Secondary Glaucoma

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- Definition
- Types
- Causes
- Treatment

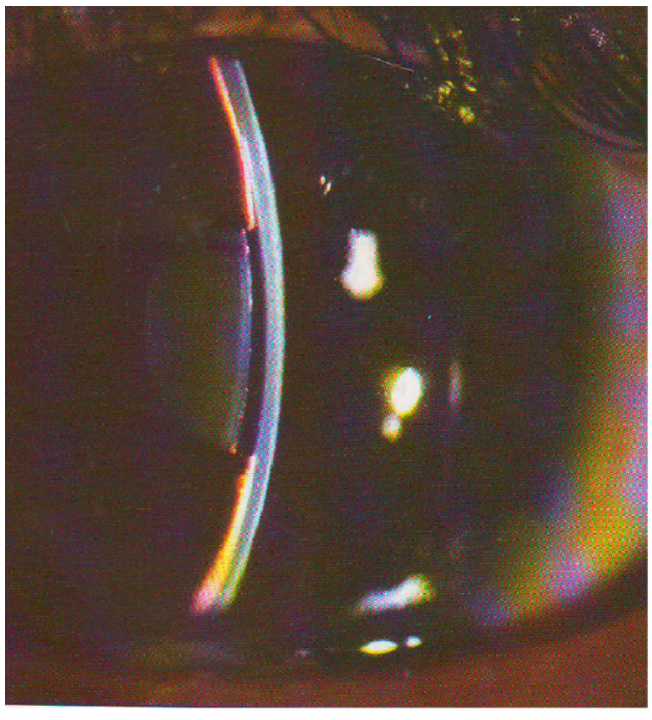
Secondary Glaucoma

- Conditions with raised intraocular pressure due to pre existing ocular causes.
- May manifest as-

a. Secondary open angle Glaucoma
b. Secondary angle closure Glaucoma
c. Mixed pattern

1] lens induced glaucoma/Phakogenic

i. Phacomorphic glaucoma
ii. Phacolytic glaucoma
iii. Phacoanaphylactic glaucoma
iv. Glaucoma associated with dislocated lens [phakotopic]
v. Glaucoma capsulare/ Pseudoexfoliation syndrome



- Associated with uveitis

Inflammatory glaucoma

1] Iridocyclitis (both in acute phase & chronic phases)

2] Glaucomato-cyclitic crisis /Hypertensive uveitis (Posner and Schlossmann's syndrome)

3] Following perforated corneal ulcer

4] As a complication of Keratitis & scleritis

3] Steroid-induced glaucoma

i. Iatrogenic cause
ii. It is associated with topical, periocular, systemic or intraocular steroid therapy.
iii. IOP rise after steroid therapy occurs more often with *topical administration* than with systemic administration.
iv. *Periocular injection* of a long action steroid is the most dangerous route.
v. *Intravitreal steroid* use (Triamcinolone injection to treat intraocular neovascular or inflammatory disease) can also cause a rise in IOP.
vi. The response of IOP to steroids is genetically determined
vii. Rise in IOP occurs 6 weeks to 2 months
viii. Response varies in people
ix. Reversible
X . But we need to treat till it comes down

Pathogenesis:

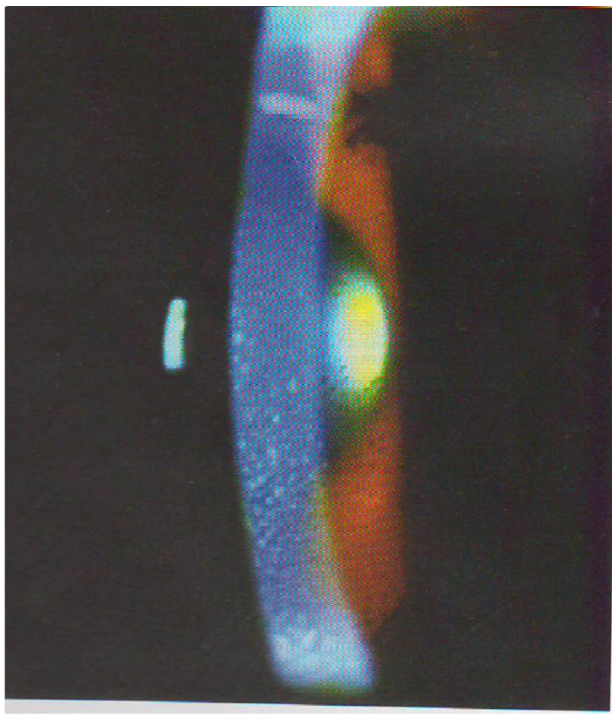
i. deposition of mucopolysaccharides in trabecular meshwork
ii. Reduced endothelial phagocytic activity
iii. Inhibit synthesis of prostaglandins E and F which otherwise increase aqueous out flow.

Treatment:

i. Stop steroid
ii. Treat with Drug for POAG
iii. Surgery if medical treatment is unable to prevent damage to optic nerve

4] Pigmentary Glaucoma

- Young myopic males
- Deposition of iris pigments in trabecular meshwork→ damage
- Krukenberg's spindle (over corneal endothelium)
- Gonioscopy (Sampaolesi's line)



Glaucoma associated with intra ocular tumours

Causes:

i. Episcleral venous hypertension
(obstruction beyond trabecular meshwork)

ii. Obstruction of angle by seeding of tumour cells

iii. Forward displacement of Lens-iris diaphragm

eg- Thyroid exophthalmos,
Carotico-cavernous fistula
Superior vena cava syndrome
metastatic carcinoma of orbit
Retinoblastoma
Iris melanoma

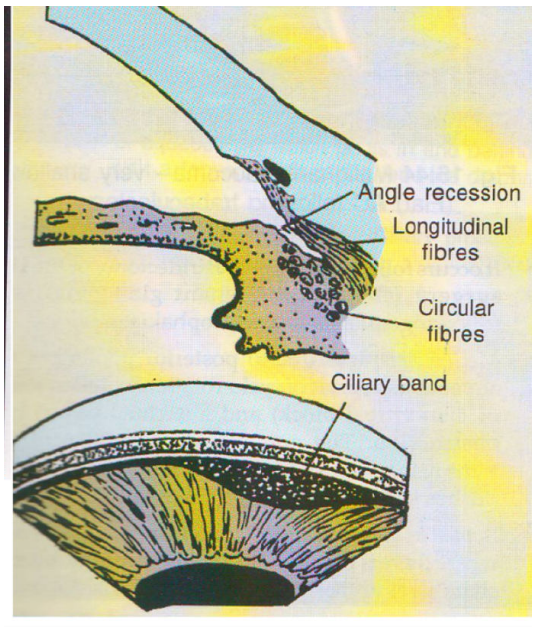
Post-traumatic Glaucoma

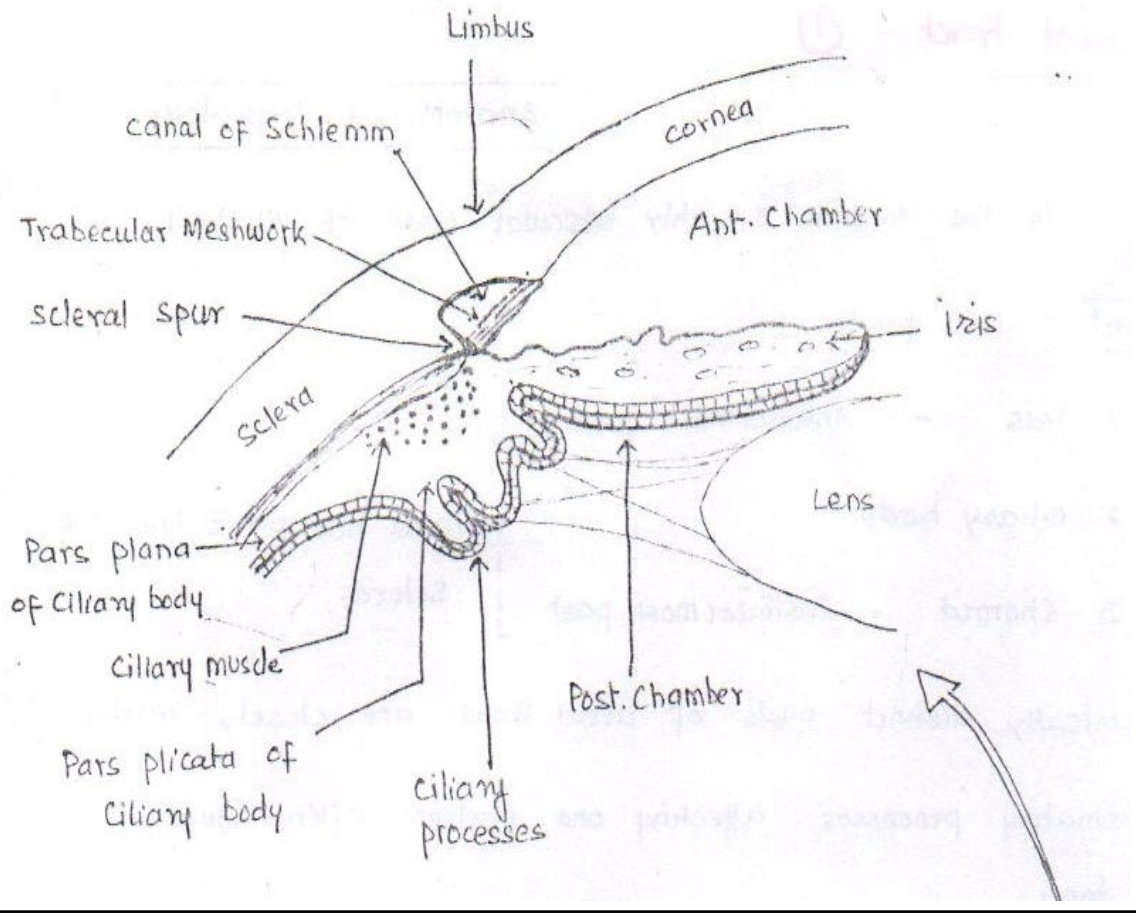
[A] Blunt injury

- Rise in IOP is biphasic
  - early which lasts for few hours
  - After few months/years (angle recession)
- Gonioscopy is confimatory diagnosis- deeper angle recess with widening of ciliary band

[B] Penetrating injury

[C] Chemical injury





1. Neovascular glaucoma may be associated with all of the following except:

a. Diabetes

b. Hypertension

c. Central retinal vein occlusion

d. Intraocular tumours

1. Treatment of malignant glaucoma includes all except:

a. Topical atropine

b. Topical pilocarpine

c. IV mannitol

d. Vitreous aspiration

1. Secondary glaucoma following corneal perforation is due to:

a. Central anterior synechiae formation

b. Peripheral anterior synechiae

c. Intraocular haemorrhage

d. Angle recession

1. Glaukomflecken is a feature of:

a. Acute narrow-angle glaucoma

b. Pseudoexfoliative glaucoma

c. Juvenile glaucoma

d. Phacolytic glaucoma

1. All of the following are true about pigmentary glaucoma except:

a. It occurs more often in young myopic men

b. Iris transillumination defects are noted

c. It is associated with Krukenberg's spindle

d. The intensity of pigment deposit in the angle is related to iris colour

- After blunt trauma to eye Raja develops circumcorneal congestion. Now, which test should be done?
- (a) Ultrasonography
- (b) Perimetry
- (c) Direct ophthalmoscopy
- (d) intraocular pressure measurement.