

Mixing MIGS to Save the Day



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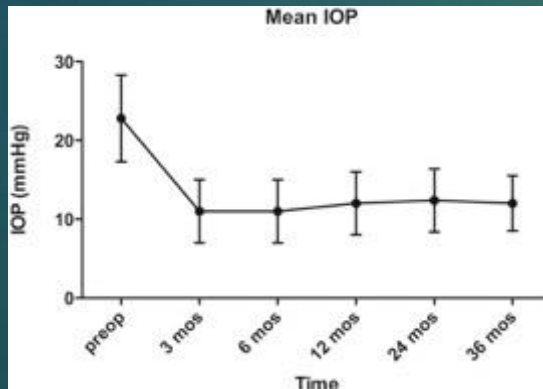
James & Heather Gills Chair

USF Eye Institute, Tampa, FL USA

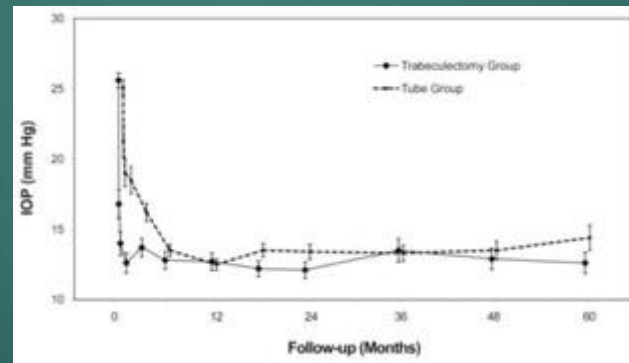


What to expect with various Glaucoma surgery

- ▶ MIGS alone: 16-18 \pm drops
- ▶ Combination MIGS: 14-18. \pm drops
- ▶ Tubes: 12-16 \pm drops
- ▶ Trab with MMC 8-14 \pm drops



Trabeculectomy in the 21st Century: A Multicenter Analysis
Kirwan et al, ophthalmology, 2013



Treatment outcomes in the Tube Versus Trabeculectomy (TVT) study after five years of follow-up
Gedde et al, 2012 AJO



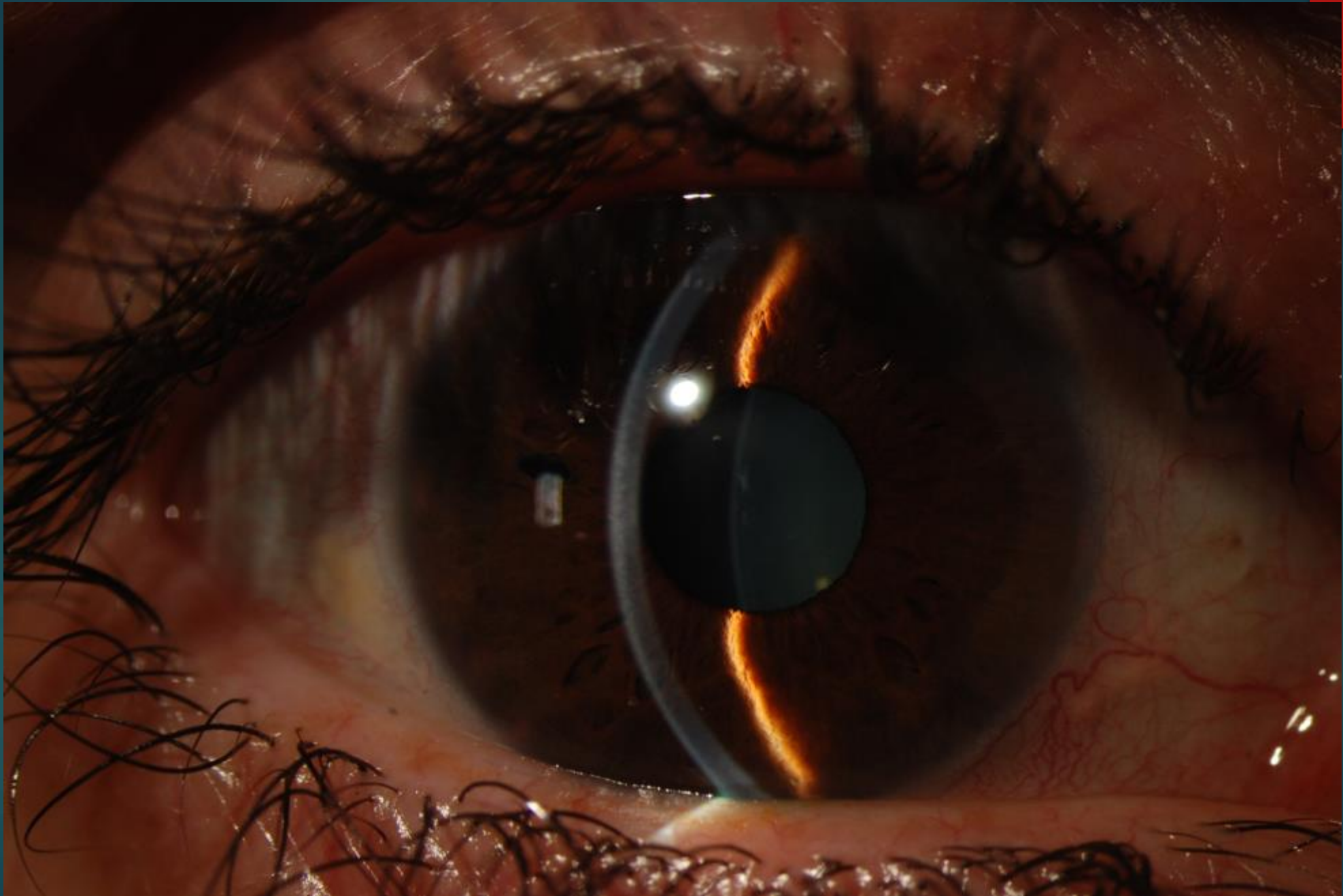
MIGS: iStent vs KDB



Patient presentation

- ▶ 47 year old female
- ▶ Presented to ER with IOP 50s
- ▶ Hyperopic (axial length 22 MM)
- ▶ Shallow Anterior Chamber (2mm)
- ▶ Bilateral YAG laser peripheral iridotomy
- ▶ Started on Latanaprost, dorzolamide/timolol, brimonidine acetazolamide
- ▶ Unable to tolerate **Clinic follow up IOP 20, Gonio-diffuse PAS, Cupped optic nerves (RNFL 30s)**





What is the most likely diagnosis?

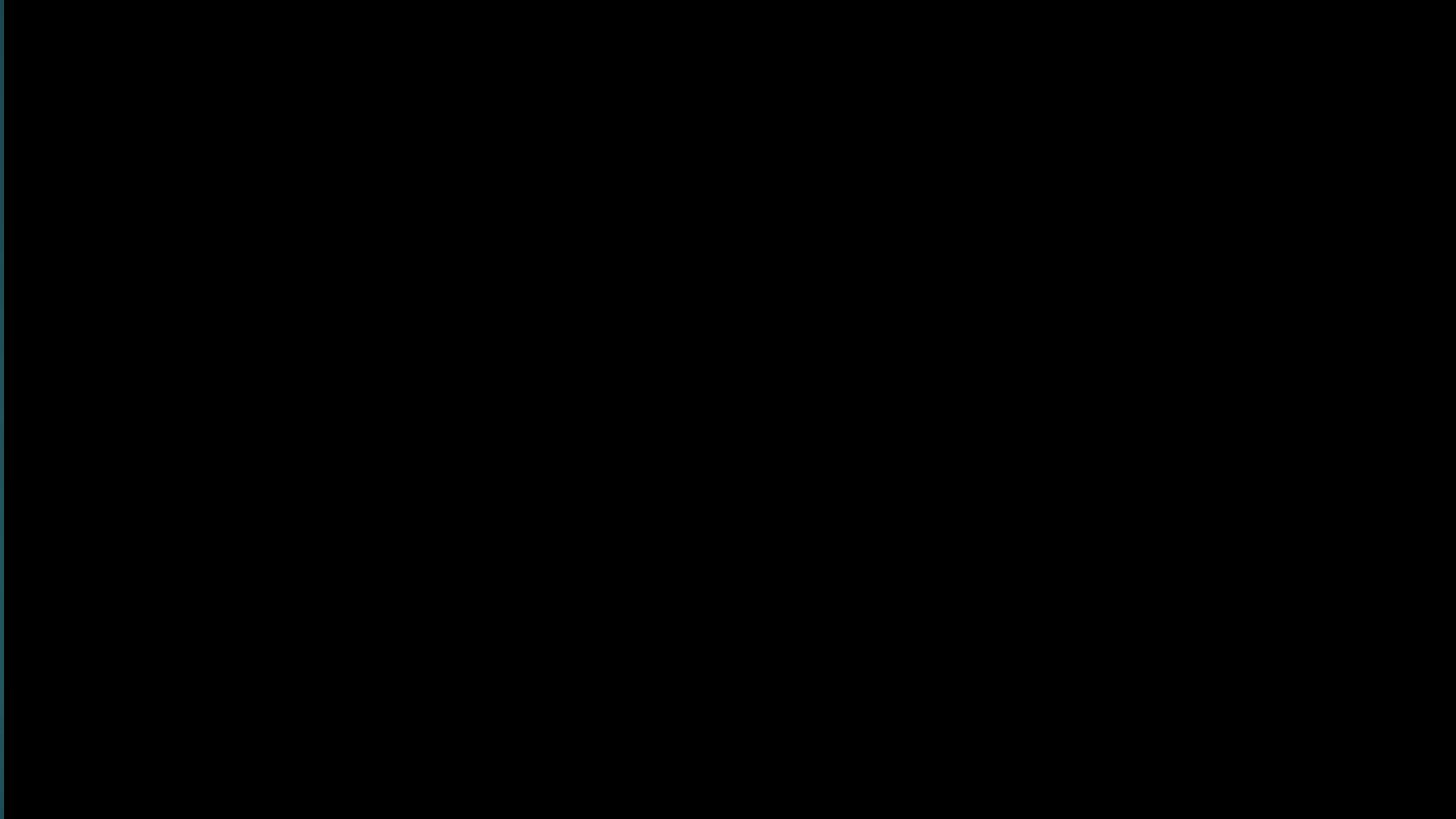
Acute on Chronic Angle Closure Glaucoma

**WHAT IS THE BEST SURGICAL
MANAGEMENT?**

Acute on Chronic Angle Closure Glaucoma

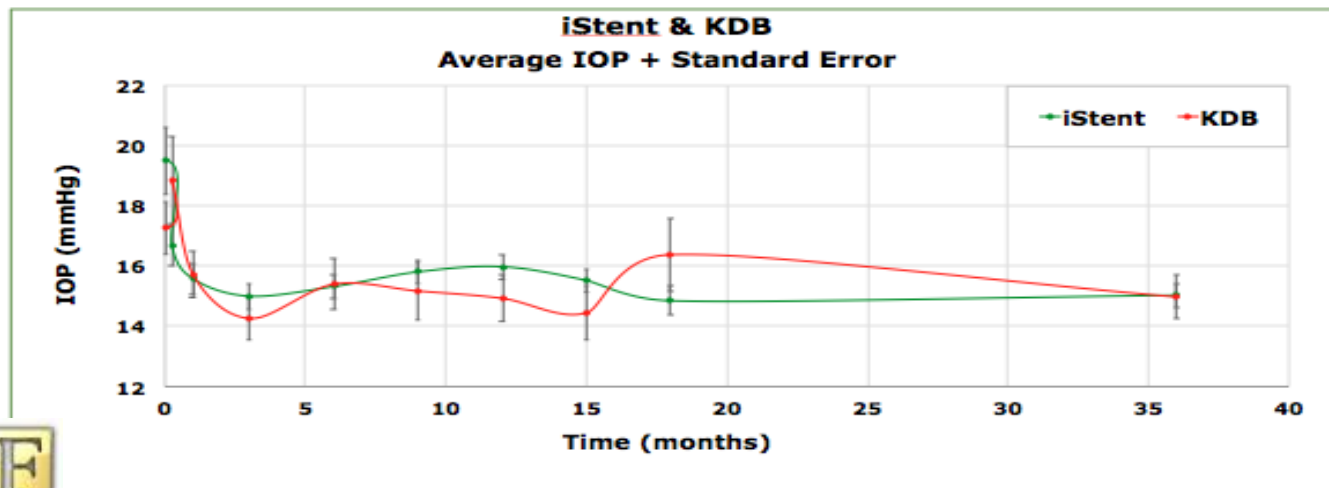
- ▶ Narrow angle and Phakic lens too large relative to the EYE
- ▶ Iris-lens complex chronically engaged
- ▶ Formation of synechia and closure of angle
- ▶ Treatment includes removal of lens and modification of angle structure/function
- ▶ Minimally invasive Treatments include: stents, shunts, viscodilation/goniotomy, canaloplasty, and destruction of ciliary body
- ▶ Complications of invasive treatments: suprachoroidal hemorrhage, over filtration/hypotony, and malignant glaucoma

MIXING MIGS & LENS EXTRACTION –Restores Anatomy and Controls IOP



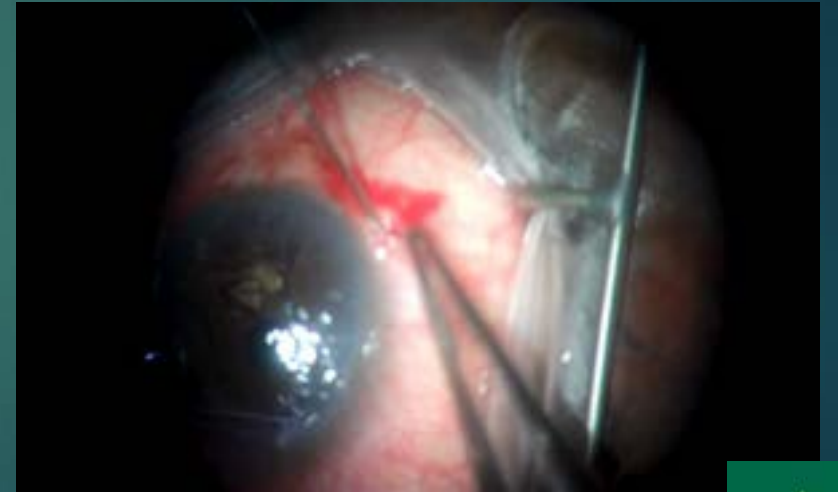


MIGS

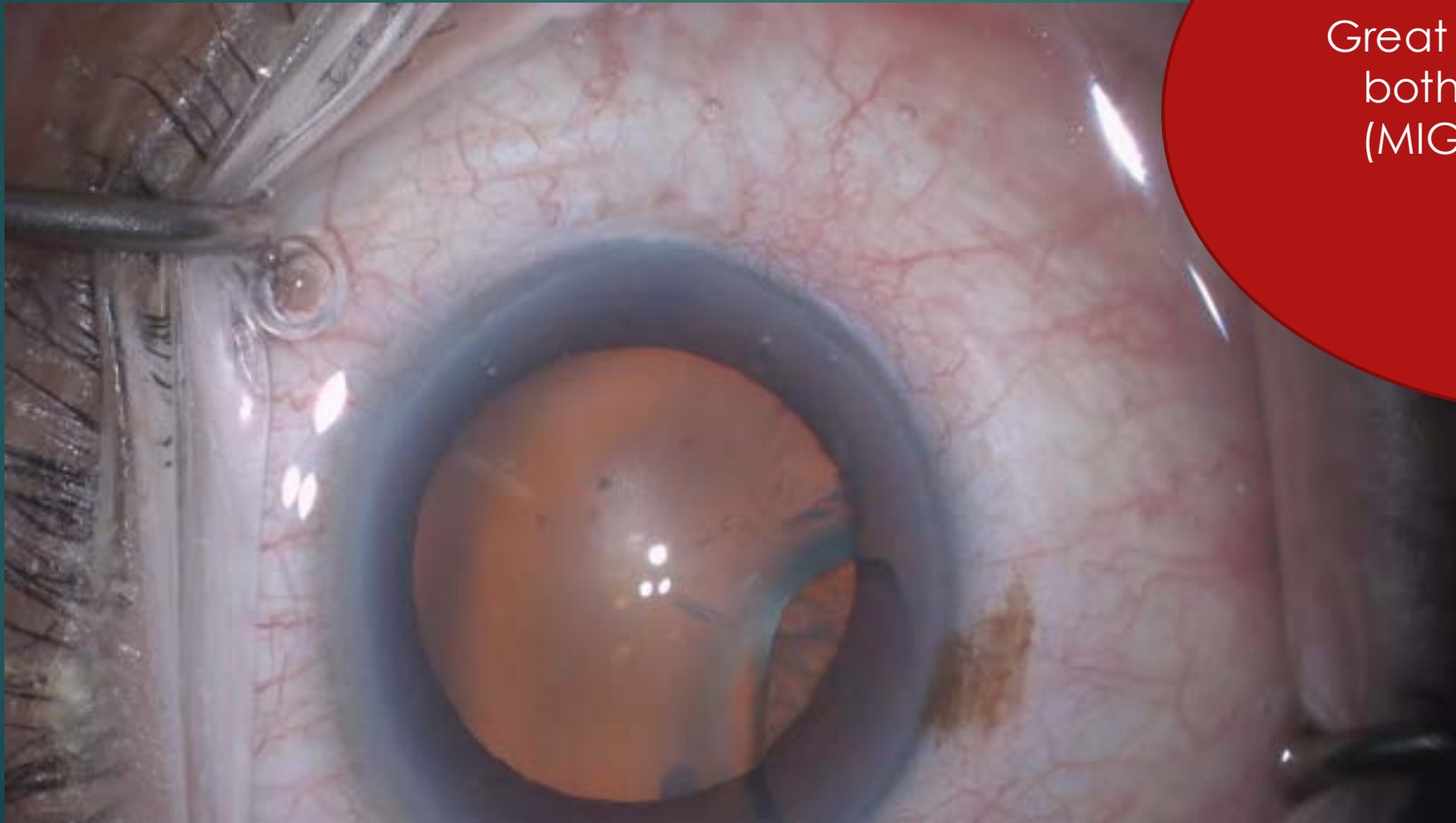


Target pressure DICTATES type of glaucoma surgery

- ▶ Mild cases : MIGS alone
- ▶ Moderate cases: Combination MIGS (OMNI or KDB + ECP or Micropulse)
- ▶ Severe cases : Trabs or Tubes



Mixing old with the new for optimal results !



Great way to control IOP
both in the short term
(MIGS) and long term
(open trab)

CAGC

Trab

VS

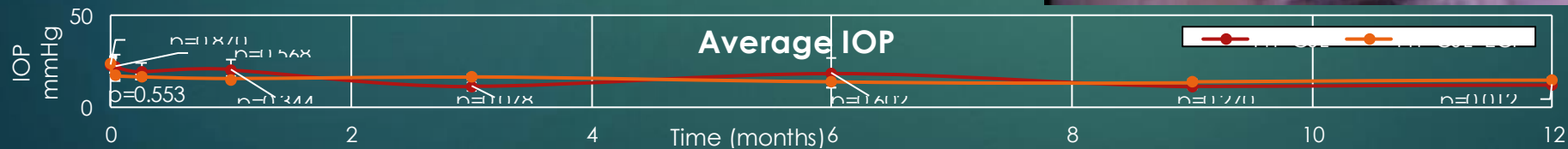
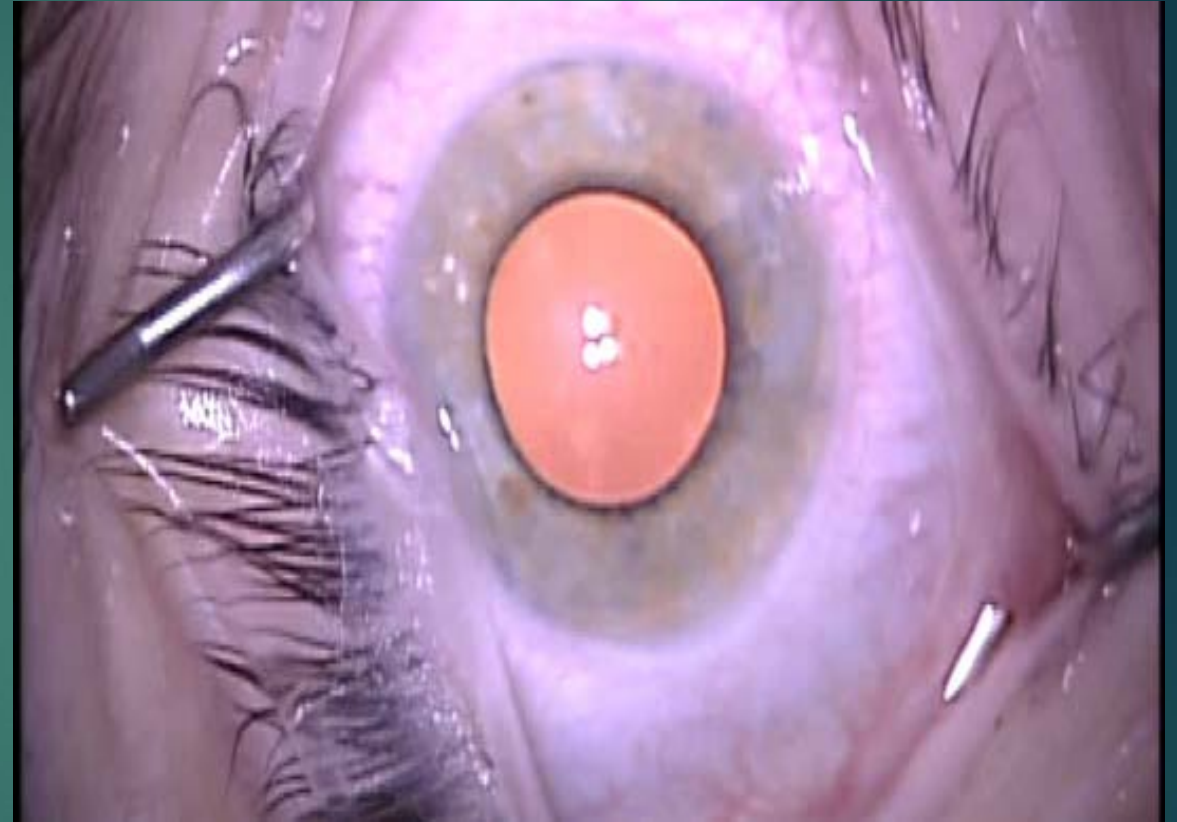
Phaco
PCIOL +
GSL +
KDB +
ECP ±

Trab with
tight
sutures



Plateau Iris Syndrome – Mixing MIGS

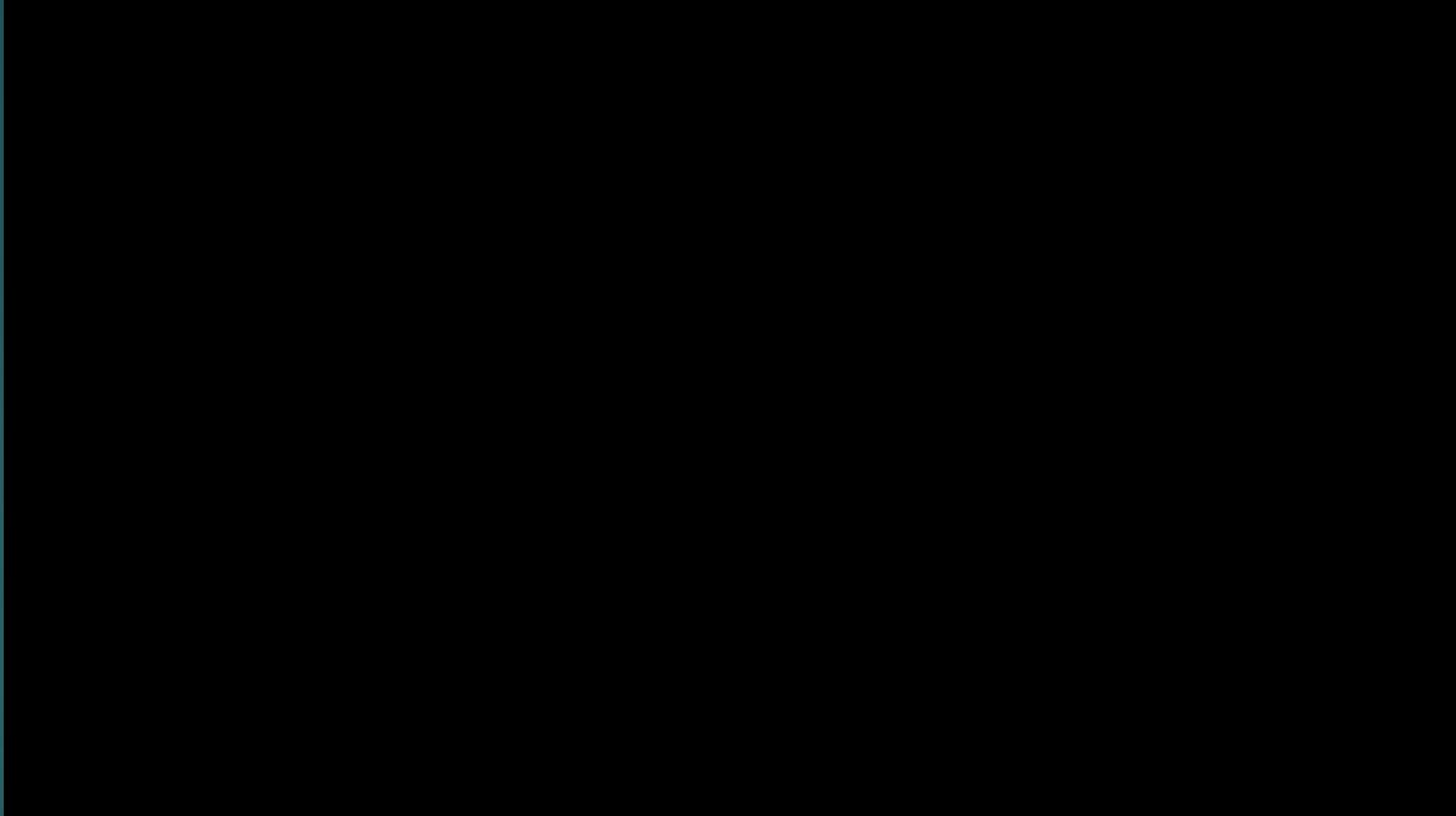
- ▶ PI
- ▶ Miotics
- ▶ Peripheral argon laser iridoplasty
- ▶ Removal of the lens
- ▶ ECP to shrink the Ciliary Processes.



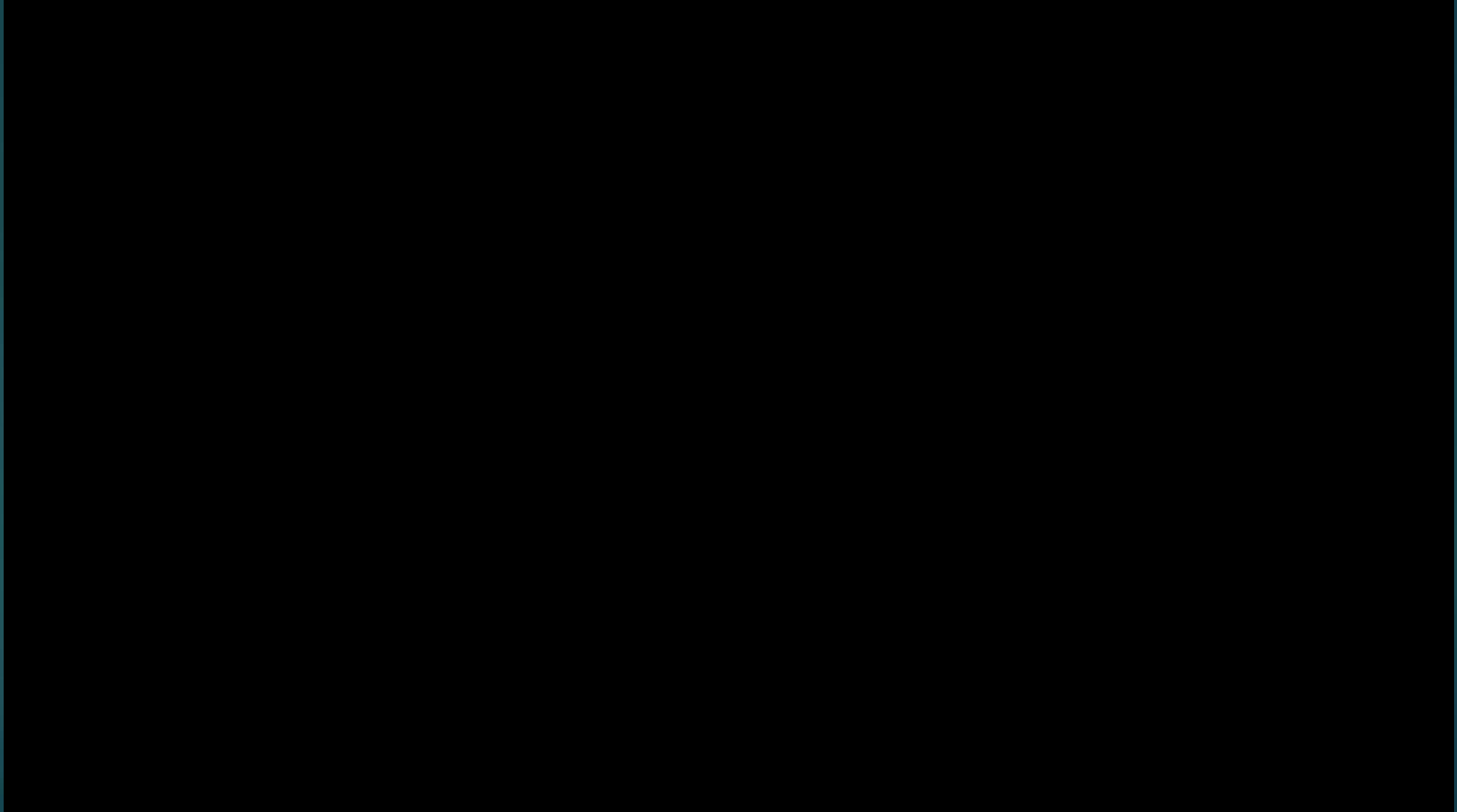
Surgical outcomes of phacoemulsification/goniosynechialysis with and without endocyclophotocoagulation in patients with chronic angle closure glaucoma - IJO



GSL



iDOSE & iStent



Every case is different !

Glaucoma is a surgical disease after a certain point

- ▶ **Mix and Match the technology and techniques to achieve the target IOP**
- ▶ **Slit lamp procedures are the wave of the future.**
- ▶ **Expect new Technology to perform MIGS and Tubes @ slit lamp**
- ▶ **So, get ready!**