Minimally Invasive ExPRESS Shunt Implantation Without Conjunctival Dissection

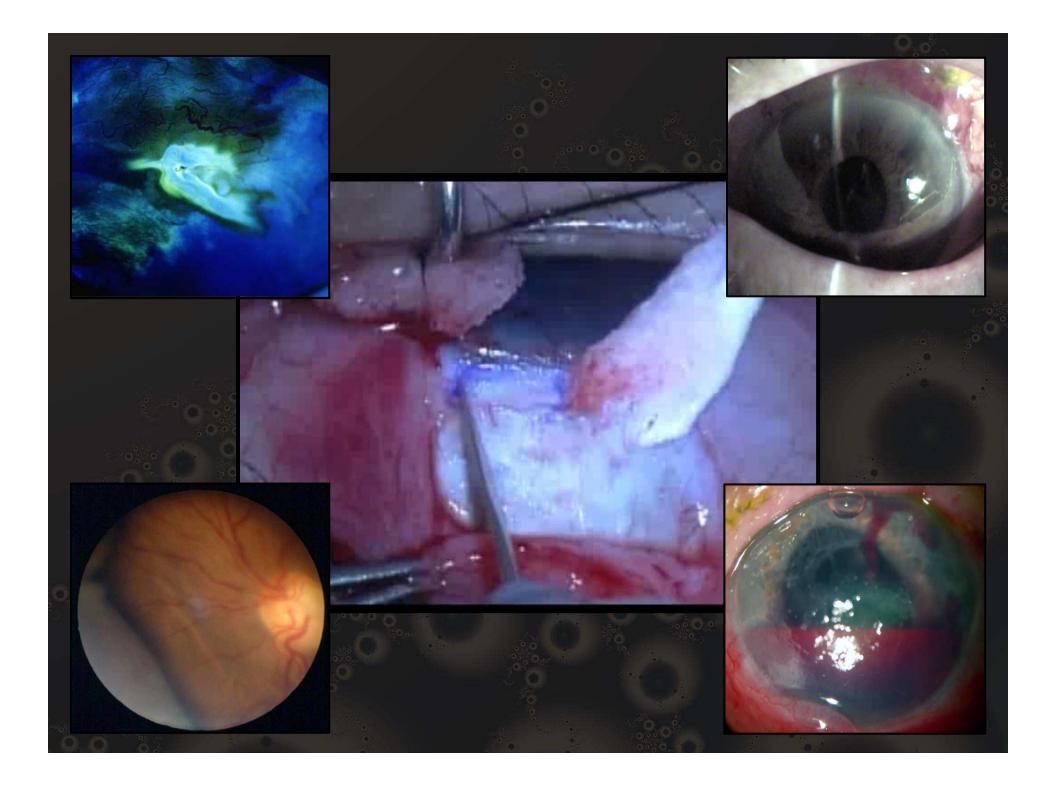
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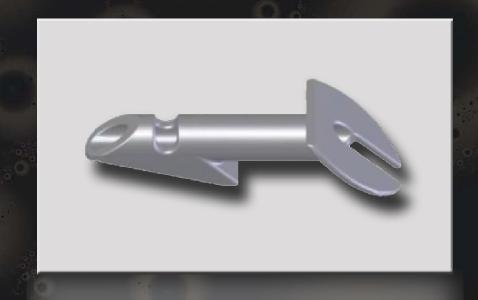
Oregon Health and Science University





ExPRESS Mini Glaucoma Shunt

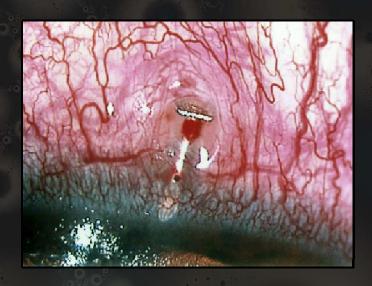
- 3 mm long
- Non-valved stainless steel stent
- Central lumen 50 or 200 microns
- Beveled tip
- External faceplate
- Inner spur

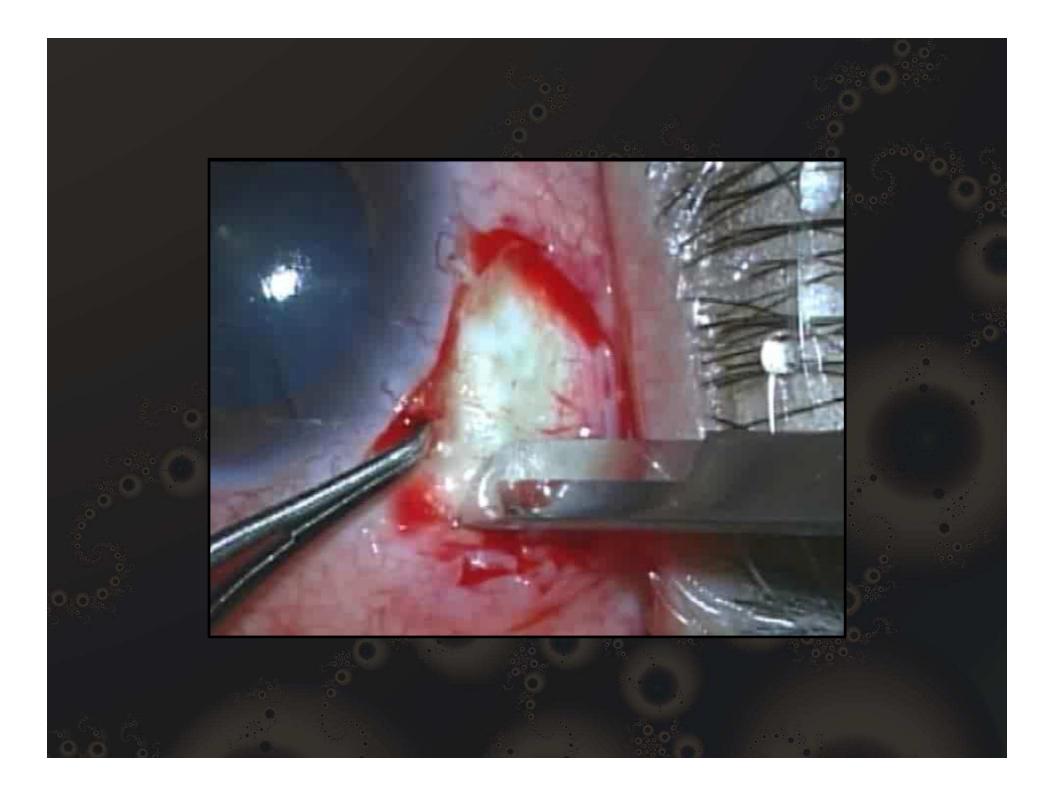


Original ExPRESS Implantation

Unguarded Subconjunctival Technique

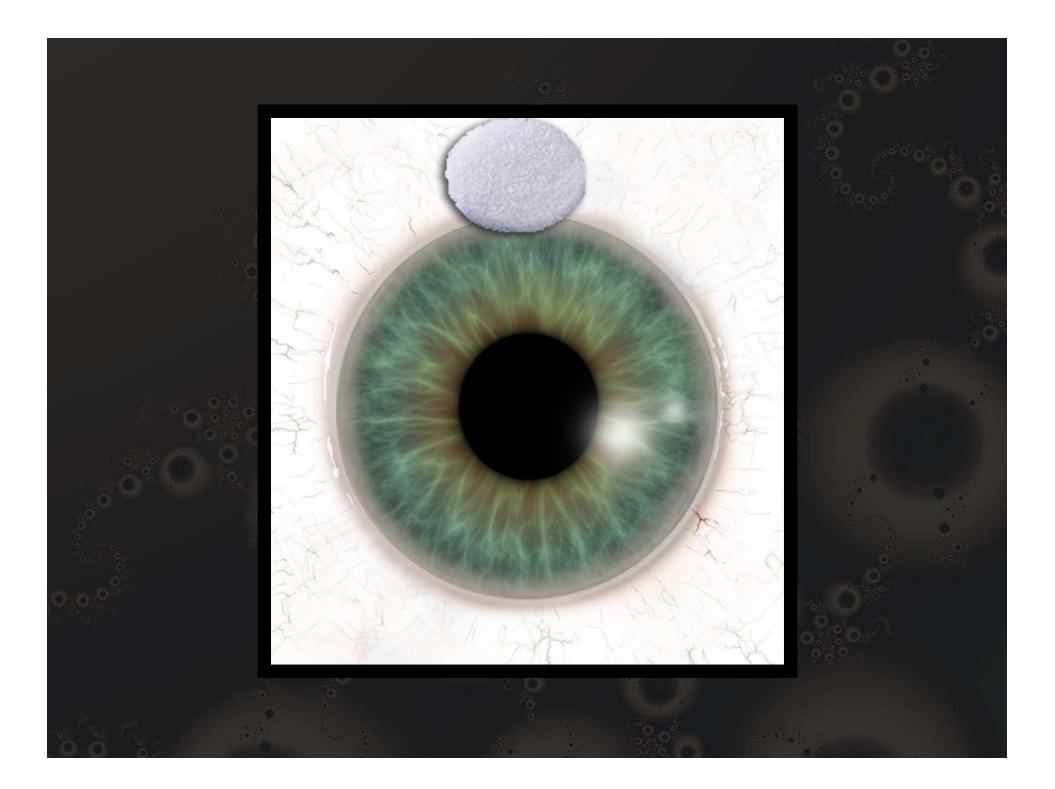
- Hypotony
- Conjunctival erosion
- Suprachoroidal hemorrhage
- Endophthalmitis

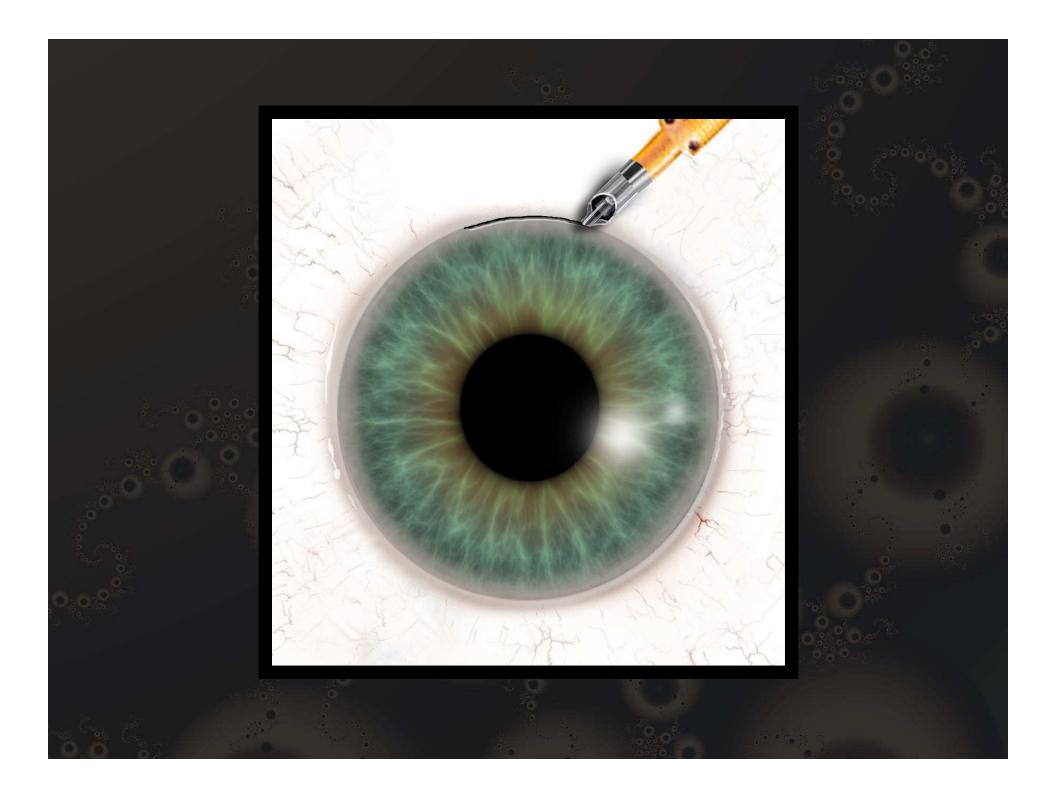


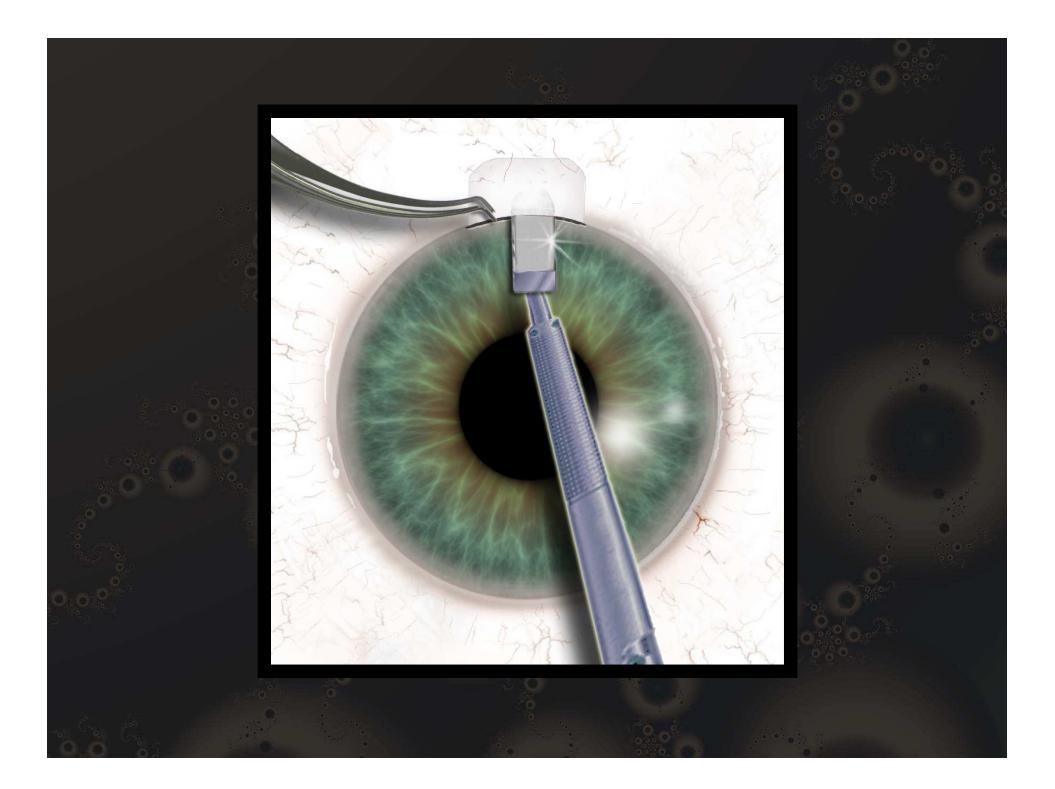


A new minimally invasive technique for ExPRESS mini shunt implantation that eliminates the need for conjunctival dissection and conjunctival wound closure



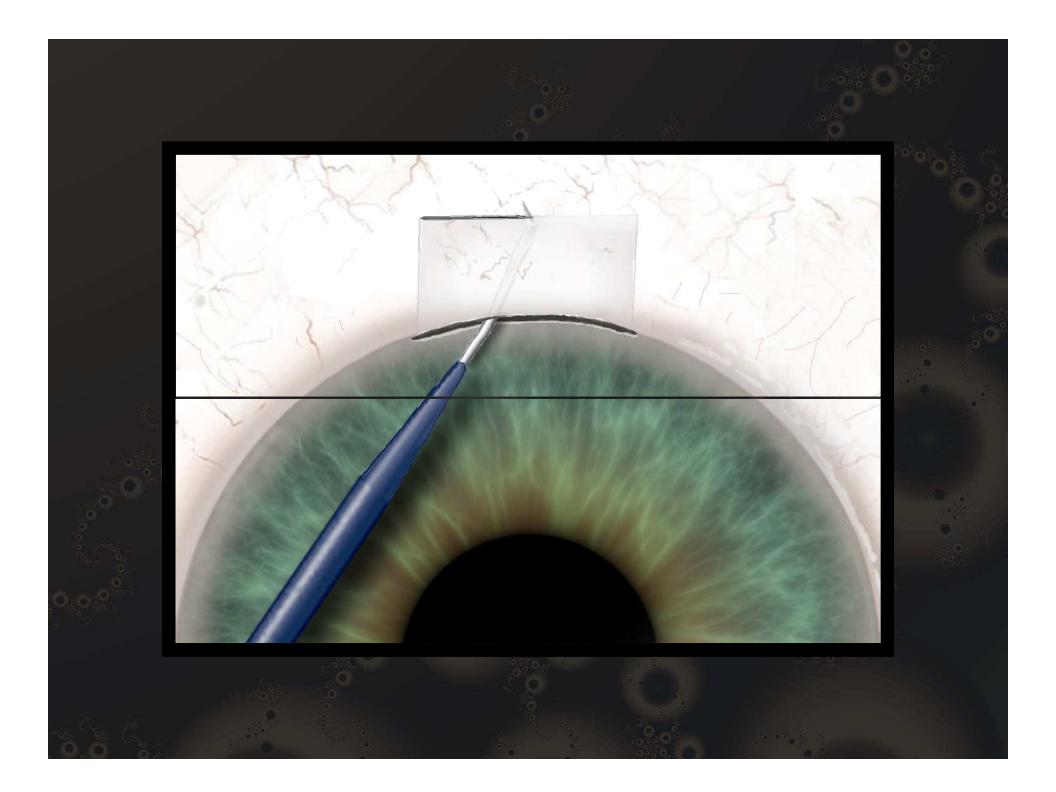


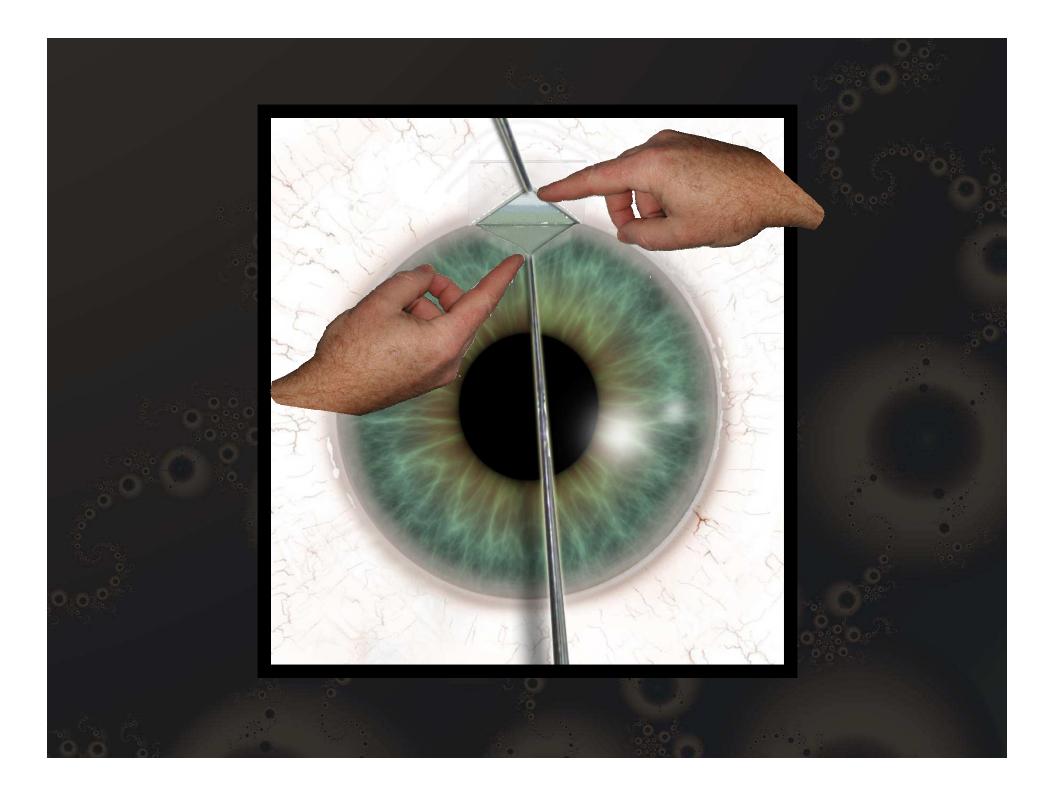


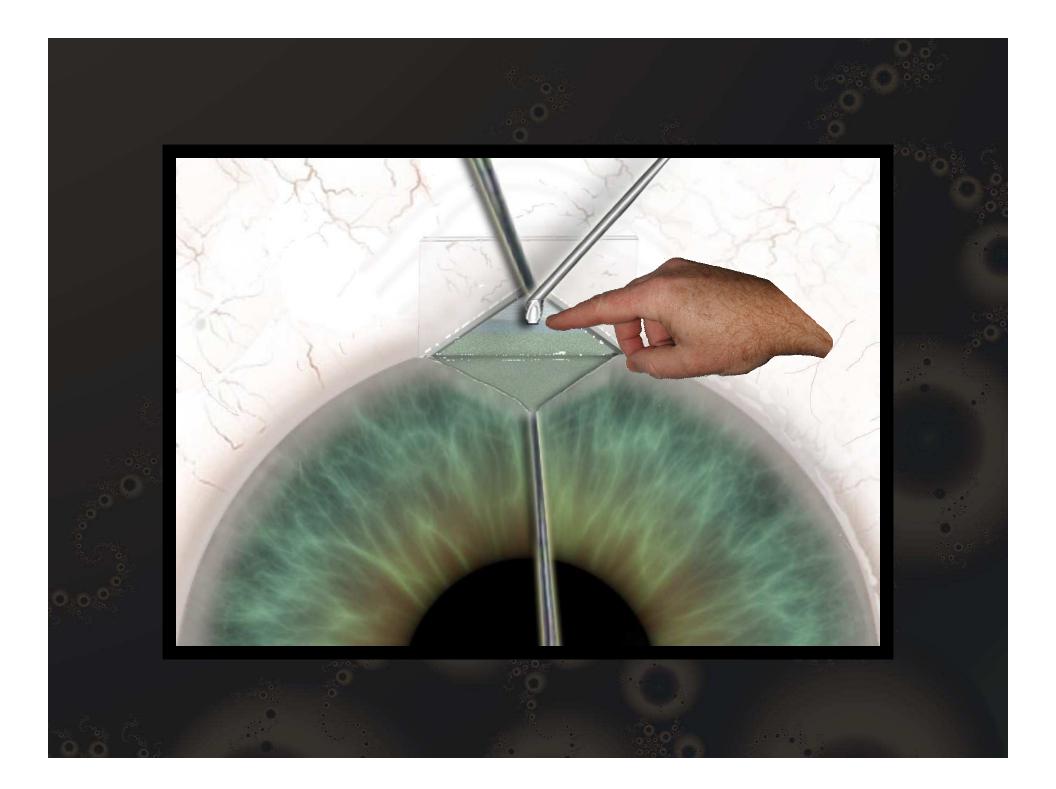


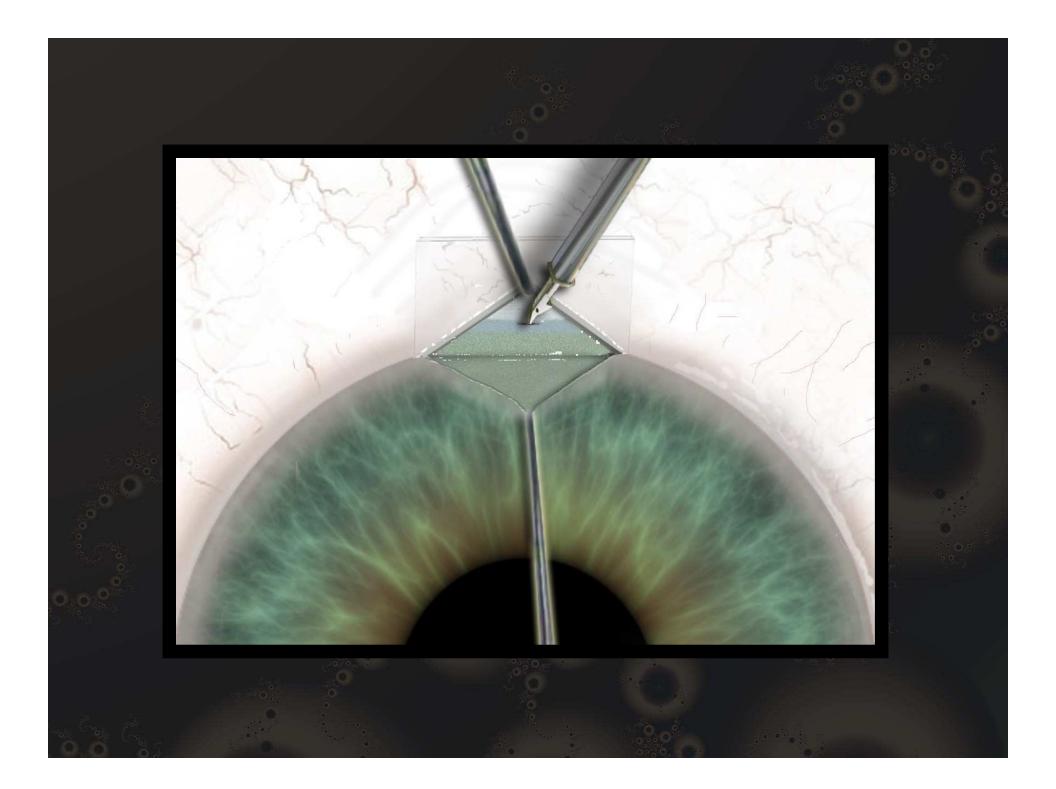


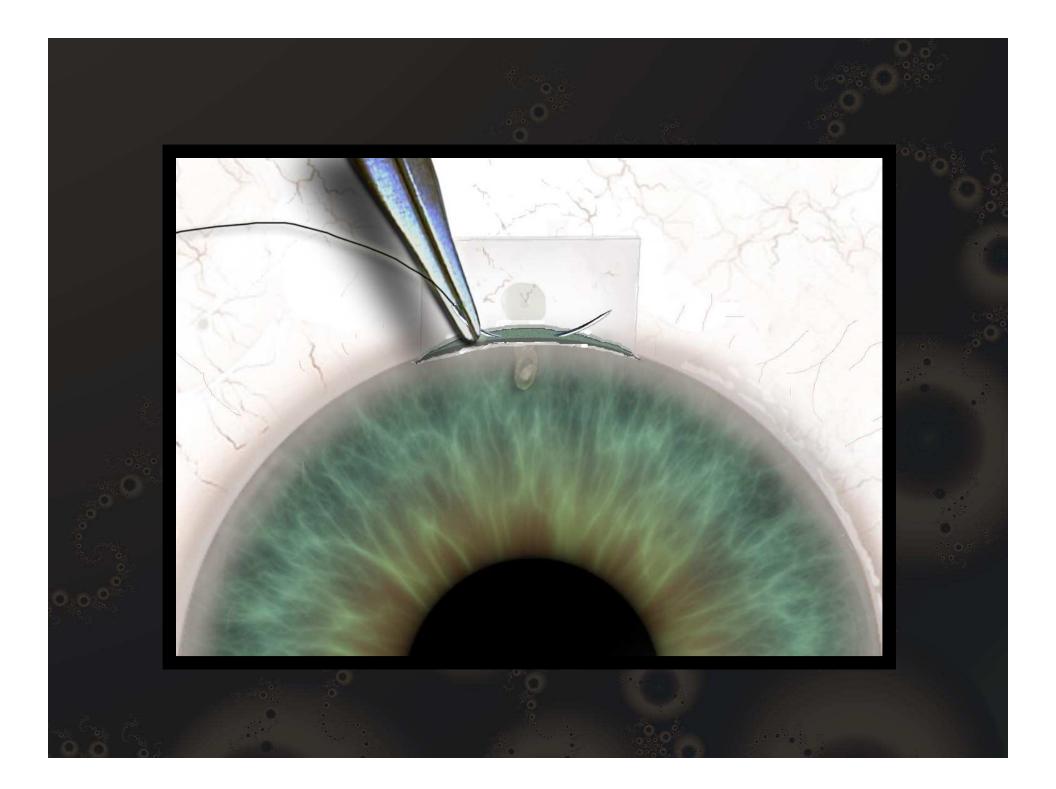




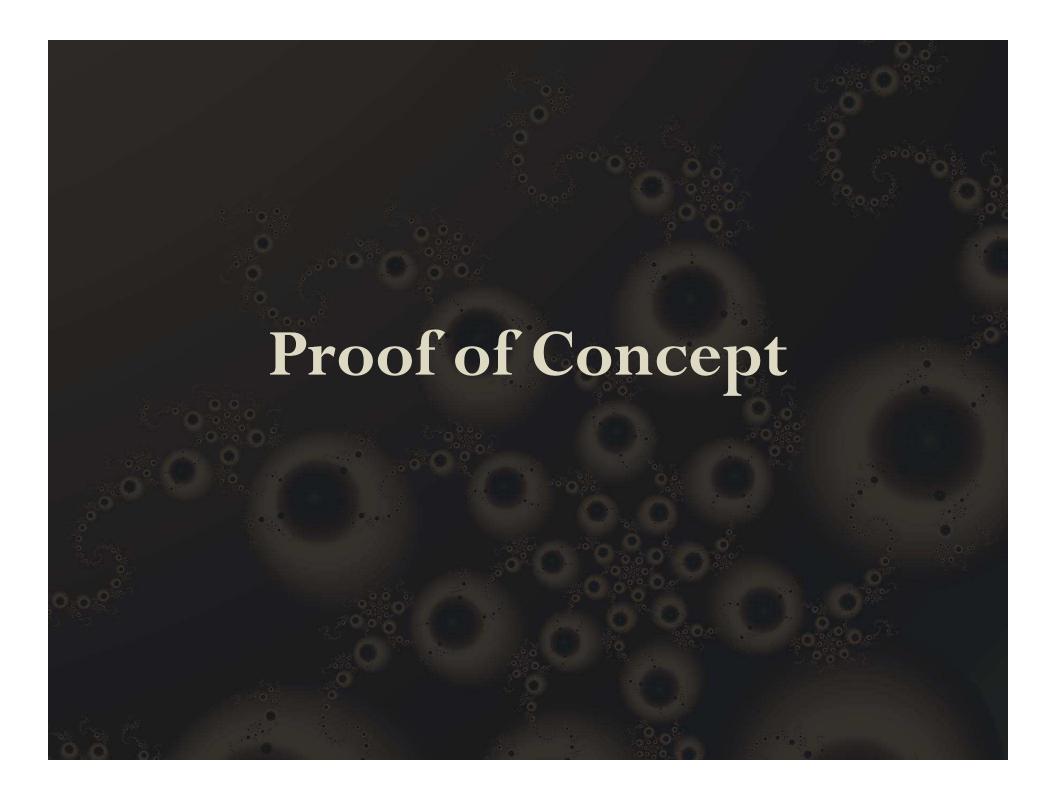


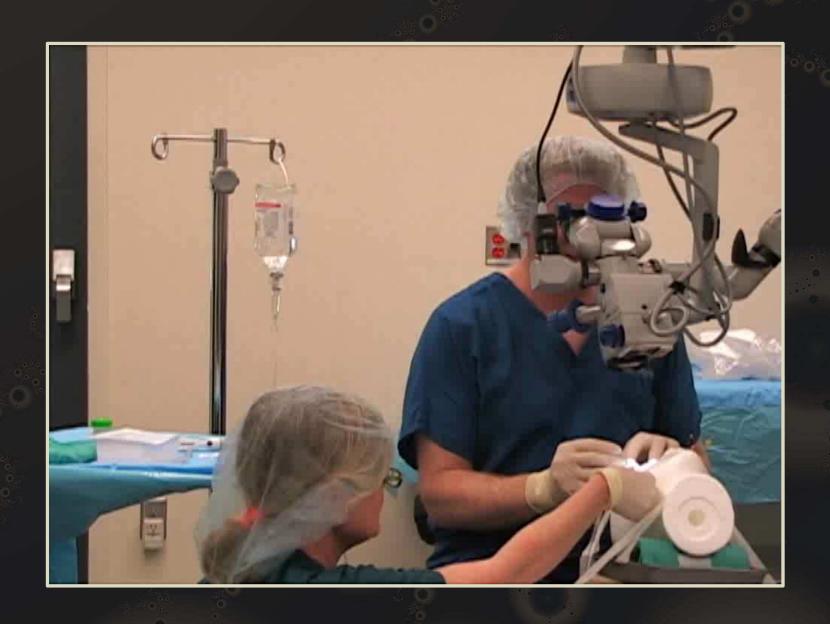


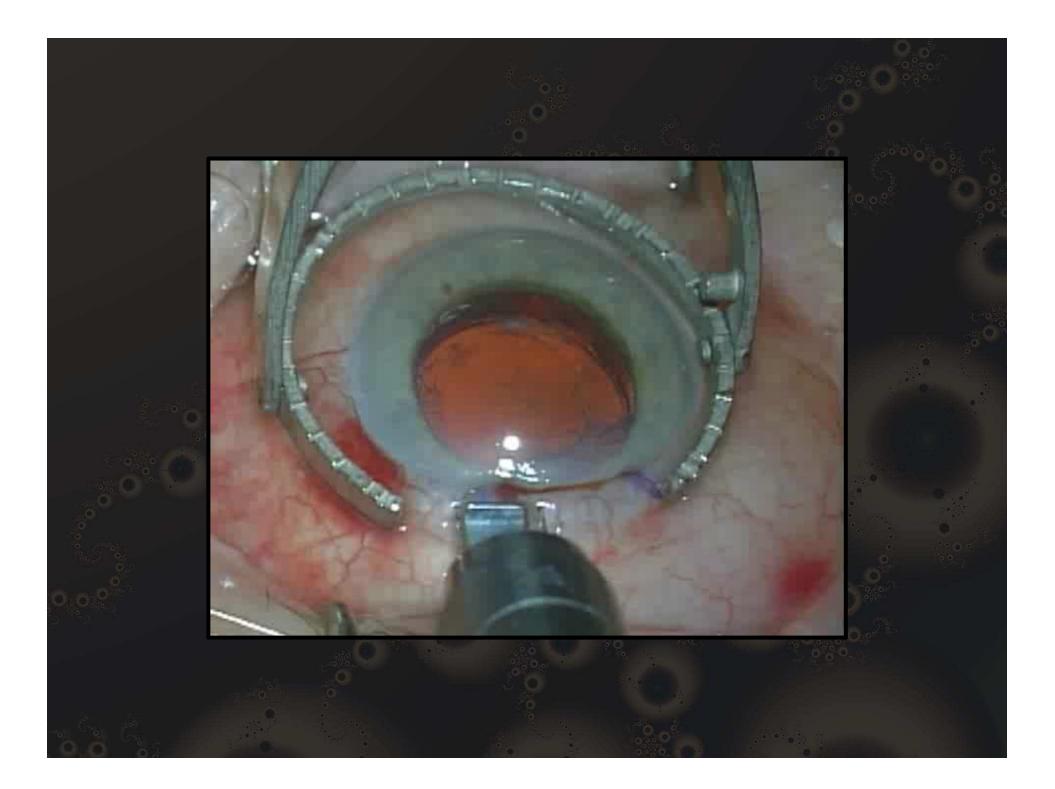








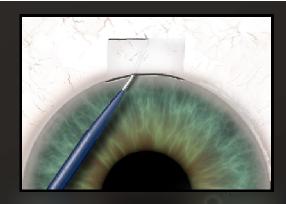




Advantages

Over Traditional ExPRESS Shunt Method

- No conjunctival dissection
 No scleral cauterization
 - Less fibrotic scarring
 - Possible fewer procedure failures
- No conjunctival wound leaks
- No need to create scleral flap/radial incisions
 - No posterior flap sutures
- Faster



Preliminary Data

- 3 month follow-up
- 6 cases (Combined Phaco / ExPRESS Shunt)
- 0.1ml of 0.2 mg/ml of Mitomycin C (20 μg)
 - Injected through the scleral tunnel
- Average reduction in drops = 2.8
- All IOPs $\leq 16 \text{ mmHg}$
- One case of a wound leak from a broken 10-0
 - Resolved with BCL

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Long-term studies will be needed to demonstrate safety and efficacy

