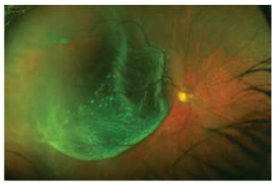
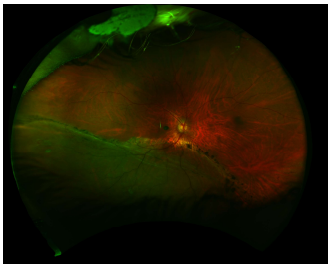
Diagnosis and Management of Vitreoretinal Disease

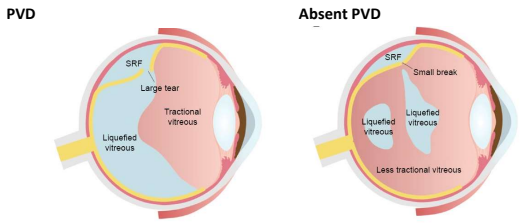
Jonathan Bernstein MD

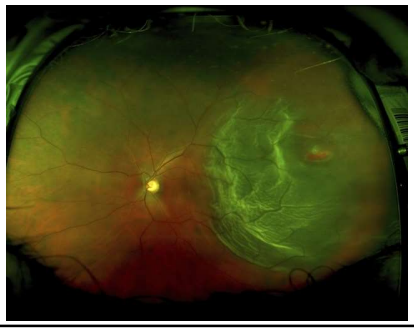


Inferior , asymptomatic retinal detachment in young myope without PVD



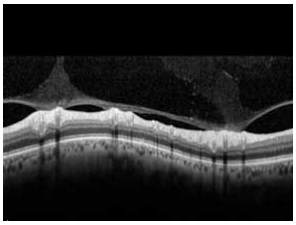
Rhegmatogenous retinal detachment





Posterior hyloid in non-PVD RD

- PH is firmly attached
- Vitreous gel less liquified

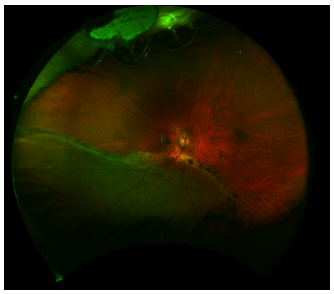


Management of RD

- **Observe** ?
  --risk of progression, macula –off
- **Laser** ?
- --scotoma, still possible progression after PVD
- **PPV?**
  --High risk of intraoperative new tears(lack of PVD), cataract in high myope a major issue
- **Scleral buckle?**
  --induced myopia, risk of choroidal bleeding if sclera too thin

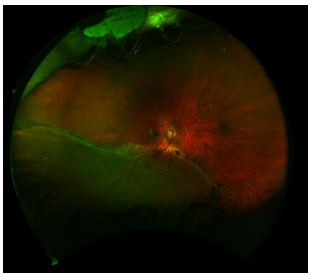
Observe ?

risk of progression too macula –off RD



Laser ?

Risk of scotoma, still possible progression of RD after PVD occurs later



PPV?

-High risk of intraoperative new tears(lack of PVD)

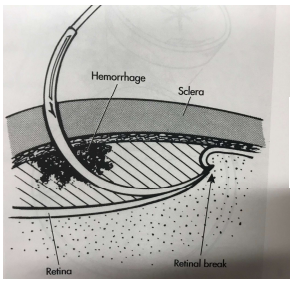
-more tears =PVR ?

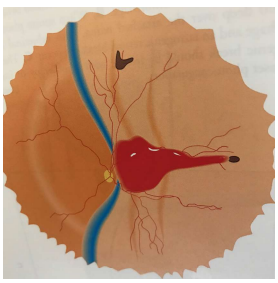
-cataract formation in high myope a major issue

Scleral buckle?

-risk of induced myopia, diplopia

-risk of choroidal bleeding if scleral very thin





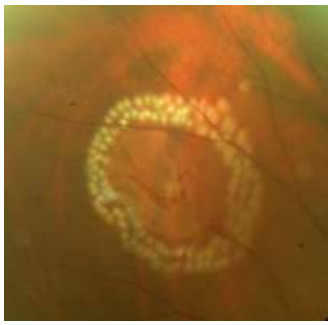
To treat , or not to treat….

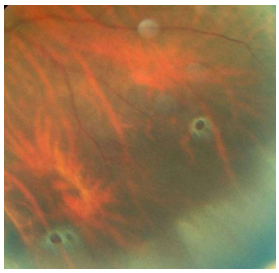
Observe

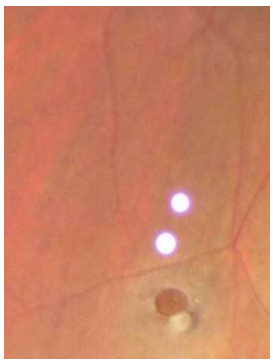
- Flat holes without fluid
- Pigmented holes(360)
- Atrophic holes
- Lattice degeneration
- Atrophic Holes in lattice

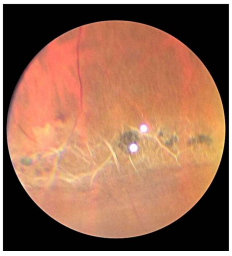
Treat

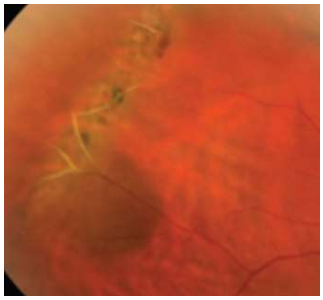
- Retina tears
- Holes with significant subretinal fluid
- High risk holes(RD in other eye, strong family hx, ocular syndromes, before cat surgery in high risk patient
- High risk Lattice degeneration

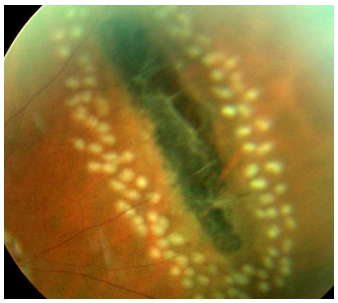


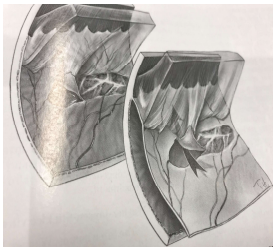






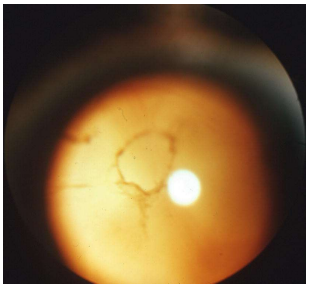




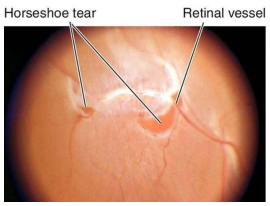


Acute PVD

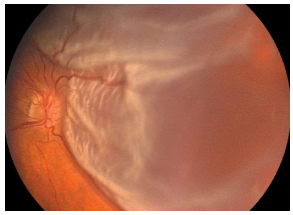
- 5-10 % risk of retinal tear
- If vitreous hemorrhage = 70% incidence of retinal tears
- Critical to perform 360 SD exam or 3-mirror CL exam



PVD with vitreous hemorrhage



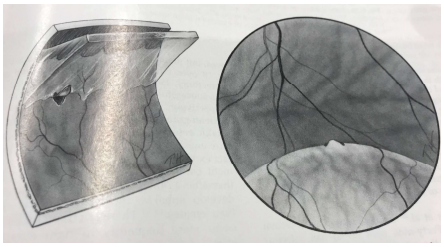
Pseudophakia retinal tears



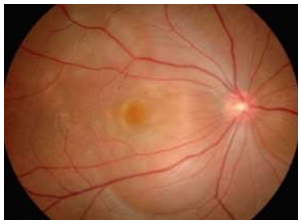
Difficult too find due to :

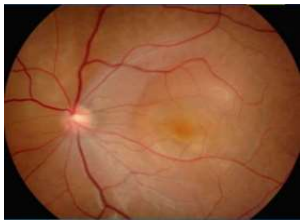
- often near ora
- view more difficult due to peripheral capsular opacities
- often very small, finger-like tears in **bullous RD**
- 360 SD out to ora much more likely to find retinal breaks then 3-mirror exam
- 28 d lens useful

Pseudophakia retinal tears

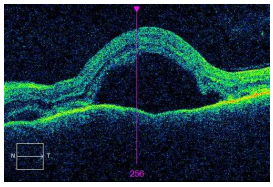


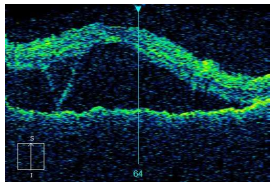
CASE # 2





Neurosensory macular detachments OU



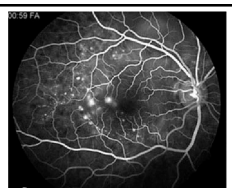


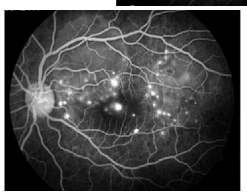
FA

-multifocal areas of pinpoint leakage

-hyperfluorescence with pooling within subretinal space

- optic nerve staining and leakage





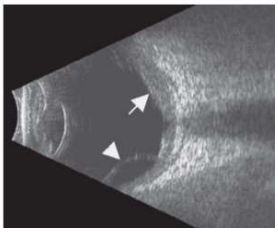
B SCAN

--Diffuse choroidal thickening,

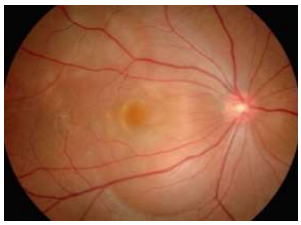
--Exudative retinal detachments

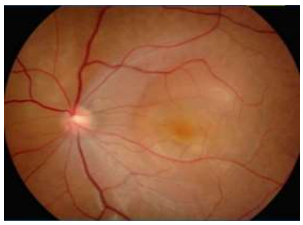
--vitreous opacities

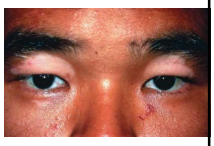
--NO evidence of posterior scleritis (no fluid in subtenons space .. Neg. T sign)



Dx ???

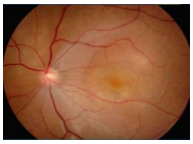


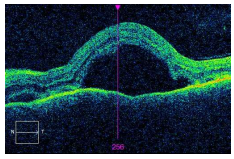




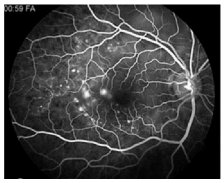
- bilateral granulomatous panuveitis(autoimmune)
- affects pigmented tissues of the ocular, auditory, skin and central nervous systems(leptomeninges)
- Primarily affects darkly pigmented races(Asian, native Americans, Hispanics)
- 30-50 yr olds

- **Pathogenesis**
  - T-cell mediated autoimmune reaction against antigens associated with melanocytes of the RPE
  - thickening of the uveal tract caused by granulomatous inflammation





- Bilateral Panuveutis
- diffuse choroiditis
- thickening of the posterior choroid (Bscan)
- optic disc edema
- multiple serous retinal detachments.
- Focal areas of subretinal fluid

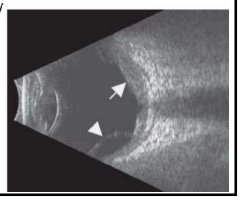


- Neurology consult done to R/O meningitis (meningismus)
- LP with spinal fluid examination shows evidence of pleocytosis(white cells….negative for meningitis)
- laboratory and serologic test negative for infectious etiology
- MRI of brain showed mild meningeal enhancement

- Auditory Signs: sensorineural hearing loss , tinnitus and vertigo (early onset)
- Neurological Signs: flu- like sx, fever, headache, neck stiffness, nausea(meningitis –like sx)
- Dermal Signs: Vitiligo, poliosis and alopecia(whitening of the hair, eyebrows, and eyelashes -- late findings if chronic)

TREATMENT

- **Cycloplegics–** rotates the ciliary body back away from the angle to prevent AACG… pt's IOP = 28 OU
- combigan and durazol (avoid prostaglandin meds in uveitis)
- intravenous high dose corticosteroids
- high dose oral steroids with slow taper
- IMT …(Azathioprine , methotrexate ,Cyclosporine)
- Coordinated care with with neurology and rheumatology



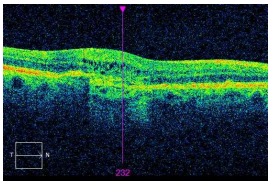
DxDx

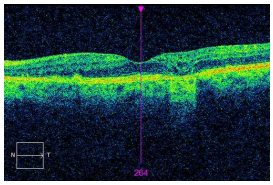
- Sympathetic Ophthalmia – no history of trauma, SO has no neuro sx
- Hematological disorder (lymphoma , Acute Leukemia , Uveal lymphoid infiltration).. R/o with lab tests
- Posterior scleritis– r/o on b scan
- Central serous chorioretinopathy after steroid use– no uveitis seen with CSR
- Sarcoidosis– FA different, R/o with lab testing , more chronic hx

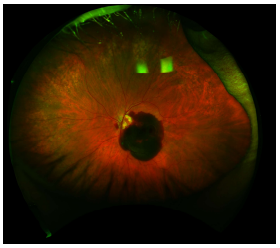
DxDx

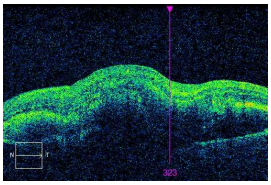
- Malignant hypertension– BP normal
- APMPPE- Acute Posterior Multifocal Placoid Pigment epitheliopathy --no uveitis, FA different, no macular detachments seen on OCTs
- Lupus choroidopathy– hx, labs
- Uveal effusion syndrome- often small , hyperopic , no uvetitis
- Lyme disease- hx , labs

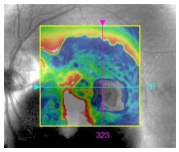
Case #3

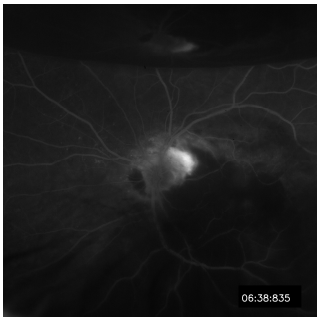


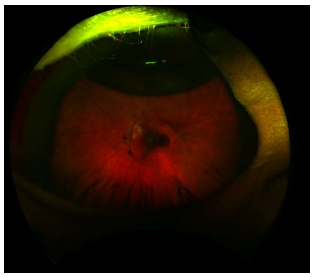


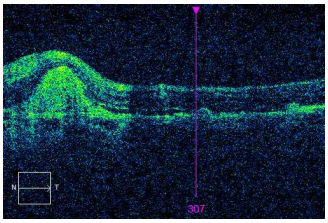


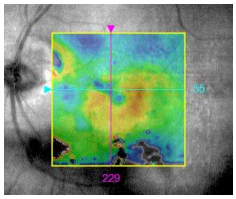












Thank You !