

Retinal Detachment Repair

Does the method of repair
matter?

Pneumatic retinopexy: pluses

- In office procedure
- Minimally invasive
- Does not change refractive error, or induce cataract
- Best visual acuity outcome if macula is detached

Pneumatic retinopexy: minuses

- Success rate of 70-80%, as opposed to 90% for surgical options
- Requires strict positioning for 2-3 days
- Not an option if retinal tear is between 4:00 and 8:00
- Not a good option if tears are more than 90 degrees apart
- May induce additional tearing of retina
- Inherently slight increase in risk of PVR
- Not as good an option in pseudophakic vs phakic patients

Scleral buckle: pluses

- The single procedure which affords best chance of never needing additional procedures for addressing RD or tear
- Better option in phakic patients since refractive error can be corrected with future cataract surgery
- Aids in relief of vitreoretinal traction in the setting of PVR
- Relatively short recovery period before returning to full function
- Does not induce cataract
- Every operation is bespoke

Scleral buckle: minuses

- Induces myopia
- Risk of diplopia
- Risk of strabismus
- Risk of scleral buckle exposure
- Post operative discomfort
- Operating time is 2x longer than PPV
- Requires more skill than PPV

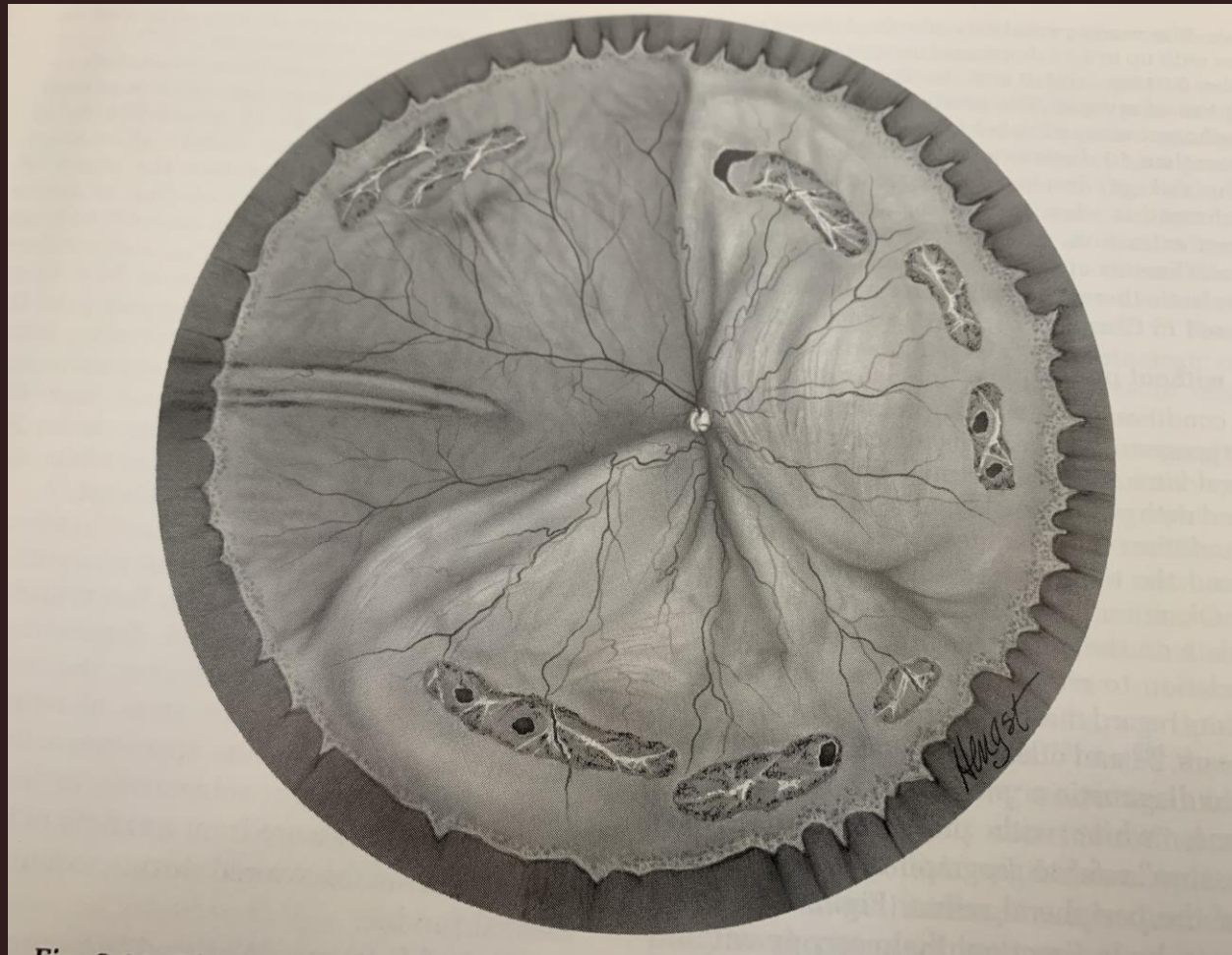
Pars plana vitrectomy: pluses

- Typically no post operative discomfort
- Excellent option if patient has had, or will need filtering surgery
- Does not disrupt conjunctiva
- Short operating time, relative to scleral buckle
- Utilizes latest microscopic surgery technology
- Does not induce refractive shift in pseudophakes

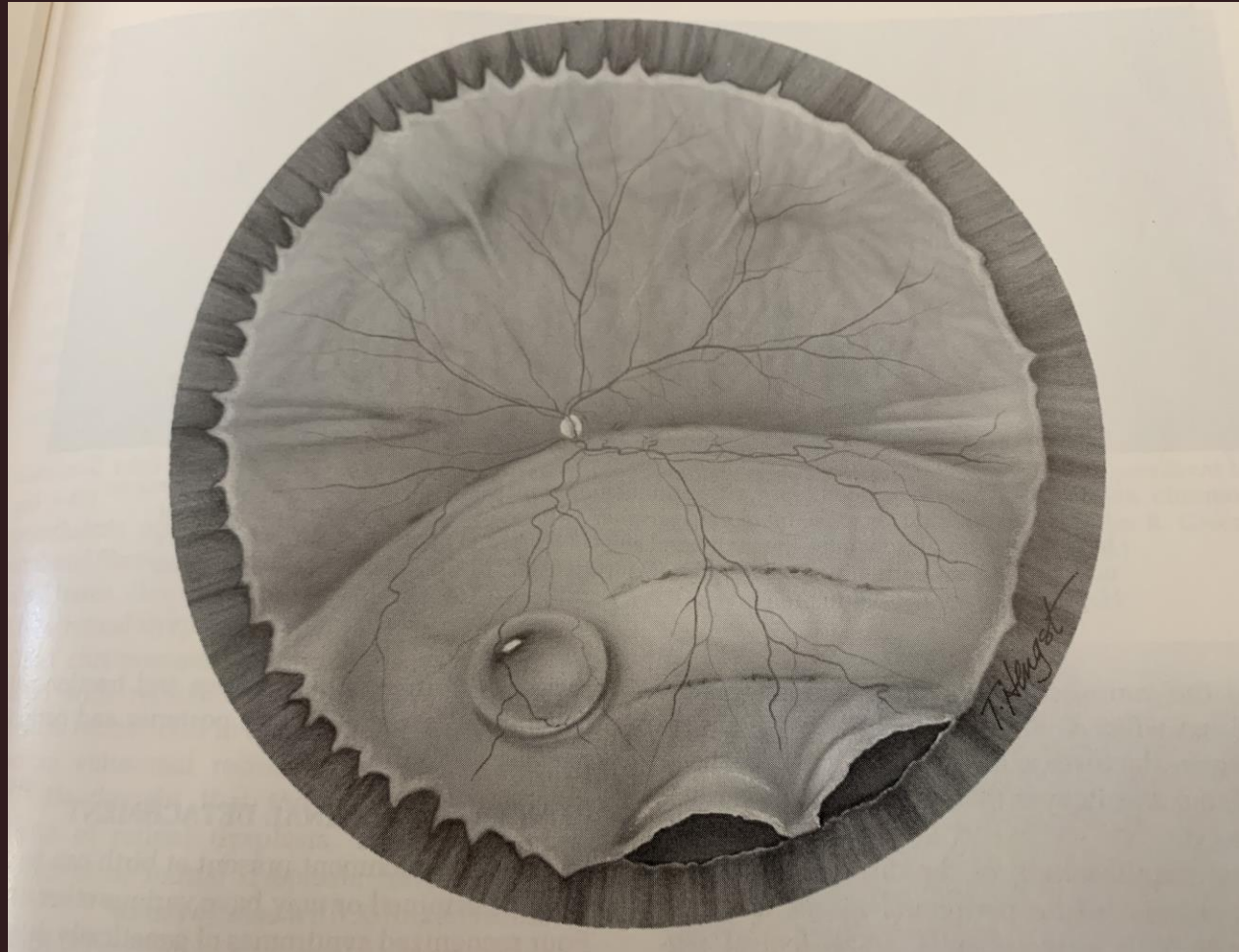
Pars plana vitrectomy: minuses

- Induces cataract
- If unsuccessful in phakic patient, can make reoperation more difficult
- Not the best choice in patients who live at higher altitudes unless silicone oil is utilized
- Significant visual obscuration until gas bubble is $>1/2$ absorbed
- Greater restriction on elevation change
- Positioning requirements are longer and more restrictive

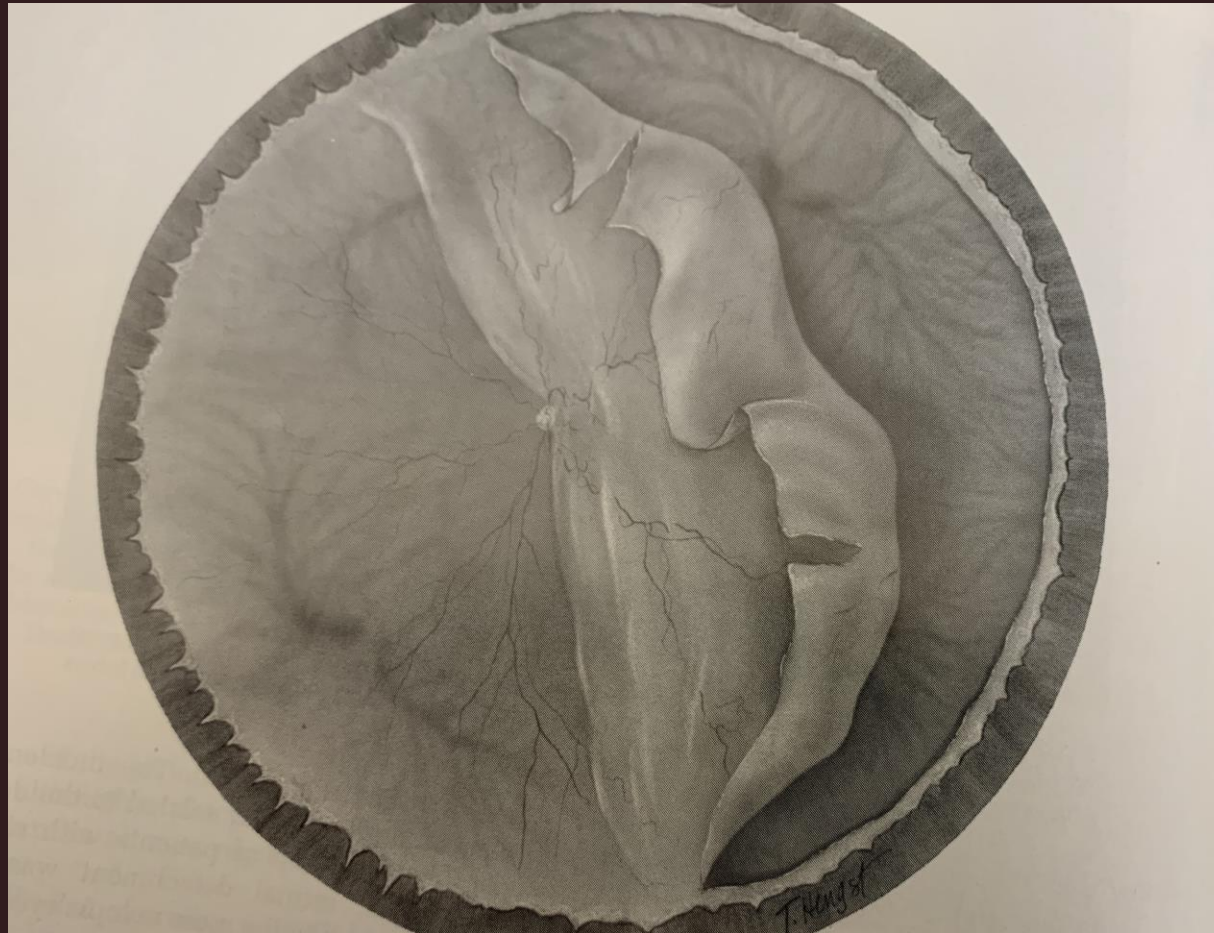
Phakic detachment. Macula on. Lattice degeneration. Multiple retinal tears.



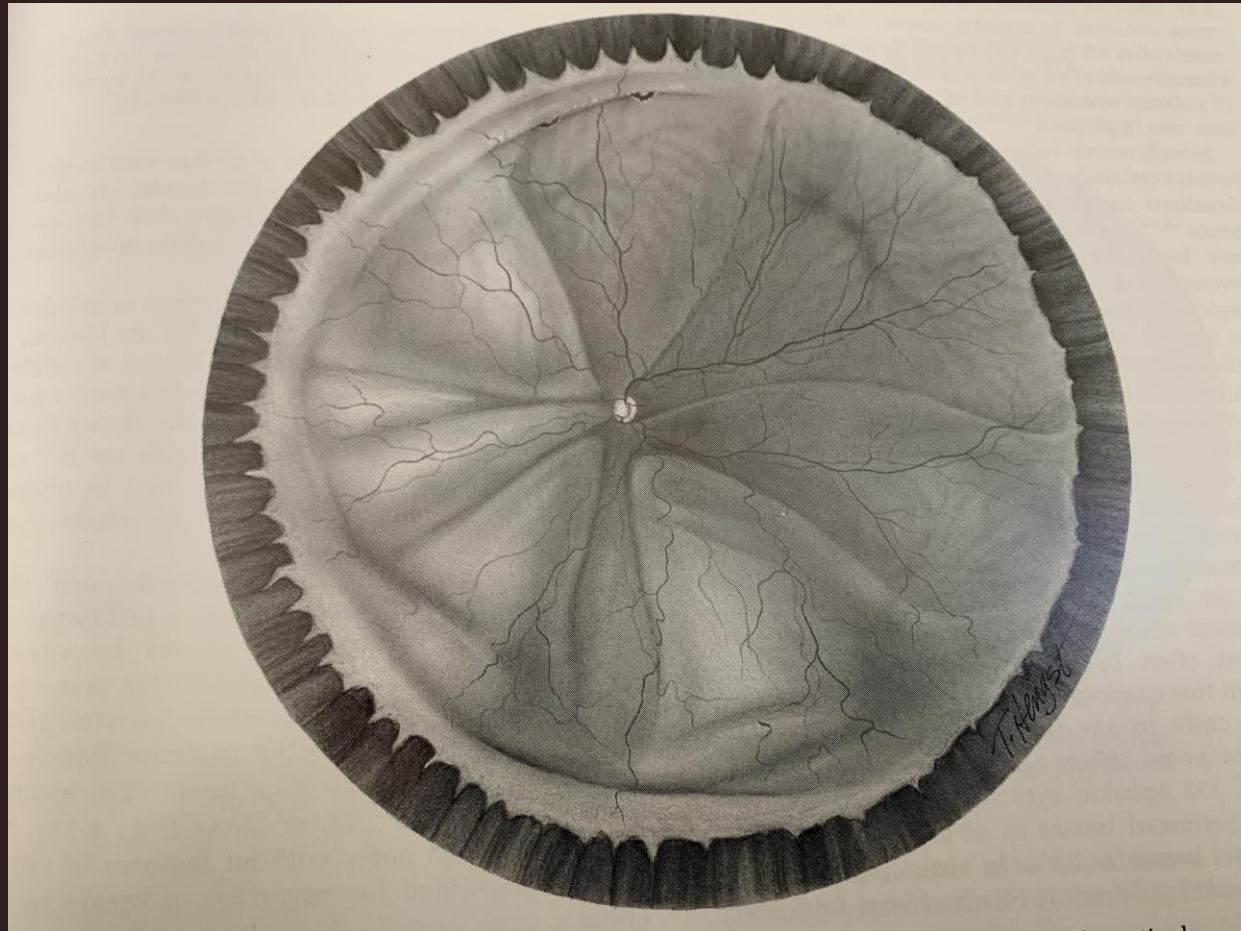
Dialysis retinal detachment, macula off.



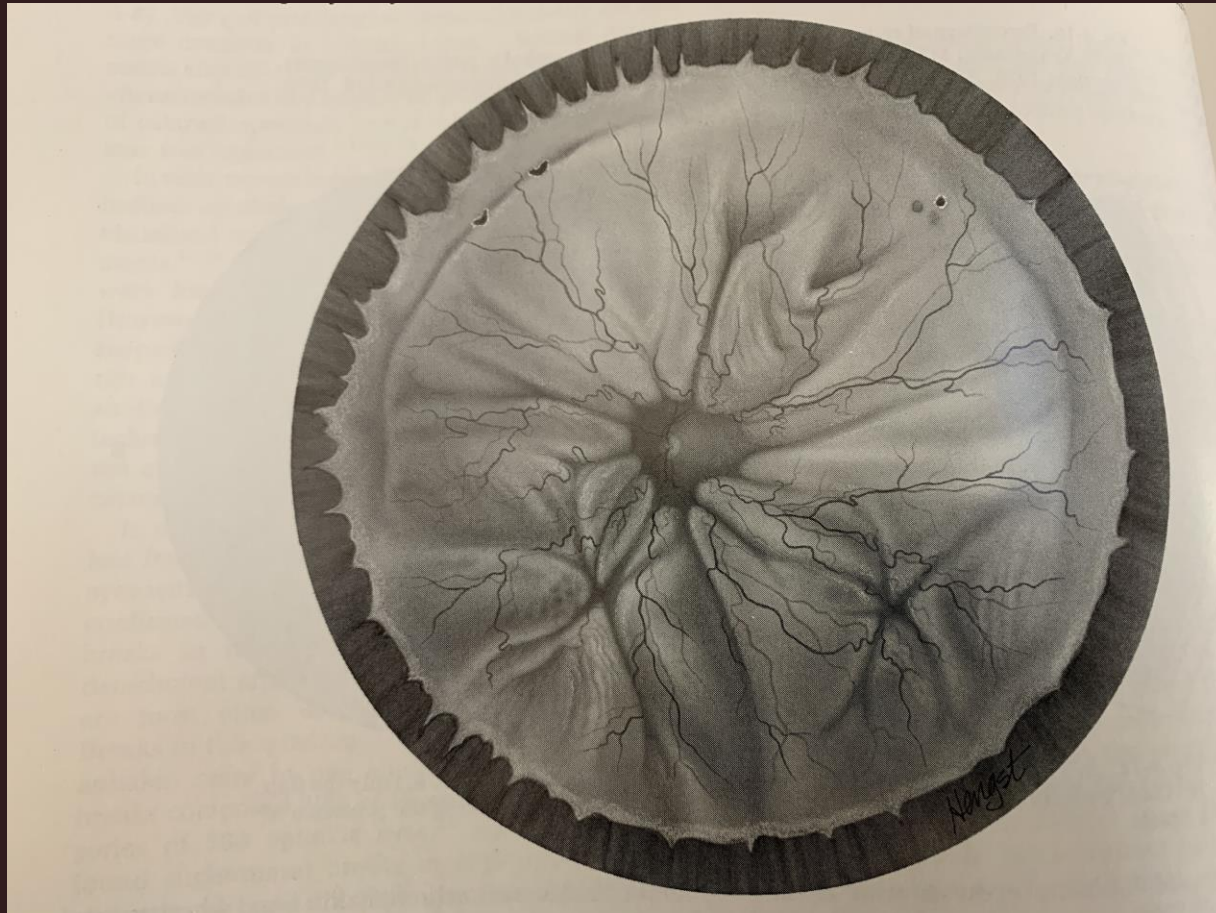
Retinal detachment with giant retinal tear, macula off.



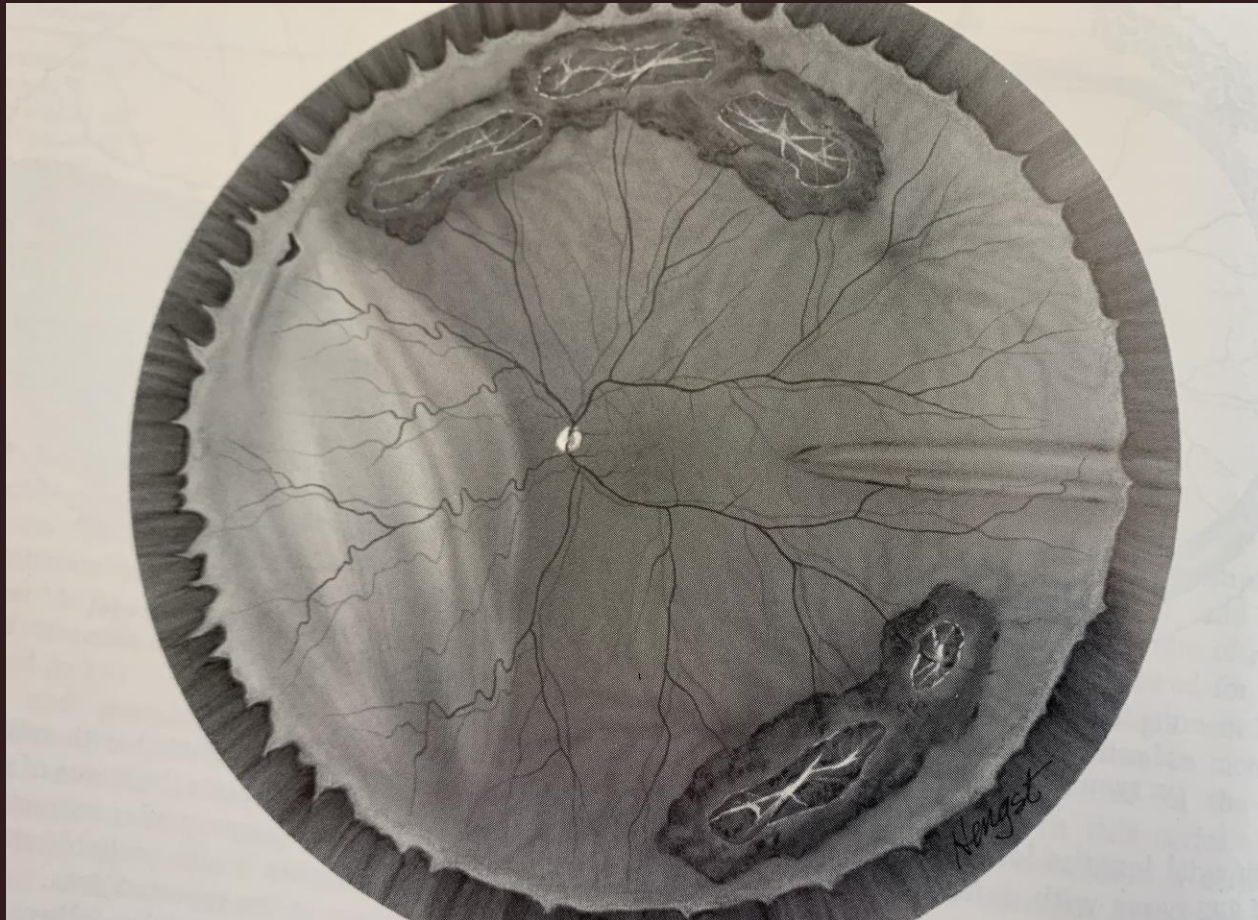
Pseudophakic retinal detachment with macula off.



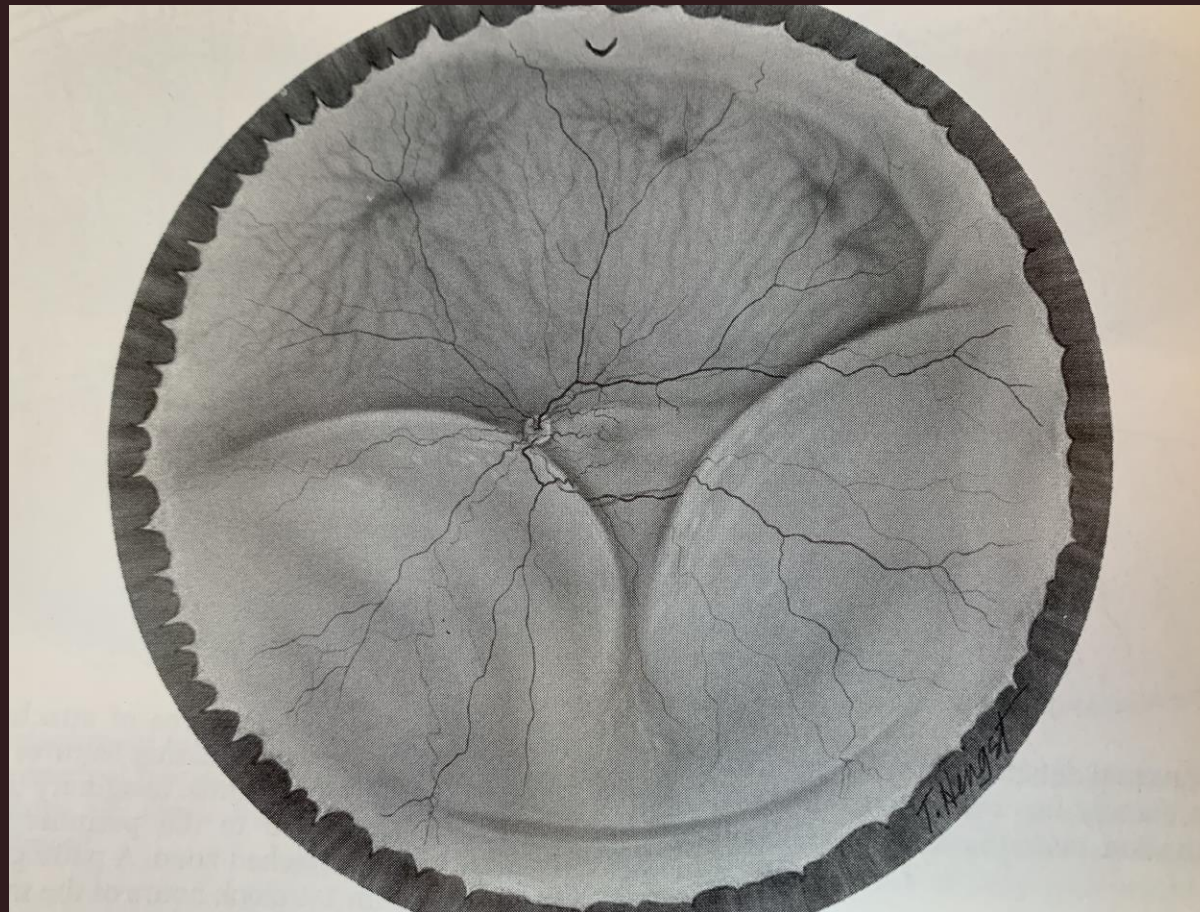
Pseudophakic RD with macula off and early PVR.



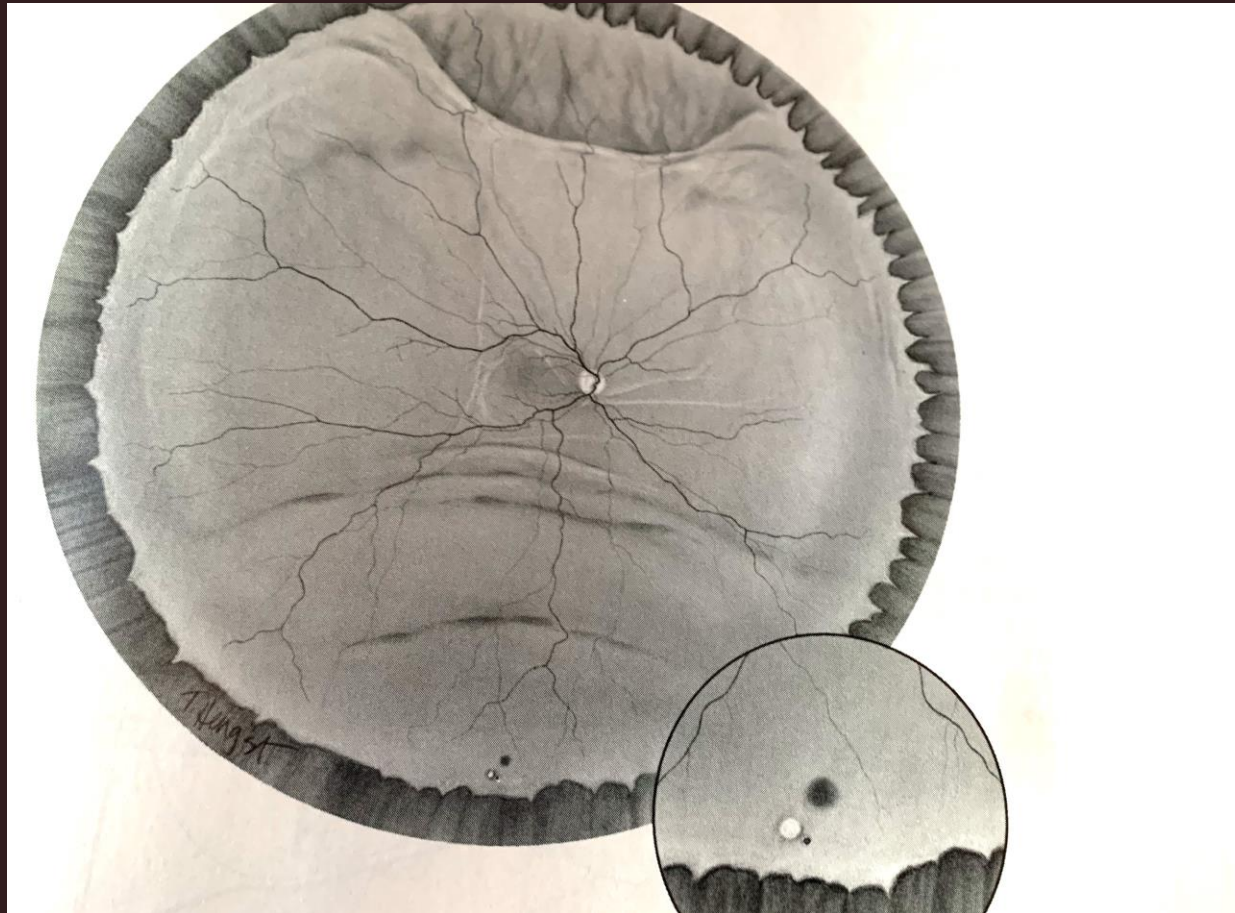
Pseudophakic retinal detachment with macula on.



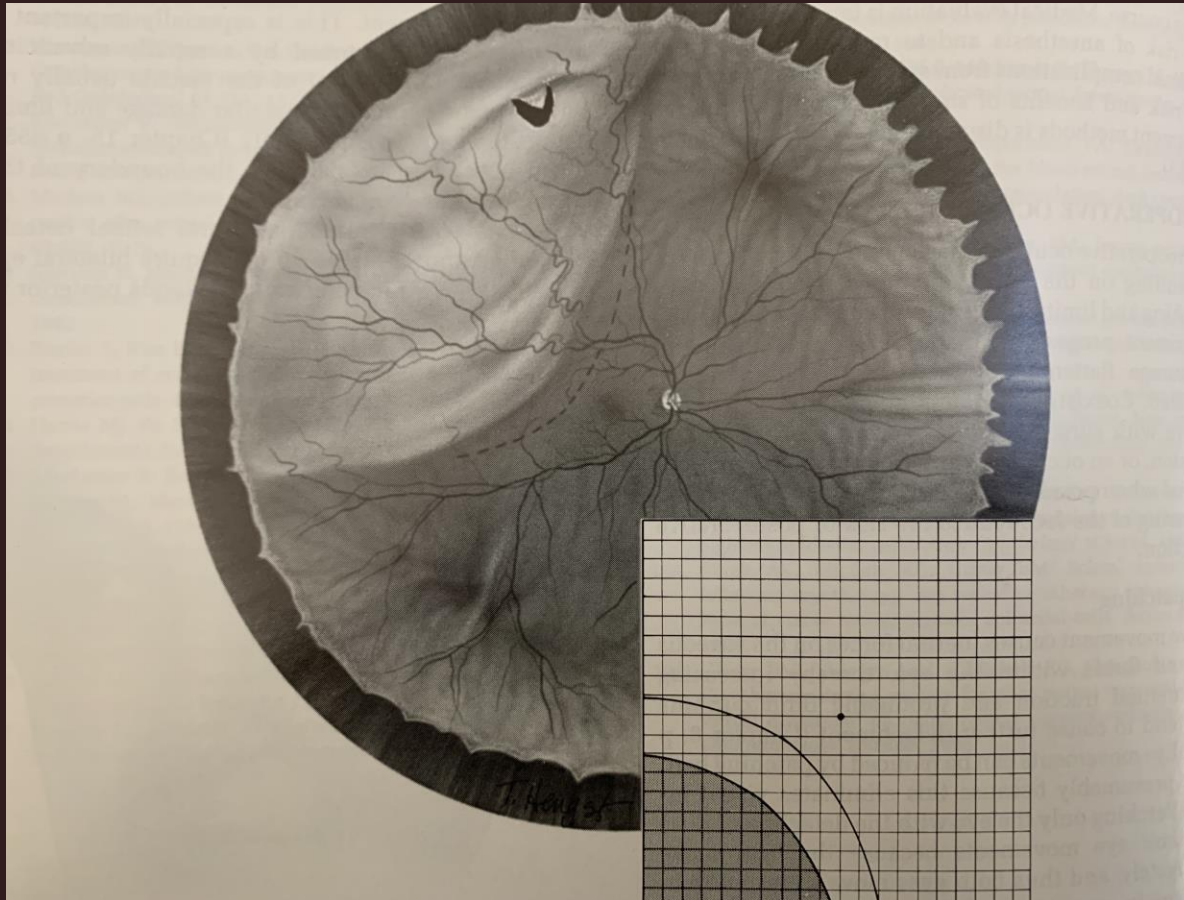
Phakic retinal detachment with macula off.



Phakic retinal detachment with macula off.



Retinal detachment with macula on.



Disadvantage of using a band instead of a tire.

