

Pseudophakic and Aphakic Retinal Detachment

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- Cataract surgery is the most commonly performed procedure and carries a high expectation for visual improvement.
- Retinal detachment is one of the most serious complications following cataract surgery

Incidence



- Estimated to range between 0.6 and 1.7% in the first postoperative year and continues over time, with an overall incidence of 0.7%.
- Cataract surgery increases the risk of retinal detachment at least four fold.



Risk Factors



● Younger patient

younger age remains a significant risk factor for pseudophakic RRD

6.65% → patients 50 years or younger

2.57% → in patients between 50 and 60 years

2.01% → in patients older than 60 years

Risk Factors



● **High myopia** (axial length greater than or equal to 26mm)

2.44% → Eyes with axial length of 23–25mm

6.14% → Eyes greater than or equal to 26mm



Risk Factors



● **Posterior Capsular Rupture.**

one of the most significant risk factors for pseudophakic RD

- Eyes with PCR and vitreous loss had a 13–16 times higher risk for RD compared with eyes with an intact capsule. (2016)



Risk Factors



● Posterior Capsular Rupture

- ❖ Anterior movement of the vitreous as a result of PCR induces dynamic traction on the vitreous with a consequent retinal tear formation.
- ❖ Iatrogenic vitreoretinal traction from an unrecognized or poorly managed capsular rupture at the time of cataract surgery has been associated with a very high incidence of early postoperative retinal detachment, often from large and complex retinal tears



Clinical Findings



● Presentation and Time Course

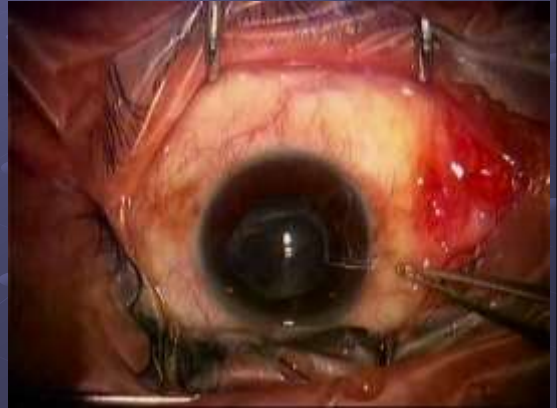
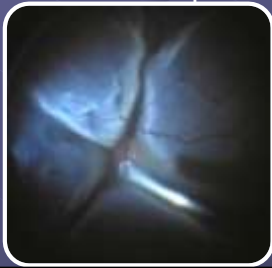
- ❖ Over 50% of pseudophakic detachments present within 1 year of cataract surgery; 25% to 35% present over the next 2 to 3 years.
- ❖ Following Nd- YAG capsulotomy, the greatest risk is in the first 6 months, and most of the detachments occur within 2 years.

Clinical Findings

● Ophthalmoscopic Examination

Pseudophakic detachments

- ❑ Generally more extensive than phakic RD
- ❑ Often very bullous, overhanging the macula
- ❑ Macula is already detached at presentation in more than 3/4 of pseudophakic detachments.

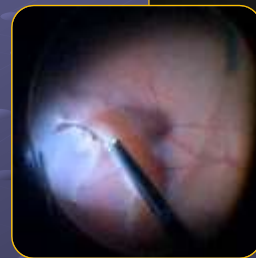


Clinical Findings

● Ophthalmoscopic Examination

Pseudophakic breaks

- ❑ small flap tears or oval holes.
- ❑ located just at the posterior border of the vitreous base.
- ❑ Large flap tears are occasionally seen.



*Detection of pseudophakic retinal breaks is generally difficult, primarily because of their very **anterior location**, **small size** and **incomplete peripheral fundus view** because of **anterior or posterior capsule fibrosis**, **cortical remnants**, **small pupil**, **vitreous opacities**, . Despite careful ophthalmoscopic examination, the causative retinal break is not detected clinically in up to 20% of pseudophakic detachments.*

Surgical Management

- Scleral Buckling (SB). less effective than in phakic RD
- Pars plana vitrectomy. gaining popularity
- Pars plana vitrectomy and SB. debatable



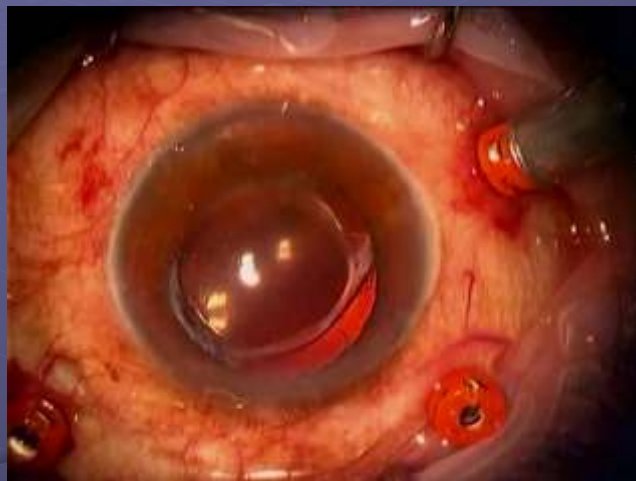
Pars plana vitrectomy

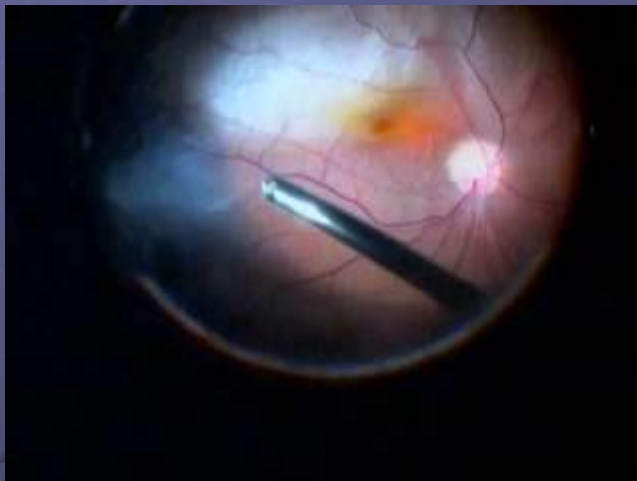
- **Advantages of vitrectomy over scleral buckling .**
- ❖ Greater ability of visualizing retinal breaks
 - wide-angle viewing systems and scleral depression
 - with the help of perfluorocarbon liquids and the Schlieren phenomenon
- ❖ Absence of refractive shift.
- ❖ Clearance of vitreous floaters.

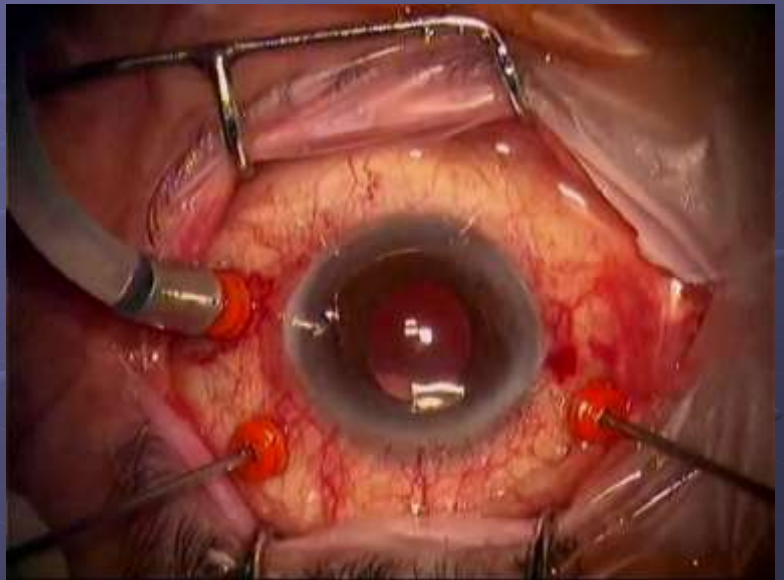
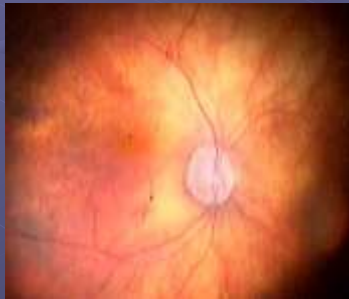
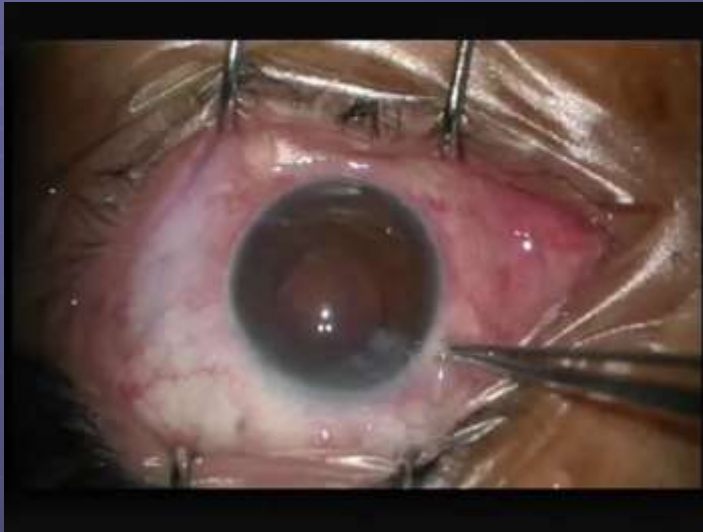
Pars plana vitrectomy

● Disadvantages of pars plana vitrectomy over scleral buckling

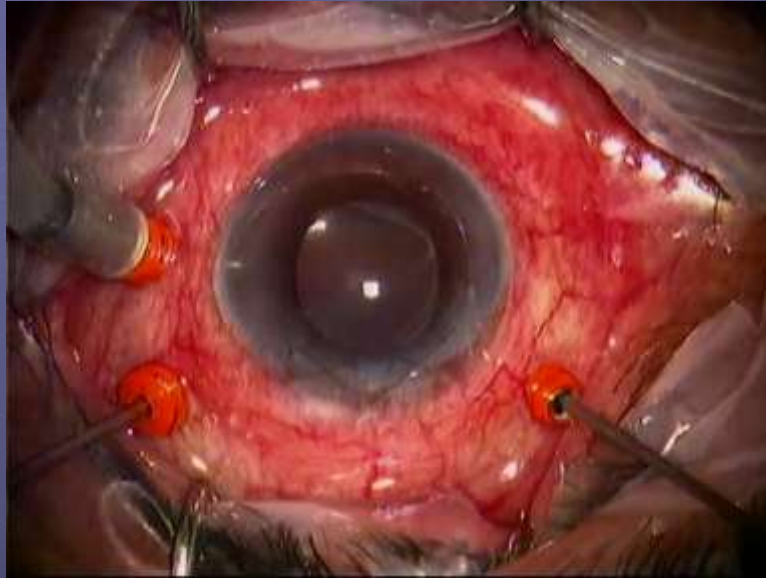
- ❖ Costly surgery.
- ❖ You may need 2nd surgery.....SOR.
- ❖ The requirement for postoperative positioning.







● GRT



Thank you