**STANDARD OPERATING PROCEDURE**

**ACUTE CONGESTIVE GLAUCOMA**

The following points pertaining to the presenting complaints will be obtained:

* History of sudden onset of redness, pain in eye & increased watering
* rapidly progressive impairment of vision & photophobia
* nausea, vomiting
* precipitating events such as watching TV in dim illumination, reading, acute emotional stress, use of dilating drugs
* H/o use of any medications e.g. oral topiramate, parasympathetic antagonist or sympathetic agonist (inhalers, motion sickness patches tri and tetracyclic antidepressants, MAO inhibitors)
* Previous history of similar complaints
1. **EXAMINATION**
* Visual acuity
* Pupillary reactions
* Depth of anterior chamber
* Slit-lamp biomicroscopic examination, if the corneal status permits, will be done to look for :
* Status of cornea (hazy)
* Depth of anterior chamber

 Van Herick slit-lamp grading of the angle

* Iris for any evidence of atrophy
* Pupil ( fixed dilated pupils)
* Lens for glaucomaflecken
* Intraocular pressure (IOP): Goldmann’s applanation tonometer
* Gonioscopic examination : *(will be performed as soon as cornea becomes clear and fellow eye should also be examined )*
* On the basis of Shaffer grading of anterior chamber angle :

 *OD OS*

* Fundus examination (undilated) : Optic disc evaluation (as cornea becomes clear)
* Fellow eye examination

**MANAGEMENT**

Acute congestive glaucoma is an ocular emergency & patient will be hospitalized.

1. Medical therapy: to immediately lower IOP
2. Systemic hyperosmotic agents
3. Intravenous mannitol (1gm/kg body weight)
4. Oral hyperosmotics (glycerol 1gm/kg body weight)

 Monitoring of intraocular pressure will be done.

1. Systemic carbonic anhydrase inhibitors (tablet acetazolamide 500 mg stat followed by 250 mg, 3 times a day)
2. Topical anti-glaucoma drugs e.g. beta blocker (0.5% timolol),
* Pilocarpine 2% QID (after lowering IOP)
1. Analgesics & anti-emetics
2. Compressive gonioscopy (to relieve pupillary block)
3. Topical steroid (prednisolone acetate 1%, 3-4 times a day): to reduce the inflammation.
4. Definitive therapy
5. Laser peripheral iridotomy (PI): as soon as possible as cornea becomes clear
6. Surgical peripheral iridectomy (if lasers are not available)
7. Filtration surgery, i.e TRAB : if IOP is not controlled with PI & after interval of 4 weeks
8. Prophylactic treatment in normal fellow eye

Preferably laser peripheral iridotomy (PI) or surgical peripheral iridectomy

**MANAGEMENT**

Step 1: Lower IOP with medical therapy e.g. Intravenous mannitol (1gm/kg body weight) or Syp. glycerol (1gm/kg body weight)

Step 2 : Start with Tablet Acetazolamide 500 mg stat followed by 250 mg, 3 times a day & topical anti-glaucoma drugs e.g. beta blocker (0.5% timolol) etc.

Step 3: After lowering IOP, start Pilocarpine eyedrops 2% QID

Step 4: If cornea clears, gonioscopy to find out PAS (peripheral anterior synechiea)

Laser peripheral iridotomy (PI) will be done

Step 5: Prophylactic treatment in normal fellow eye (laser PI)

If IOP is not controlled with PI & after interval of 4 weeks: TRAB will be done