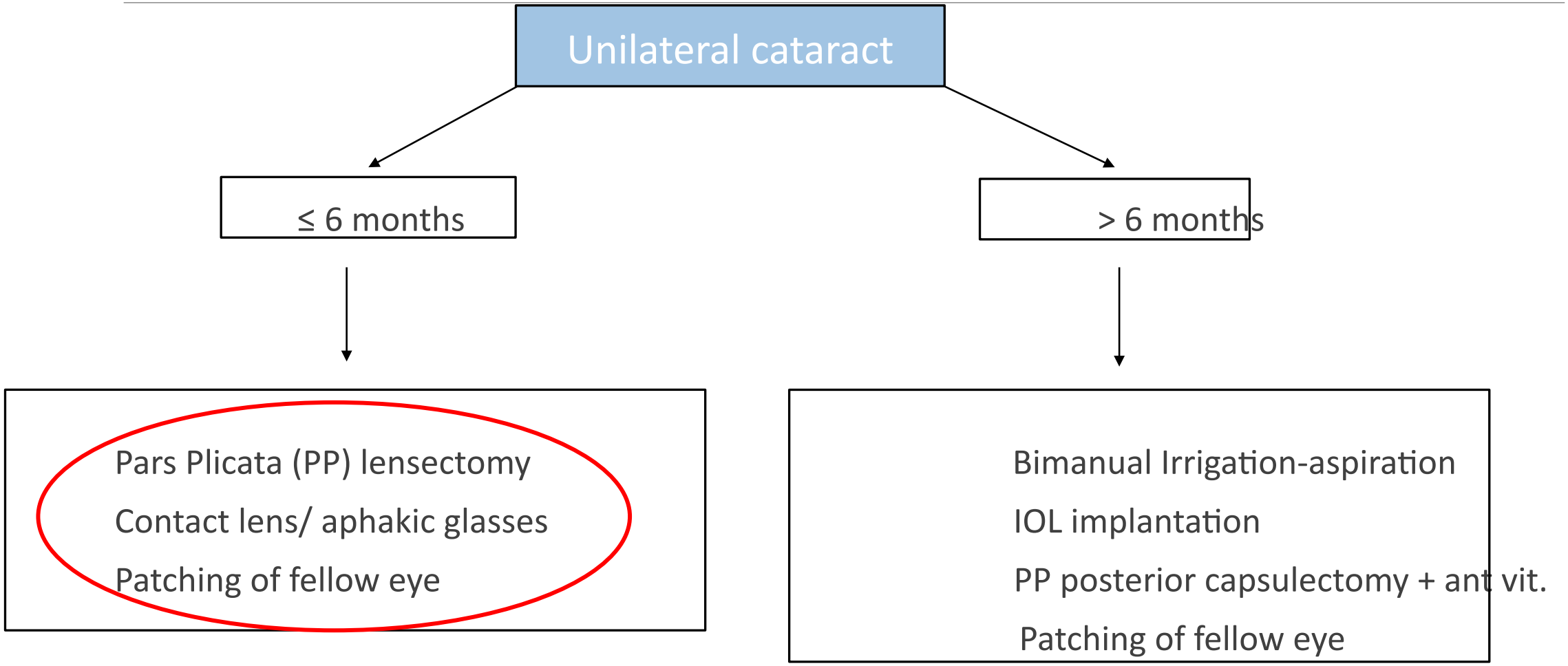
CAIRO UNIVERSITY
PEDIATRIC OPHTHALMOLOGY & STRABISMUS

My Way: Pars Plicata Lensectomy

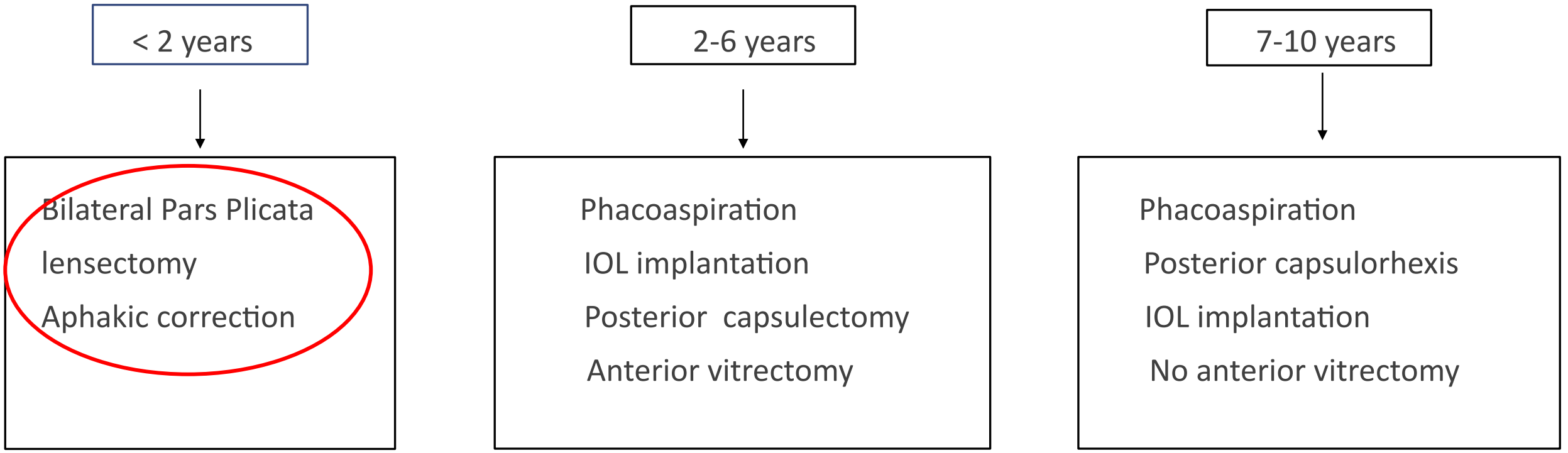
Hala Elhilali MD
Professor of Ophthalmology
Cairo University

I Have No Financial Interests To Disclose

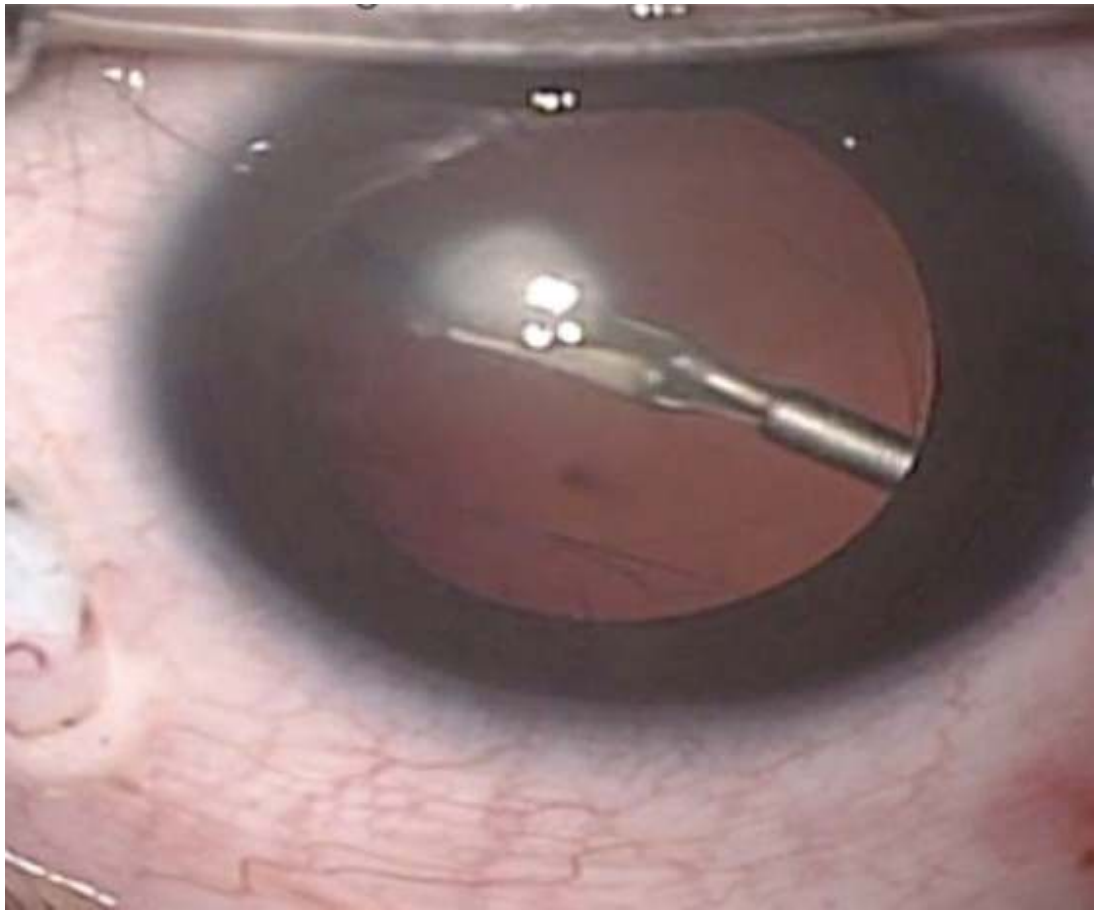
Management of Unilateral Pediatric Cataract



Management of Bilateral Pediatric Cataract



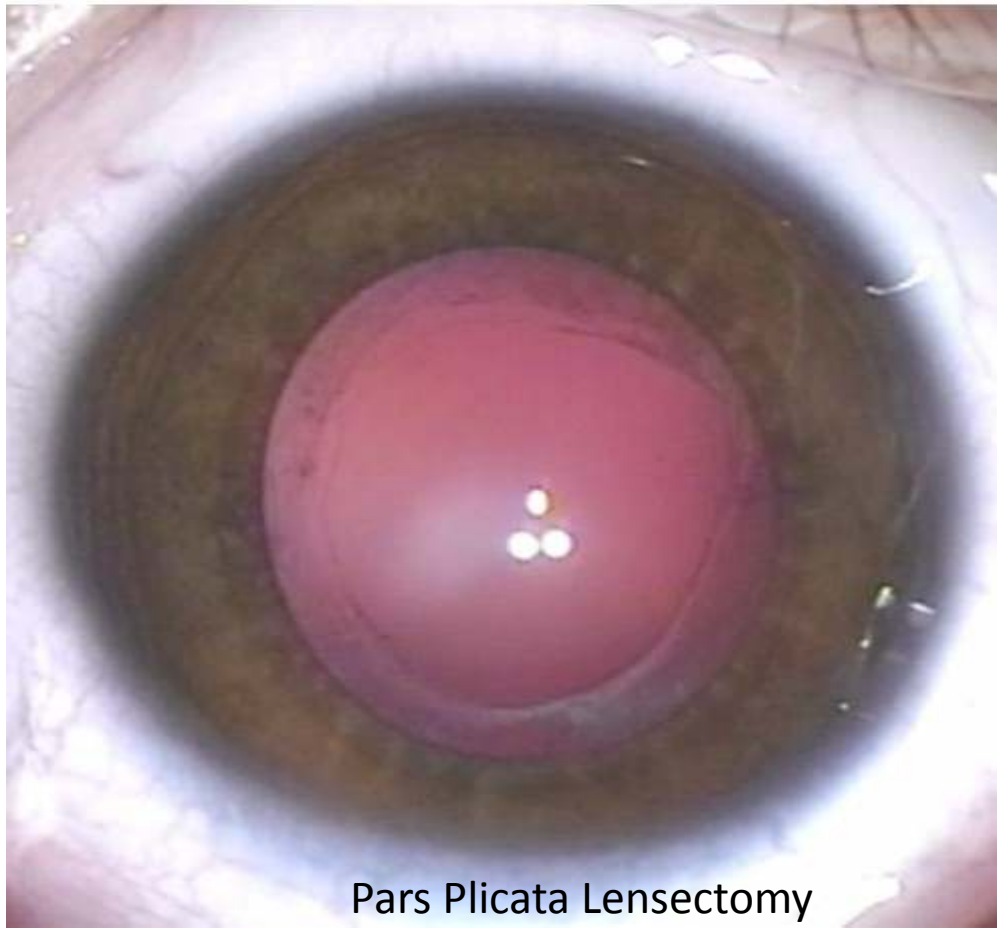
Microincisional Techniques In Pediatric Cataract Surgery



- Minimize surgically induced trauma
- Decrease the inflammatory response
- Hasten postoperative recovery
- Enable immediate optical correction and amblyopia treatment

Pars Plicata Lensectomy

- Minimal surgical trauma to cornea and iris
- Less inflammatory response
- No corneal scarring related to incisions
- No iris strands adherent to corneal entry sites
- Absence of vitreous in anterior chamber or incarcerated at corneal incisions

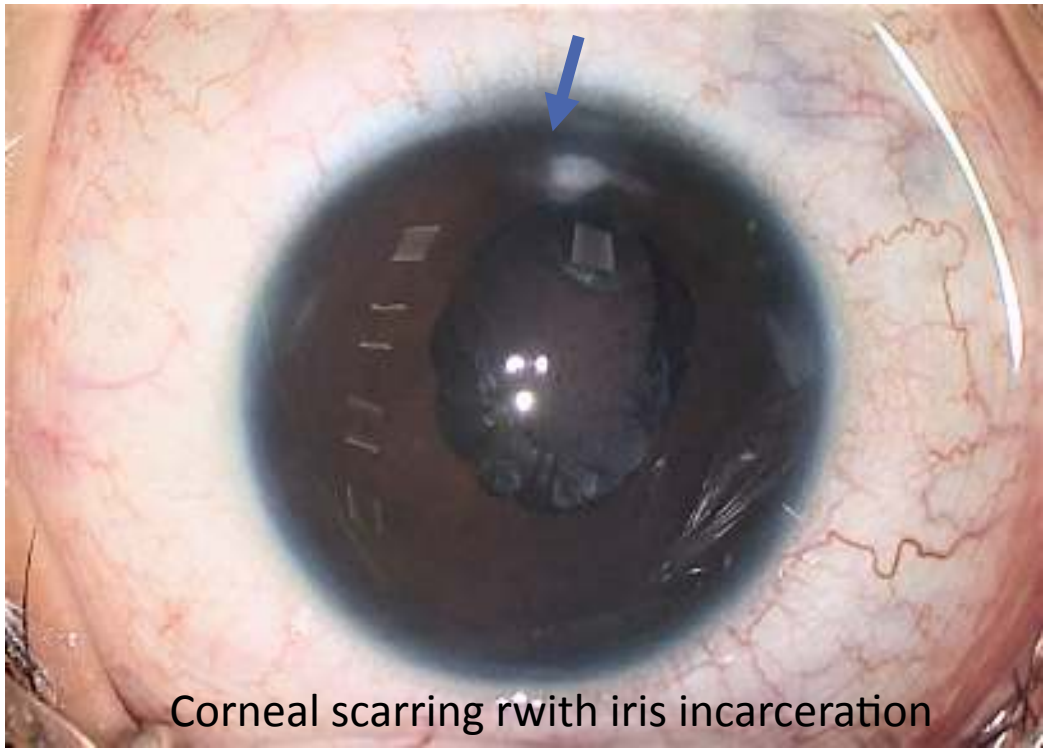


Pars Plicata Lensectomy

Limbal Lensectomy

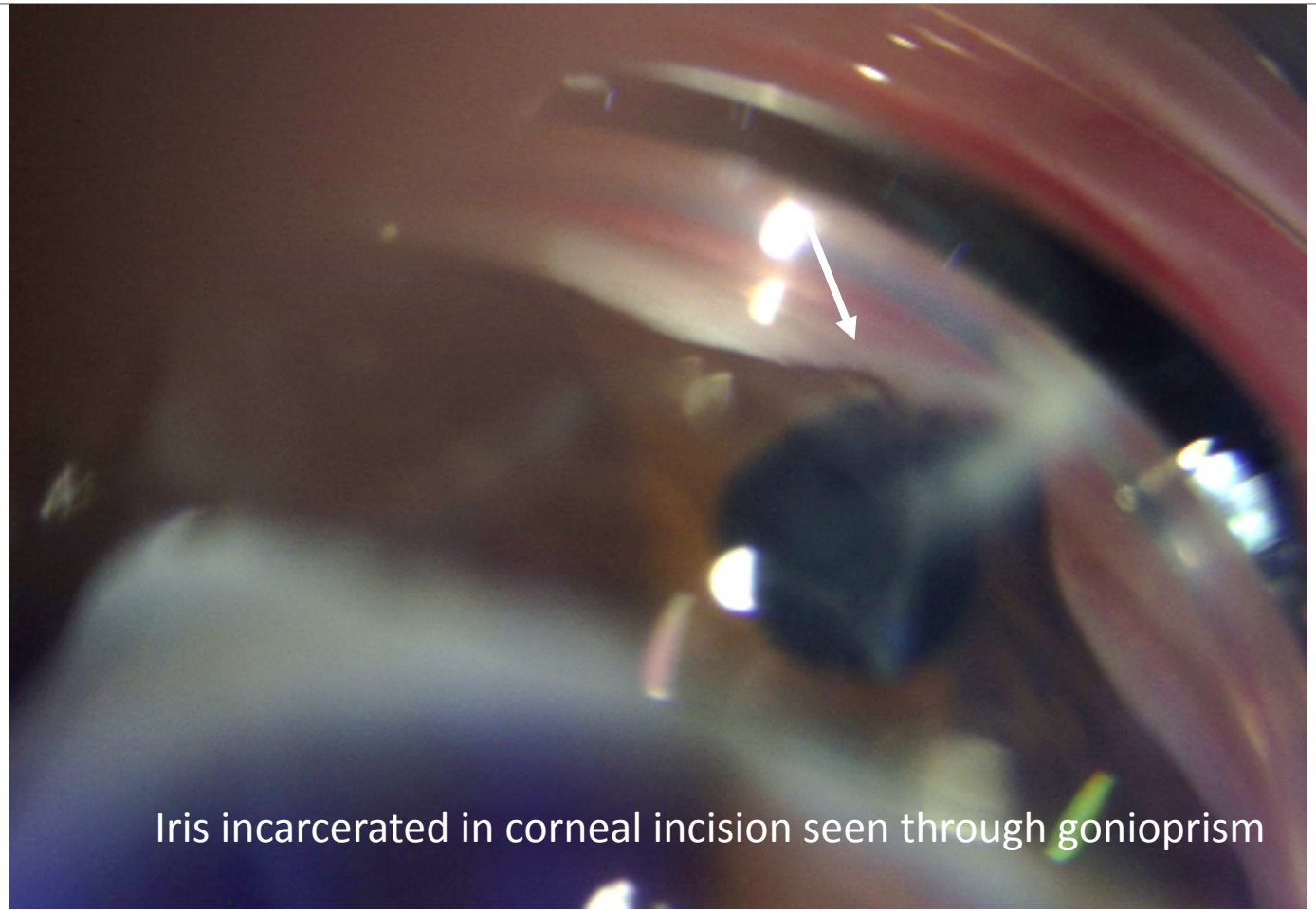
Surgical trauma to cornea and iris:

- Iris injury/iris prolapse
- Increased Inflammatory response
- Corneal scarring related to incisions
- Iris or vitreous strands incarcerated at
- incision sites



Corneal scarring rwith iris incarceration

Iris Adherent To Corneal Incision



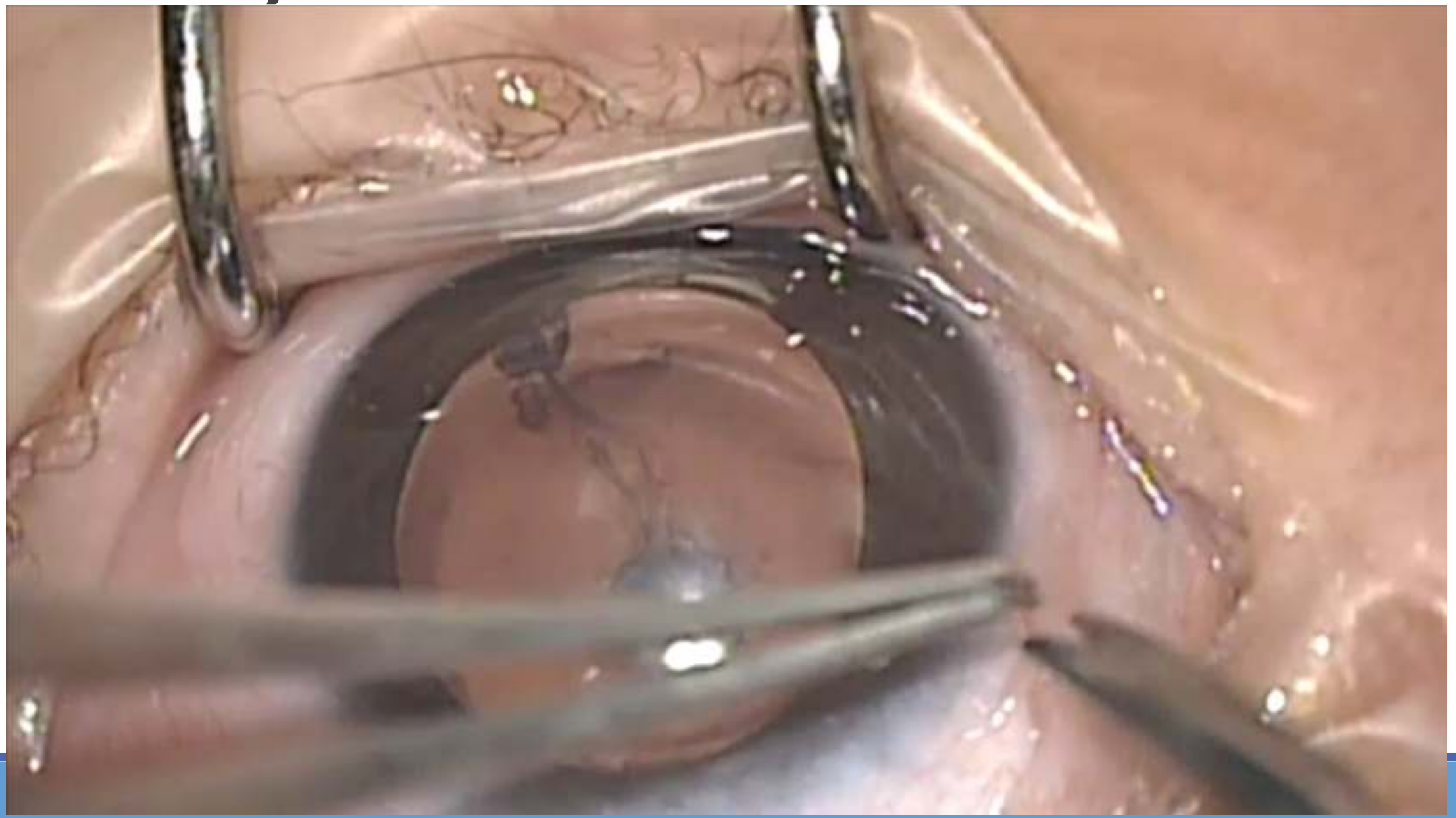
Iris incarcerated in corneal incision seen through gonioprism

Sclerotomy Sites In Different Age Groups*

Age	Minimum Ciliary Body Length	Minimum Limbus-To-Ora Serrata Distance	Limbus-To-Sclerotomy Distance
0 – 6 mo.	2.6 mm	2.95 mm	1.50 mm
6 – 12 mo.	2.86 mm	3.21 mm	2.00 mm
1 – 2 yrs.	3.28 mm	3.63 mm	2.5 mm
2 – 3 yrs.	3.75 mm	4.10 mm	3.00 mm
Adults	4.00 mm	4.95 mm	3.50 mm

* Postnatal Development Of Ciliary Body And Pars Plana. A Morphologic Study In Childhood.(*Aiello et al, 1992)*

Surgical Technique For Pars Plicata Lensectomy



Parameters Used During Surgery

Cortical aspiration:

- Linear vacuum up to 400 mm Hg
- Cutting rate at minimum

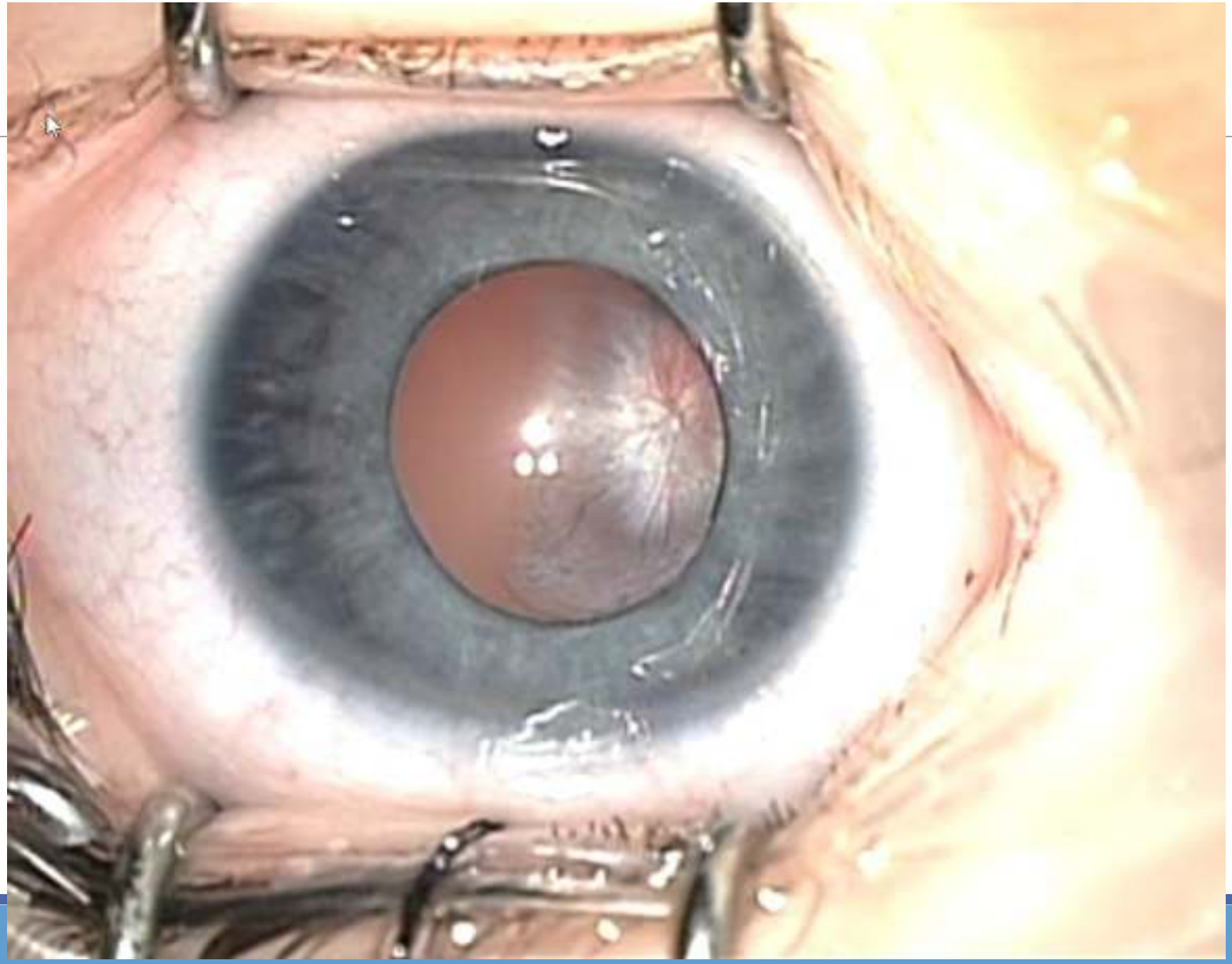
Anterior and posterior capsulectomy:

- Linear vacuum up to 500 mmHg
- Cutting rate: 800 cuts/min.

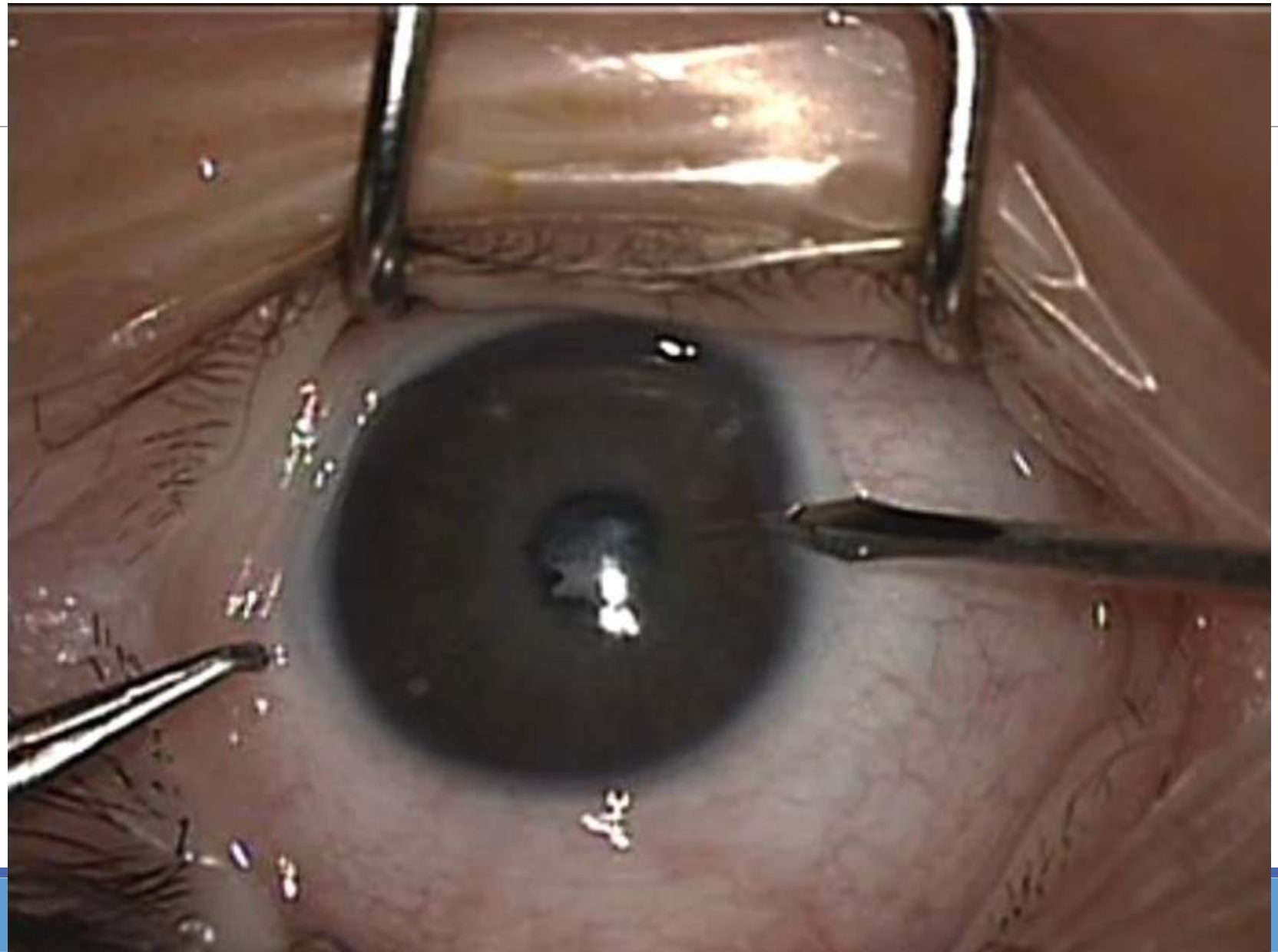
Anterior Vitrectomy:

- Cutting rate: 800 cuts/min.
- Linear vacuum up to 300 mm Hg

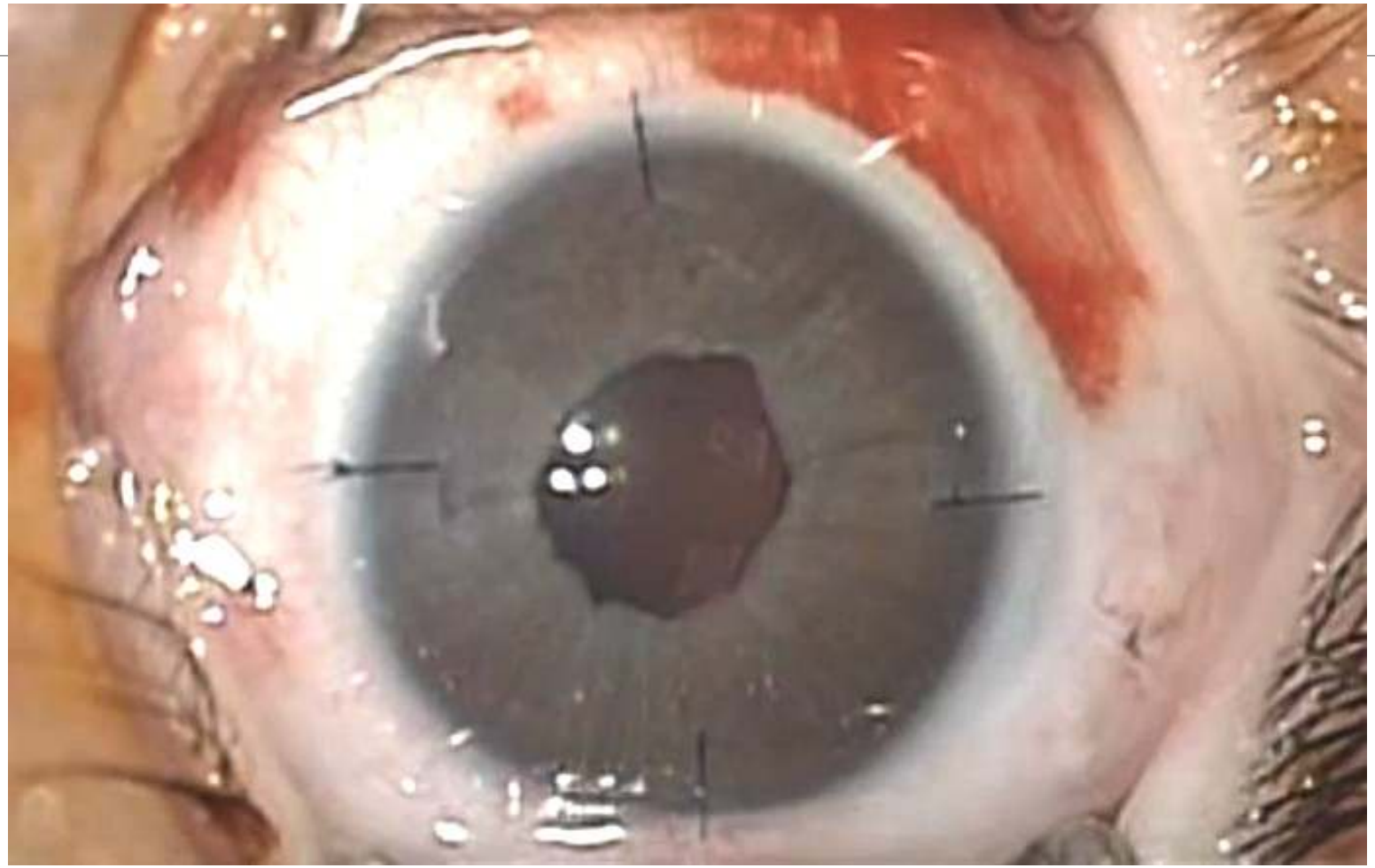
Vascularized Retrolental Membrane



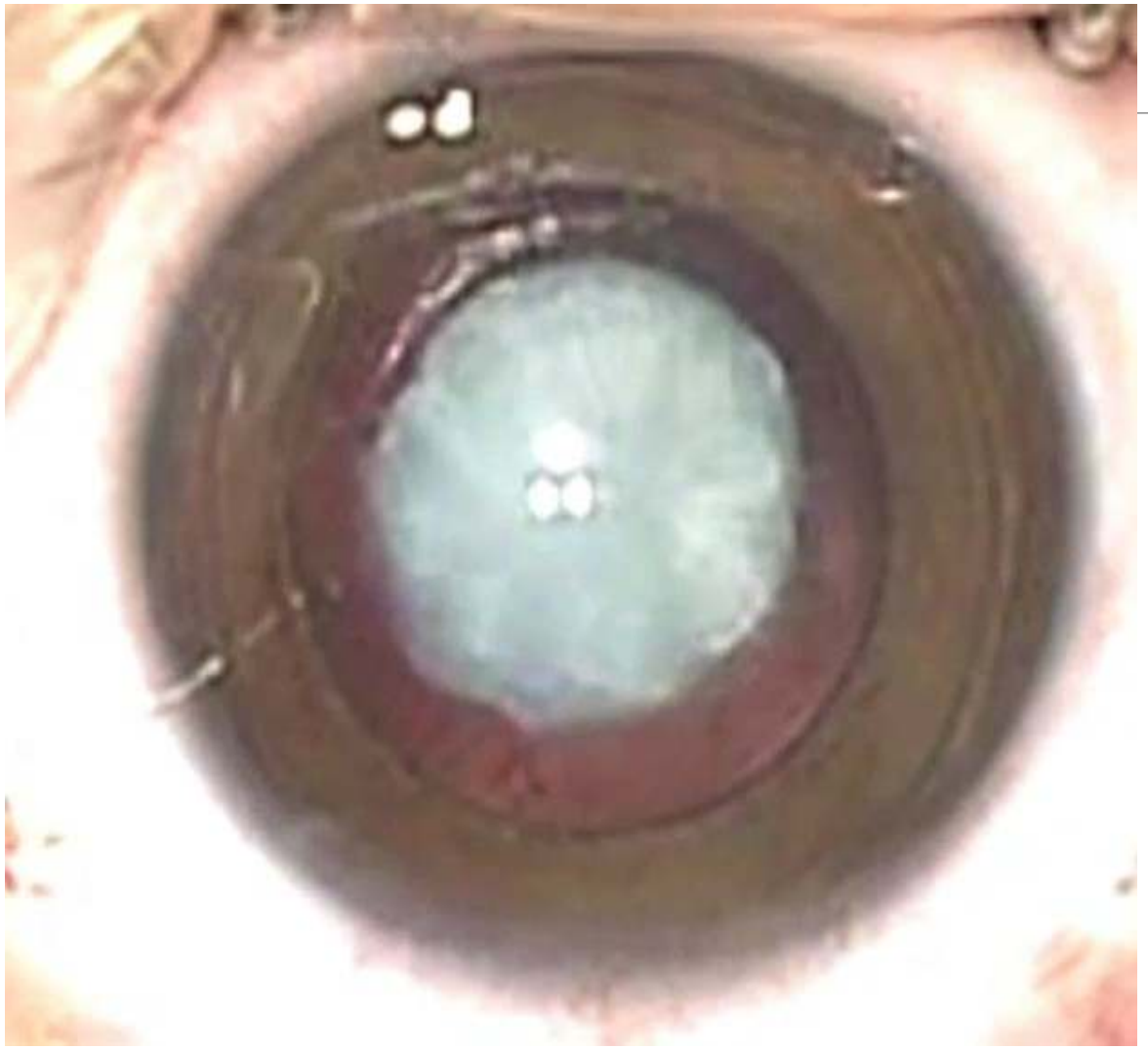
Lensectomy in a Narrow Pupil

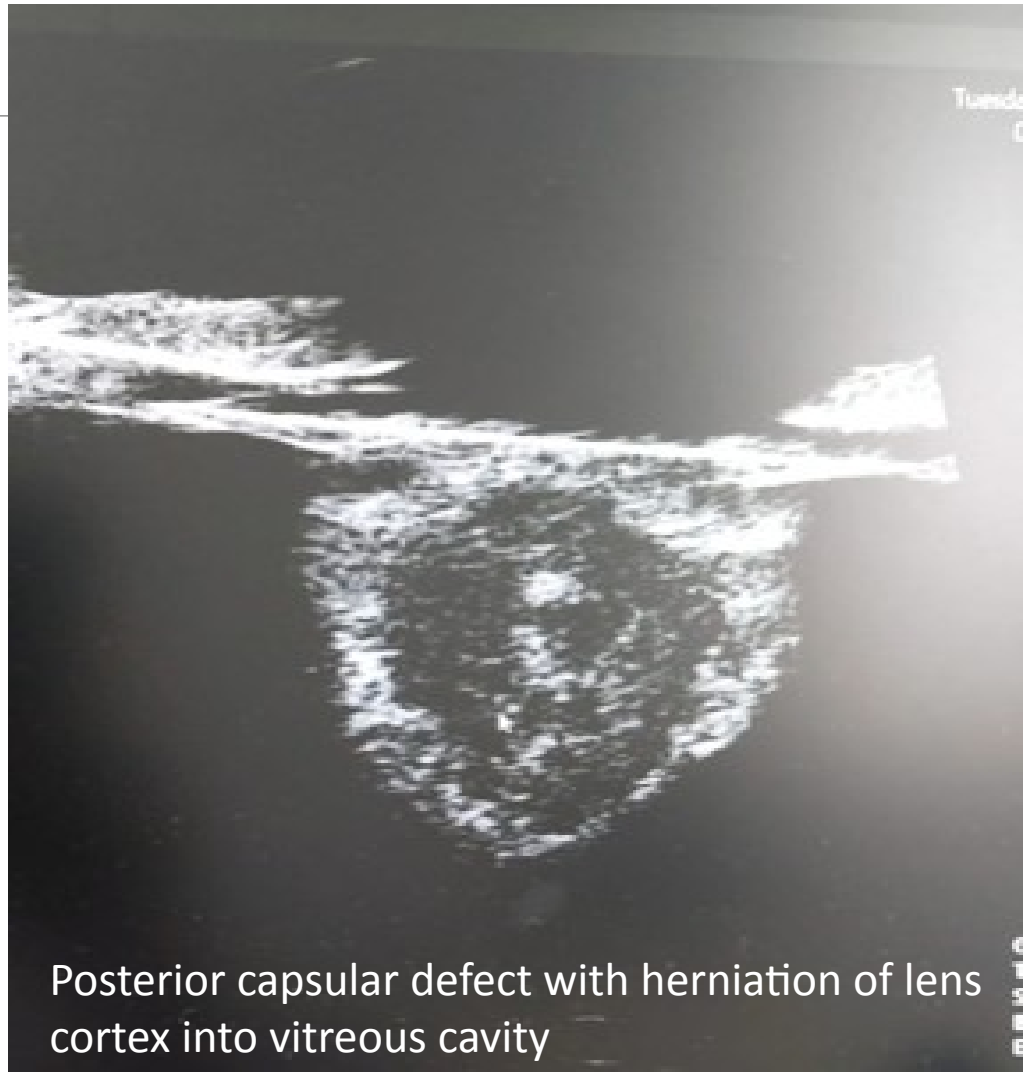


Two Weeks After Surgery



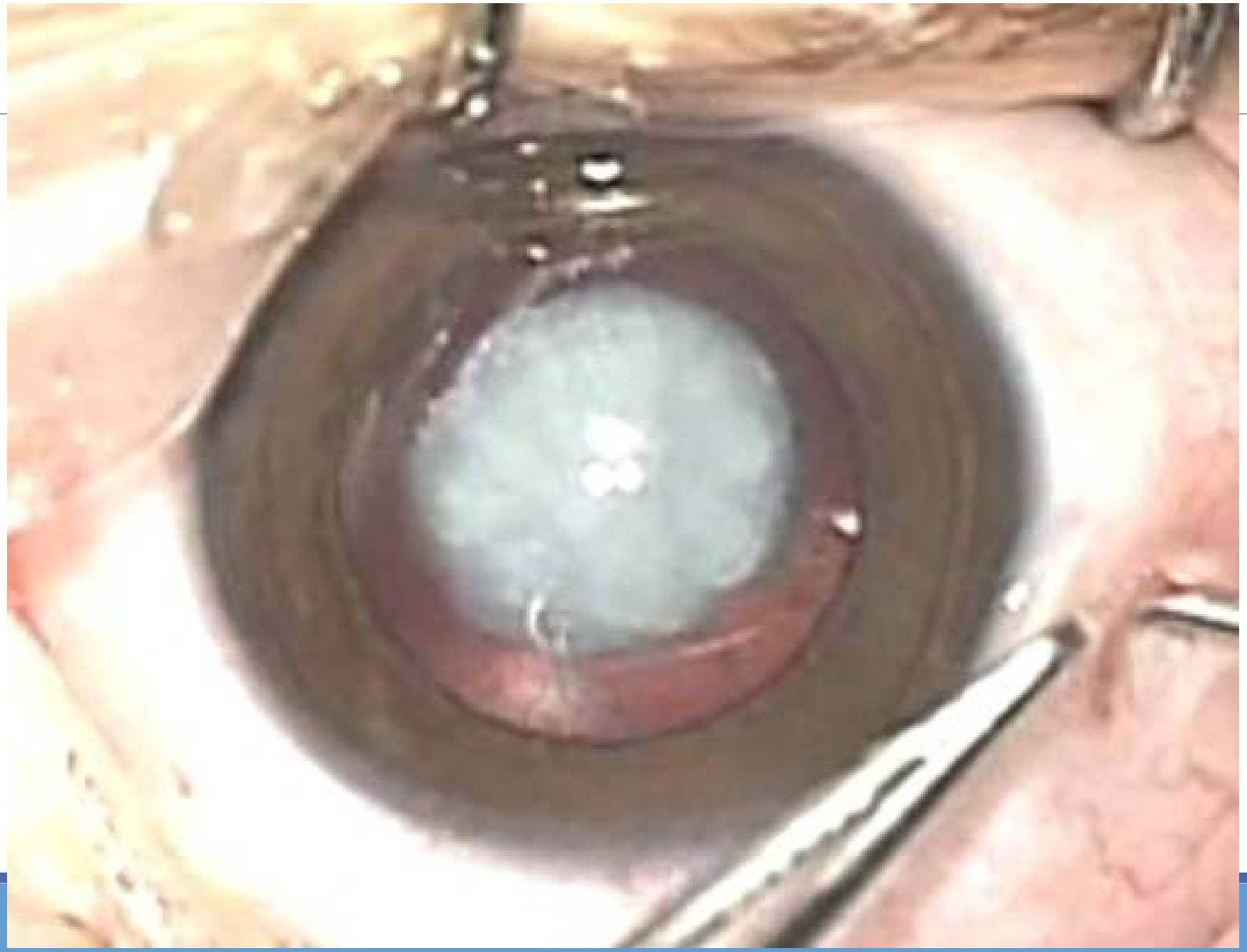
Posterior lenticonus Ultrasound Biomicroscopy



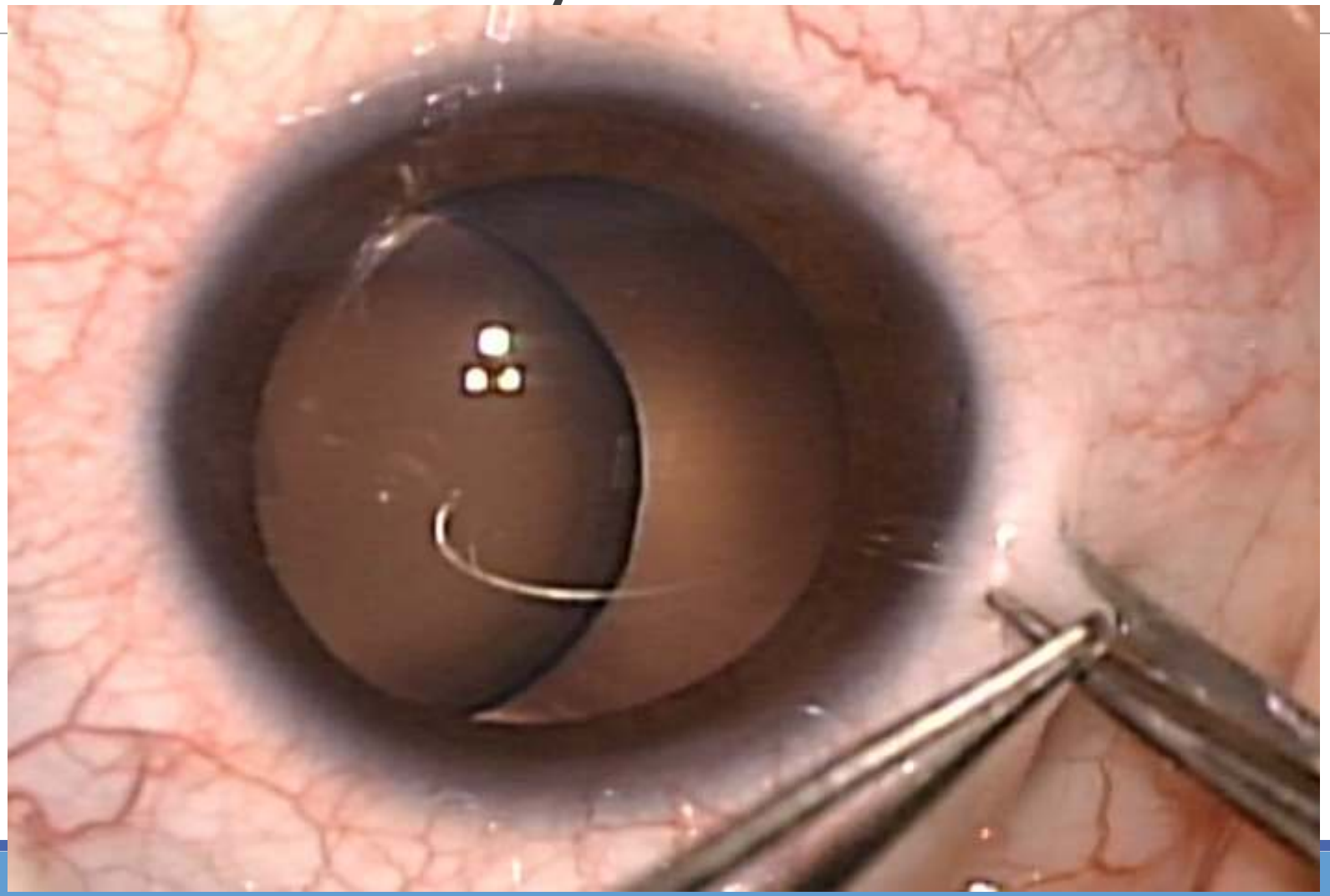


Posterior capsular defect with herniation of lens cortex into vitreous cavity

Pars Plicata Lensectomy For Posterior Lenticonus



Pars Plicata Lensectomy For Subluxated Lens



Incidence and Risk Factors of Retinal Detachment after Pediatric Cataract Surgery

Retrospective review (2016-2019)

568 eyes of 372 children were included

Surgery: - anterior: 66%

- pars plicata: 34%

Incidence of RD: 8 eyes (1.4%)

No statistically significant difference in incidence of RD between anterior and pars plicata approach

Mean time after surgery: 2.14 years

(unpublished data)

In a Nutshell

- Pars plicata lensectomy : -minimizes trauma to cornea and iris
  - reduces turbulence in anterior chamber

- It is advantageous is difficult situations : - narrow pupils
  - posterior lenticonus
  - lens subluxation
- It is not associated with higher incidence of retinal detachment

Thank You