

17TH INTERNATIONAL CONFERENCE OF THE
RESEARCH INSTITUTE OF OPHTHALMOLOGY

RIO 2025

*Anterior Segment Eye Diseases
Current Status & Future Directions*



Red Flags in Iris-Claw Phakic IOL

By

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RIO –2025



Introduction

- **Social and Emotional Impact:** Feeling self-conscious about thick glasses or dealing with the inconvenience of contact lenses.
- **Limited Career Choices:** Restrictions in professions requiring perfect unaided vision.
- Surgical correction is needed.
 - Corneal laser refractive surgery.
 - Phakic IOL.
 - CLE and PCIOL.



Limitations of Laser Refractive Surgery

- High ametropia.
- Irreversibility.
- Permanent damage to cornea.
- Thin and unsuitable cornea.
- Disturbed biomechanical properties of the cornea.
- Affected quality of vision.

Phakic IOLs

- Artificial lenses implanted in anterior or posterior chamber of the eye in presence of the natural crystalline lens to correct refractive error.

Phakic IOLs have gained popularity:

- 1- Treat large refractive errors.
- 2- Provide good visual quality.
- 3- Preserve the patient's accommodation.

Type S

Anterior
chamber

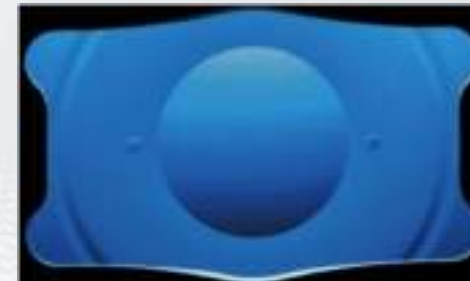
Posterior
chamber

Angle supported

Iris fixated

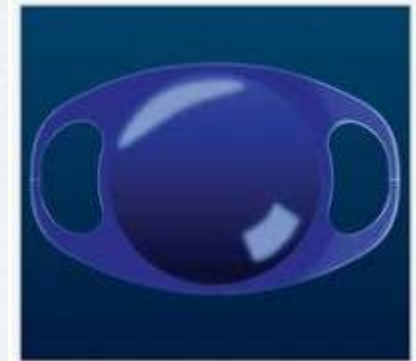
PRL

ICL



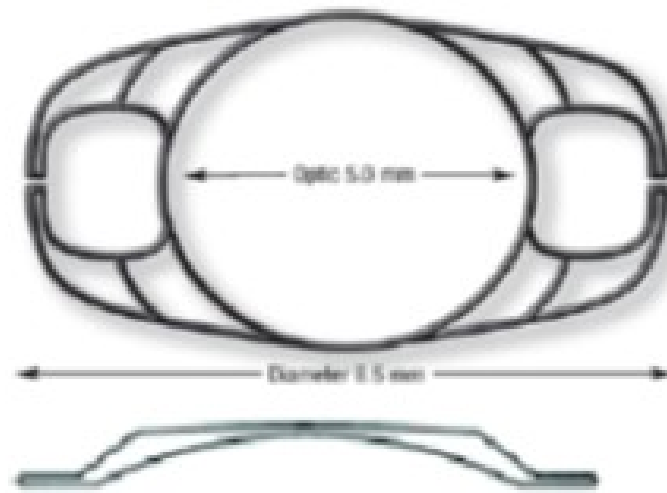
Iris Fixated Phakic IOLs

- **PMMA Iris claw anterior chamber phakic IOL**



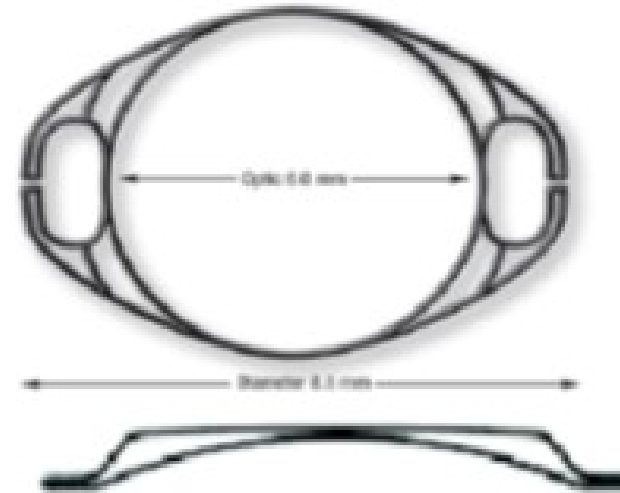
- **Foldable Iris claw anterior chamber phakic IOL**





**Myopia Lens
optic diameter
5 mm**

(-3 D to -23,5 D)



**Myopia Lens
optic diameter
6 mm**

(-3 D to -15,5 D)

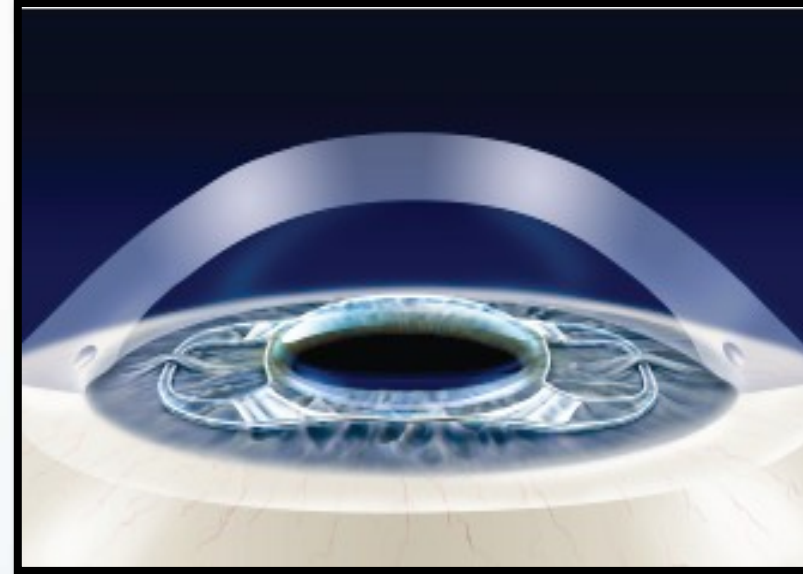


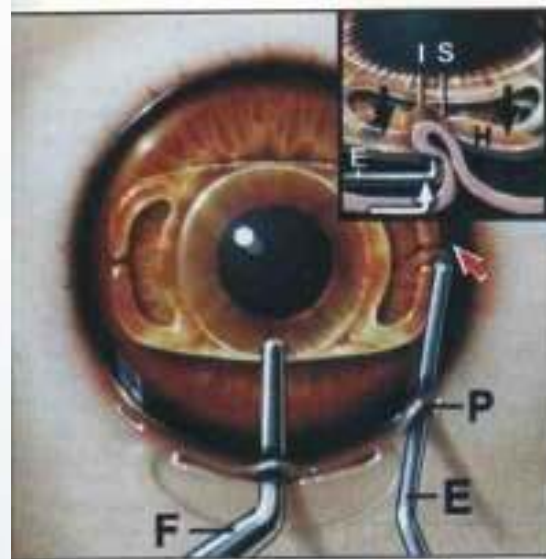
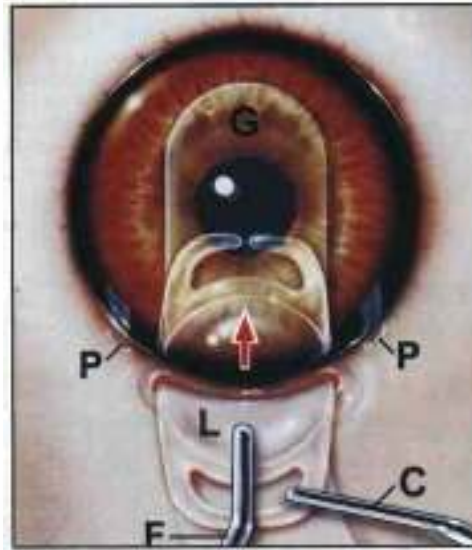
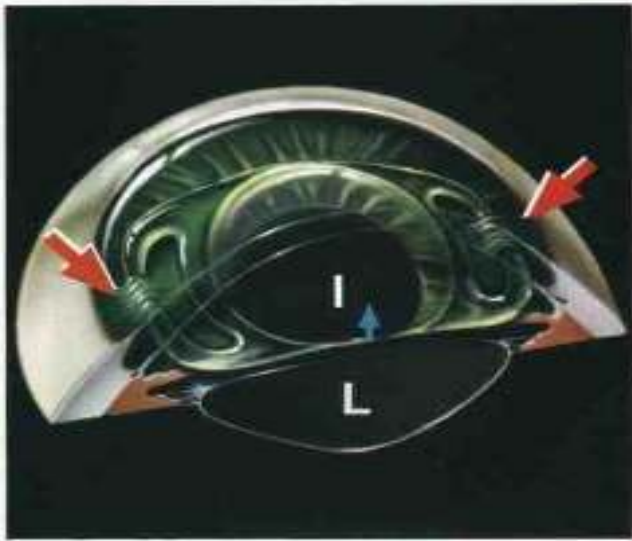
5.0 mm & 6.0 mm Vorisys® Phakic Intraocular Lens

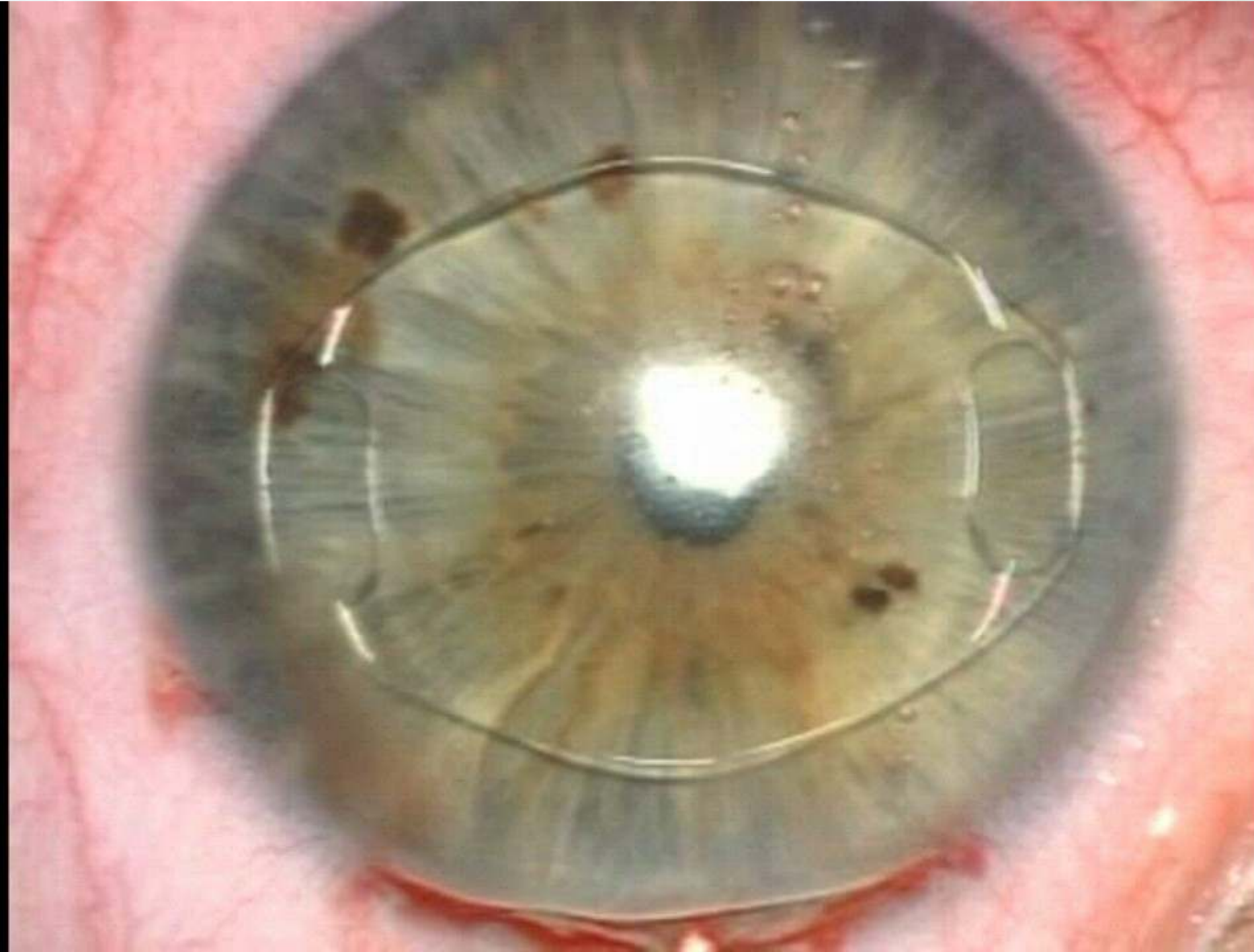
The two models of PMMA iris claw lens

Iris Fixated Phakic IOL

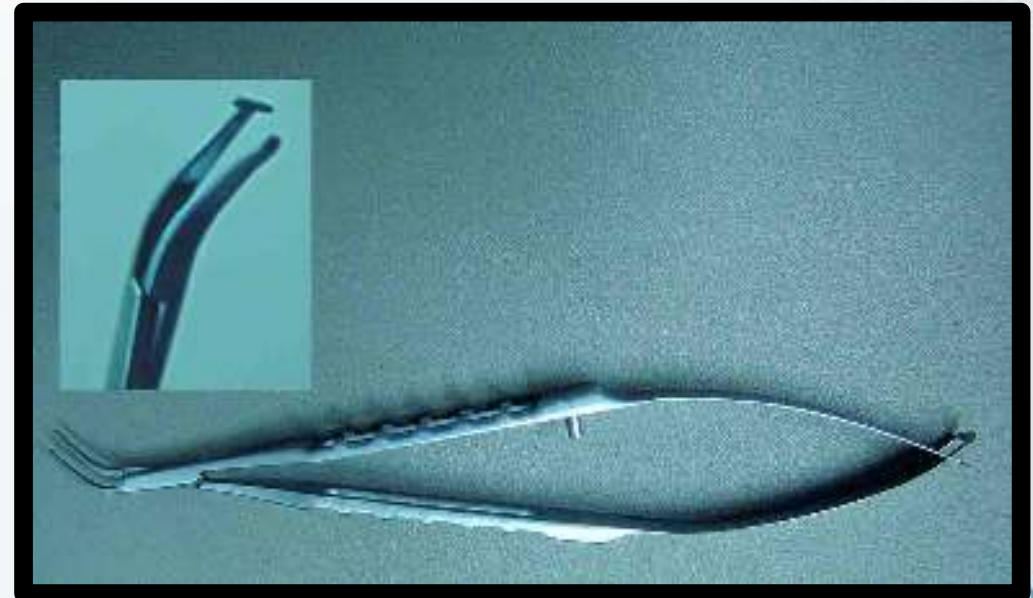
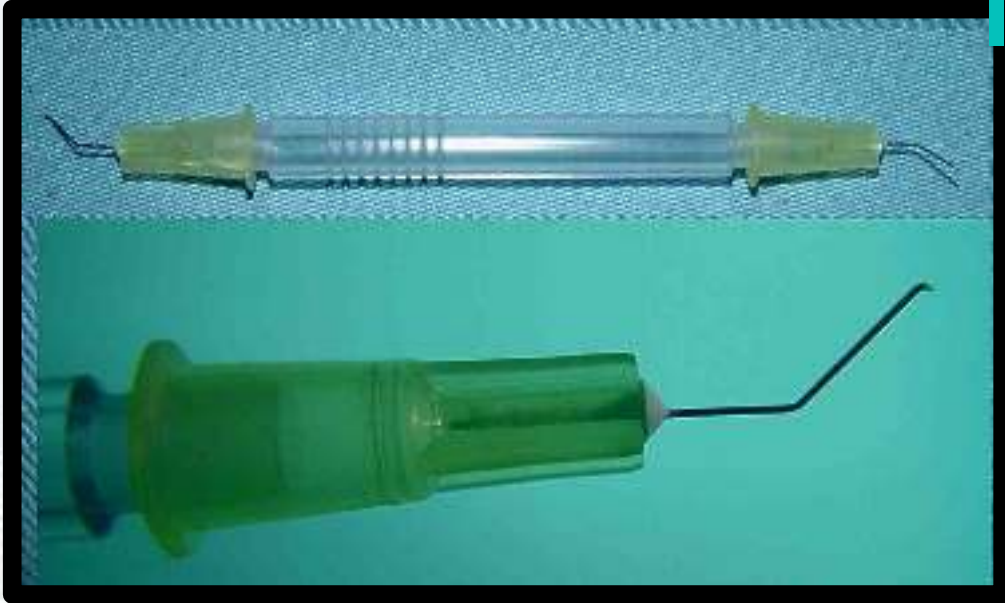
- One-piece PMMA.
- Optic 5.0 or 6.0 mm.
- Optic-endothelium distance from 1.5 to 2.0 mm.
- lens height from iris plane does not exceed 0.96 mm.
- AC depth of ≥ 3 mm is recommended.
- Can be properly centered over the pupil, even when the pupil is off center.





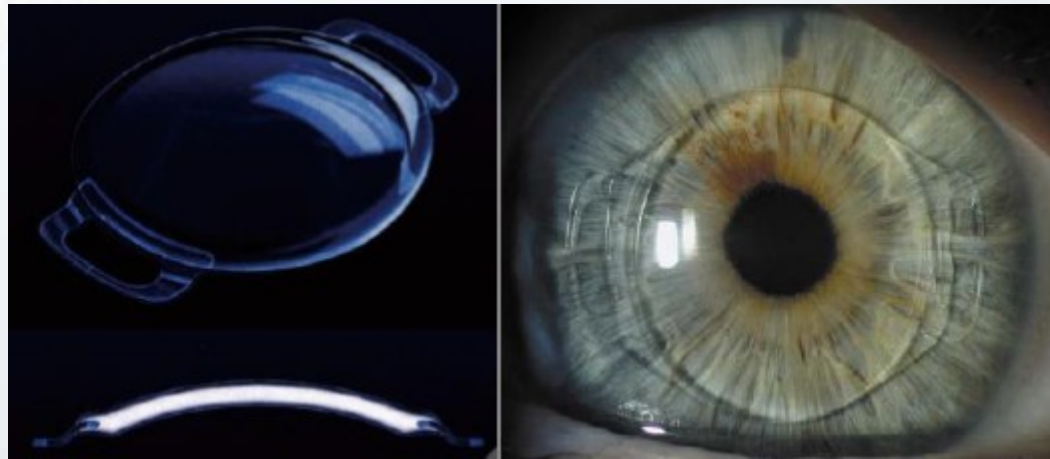


Instruments for PMMA claw lenses



Foldable Iris-Fixated AC PIOL

- Three-piece lens.
- Flexible optic made of UV-absorbing silicone and rigid haptics made of Perspex CQ UV PMMA. It is a hydrophobic polysiloxane.
- Foldable design with a 6.0mm optic and a convex-concave configuration, 8.5 mm overall length, and its refractive index is 1.43.
- Its power ranging from -2.0 to -14.5D in 0.5D steps.
- The toric model is also available.

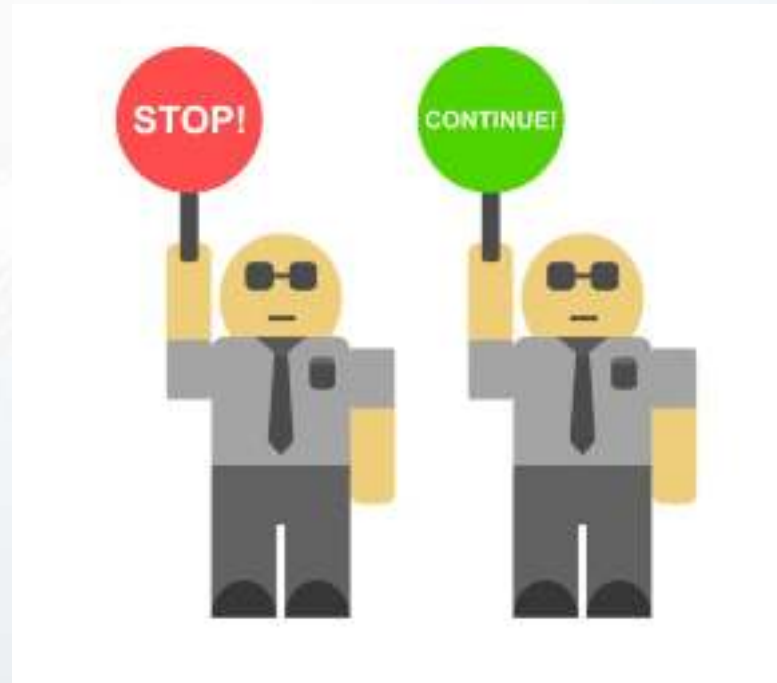


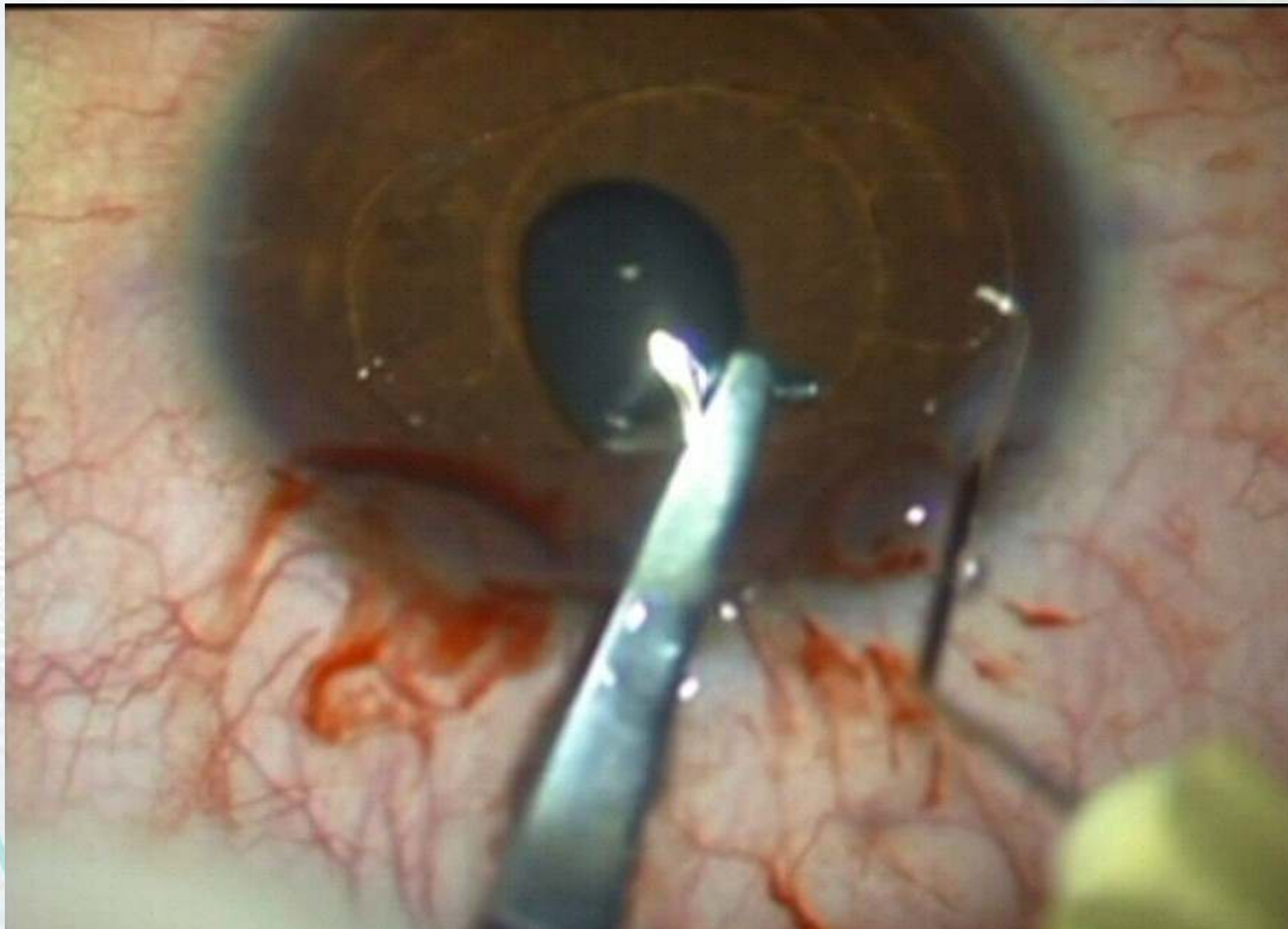
Instruments



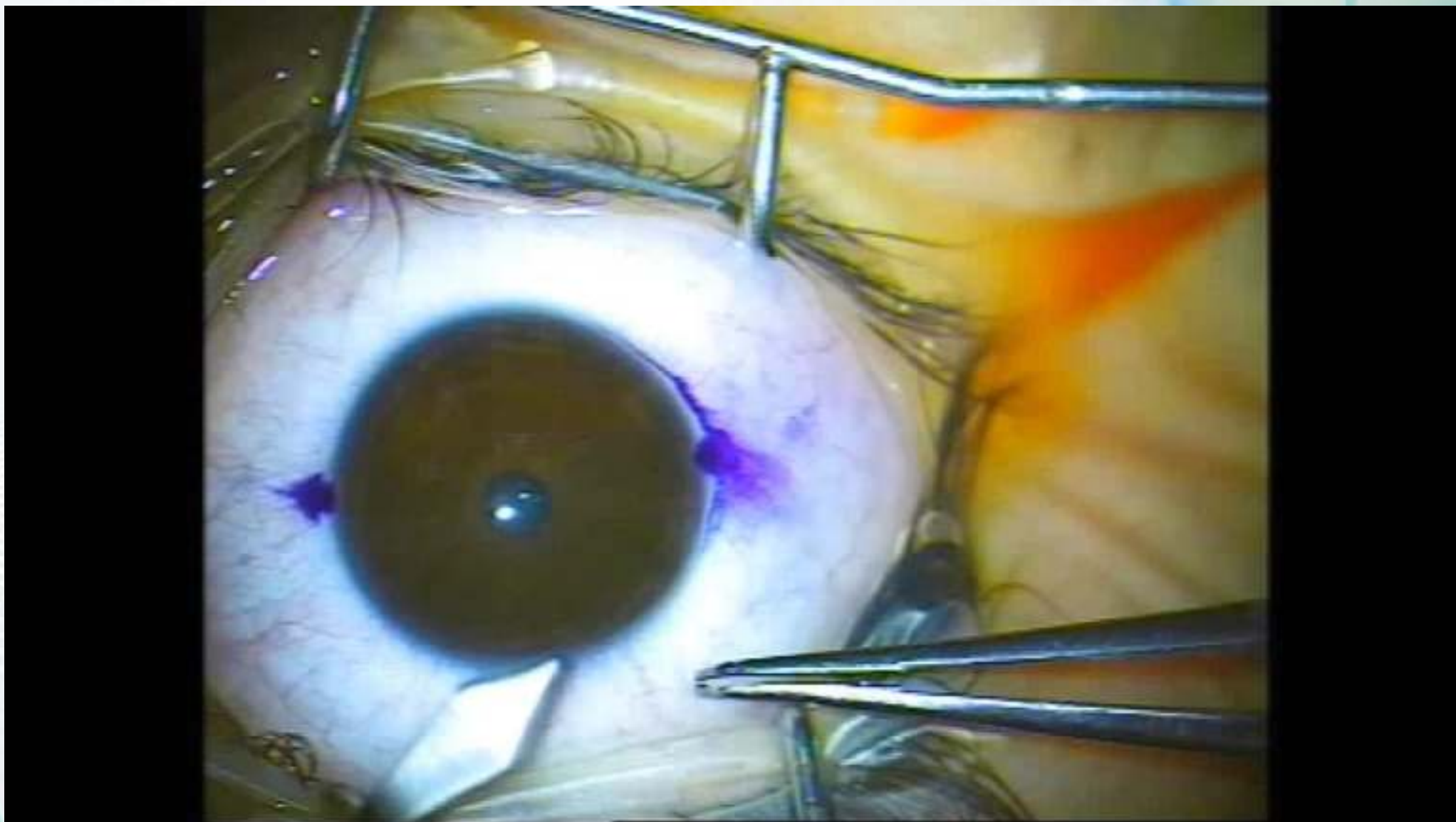
- Difficult procedure.
- Delicate maneuvers in a narrow space with precious boundaries (cornea & lens).

To continue or to stop?



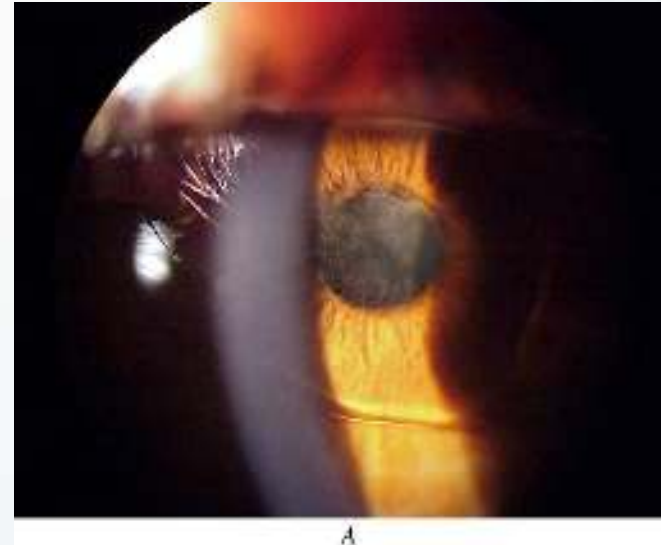






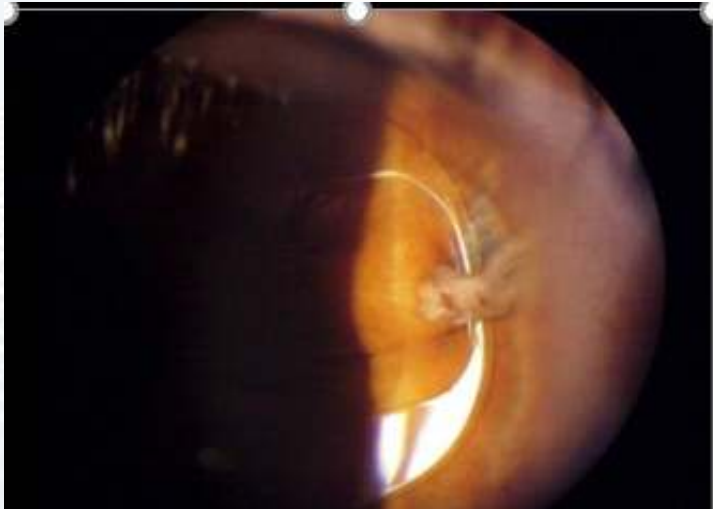
Early Post Operative Complications

- Elevated IOP
- Decentered IOL
- Iritis
- Minimal hyphema
- Wound leak

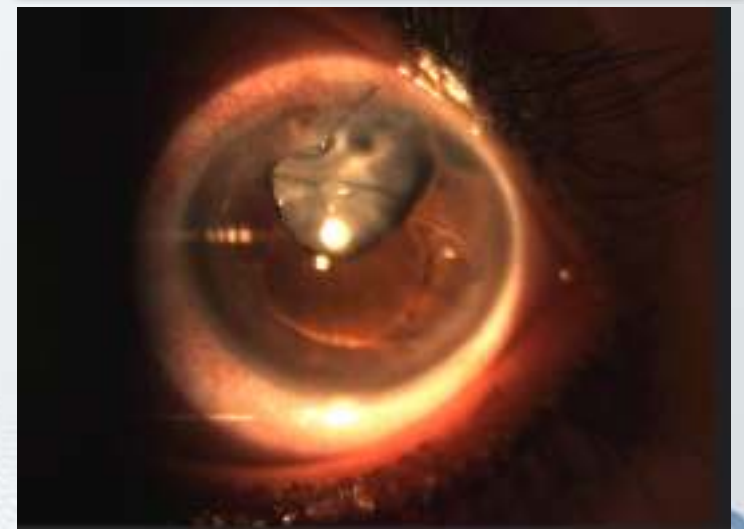
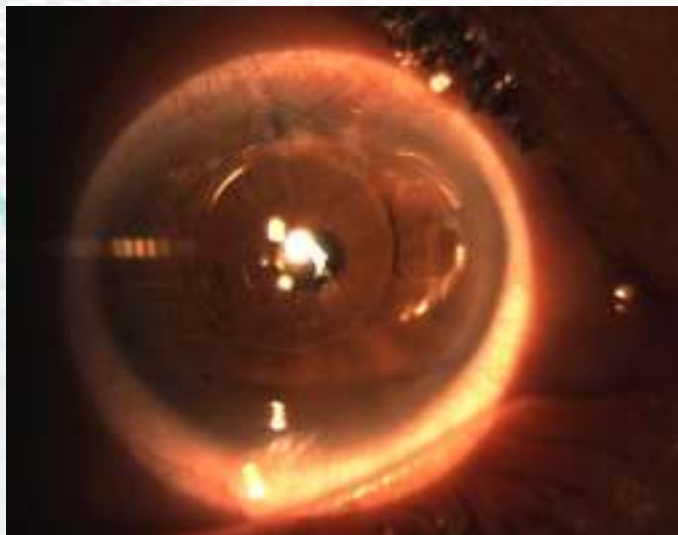
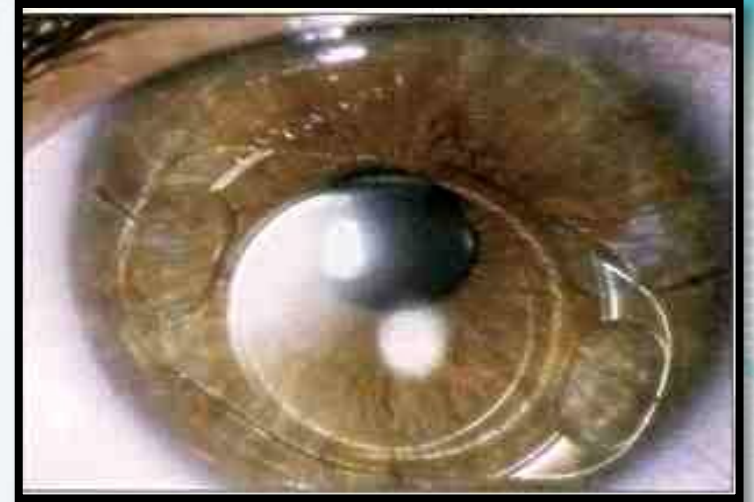
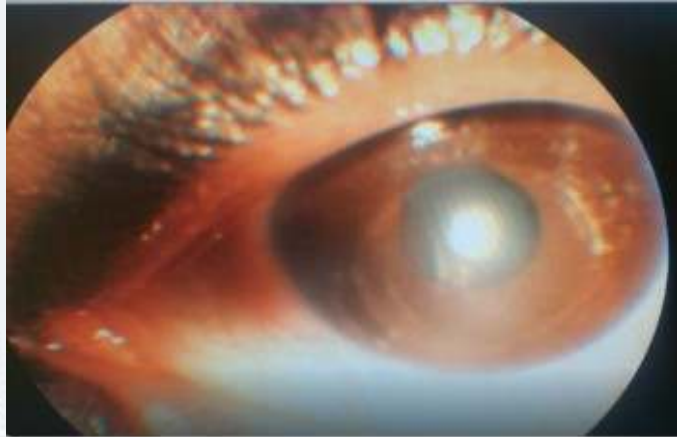


Late Postoperative Complications

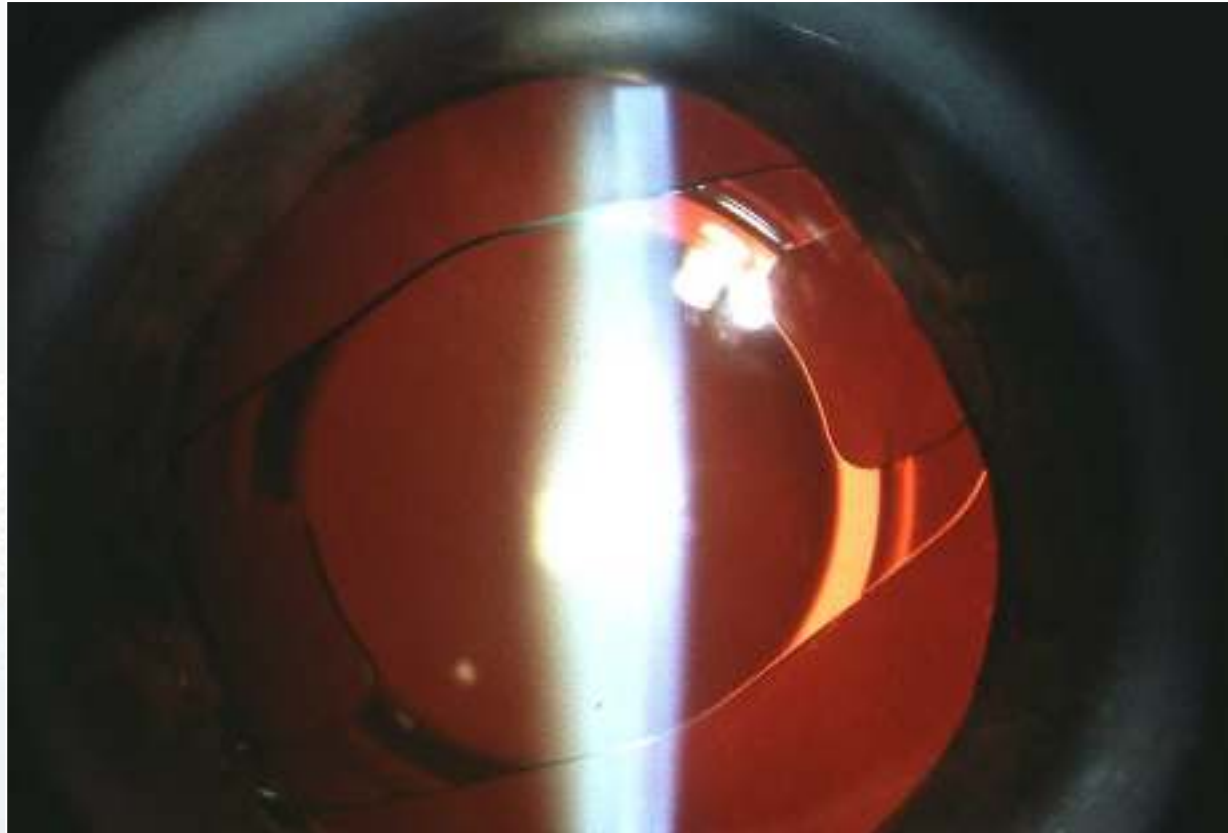
Iris pigment dispersion and patches of atrophy



Traumatic Dislocation



- Retinal detachment surgery.
- No interference with pupillary dilatation.



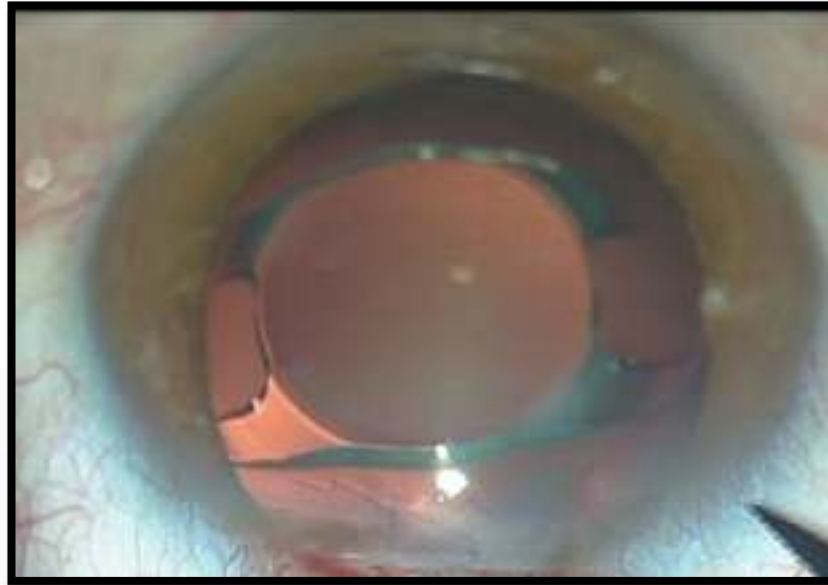
Postoperative Complications

Cataract



Phaco + IOL

Corneal decompensation



Conclusion

- Iris fixated phakic IOL was a convenient solution for high myopia.
- The acquisition of expertise in this surgical technique is a lengthy and demanding process.
- The critical nature of lens positioning in this confined area necessitates careful attention, and skillful surgical maneuvers to avoid complications.
- Traumatic dislocation and corneal decompensation are major concerns with this type of lens.



Thank You