Decision Making in Glaucoma Surgery Today: My Learning Over the Last Decade

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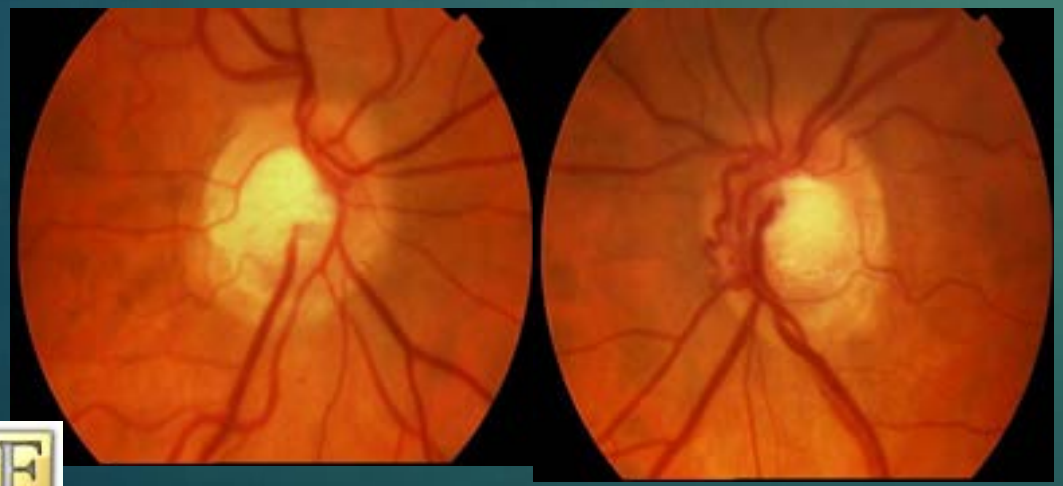
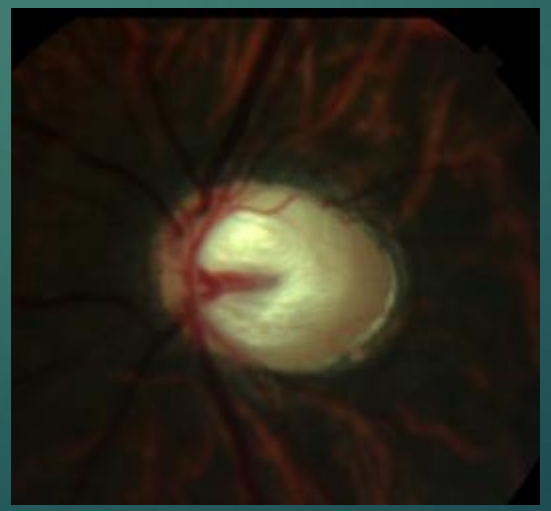
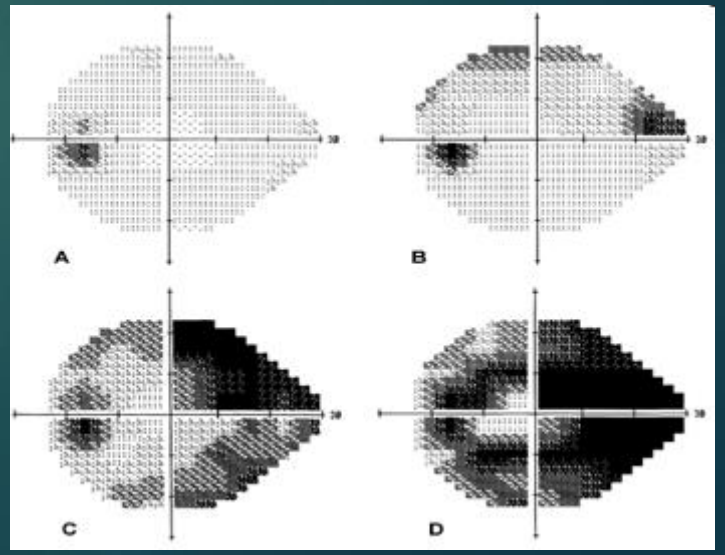
Glaucoma staging & Target Pressure

- Mild Glaucoma with Paracentral scotoma : 18 or less
- Moderate Glaucoma with SAS or IAS : < 18 closer towards 15
- Double arcuate scotoma/ Fixation threatened VF/ : 10-15







Target pressure DICTATES type of glaucoma Management

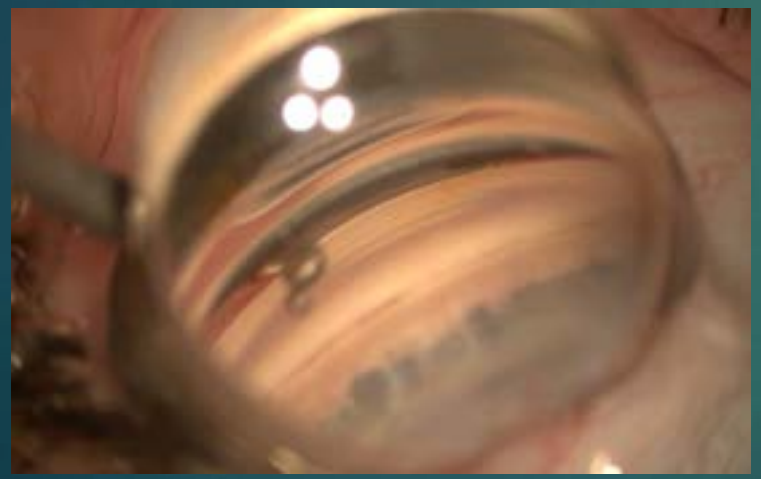
- First line of treatment for Mild Glaucoma/Ocular Hypertension: **SLT Vs Meds**
- Moderate to Advanced Glaucoma : Surgery First vs Meds + SLT followed later by surgery (if necessary)
- Everyone should read the classic paper written by Dr Grant 1982

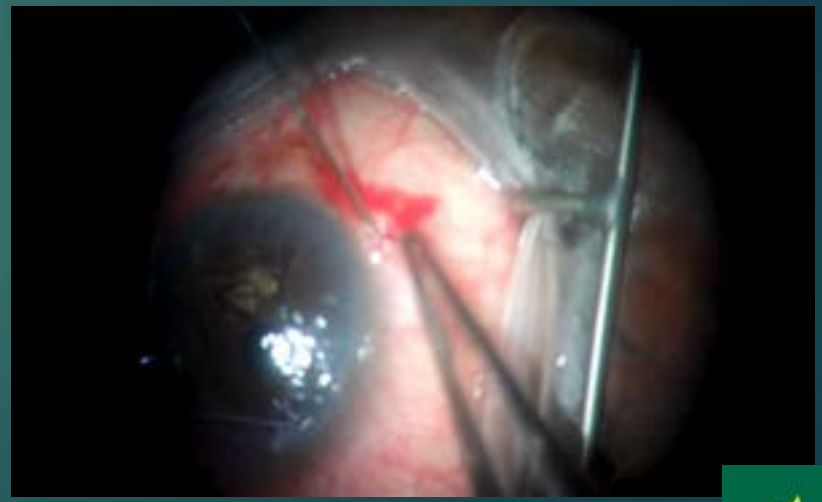
Why do some patients still go blind from glaucoma ?

"worse the initial condition of the eye, the lower the tension needs to be to prevent further loss or blindness".

Target pressure DICTATES type of glaucoma surgery

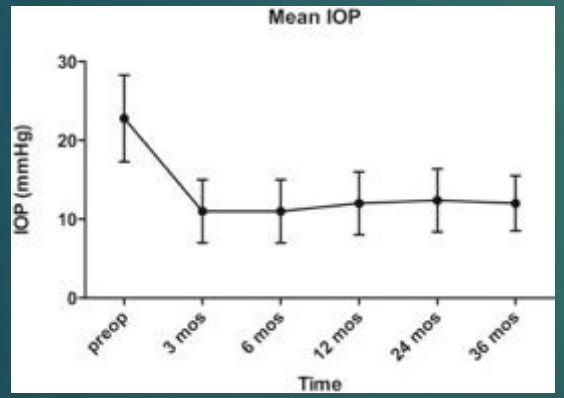
- Mild cases : MIGS alone
- Moderate cases: Combination MIGS (OMNI or KDB + ECP or Micropulse)
- Severe cases : Trabs or Tubes



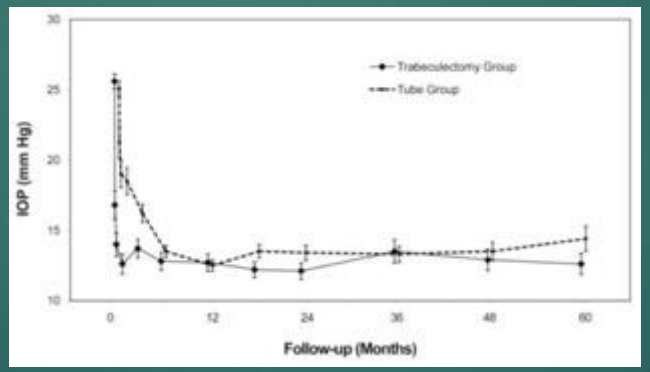


What to expect with various Glaucoma surgery

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



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



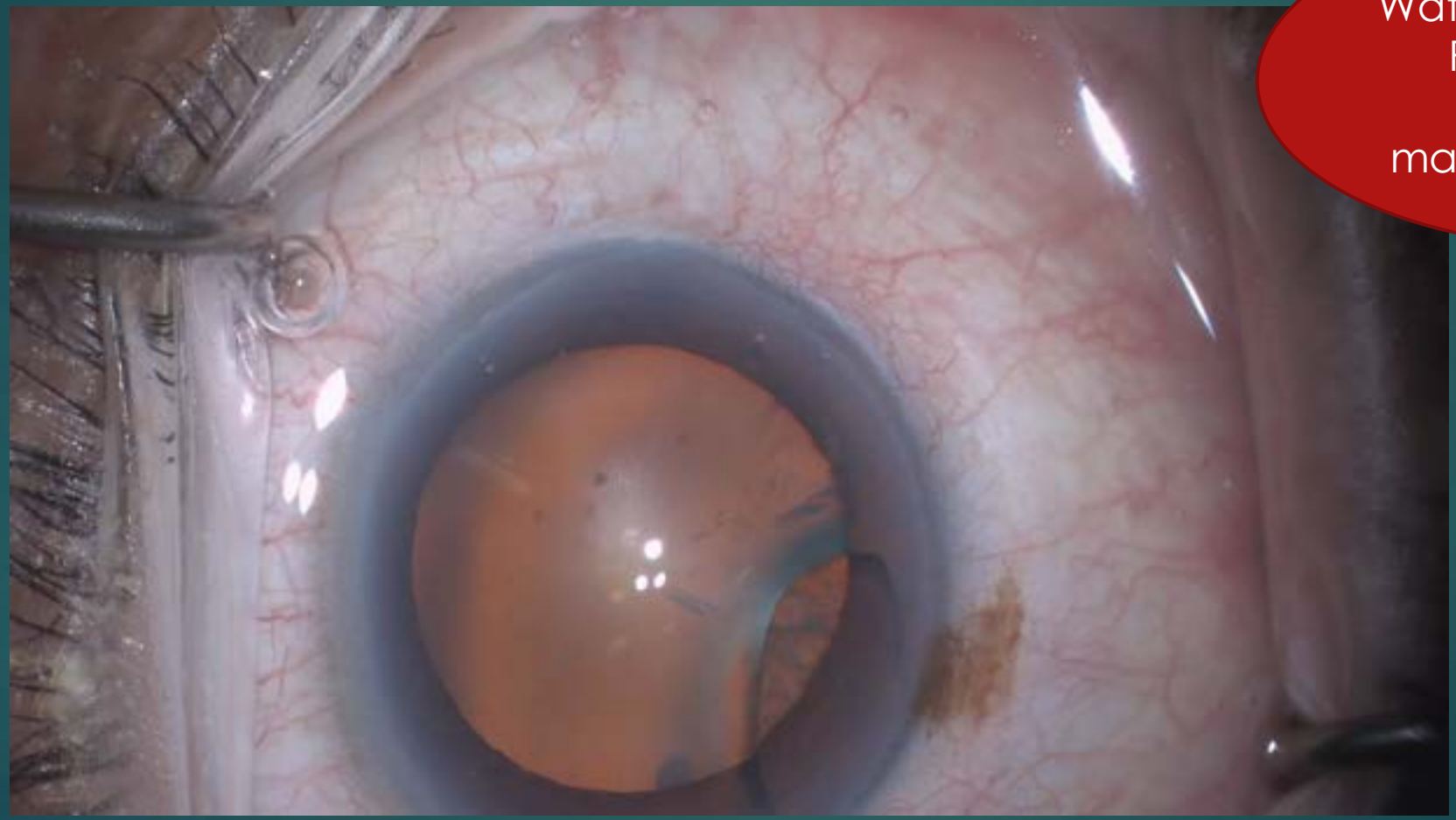
Treatment outcomes in the Tube Versus Trabeculectomy (TVT) study after five years of follow-up
Gedde et al, 2012 AJO

MIGS: iStent vs KDB

Every Case is Unique

- Routine cases – Prior statements are probably true
- Mixed Mechanism Cases – Combination surgeries

Mixing old with the new for optimal results !

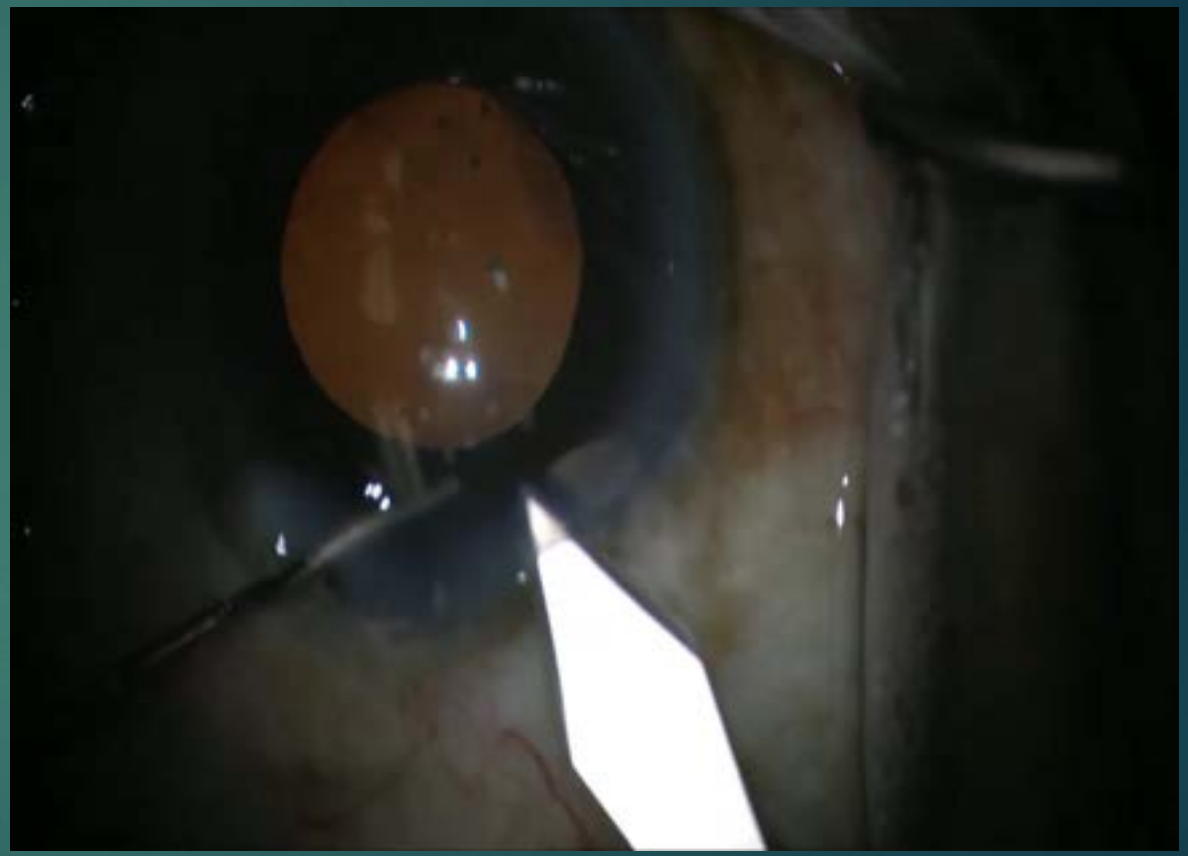


Watch the air bubble
Prevents reflex bleeding and maintains AC depth

Trab vs Phaco/Trab Combination

Snuffing is rare but real

- Trab alone in Fixation Threatened Glaucoma vs
- Trab+Phaco – Moderate to severe Glaucoma + Cataract
- Phaco- Trab –Pay attention to
- 1. Cataract wound closure with 10 nylon to prevent wound gaping from hypotony
- 2. 5.5 mm CCC to prevent IOL anterior dislocation in case of hypotony or choroidal
- 3. tight sutures to close the trab scleral flap to prevent hypotony
- 4. Cut the trab sutures 4-6 weeks postop to control the IOP.



Trab vs Tube in Advanced Glaucoma

Trab with MMC :

1.< 15 IOP more likely

2.Early post op may be tricky

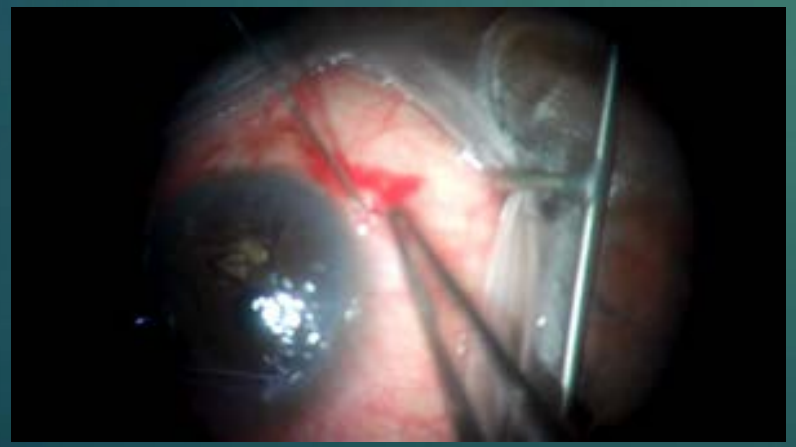
3. higher risk complications like choroidal effusions and leaky blebs

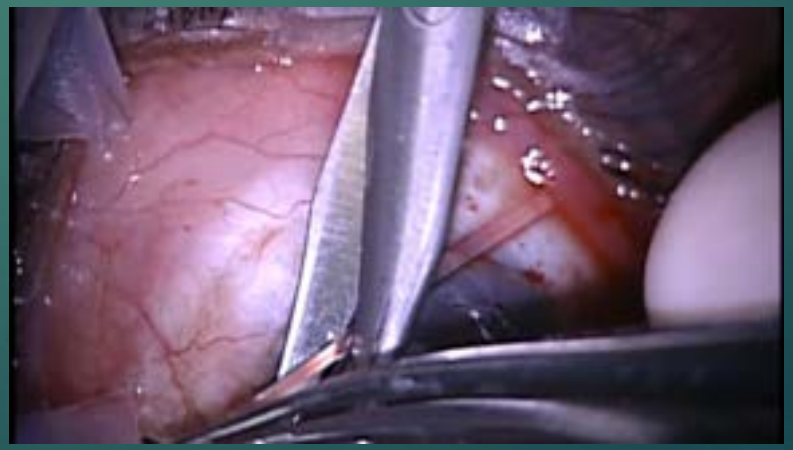
Tubes

1.less likely to achieve < 15 2. postop management easier

3. hypertensive phase and bleb encapsulation

4. highest incidence of corneal decompensation





Every Case is Unique: Think Outside the Box

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**