. VA 20/30+2.



Left eye 01-26-21. VA 20/20-2.



Right eye 01-26-21. VA 20/40-2.



THE END. Thank you!