

Medical Therapy

- **Specific applications:**

- ◆ Medical therapy 1st: JOAG, 2^{ry} open-angle glaucoma.
- ◆ Clear cornea prior to goniotomy
- ◆ Adjunctive to surgery : PCG, developmental glaucoma.



Management of Congenital Glaucoma

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Medical Therapy

Prostaglandin Analogues:

- Limited effectiveness

Alpha-adrenergic agonist brimonidine

- hypothermia, lethargy
- CNS Depression →

contraindicated

Medical Therapy

Beta-blockers : (lower IOP 20-30%)

- ◆ Risk of respiratory distress
- ◆ Bradycardia
- ◆ Use punctal occlusion



Carbonic Anhydrase Inhibitors: (lower IOP 15%)

Combined beta-antagonists-CAI

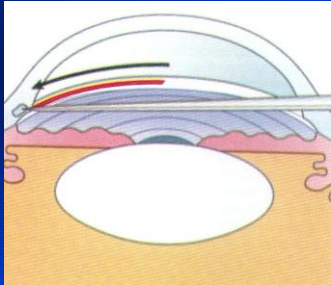
Choosing the Procedure

- ↑ success rate
- Target the pathology
- Not jeopardize success of other procedures

Congenital Glaucoma

- **Surgical: Correct protocol**
 - ⇒ ↓ reoperations
 - ⇒ ↓ incidence complications

Goniotomy



Goniotomy

- **Advantages:**
 - ◆ Under direct visualization
 - ◆ Attacks defective tissue directly
 - ◆ Does not disturb conjunctiva
- **Disadvantages:**
 - ◆ Requires clear cornea



Goniotomy Outcome

■ Less favorable:

- ◆ Axenfeld's syndrome.
- ◆ Lowe's syndrome.
- ◆ Congenital glaucoma in the newborn.
- ◆ Sturge–Weber syndrome.
- ◆ Iridocorneal dysgenesis.



Goniotomy Outcome

■ Very favorable: (80-90%)

- ◆ Primary congenital open-angle glaucoma
- ◆ Glaucoma with Rubenstein -Taybi syndrome
- ◆ Glaucoma with maternal rubella syndrome
- ◆ Congenital aniridic glaucoma



Goniotomy Set-Up



Goniotomy

Preoperative Preparation

- Clear cornea
- Pilocarpine?
- Epithelial oedema



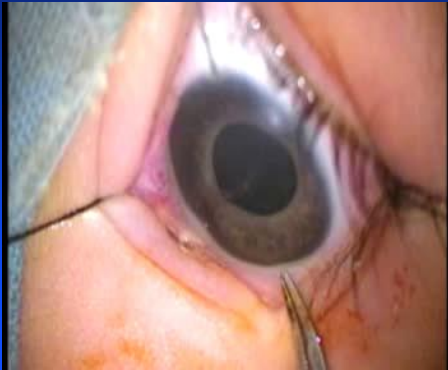
Exposure for Goniotomy



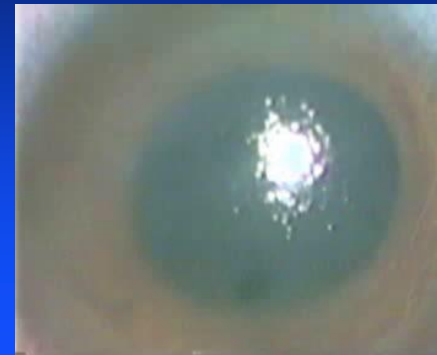
Goniotomy Set-Up



Goniotomy Procedure



Goniotomy Procedure



Goniotomy Outcome

- **80 % success rate Really???**
 - ◆ Short-term survival → possible
 - ◆ Long-term survival → unlikely

ENDOSCOPIC GONIOTOMY



Meet The Parents



Failed Goniotomy



Tell The Facts

- **Surgery (hopefully) DOES:**
 - ◆ Lower IOP
 - ◆ Stop further increase in corneal diameter
 - ◆ Stop more damage to optic nerve

ONLY????

Tell The Facts

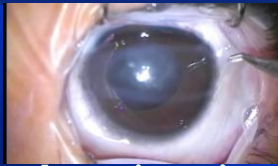
- **Surgery does NOT :**
 - ◆ Reverse optic nerve damage
 - ◆ Decrease corneal diameter
 - ◆ Clear up corneal opacities

And much more

- **Amblyopia :**

- ◆ **Attributed to :**

- anisometropia, irregular astigmatism
- corneal opacities, Haab's striae
- cataract



No There's more

- **Surgery :**

- ◆ May fail to lower IOP
- ◆ May need to be repeated (now/later)

**IOP HAS TO BE MONITORED FOR
LIFE !!!!**

