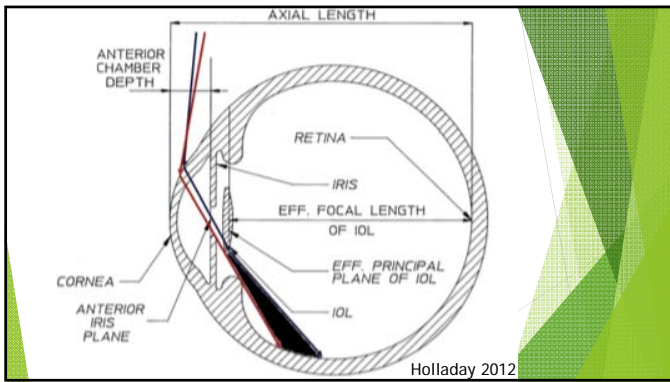


My Best Tip: Non-Invasive Management of Negative Dysphotopsia

Mark F. Pyfer MD
NOAO Symposium
Feb 2024

- ## Negative Dysphotopsia
- ▶ Patients complain of crescentic shadow in temporal field of view
 - ▶ Caused by shadow on nasal retina between light refracted by IOL and light passing between iris and IOL

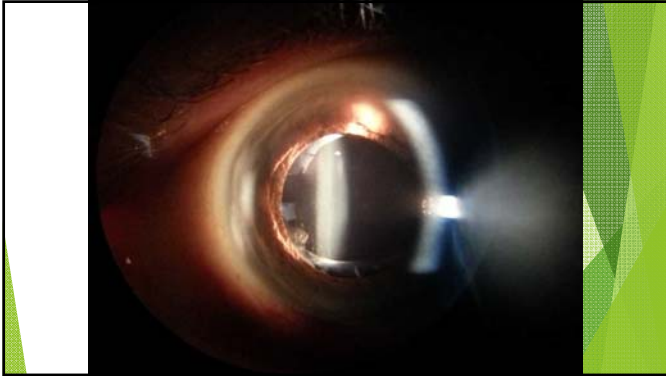


Surgical management of negative dysphotopsia

Simeul Maskat, MD, Nicole R. Fren, MD, Andrew Cho, BS, Jason Park, BA, Don Pham, BS
J Cataract Refract Surg 2018; 44:6-19 © 2018 Published by Elsevier Inc on behalf of ASCRS and ESCRS

Surgical Method	Resolution of symptoms
In-the-bag IOL exchange	0/5
Iris suture fixation of bag complex	0/1
Piggyback secondary IOL	8/11
Secondary reverse optic capture	21/22
Sulcus IOL exchange	7/8

- ## How about Nd:YAG Laser Anterior Capsulotomy?
- ▶ Nd:YAG anterior capsulotomy of nasal anterior capsule resolves negative dysphotopsia in a 70 year old man - Cooke, 2012
 - ▶ Nd:YAG anterior capsulotomy → complete (3/6) or partial (2/6) resolution of negative dysphotopsia - Folden, 2013



Laser Anterior Capsulotomy for Negative Dysphotopsia

- ▶ 2 clock-hour nasal anterior capsulotomy via Nd:YAG laser
- ▶ Often results in complete or near-complete resolution of negative dysphotopsia symptoms
- ▶ Does not preclude surgical management in the future if necessary (reverse optic capture or IOL exchange to sulcus)

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SIMPLIFYING THE MANAGEMENT OF THE LOOSE LENS

MICHAEL PATTERSON, DO
EYE CENTERS OF TENNESSEE



FINANCIAL DISCLOSURES:

ALLERGAN
JOHNSON AND JOHNSON
CARL ZEISS MEDITEC
NEW WORLD MEDICAL
BAUSCH AND LOMB
IVANTIS
GLAUKOS
SIGHT SCIENCES
BEAVER-VISTEC

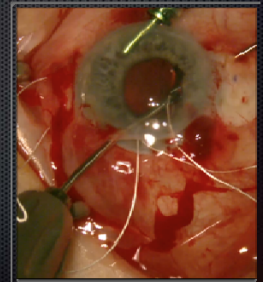
Prepare Mentally

- You will fail
- Complications will occur
- Stay calm
- One step at a time
- No shortcuts



Sutured IOL

- Perform Vitrectomy 1st
- Keep Infusion on
- Single Piece, 3 Piece, or 4 Point fixation
- Sclerotomy: 2 mm from limbus or scleral spur
- No need for air in AC, no need for scleral flaps



What suture to use?

- Gortex - CV8, 7-0
- Avoid 10-0 Prolene on haptics
- Ethicon
 - 9-0 Prolene CTC-6L (spatula, curved), 13mm
 - 9-0 Prolene CIF-4 (tapered, curved), 13mm
 - 10-0 Prolene STC-6 (spatula, straight), 16mm
- Visionary Medical
 - 9-0 Prolene 1/4 circle, straight combo
 - 16 mm



What trocar to use?

- Anterior Chamber Maintainer:
 - Lewicky Canula
 - AC Trocar Maintainer (Mastel)
 - Posterior chamber infusion line (reusable)
 - Posterior chamber infusion line (comes with your disposable vitrectomy kit)
- Posterior Chamber Maintainer:
 - 23 gauge trocar
 - 25 gauge trocar



Off-Label Thoughts

- IOLs in children
- Gortex suture
- Sutured IOLs
- Cyanoacrylate adhesives
- Intracameral antibiotics



Summary

- Sutured IOL is successful
- Avoids iris suturing (retina doctor becomes a friend)
- If IOL is not centered, re-position the sclerotomy
- Be prepared mentally...and physically
- Refer out when needed



The Glued IOL

Michael Patterson, DO

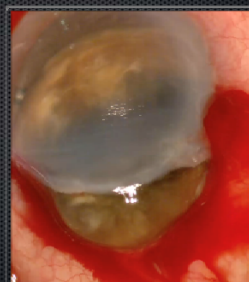


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NONE PERTAINING TO
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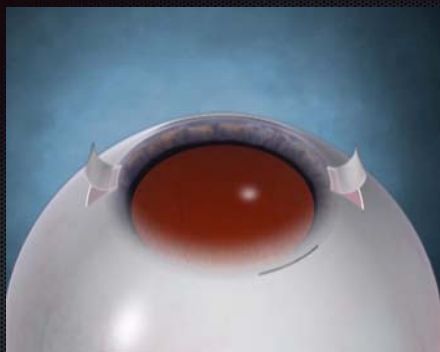
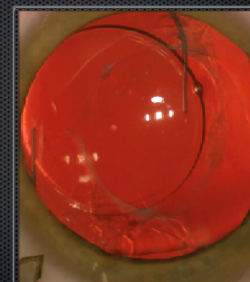
The Glued IOL- what lens?

- Any 3 piece IOL will work
- MA60AC
- Z9002
- LI61AO
- Aaren EC3-PAL
- Saran haptic



The Glued IOL

- Perform vitrectomy in closed container
- Keep infusion on
- Make scleral flaps
- Sclerotomy: 1-2 mm from limbus or scleral spur
- Place air in the AC



Dr. Amar Agarwal: The Pioneer




Summary

- Glued IOL is a great stable long-term option
- Avoids iris suturing (retina doctor becomes a friend)
- If IOL is not centered, re-position the sclerotomy
- Be prepared mentally...and physically
- Refer out when needed

The White Cataract




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 Greentree Pruett Hickman Chair in Ophthalmology
 Associate Medical Director Bascom Palmer Eye Institute
 University of Miami Miller School of Medicine








Financial Disclosures

- I have the following financial interests or relationships to disclose:
 - Oyster Point Pharma
 - Carl Zeiss Meditec
 - Dermavant
- No relevant financial disclosures to this talk





Pre-Op Evaluation

- History
 - Trauma
 - Previous vitreoretinal surgery or injections
 - Be prepared for a “bouncy” capsule
- Examination
 - Presence of guttata
 - Pupil dilation
 - Need for iris hooks
 - Presence of phacodonesis
 - Need for capsular tension rings





Considerations

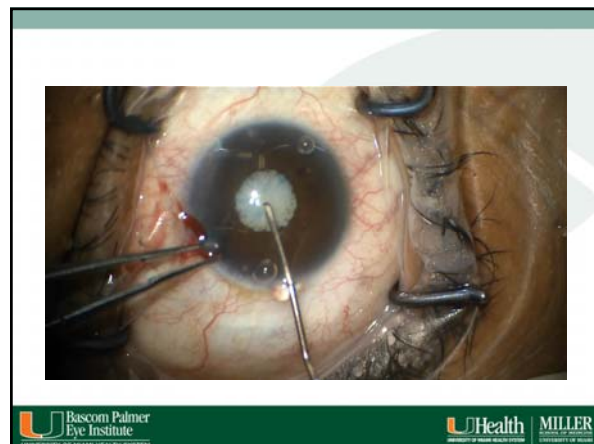
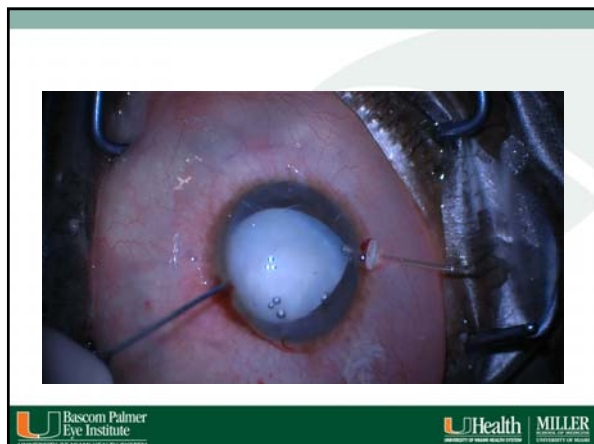
- Intra-Operative Considerations
 - Poor red reflex
 - Increased intralenticular pressure
 - Increase phaco requirements

Improvement of Red Reflex

- Trypan blue
 - If zonular loss, posterior capsule/vit may also be stained
 - Can consider applying trypan blue under viscoelastic for more controlled staining




Considerations

- Intra-Operative Considerations
 - Poor red reflex
 - Increased intralenticular pressure
 - Increase phaco requirements


Reducing Intralenticular Pressure

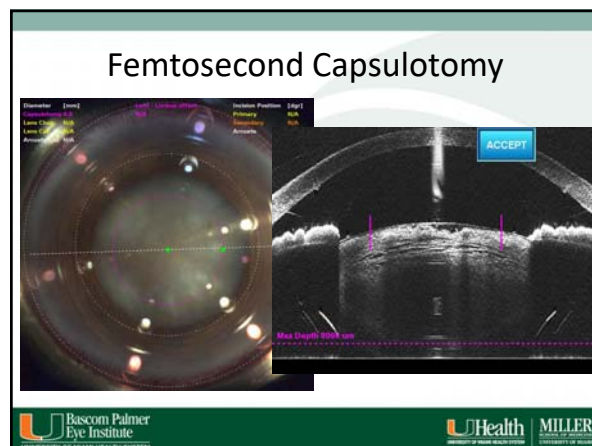
- If retrobulbar/peribulbar anesthesia, use Honan balloon to diffuse anesthetic
- Loosen lid speculum
- 250cc of 20% mannitol IV right before surgery



Reducing Intralenticular Pressure

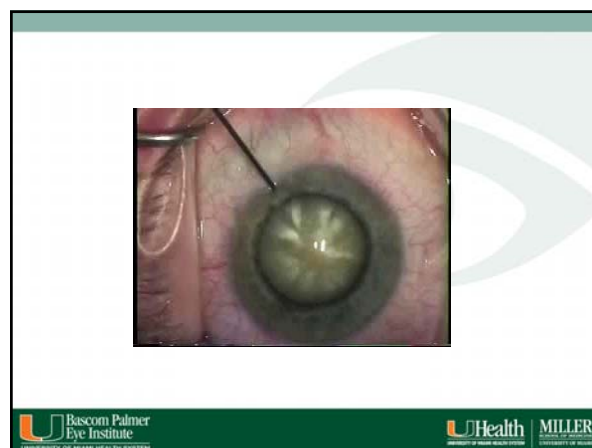
- Maintain control during capsulorrhexis by keeping the pressure in the AC higher than the pressure in the capsular bag. This keeps the anterior capsule flat (use dispersive viscoelastic)
- Puncture anterior capsule with needle, quickly aspirate liquid cortex
- Consider femtosecond capsulotomy



Considerations

- Intra-Operative Considerations
 - Poor red reflex
 - Increased intralenticular pressure
 - Increase phaco requirements



Summary

- Identify **preoperatively** small pupils, fibrosed capsules, loose zonules, open PC, etc...
- Stain capsule with **trypan blue**
- **Overpressurize the chamber** when performing rhexis and **maintain stability of the chamber** as much as possible with a OVD, aspirate liquid cortex
- Be aware of the “**type**” of **white cataract** you are dealing with



Thank you

