Glued Secondary IOLs

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Background

• Popularized by Amar Agarwal, MD
• “Advanced” secondary IOL fixation
  – Sutureless
• Decreased surgical time
• Minimal or no iris manipulation
• Less phacodynesia=less postoperative inflammation (in theory)
Instrumentation

- A/C maintainer
- 3 piece IOL (eyelets not required)
- Intraocular forceps x 2
- Vitrector
  - Small guage
  - High cut rate
- Fibrin Glue
- Assistant helpful
Steps

- Peritomies (horizontal or vertical) and cautery
- Mark horizontal or vertical axes
- Insert A/C maintainer
- Partial thickness scleral flaps
  - 2mm x 2.25mm
  - Complete with crescent blade
- Sclerotomies
- Vitrectomy/Cortex removal/IOL removal
- Intraocular forcep insertion through nasal sclerotomy till tip viewed
- Insert 3 piece IOL presenting leading haptic tip to intraocular forceps
Steps

• Externalize and stabilize haptic
  – Assistant fixation
  – Iris hook hub (Bieko modification)
  – Suture

• Intraocular forcep insertion through temporal sclerotomy

• Inject or insert optic and trailing haptic

• Hand tip of haptic to intraocular forceps with “handshake technique”

• Externalize trailing haptic
Steps

• Suture wound
• Scleral tunnel with bent 23G needle
  – Inked needle or iris spatula
• Insert haptic into scleral tunnel
  – Careful with haptics/flap
• Fibrin glue to bed and under peritomy and wounds after sutures
  – External vitrectomy
Glued IOL Video

Courtesy of Dr. Brandon Ayres
**Glued Endocapsular Ring**

- Single piece
- PVDF 130 microns
- Peripheral extension (haptic)
- Two arms
- 2.5 mm double scrolls for engaging rhexis

Courtesy of Dr. Soosan Jacob
Glued ECR Video

Superior 180 degree subluxation

Courtesy of Dr. Soosan Jacob
Summary

• Fibrin glue assisted sutureless trans-scleral fixation is an emerging technique for secondary IOL placement
• Excellent centration with potential for MFIOL
• Less manipulation, less iris manipulation
• Faster recovery