

Glaucoma definition

Glaucoma describes a group of conditions in which there is characteristic cupping of the optic disc with corresponding visual field defects due to retinal ganglion cell loss.

(High IOP isn't part of the definition, there is NTG)

Acute angle closure

Treatment Options

Acute—Initial Presentation

- Dynamic gonioscopy
- Oral carbonic anhydrase inhibitors and/or topical beta-blocker and/or topical alpha-2 agonist
- Topical cholinergic agonists (very important, pilocarpine)
- Hyperosmotic agents
- Laser peripheral iridotomy after acute

attack resolved (once corneal edema resolves); may consider lens extraction after acute attack resolved

Ongoing or Chronic Angle-Closure Glaucoma

- Topical prostaglandin analog and/or topical beta-blocker and/or topical alpha-2 agonist
- Carbonic anhydrase inhibitors
- Lens extraction surgery
- Trabeculectomy and/or tube shunt
- Consider surgical lysis of goniosynechiae

Side effects of acetazolamide

Hypokalemia, fatigue

Acidosis

Paresthesia

Allergic reaction

Abdominal discomfort

Contraindicated in Liver cirrhosis and sulfa allergy

Prednisolone increase iop , infection and causes psc

Mydriatic eds can increase IOP

Glaucoma doesn't cause optic disc swelling

Risk factors of PACG

Female

Hyperopic

Short axial length

Old age

Family hx

Chinese descent

-thick lens (cataract) which causes shallow anterior chamber

Risk factors of POAG

High iop

Myope

Thin central corneal thickness

Old age

Family hx

African descent

Type 2 DM

Lower systolic and diastolic BP ?!

B blocker Eds contraindications

- * hypersensitivity

- * reactive airway disease like severe asthma or severe COPD

- * sinus bradycardia or 2nd or 3rd degree AV block

- * overt cardiac failure

Trabeculectomy vs trabeculotomy

Risk factors for High CDR and no glaucoma: refractive error or Family hx

Causes of rubeosis irides

PDR

CRVO

Chronic uveitis

Longstanding RD

Complications : secondary angle closure
glaucoma and hyphema

Name of goldmann applanation tonometer
to measure iop

Sudden painful vision loss : Acute angle
closure glaucoma

Congenital glaucoma symptoms:

Blepharospasm

photophobia

Epiphora

Sign: Buphthalmus .. on exam : haab's
striae , progressive myopia

Tx : goniotomy , trabeculotomy (surgery is a must)

Antiglaucoma EDs classes

Side effects of prostaglandin analogues

- *hyperpigmentation of iris and periorbital skin

- *long lashes

- *intraocular inflammation

(contraindicated in uveitis)

- *macular edema (Contraindicated in macular edema)

- *conj injection (hyperemia)

Investigations of suspected glaucoma:

Measure iop

OCT RNFL

VF

Normal iop 10-21

Pale vs edematous vs cupped disc

Pilocarpine (miotic eds) increase drainage via the trabecular meshwork pathway (contract the ciliary body which pulls the scleral spur) not uveoscleral pathway