

ARTISAN LENS IN PEDIATRIC

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WHAT ARE THE OPTIONS OF IOL
IMPLANTATION IN ABSENT CAPSULAR
SUPPORT ?

- SUBLUXATED AND DISLOCATED LENSES**
- IMPLANTATION FOLLOWING TOTAL LENSECTOMY**
- AFTER TRAUMA WITH LOST CAPSULE**

WHAT ARE THE AVAILABLE SURGICAL OPTIONS IN THIS SITUATIONS ?

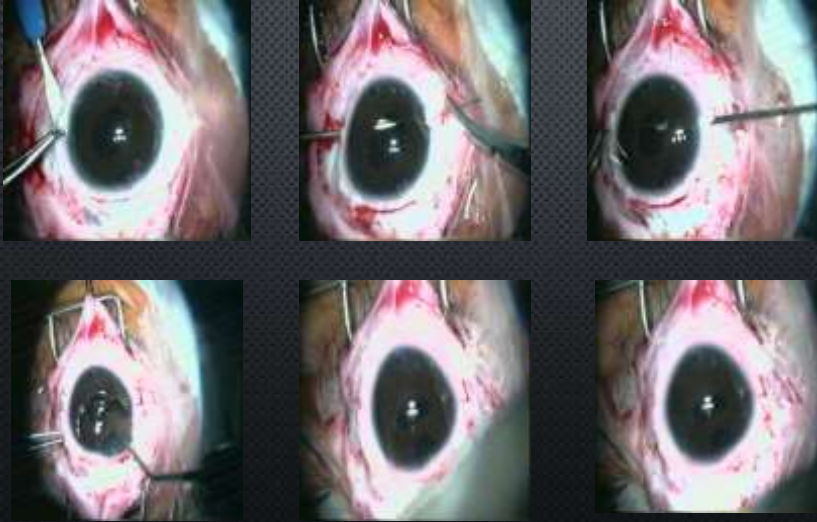
- ANGLE SUPPORTED ACIOLs.
- IRIS SUTURED IOLs
- SUTURED SCLERAL-fixATED IOL.
- FIBRIN GLUE-ASSISTED POSTERIOR CHAMBER IOL.
- IRIS CLAW IOLs.

SUTURED SCLERAL-fixATED IOL

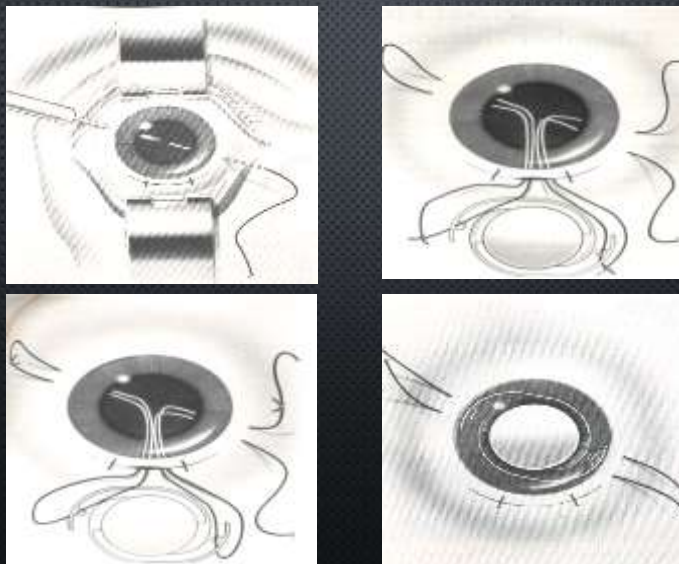
- SCLERAL-fixATED IOLs ARE CONSIDERED A MORE ACCEPTABLE TECHNIQUE FOR POSTERIOR CHAMBER IOLs, IN THE ABSENCE OF CAPSULAR SUPPORT
- CONJUNCTIVAL AND SCLERAL EROSION OF SCLERAL SUTURE
- INFECTION OR ENDOPHTHALMITIS .
- IOL TILT.
- DISLOCATION OF THE LENS IN THE VITREOUS CAVITY.
- VITREOUS OR CILIARY BODY HEMORRHAGE .
- SECONDARY GLAUCOMA.



SCLERAL FIXATED

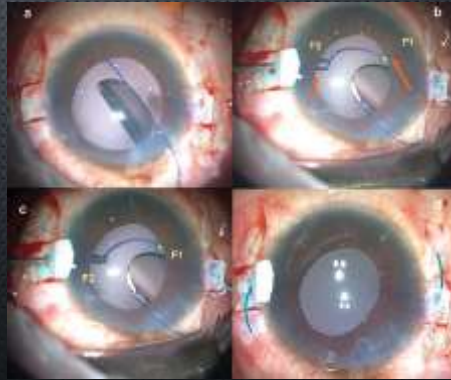


SCLERAL FIXATED (EDWARD G.BUCKLEY1999)



SUTURELESS SCLERAL FIXATION POSTERIOR CHAMBER IOL

- SUTURE LESS INTRA-SCLERAL HAPTIC FIXATION OF A THREE-PIECE POSTERIOR CHAMBER IOL IN THE CILIARY SULCUS IN EYES WITH NO CAPSULE SUPPORT.



IRIS CLAW- ARTISAN APHAKIC IOL

- AN ALTERNATIVE METHOD OF IRIS FIXATION INVOLVES CLAW SHAPED HAPTICS ATTACHED TO THE MID-PERIPHERAL IRIS.
- PMMA ANTERIOR CHAMBER IRIS-FIXATED LENS
- ORIGINALLY DESIGNED IN 1978 BY J G WORST (NETHERLAND)
- SPECIAL SIZE FOR PEDIATRIC AGE GROUP



ARTISAN LENS

CRITERIA	
Optic diameter	5.00 mm
Aver all diameter	8,5 mm
Material	prespex
A constant	115.00
Total thickness	0.76 mm
Weight	8 mg
Shape	Concave-convex lens



- Available Power : + 2.00 - + 30 D
- Special small sizes for infants are available with optic diameter of 4.4 mm and over-all diameter of 6.5 mm

ARTISAN LENS

ADVANTAGES

- UNRESTRICTED PUPILLARY DILATATION AND CONSTRICTION
- POSSIBILITY OF PROPER CENTRATION OF THE OPTIC EASILY
- OPTIMAL VISIBILITY OF THE IOL FIXATION AND CENTRATION
- COSMETICALLY INVISIBLE
- REVERSIBLE AND EXCHANGEABLE
- NO INTERFERENCE WITH IRIS VASCULAR PHYSIOLOGY
- EASY TO REPOSITION IF SLIPPED OR DECENTERED

RAWBACKS

- REQUIRES CERTAIN SURGICAL SKILLS WITH A SHORT LEARNING CURVE
- REQUIRES AN INCISION 5.2 MM

SURGICAL TECHNIQUE

- A 5MM OPTIC ARTISAN APHAKIA IOL WITH A TOTAL DIAMETER OF 8.5 MM WAS IMPLANTED THROUGH A LIMBAL CORNEO-SCLERAL INCISION (5.2 MM)
- A SPECIAL (OPHTEC) FORCEPS OR BENT NEEDLE WAS USED TO ENCLAVATE THE IRIS IN THE CLAWS OF THE LENS THROUGH TWO PARACENESES OPENINGS MADE FOR THIS PURPOSE.
- OCULAR VISCO-ELASTIC DEVICE (OVD) WAS USED TO PROTECT THE CORNEAL ENDOTHELIUM.
- A PERIPHERAL IRIDECTOMY WAS DONE TO GUARD AGAINST PUPILLARY BLOCK.
- WOUND CLOSURE WAS DONE BY 10/0 SUTURES



ARTISAN IN TRAUMATIC CASE WITHOUT CAPSULE



POSTOPERATIVE



EVALUATION OF ARTISAN APHAKIC INTRAOCULAR LENS IN CASES OF PEDIATRIC APHAKIA WITH INSUFFICIENT CAPSULAR SUPPORT JUNE 2015

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GHADA GAWDAT, SAMEH G. TAHR, MARWA
M. SALAMA, AND ADEL ALEILDIN

STUDY

- TO EVALUATE THE VISUAL OUTCOMES AND COMPLICATIONS AFTER ARTISAN IRIS-CLAW LENS IMPLANTATION IN APHAKIC CHILDREN WITH INSUFFICIENT CAPSULAR SUPPORT.
- IT IS A PROSPECTIVE STUDY, APHAKIC EYES OF CONSECUTIVE PATIENTS >2 YEARS OF AGE WITH INSUFFICIENT CAPSULAR SUPPORT WHO UNDERWENT ARTISAN INTRAOCULAR LENS (IOL) IMPLANTATION BETWEEN JUNE 2011 AND DECEMBER 2012
- THEY WERE FOLLOWED FOR 1 YEAR. PATIENTS WITH ANTERIOR CHAMBER DEPTH <3 MM, CENTRAL ENDOTHELIAL CELL DENSITY (CECD) <2500 CELLS/MM², UNCONTROLLED GLAUCOMA, OR UVEITIS WERE EXCLUDED. BEST-CORRECTED VISUAL ACUITY, INTRAOCULAR PRESSURE (IOP), AND CECD WERE MEASURED AT 1, 6, AND 12 MONTHS POSTOPERATIVELY.

RESULTS

- A TOTAL OF 25 APHAKIC EYES OF 18 PATIENTS (MEAN AGE, 7.86 ± 3.08 YEARS) WITH INSUFFICIENT CAPSULAR SUPPORT FOR A STANDARD POSTERIOR CHAMBER IOL WERE INCLUDED, 18 EYES WITH SUBLUXATED LENS AND 7 FOLLOWING TRAUMA.
- RESPECTIVELY. ONE YEAR AFTER SURGERY THE CECD (2892.64 ± 441.79 CELLS/MM²) WAS SIGNIFICANTLY REDUCED FROM THE PREOPERATIVE AND 1 MONTH POSTOPERATIVE VALUES (3573.36 ± 468.9 CELLS/MM²), 3081 ± 495 CELLS/MM²; $P < 0.0001$, $P < 0.02$ RESP.). TWO CASES (8%) DEVELOPED TRAUMATIC DISLOCATION. PUPILLARY BLOCK OCCURRED IN 1 CASE (4%).

CONCLUSION

- ARTISAN lens is a favorable option for correction of pediatric aphakia in absence of capsular support due to :
- Easy to implant(short learning curve).
- Free pupillary dilatation and constriction.
- low incidence of UGH syndrome.
- Visual outcomes of Artisan aphakic IOLs are comparable to, if not better than, alternative IOL types .

CONCLUSION

- Artisan IOL is safe on the corneal endothelium. However, prospective studies of the long term effect of the claw lenses on the corneal endothelium is very important.
- Other recent alternatives such as ;sutureless glued scleral fixation IOL and PC iris sutured IOLs are recommended to be studied and compared with the Artisan claw lens in pediatric age groups