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Challenges and Opportunities for Surgical and Medical Management of Glaucoma in Africa

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Conflict of Interest Disclosure

✓ I have no potential conflict of interest to disclose

I have the following potential conflict(s) of interest to report :

- Receipt of grants/research supports:
- Receipt of honoraria or consultation fees:
- Participation in a company sponsored speaker's bureau:
- Stock shareholder:
- Spouse/partner:
- Other support (please specify):



Challenge – Late presentation

29% - Dar es Salaam - Tanzania
53% - Kano – Nigeria



Present to
hospital Blind

70% - Dar – Tanzania
63% - Kano - Nigeria



Present with
CDR > 0.8

- *Mafwiri et al Ophthalmic Epidemiol 2005 Oct;12(5):299-302.*

Acceptance

- A Tanzanian study found only 46% of patients accepted trab—even though they were offered for free*
- 90% acceptance for free cataract surgery in Kenya
- Africa wide study on acceptance currently ongoing with AGC
- Both doctor and patient often afraid about Trab

**Quigley HA et al J Ophthalmol 2000;84:860–4*

Follow-up

- Very low follow – up rates
- Articles by *Kabiru et al. J Glaucoma 2005 Dec;14(6):432-4* and *Yorson et al Br J Ophthalmol 2001;85:1028–1030* from Kenya demonstrate so
- Lit Review by *J E Soatiana et al. Journal of Ophthalmology, 2013, 3, 76-86* on Outcomes of Trabeculectomy in Africa gives a good summary
- No paper has specifically looked at follow ups

Skills for Trab

- Trab with ant-metabolites recommended therapy
 - Most newly qualified ophthalmologists these days can not perform trab!! What went wrong
 - Demystify and teach trab
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- *J E Soatiana et al on Outcomes of Trabeculectomy in Africa. Journal of Ophthalmology, 2013, 3, 76-86*

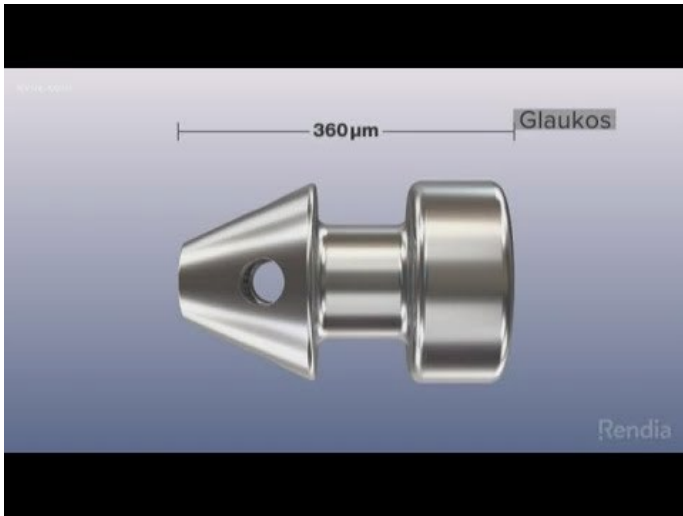
Availability of equipments and materials for surgery

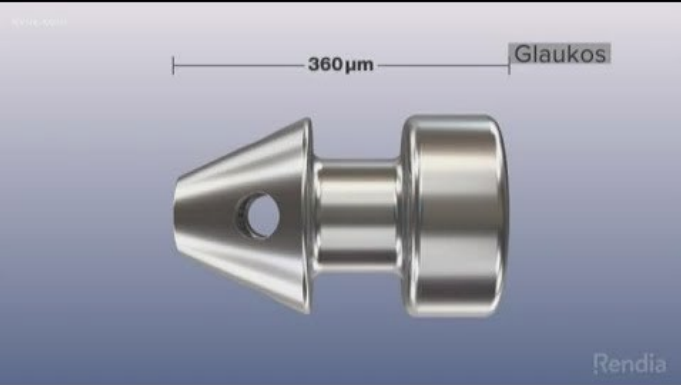
- Same for MSICS
- Anti-metabolites can be a challenge
 - Procurement process
 - Can be reconstituted and use for several months
 - *Georgopoulos et al . J Glaucoma, Vol. 11, No. 1, 2002*
 - *Chen PP et al Ophthalmologica 1998;212:404–6*
- Good microscopes with video ability can enhance learning and sharing of skills

Trab

- Trabeculectomy almost only practised surgical option
- GDD – Needed when Trab has failed or likely to – but cost very high
- Aurolab Aqueous Drainage Implant [AADI] promising option cost-wise but not available in Africa yet

Microinvasive Glaucoma Surgery



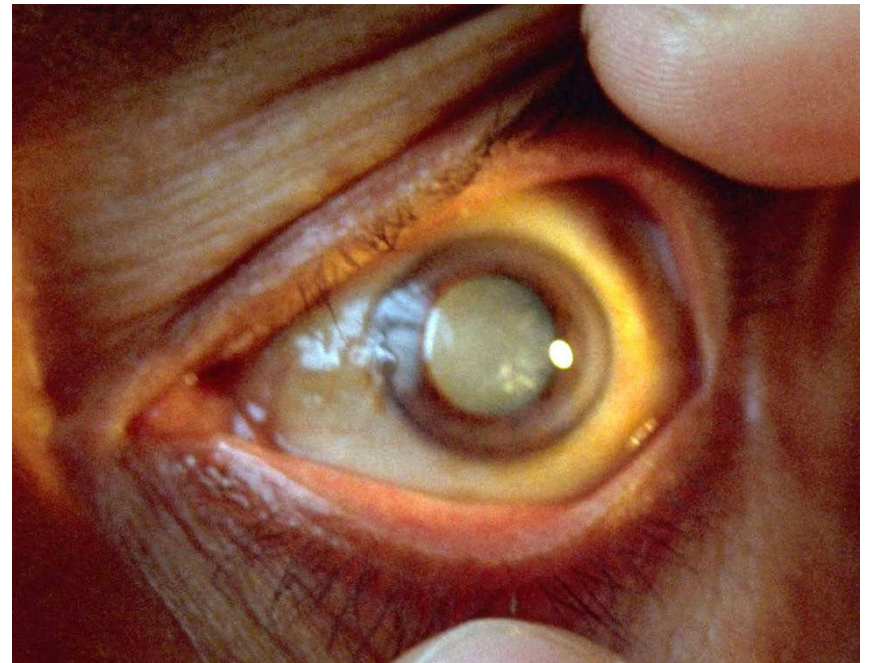


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Cataract Un-tackled Yet

- CSR still far below 1000 in most SSA countries
- Most countries around the world are doing 5000++
- Easily detected and treated
- When occurs alongside glaucoma – Combine SICS/Trab Recommended



Medical treatment



Glaucoma Medicines

- Involves taking daily and sometimes multiple eye drops for life - logistically challenging
- Adherence
- Costly
 - Most Generics still over \$10 except timolol
- Some are Fake
- Lose potency due to inappropriate storage
- Sometimes simply -unavailable

Opportunities

Glaucoma specialist

- There has been an explosion of glaucoma specialists in SSA in the last 10 years
- They serving as champions of change in Glaucoma management
- Involved in Training, Research, Patient Education and Lobbying to address above challenges
 - Nigeria, Ghana, Ethiopia, Kenya, Tanzania

TREATMENT NEEDED

- A treatment that could be done once a year
 - Acceptable
 - Rapidly acting
 - Inexpensive
 - Effective
-
- This could achieve patient compliance and revolutionize the treatment of glaucoma in SSA

LASERS [To be discussed]

- Diode Laser TSCPC
- Micropulse Trabeculoplasty [MLT]
- ALT
- SLT

Diode laser TSCPC

- Is a practical, rapid, well-tolerated procedure that may provide a modest and variable lowering of IOP
- There is a gradual change in historical application of CPC as treatment of last resort to a treatment modality acceptable for use earlier in the course of glaucoma.
- There remains a need for further refinement that will both decrease complications and maximize utility of CPC.

Egbert PR et al Arch Ophthalmol 2001;119:345–50

Last Word

- We are unlikely to make an impact in the diagnosis and treatment of glaucoma in SSA [more difficult than cataract] with the present modalities
- Must make effort for novel workable modalities

**Thank
You**

