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Long term fellowship in Vitreo-retina & Cataract
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A Case of Retinal Detachment

Case

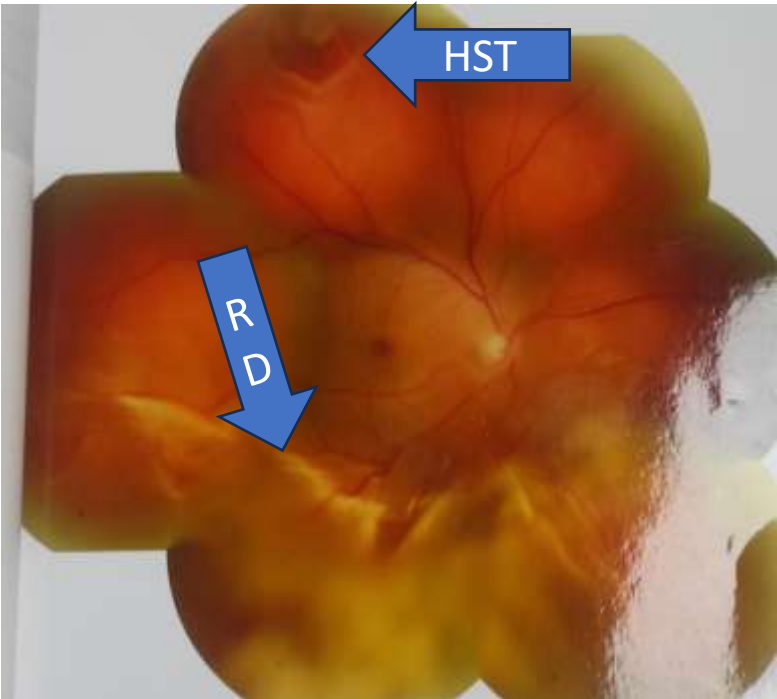
- Mr. A, 59 years old, Moulavibazar, Sylhet
- **C/C:**
 - Dimness of vision & flashing of light (R/E) for last 3 months
 - Worsening for last 7 days
- No significant H/O trauma
- Normotensive, non-diabetic
- No H/O previous ocular surgery

Ocular examination

	Right eye	Left eye
Visual acuity	1/60	6/6
IOP	8.3 mm Hg	18.50 mm Hg
Pupil	Mild RAPD	RRR
Crystalline lens	Early cataract	Early cataract
Vitreous	Mild haze with PVD	PVD
Cup disc ratio	0.5	0.6

Fundoscopy

	Right eye	Left eye
Retina	<ul style="list-style-type: none">• Superior RD with horse shoe tear• Macula off	NAD



Management - Surgery

- Pre-operative preparation

Topical Steroid, antibiotic, artificial tear

- Counselling
- Date of surgery 11.05.25

Follow up schedule

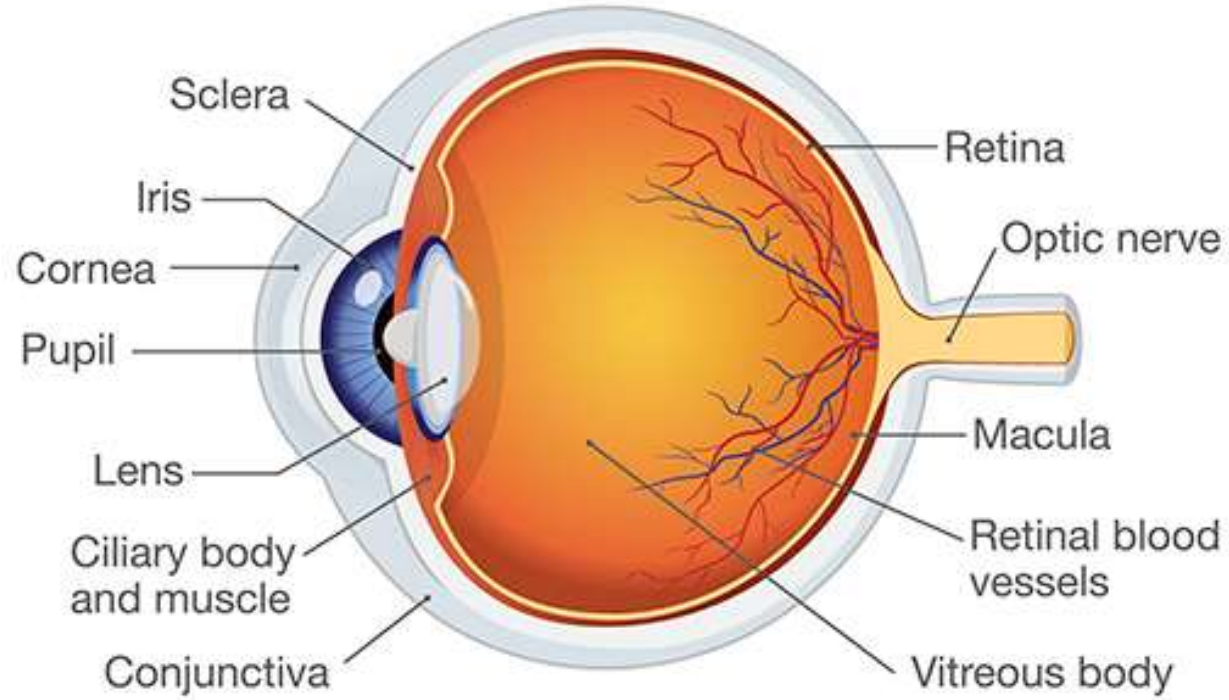
- 1st POD (VA 3/60, IOP 30 mm Hg, Retina attached)
- 7th POD (VA 3/60, IOP 15 mm Hg, Retina attached)
- After one month (VA 3/60, IOP 15 mm Hg, Retina attached)

Second surgery (after 3 months)

- Silicone oil removal with cataract extraction and PCIOL implantation on 19.08.25
- Follow up on 01.09.25 (VA 6/36, Retina attached)

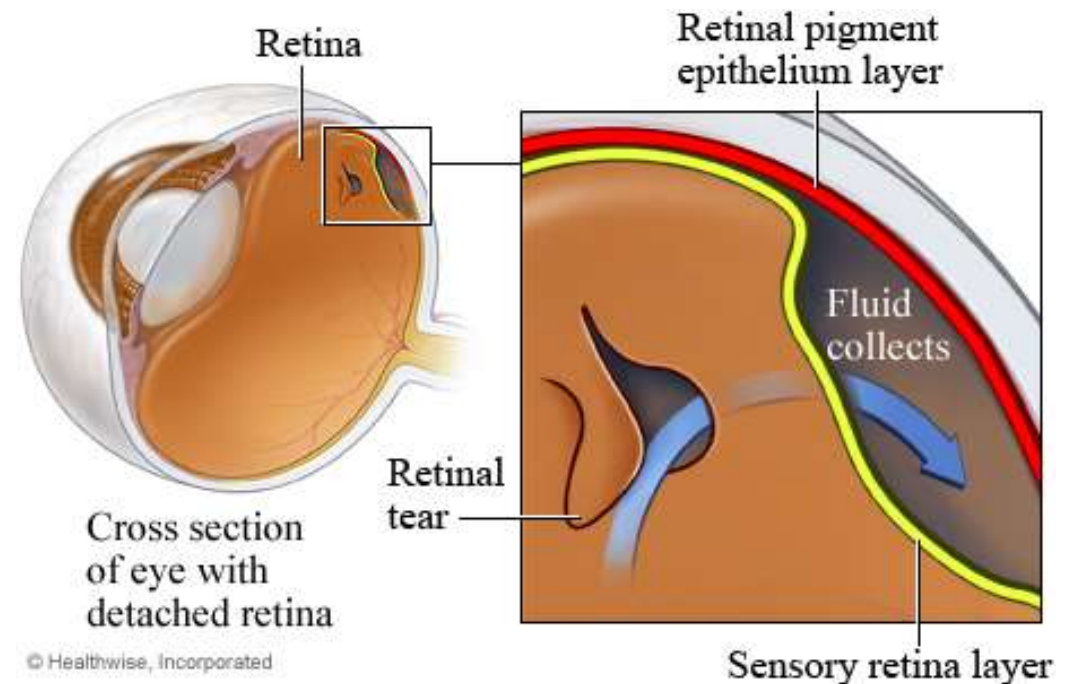
Anatomy

Human Eye Anatomy



Retinal Detachment (What Actually Detaches?)

- Separation of the neurosensory retina (NSR) from the Retinal pigment epithelium (RPE).
- Due to accumulation of subretinal fluid (SRF) in the potential space between the NSR and RPE.



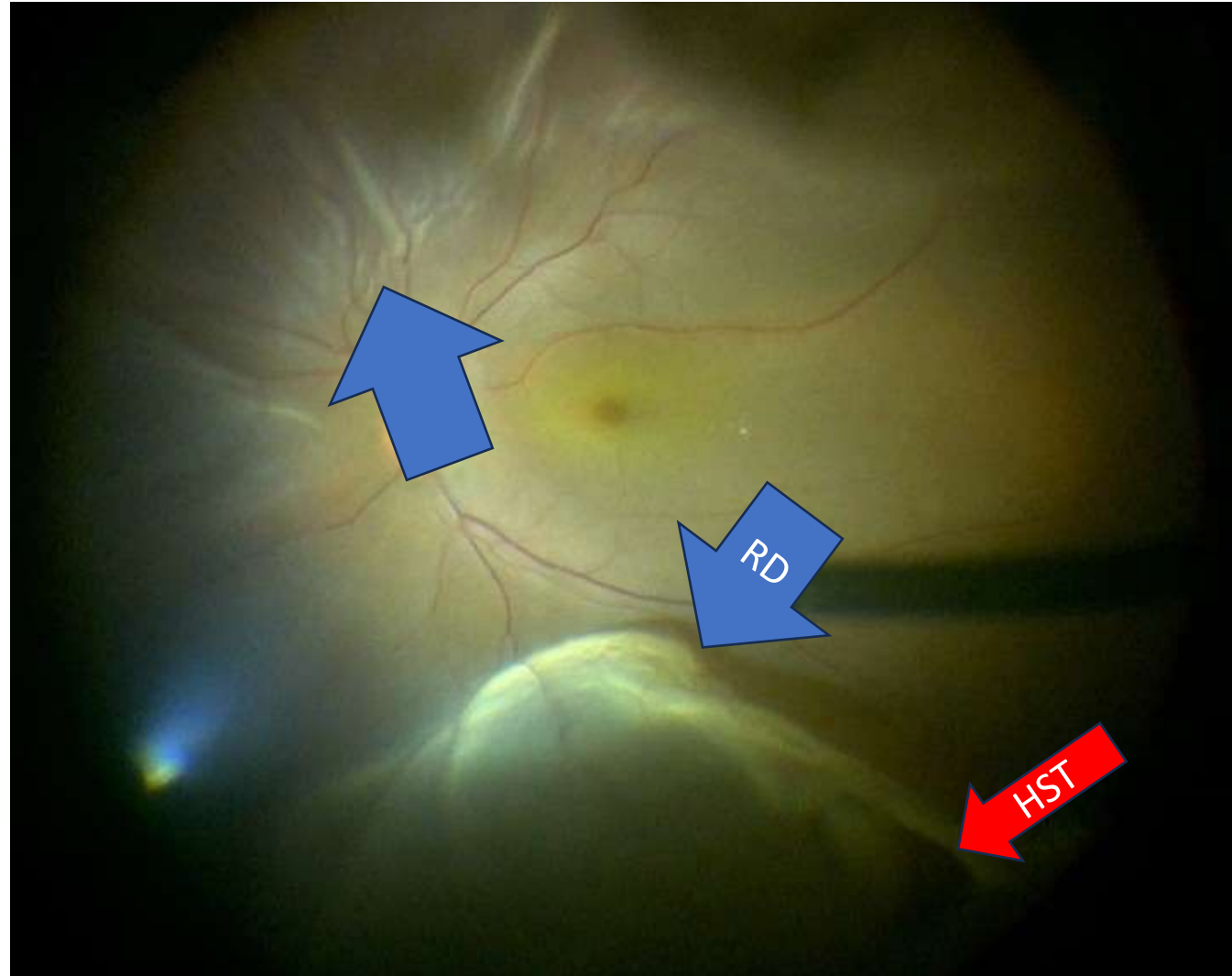
Retinal Detachment - Types

- **Rhegmatogenous** (break in retina)
- Tractional (diabetic retinopathy, retinal vascular occlusion)
- Combined
- Exudative (tumour, inflammation)

Risk factors

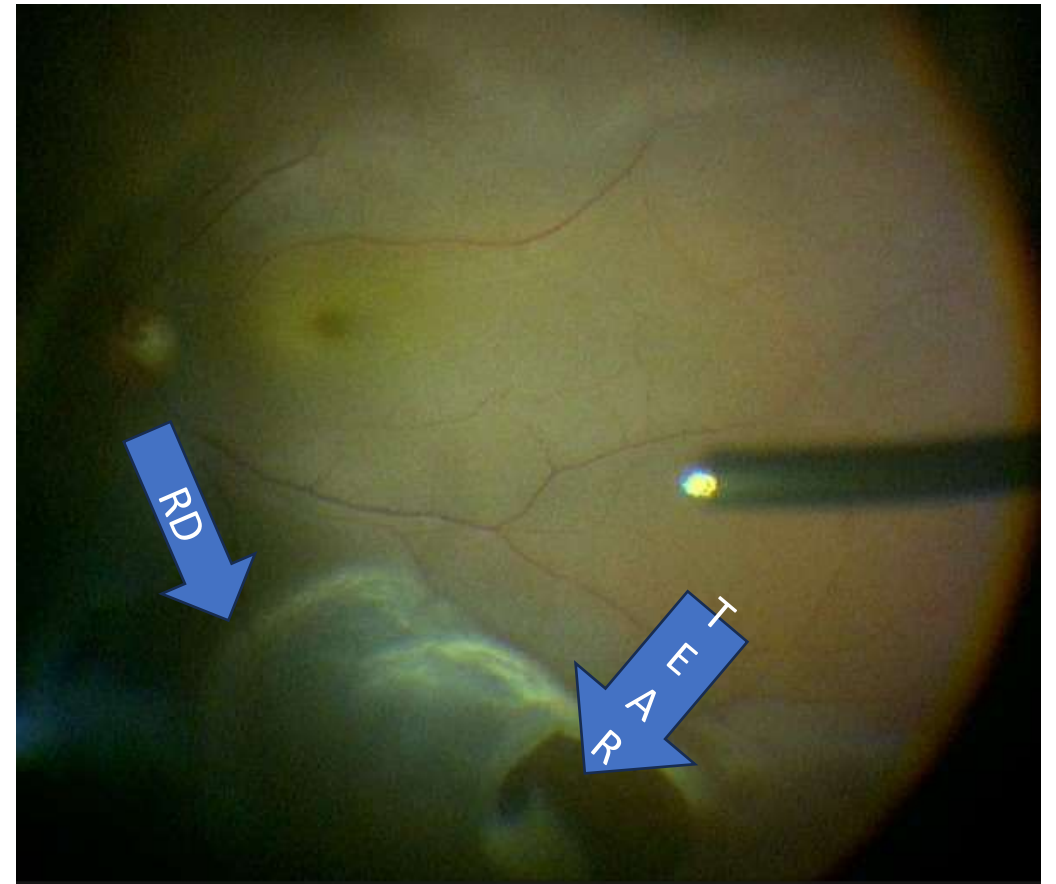
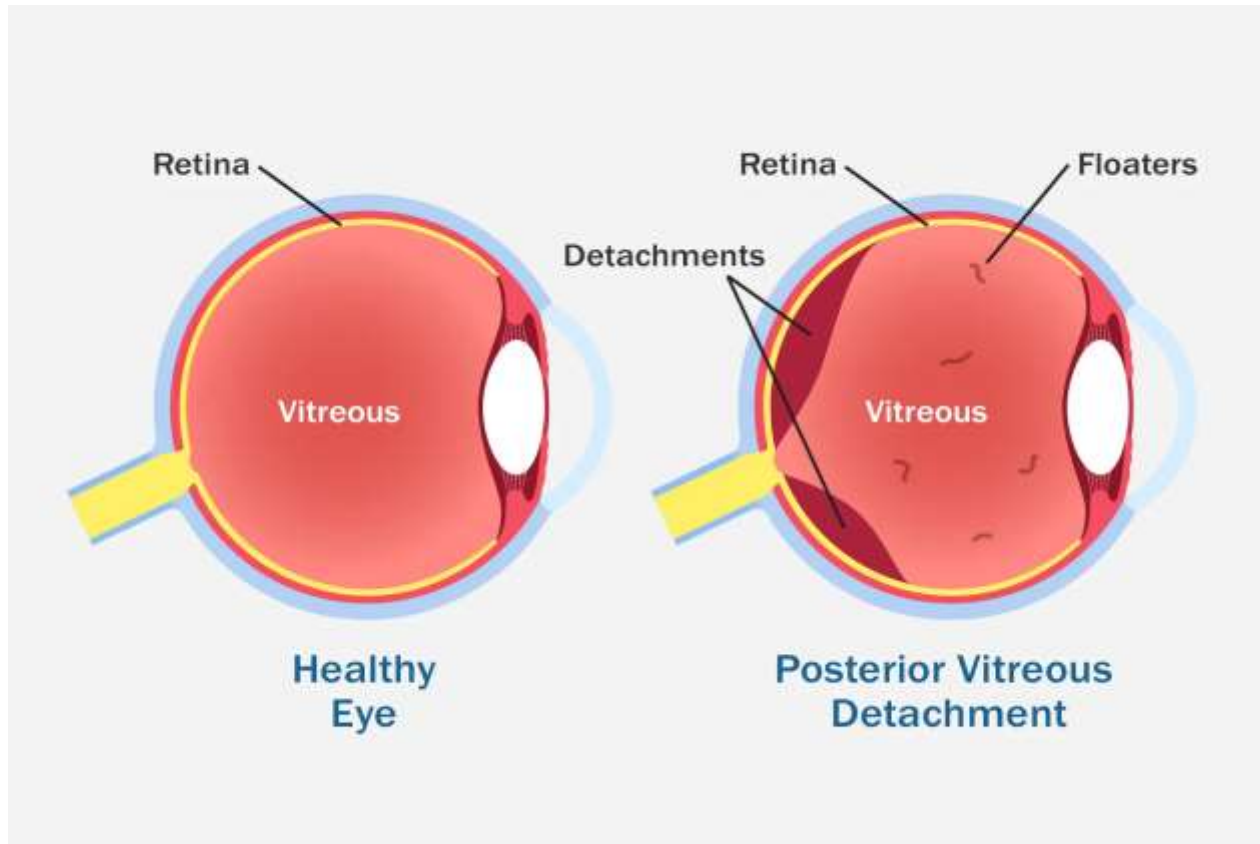
- Myopia
- Trauma
- Peripheral retinal degenerations (weak points in retina)
 - Holes
 - Lattice degenerations
 - Thinning
- Previous cataract surgery
- Idiopathic

Rhegmatogenous retinal detachment (Rhegma = Break)



Pathogenesis Simplified

- PVD → retinal break → fluid entry



Symptoms

- Flashing of light (photopsia)
- Floaters (myodesopsia)
- Sudden painless profound vision loss
- Curtain/shadow over vision
- Blurred vision

Signs

- Reduced vision
- Relative afferent pupillary defect (RAPD)
- On S/L/E
 - White pupillary reflex
 - Mild anterior uveitis
 - Pigment granules in ant. Vit.(Tobacco dust)
 - IOP: Usually low

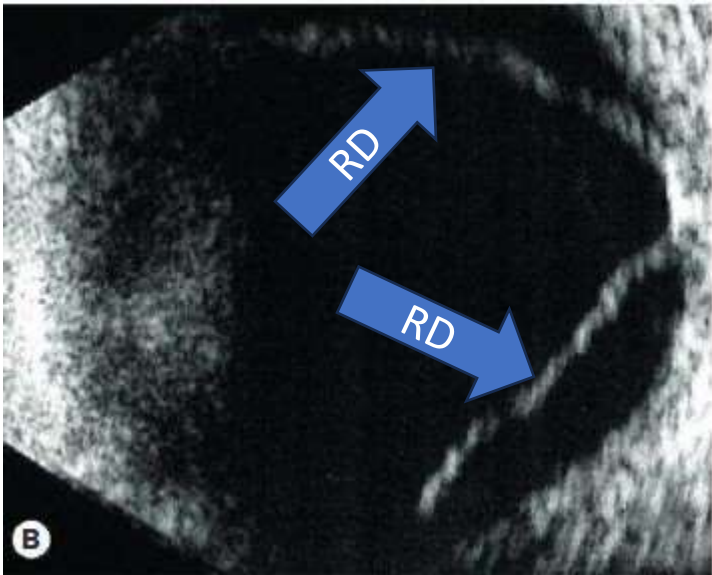
Signs cont.

- **Dilated fundoscopy:**

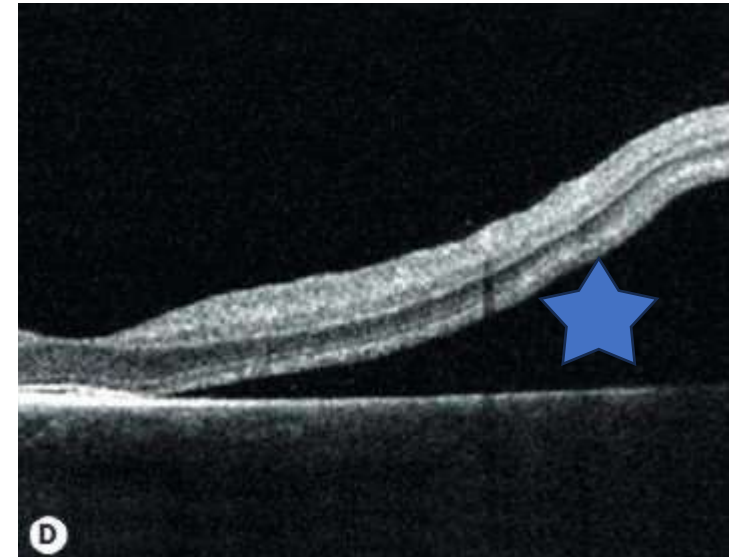
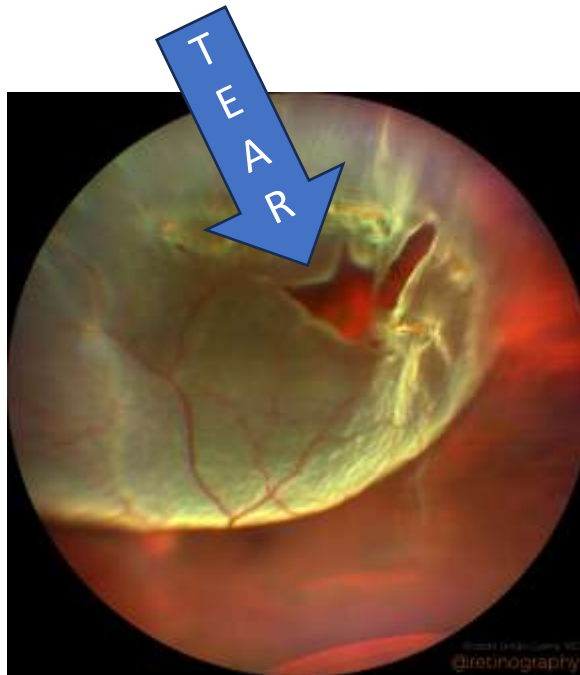
- Greyish white membrane, with overlying blood vessels, corrugated, undulating movement
- Break/tear
- Hemorrhage
- Macula (involved or not)

Investigations

- Ocular
 - ✓ B scan ultrasonography
 - ✓ Colour fundus photography
 - ✓ OCT (Optical coherence tomography)



B) B-scan ultrasonogram showing retinal

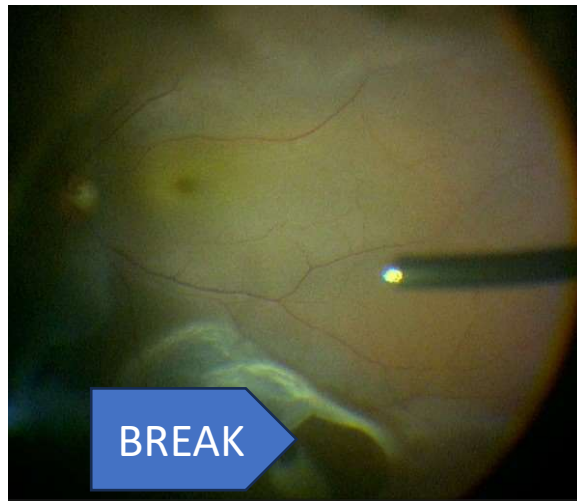


Treatment

- RD surgery
 - Conventional (SRFD+air+cryo+band buckle)
 - Pars plana vitrectomy+Endolaser+Silicone oil
 - Pneumatic retinopexy

Pars plana vitrectomy (Principles)

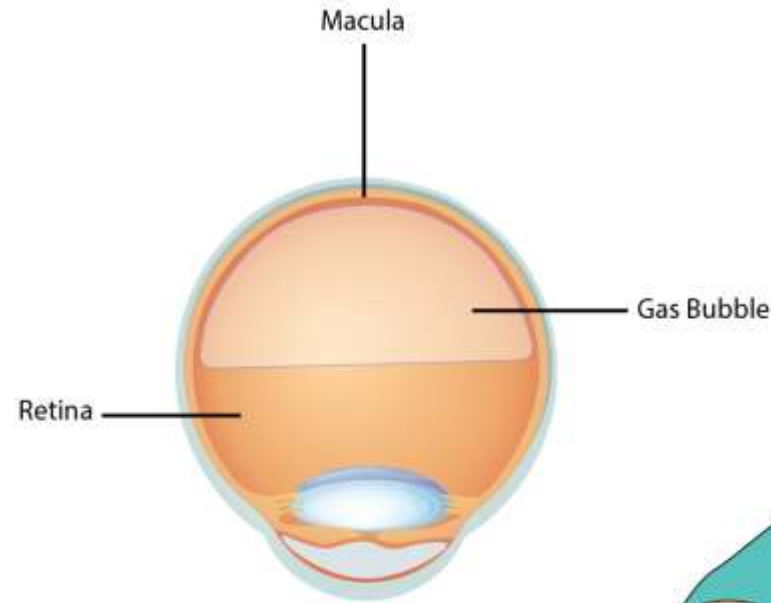
- Removing whole vitreous
- Find the break in the retina
- Treat the break/breaks (endolaser)
- Close the break (internal tamponade by silicone oil)



Surgery video

Post operative care

- Face down position
- Topical steroid
- Topical antibiotic
- Mydriatic drops
- Oral antibiotic
- Oral analgesic
- Oral anti ulcerant



Prognosis

- What determines the visual outcome?
 - Macula on vs off
 - Duration of detachment
 - Early intervention (within 24 hours)

Take home message

- Ocular emergency > Early referral to ophthalmologist
- Early intervention > Good visual outcome
- Be aware of the symptoms > Patient education
- Be realistic about the surgical outcome
- Counsel myopic patients

Thank you