Management of Decentered IOLs

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No Financial Interests
Intraocular Lens Decentration

- Decentered within the capsular bag
- Partially subluxed outside of intact capsular bag
- Subluxed outside of compromised capsule
- IOL and capsular bag subluxation
- IOL lying on the retina
IOL Decentration Within Intact Capsular Bag
Late Reopening of Fibrosoed Capsular Bags For Lens Repositioning
General Principles

Symptomatic IOL Decentration  
vs  
Symptomatic PC Opacification

When in Doubt  
Reposition IOL First  
Then Perform YAG
General Principles

AVOID MACULAR PHOTOTOXICITY

• Turn microscope light down
• Angle microscope light away from macula
  – Appropriate powered IOL is focusing light directly on the retina
  – Macular burns can occur in a relatively short period
General Principles

- Recentration can be accomplished through several paracenteses.
- Avoid filling the anterior chamber with viscoelastic.
- Use a combination of viscodissection and blunt dissection - Avoid forceps.
Technique

• First paracentesis
  – easy access to the capsulorhexis
  – large portion of the IOL under rhexis
Technique

- Slip cannula between IOL and rhesis
- Inject Viscoat® to dissect anterior capsule from posterior capsule
- Place as many paracenteses as is needed
Technique

- Blunt dissection with viscoelastic cannula
- Use broad sweeping movements
Technique

- Reposition IOL
- Bimanual irrigation and aspiration
Late Reopening of Fibrosed Bag

Decentered PMMA IOL

3 Years Post Phaco/IOL Implantation

3 Years Post Phaco/IOL
Postoperative Considerations

• Most metaplasia and fibrosis of LECs has already transpired
  – Repeat IOL decentration unlikely

• YAG can be performed 1-2 weeks following repositioning
Partially Subluxed Outside of Intact Capsular Bag
3 Years s/p Phaco / IOL
Recurrent Vitreous Hemorrhages
Recurrent Vitreous Hemorrhages

- Absent Pigment Epithelium
- Iris Pigment Epithelium
- IOL Optic
- IOL Haptic
- Anterior Capsule
- Posterior Capsule
Recurrent Vitreous Hemorrhages
Treatment Options

- Amputate subluxed haptic
- IOL exchange
- Reposition haptic and optic within capsule
Postop IOL Repositioning
Postoperative OCT
Subluxed with Poor Capsular Support
Iris Fixation of Decentered IOL
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Pars Plana Approach
Subluxed IOL / Capsular Bag
A minimally invasive technique that avoids conjunctival dissection, scleral cauterization, or sutured wound closure.
Grooved Clear Corneal Incisions
Scleral Pocket
Haptic Encircling
Haptic Encircling
Suture Retrieval
Prolene Suture Tying
Suture Degradation

• 10-0 Prolene suture found to degrade 7-15 years following scleral fixation

• Recommend 9-0 Prolene (Ethicon D-8229 CTC-6L) or 8-0 Gortex
Scleral Pocket Fixation

Advantages

• Simpler creation of suture knot covering
  – Avoids the need to rotate knots

• No conjunctival dissection or scleral cautery
  – Faster than traditional Δ flap procedure
  – Healthier scleral tissue
Scleral Pocket Fixation

*Advantages*

- Larger surface area than Δ flap or groove
  - Facilitates ab interno and ab externo approach

- Easier dissection of distal fixation site
  - Dissection “downhill”
Induced Astigmatism
Scleral Pocket Fixation

*Improved Method for Scleral Fixation*

- Dislocated IOLs

- Adjunctive Capsular Devices
  - Cionni capsular tension ring
  - Ahmed ring segment

- Iridodialysis

- Iris Prosthesis
Various Presentations
Coordinate with Retina Colleague

• Single piece / plate haptic IOL
  – Free / on the retina
  – In the bag / on the retina

• 3-piece IOL
  – Free / on the retina
  – In the bag / on the retina
Alternate Option

3-Piece IOL on Retina

Figure Courtesy of Amar Agarwal, MD
Review
Review
Decentered IOL in the Bag

- Reposition first before YAG
- Avoid macular phototoxicity
- Blunt viscodissection
- 2-3 paracenteses
Review
Subluxed Without Capsular Support

- Iris fixation
- Avoid macular phototoxicity
- 2-3 paracenteses
Review

**IOL/Bag Subluxation**

- Scleral fixation through the bag
- Facilitated if CTR in place
- Performed through 2 microincisions with 2 scleral pockets
Review

IOL Lying on the Retina

• Coordinate with your retina colleague
Good Luck!
Thank You