Use of the Femtosecond Laser in Complex Cataracts

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Financial Disclosure

- Bausch & Lomb/Valeant: Consultant
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- Omeros: Consultant

Femtosecond Laser Cataract Surgery

- Goals are to improve accuracy and decrease the possibility of complications for our patients.
- Femtosecond laser technology in cataract surgery makes cataract removal a more predictable and potentially safer procedure.
Eyesight Associates Experience in Hypermature Cataracts

- **Catalys**: Harder to dock especially in small eyes (will be improved with smaller interface).
- Patients never go NLP indicating less rise in IOP.
- The anterior and posterior gates for laser fragmentation are automatically set for enhanced safety.
- Centration of the capsulotomy is automatically set and can be automatically maximized for small pupils.
- Very strong consistent capsular opening (we have had one anterior tear).
- Nuclear laser fragmentation is safe, consistent, and amazing. It reduces ultrasonic energy in brown, red, and black cataracts. If Catalys can image it, Catalys can treat it.
- From the first day I changed what I told patients:
  - Safety
  - Light vs. Sound

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First Black Cataract in North America
CDE 56.04

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Red Cataract-CDE 27.33
Narrow Angles

- Decreased working space in the eye
- Cataract Femtosecond Lasers incorporate an OCT which images the angle
- Fragmentation of the lens by femtosecond laser makes it easier for the doctor to remove the lens

Cirrus HD-OCT Narrow Angle Images
Pre-Operative PI Treatment

Cirrus HD-OCT Narrow Angle Images
Post-Operative PI Treatment
Femtosecond laser technology in cataract surgery makes cataract removal a more predictable procedure, the Catalys makes it safer:

- Arcuate incisions are beautiful and more accurate
- Capsulotomies - more perfectly sized, shaped, and centered (Stronger and more accurate with Catalys)
- Lens fragmentation can result in safer, easier lens removal, especially in hypermature cataracts.
- Improved safety in Fuch’s dystrophy due to less ultrasound energy.
- Facilitates removal of cataract in patients with narrow angles and decreased working space
- I am convinced that the combination of hypermature cataracts & floppy iris, hypermature cataracts & NAG, hypermature cataracts & Fuchs’, and especially all four is significantly safer with Catalys.
- The EA team rapidly became convinced of Catalys benefits.

Conclusions