



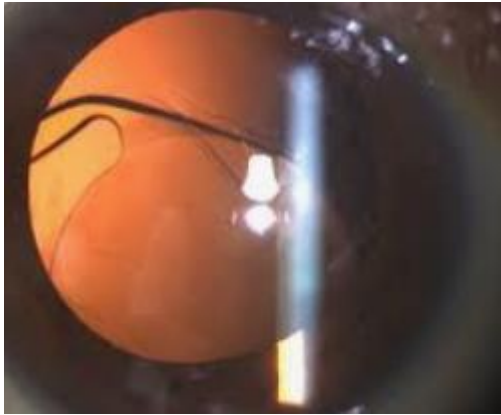
Scleral Tunnel Fixated (Yamane Technique) Versus Scleral Suture Fixated Intraocular Lens in Pediatric Aphakia: Prospective Randomized Study.

ADEL EL-SAYED EL-LAYEH

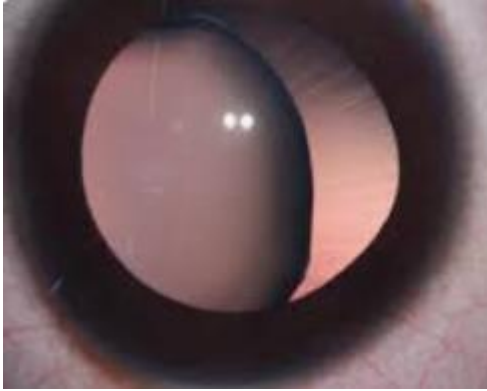
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Pediatric aphakia with the lack of adequate capsular support required for intra-ocular lens implantation, is a surgically challenging situation, especially in pediatric age group.



Conditions with Inadequate support



Ectopia Lentis



Microspherophakia



**Traumatic
subluxation
and dislocation**

Surgical Correction Of Aphakia in Children

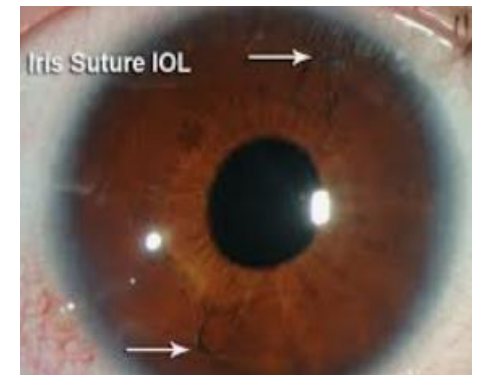
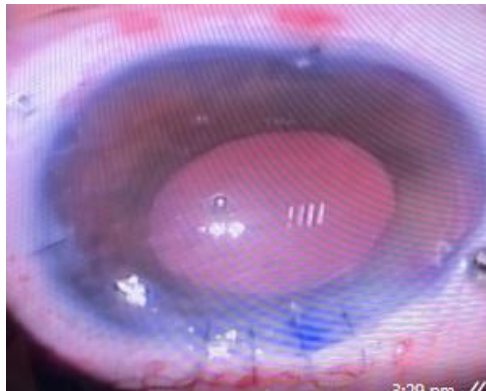
1-Transscleral fixation with sutures.

2-Intrascleral fixation without sutures.

3-Iris sutured IOLs.

4-Anterior Fixated iris claw IOLs.

5-Retropupillary fixated iris claw IOLS.



Aim of the work

-Comparing Intra-scleral (Yamane Technique) versus ab-externo (Scleral fixation), regarding

1-Postoperative visual outcome.

2- Postoperative complications

Patients & methods

Included Twenty(20) aphakic Eyes without capsular support

Group (A) (10 eyes): modified Yamane Technique

Group(B) (10 eyes): Scleral suture Fixated IOL (ab externo)

Preoperative evaluation

- A detailed ocular and systemic history was taken.**
- In cases of ectopia lentis a thorough systemic workup was done.**

Preoperative work up

- ❑ A complete ophthalmological examination was performed.
- ❑ B-scan ultrasound
- ❑ IOL power calculation (optical biometry).

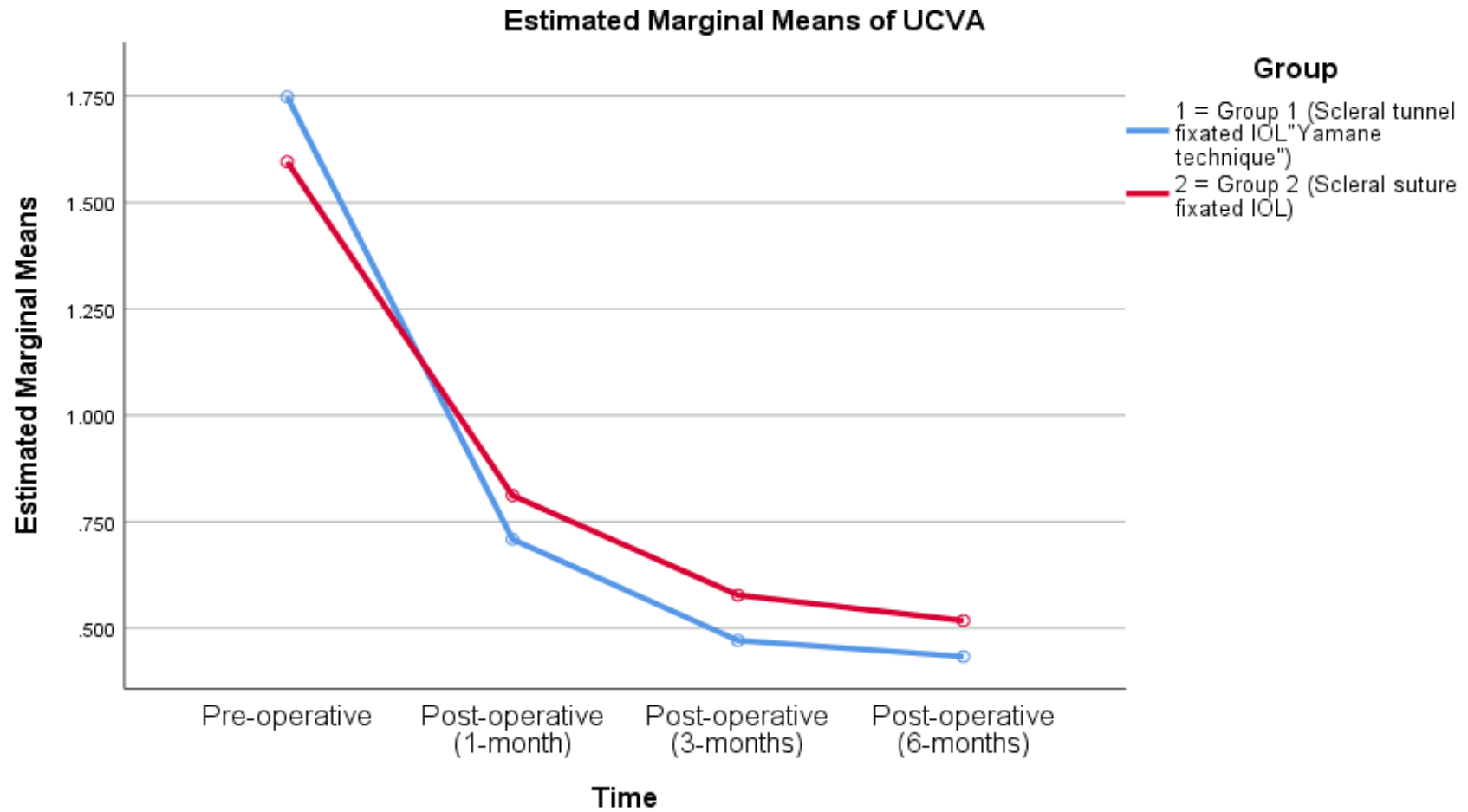




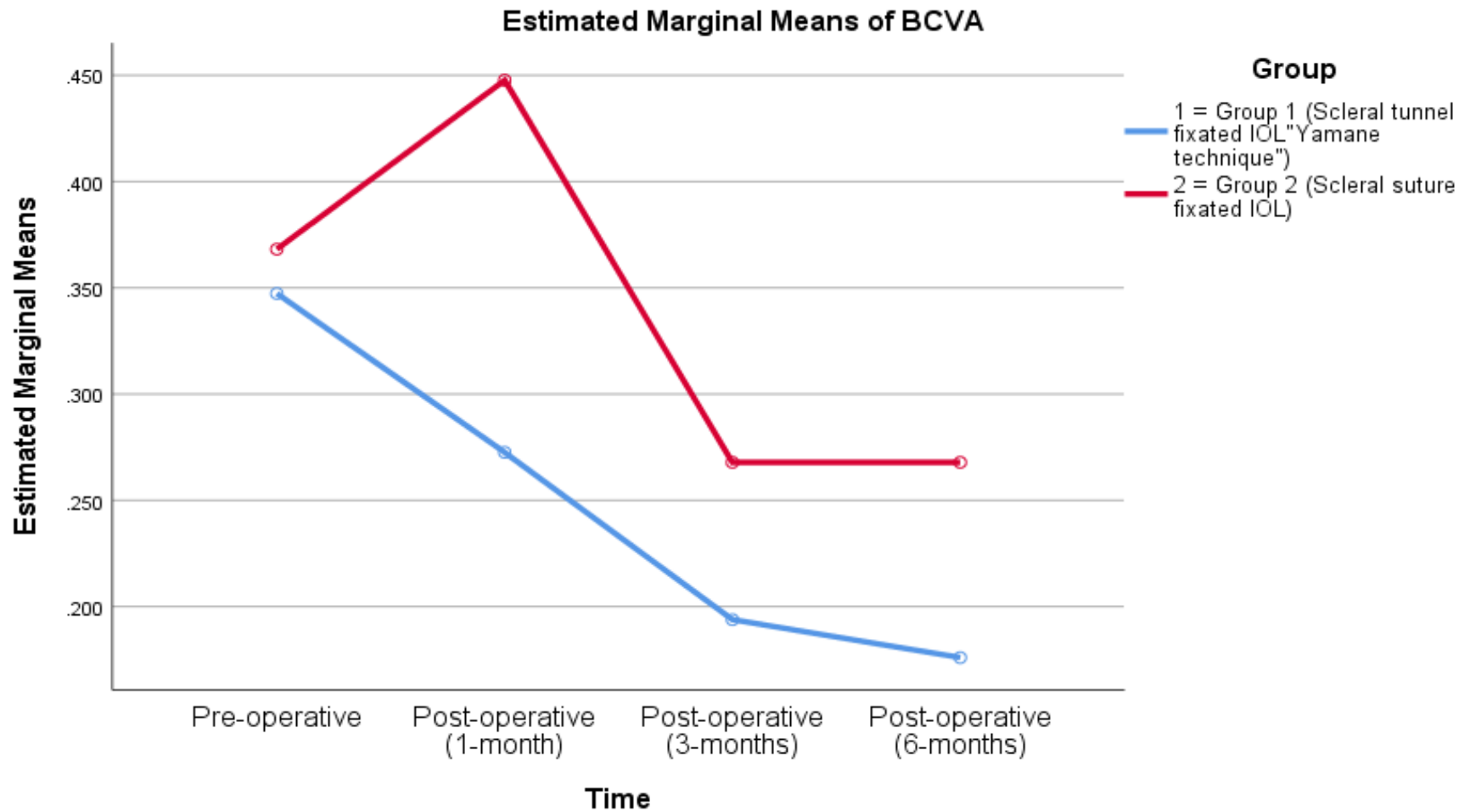
Post operative follow up

- UCVA and BCVA.
- Anterior segment (slit lamp).
- Posterior segment evaluation.
- Refraction and K reading.
- IOL state
 - Stability
 - Centralization
 - IOL induced astigmatism.

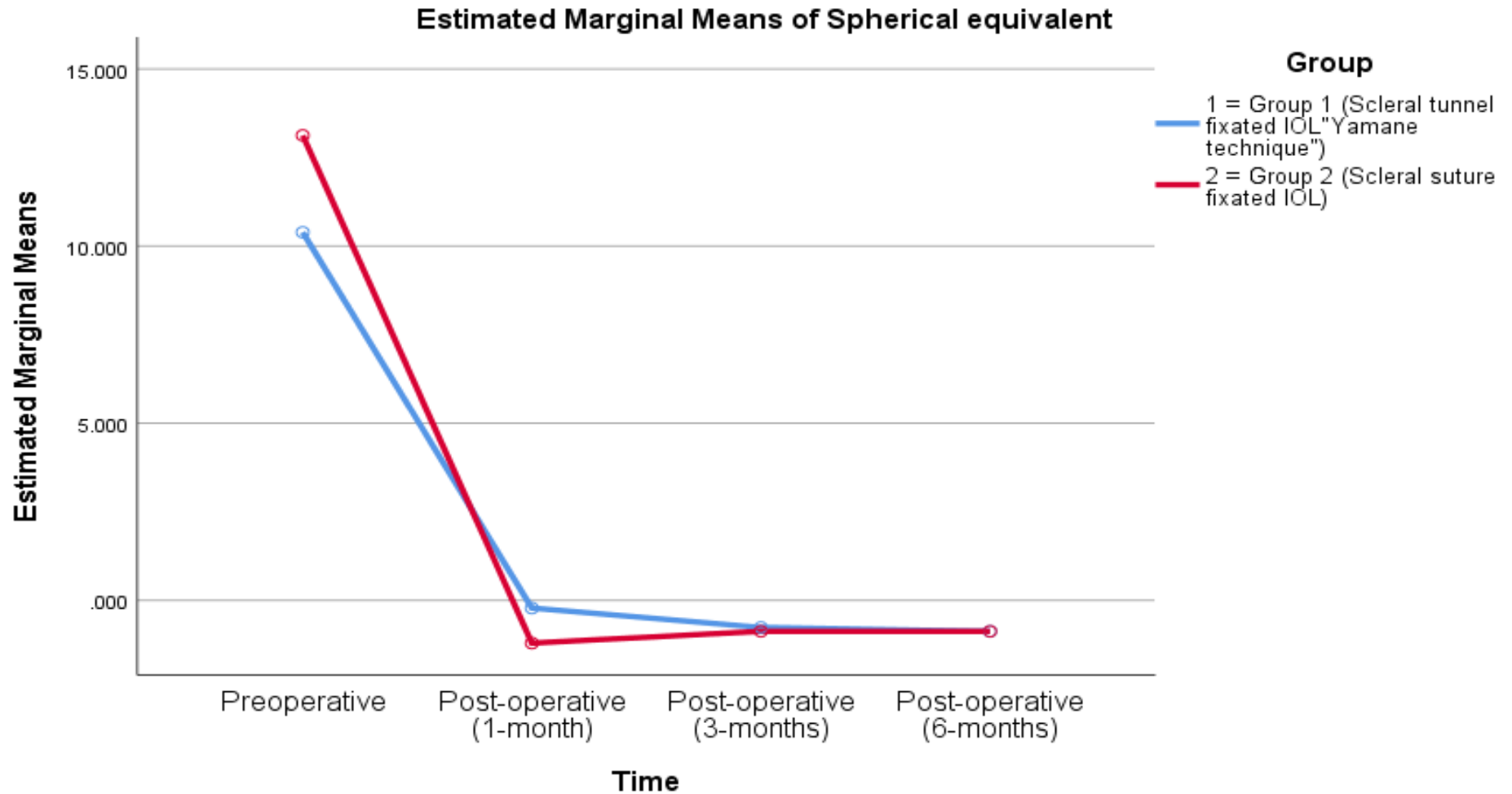
1-UCVA (in LogMAR):



2-BCVA (in LogMAR):



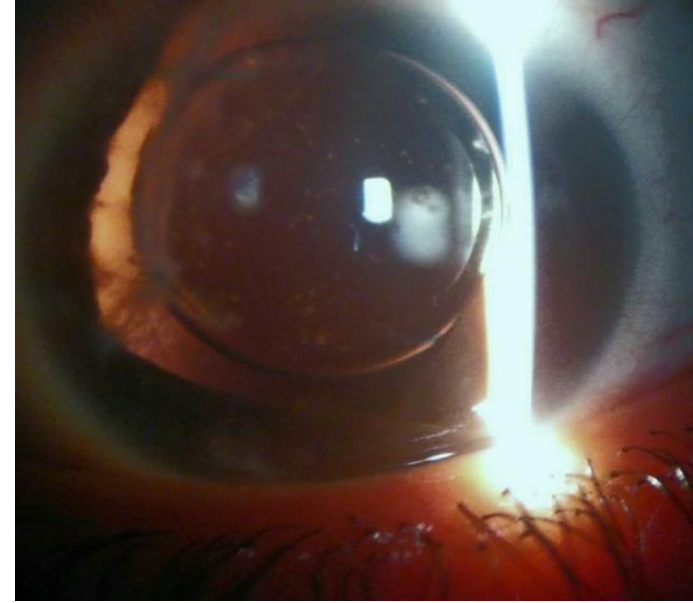
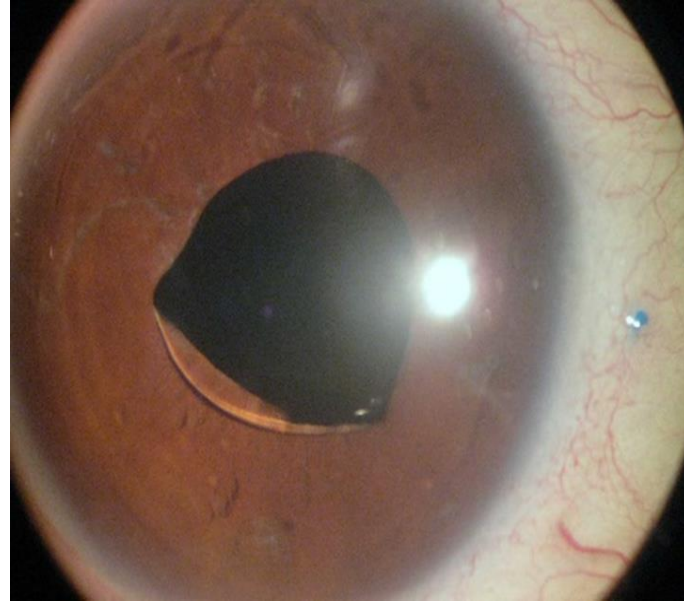
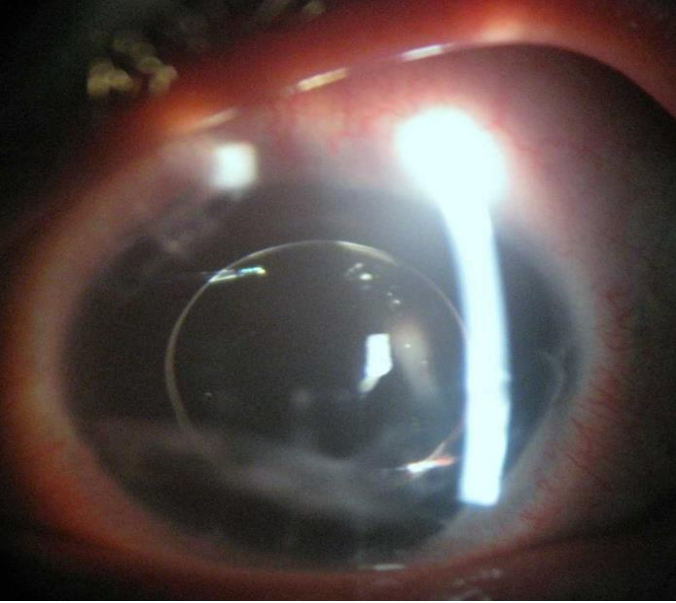
Refractive Spherical Equivalent:



IOL parameters and postoperative complications in both groups

Parameter	Group (1) N=10	Group (2) N=10	Total	P-value
Stable IOL	10(100%)	9(90%)	19(95%)	1.000
Centered IOL	10(100%)	9 (100%)	19(100%)	-
Tilted IOL	1(10%)	1(11.1%)	2(10%)	0.141
IOL- induced astigmatism	5(50%)	3(33.3%)	8(42.1%)	0.650
<i>Early complications</i>				
Hypotony	3 (30%)	0 (0%)	3 (15%)	0.211
Iris capture	2(20%)	2(20%)	4(20%)	1.000
Anterior uveitis	1(10%)	1(10%)	2(10%)	1.000
<i>Late complications</i>				
2ry ocular hypertension	1 (10%)	0 (0%)	1 (5%)	1.000
Corneal astigmatism	1(10%)	5(50%)	6(30%)	0.141
Posteriorly dislocated IOL	0 (0%)	1(10%)	1(5%)	1.000
IOL pigmentation	1(10%)	1(11.1%)	2(10.5%)	1.000

Yamane Technique

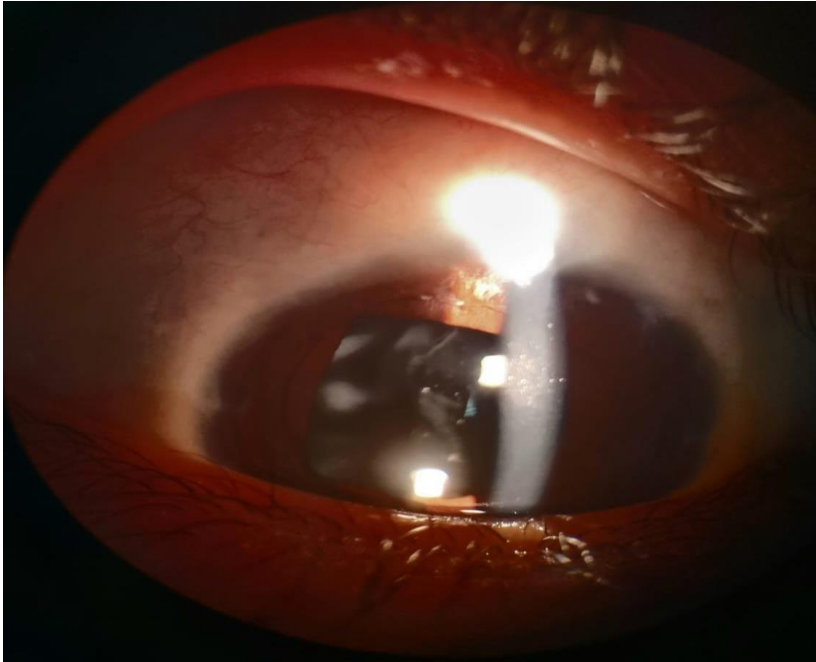


**IOL tilt by slit lamp
retro-illumination**

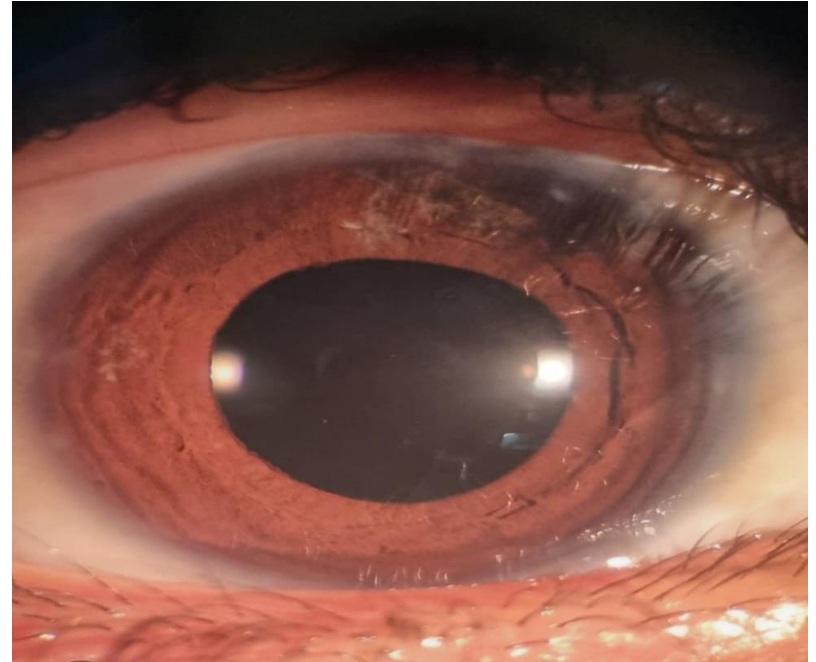
Iris capture

**IOL pigment
deposits**

Scleral fixation Technique



**IOL pigment deposits
& Iris capture**



Well centered IOL

Conclusion

- ❑ The sutureless intrascleral fixated PCIOL (**Yamane technique**) can be adapted to the pediatric eye with aphakia and provides good visual outcomes, rapid visual rehabilitation, lower corneal astigmatism, and good IOL stability and centration.
- ❑ SFIOLs- sutured and sutureless can be preferred for the rehabilitation of pediatric aphakia with better visual outcomes and lesser complications.



THANK
YOU