Chapter 62
Goniosynechialysis

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Indications

Peripheral anterior synechiae, angle closure glaucoma

Essential Steps

1. Topical anesthesia (or peri-/retrobulbar anesthesia)
2. Gonioscopic visualization of angle
3. Side port/paracentesis incisions
4. Intracameral anesthesia
5. Cholinergic pupillary constriction
6. (Anterior chamber filled with viscoelastic OR anterior chamber maintainer placed)
7. Lysis of peripheral iris adhesions
8. Viscoelastic removal
9. Confirmation of watertight wound closure

Complications

– Hyphema
– Cyclodialysis cleft
– Iridodialysis

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- Irregular pupil or other iris trauma
- Lens damage or dislocation
- Corneal trauma
- Elevated IOP
- Hypotony
- Inflammation
- Cataract formation
- Corneal edema
- Wound leak
- Endophthalmitis
- Loss of vision
- Loss of eye

Template Operative Dictation

Preoperative diagnosis: *Angle closure glaucoma* (*OD/OS*)

Procedure: *Goniosynechialysis* (OD/OS)

Postoperative diagnosis: *Same*

Indication: This is a ____- year-old (*male/female*) with a history of peripheral anterior synechiae and angle closure glaucoma. After a detailed review of risks, benefits, and alternatives, the patient elected to undergo the procedure.

Description of the procedure: The patient was identified in the holding area, and the (*right/left*) eye was marked with a marking pen. The patient was brought to the OR and positioned on a stretcher in the supine position. After proper time-out was performed verifying correct patient, procedure, site, positioning, and special equipment prior to starting the case, (*intravenous sedation was induced using MAC and*) topical ocular anesthesia was applied. (*A (retro-/peribulbar) block was administered.*) The (*right/left*) eye was prepped and draped in the usual sterile fashion. The operating microscope was centered over the (*right/left*) eye, and an eyelid speculum was placed in the eye.

A gonioscopic lens was gently placed over the cornea. The peripheral anterior synechiae were clearly visualized. A paracentesis was made in the peripheral cornea at __o'clock, and 1% preservative-free lidocaine followed by (*Miostat/Miochol*) was injected into the anterior chamber. The anterior chamber was (*filled with cohesive viscoelastic/maintained with a continuous anterior chamber infusion cannula that was inserted*).

[Choose one]:
If using a cyclodialysis spatula – The cyclodialysis spatula was passed through the paracentesis site, and the gonioscopic lens was placed over the cornea. Under (direct/indirect) visualization, the cyclodialysis spatula tip was used to gently push

the peripheral iris posteriorly. A steady pressure was maintained to release the iris adhesions until the angle structures were visible. Care was taken to avoid using excessive force or applying pressure too peripherally at the iris root so as to avoid the formation of iris defects or cyclodialysis clefts.

If using microsurgical forceps – The microsurgical forceps was passed through the paracentesis site, and the gonioscopic lens was placed over the cornea. Under direct/indirect visualization, the forceps was used to gently grasp the peripheral iris. The tissue was pulled centrally toward the pupil. A steady pulling force was maintained to release the iris adhesions until the angle structures were visible. Care was taken not to pull too vigorously as to avoid the formation of iris defects or cyclodialysis clefts.

This maneuver was repeated until all visible synechiae were lysed. Viscoelastic was injected throughout the case to maintain control of anterior chamber depth and to aid in visualization and clear small peripheral hemorrhages.

Care was taken to remove the viscoelastic completely from the eye. The wounds were checked and found to be watertight and secure. At the conclusion of the case, the patient received topical antibiotics (*and steroids*), and a shield was placed over the eye. The patient tolerated the procedure well and was transferred to the recovery room in stable condition.

Additional Resource

http://eyetu.be/oogeq; https://www.youtube.com/watch?v=bpYAFb1Rk1E.