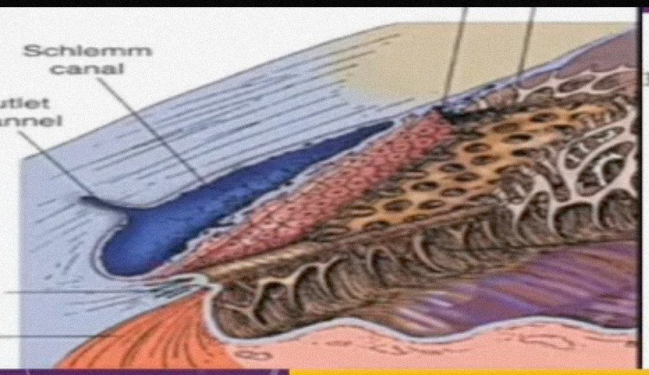
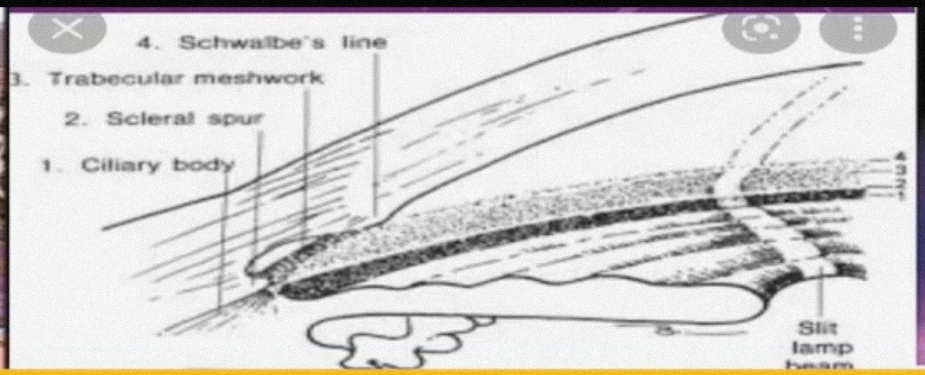
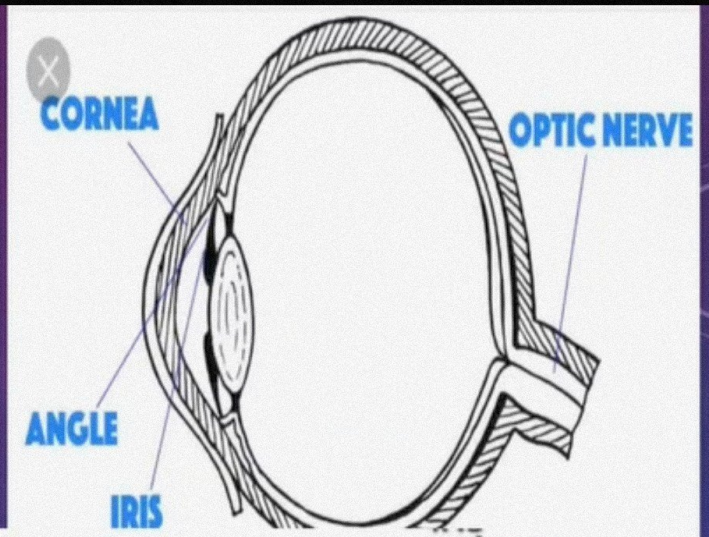


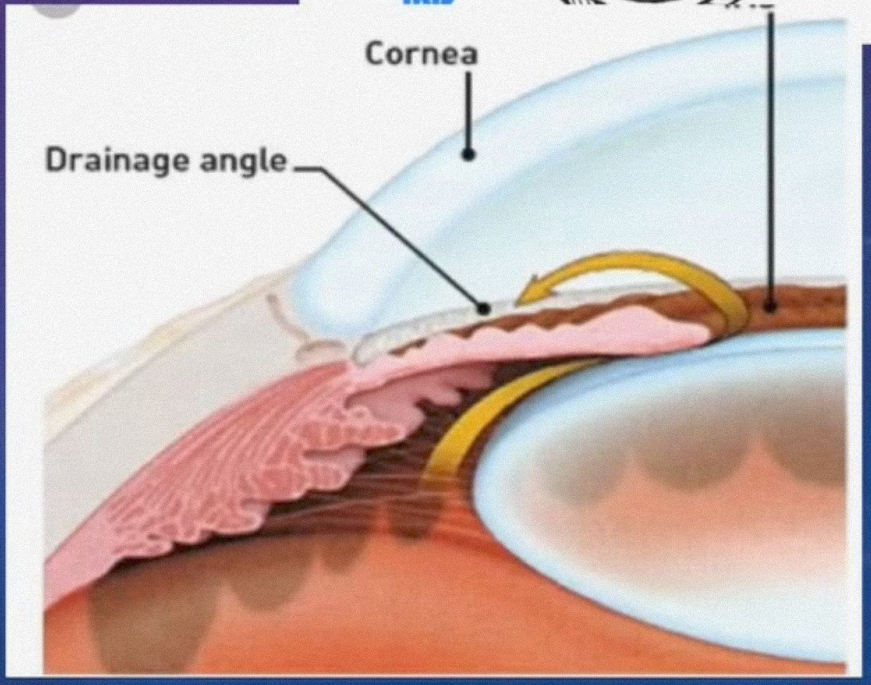


ANATOMY OF ANTERIOR CHAMBER AND ANGLE OF EYE

DR AMRIT SAHIL PANJWANI (MBBS/ MS OPHTHALMOLOGY)

- Anterior chamber is 3 mm deep
- it contains 0.25 ml of the aqueous humour.
- Anterior chamber depth is shallower in the hypermetropic eye than the myopic eye.
- It is also shallower in children and in older people.



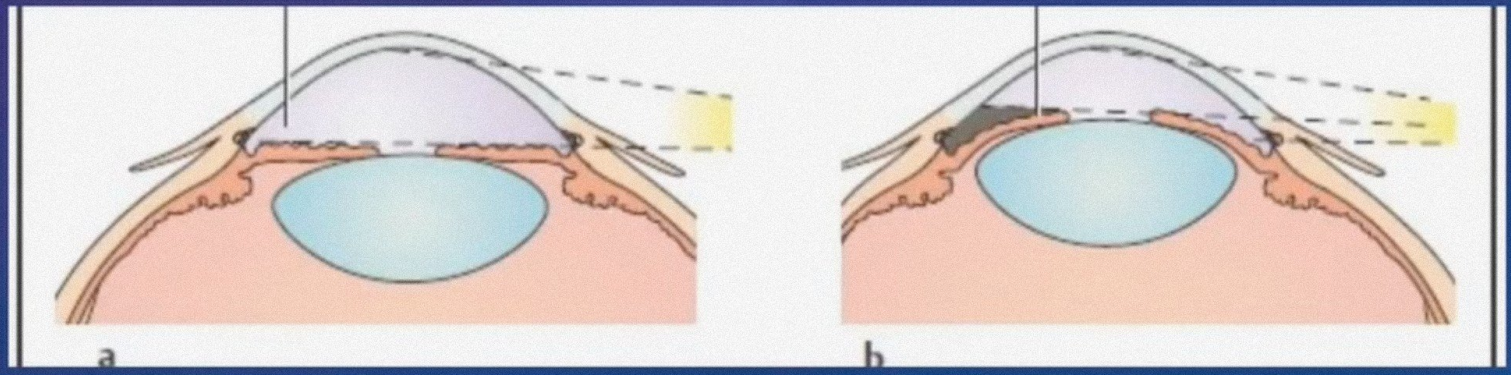


DEEP ANTERIOR CHAMBER

- PSEUDOPHAKIA
- APHAKIA
- MYOPIA

SHALLOW ANTERIOR CHAMBER

- HYPERMETROPIA
- ANGLE CLOSURE GLAUCOMA

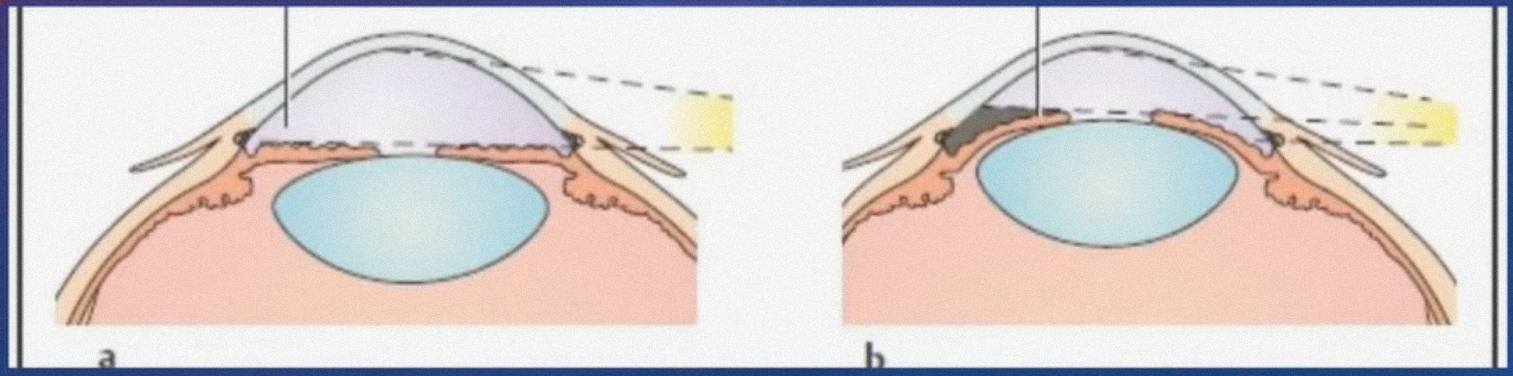


DEEP ANTERIOR CHAMBER

- PSEUDOPHAKIA
- APHAKIA
- MYOPIA → bigger eyeball

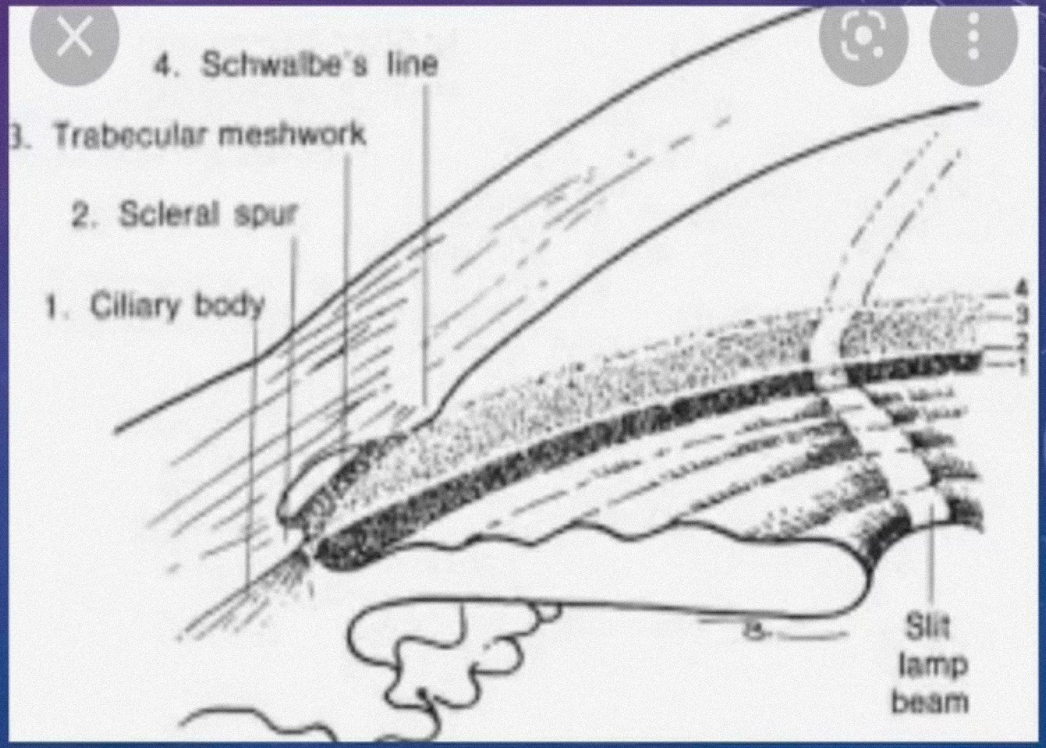
SHALLOW ANTERIOR CHAMBER

- HYPERMETROPIA → smaller eyeball
- ANGLE CLOSURE GLAUCOMA

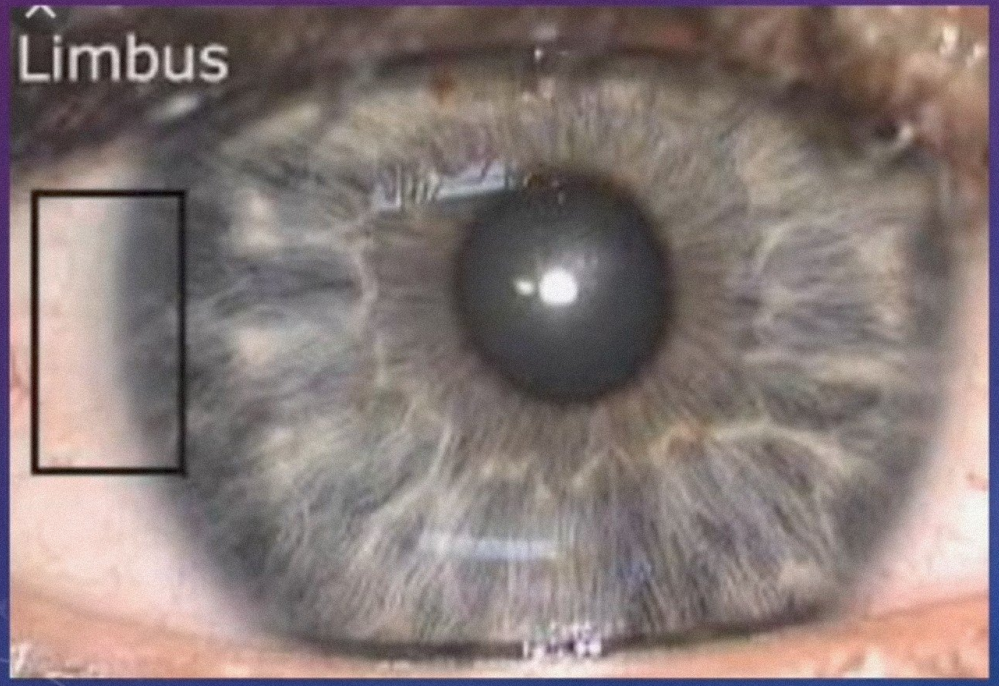


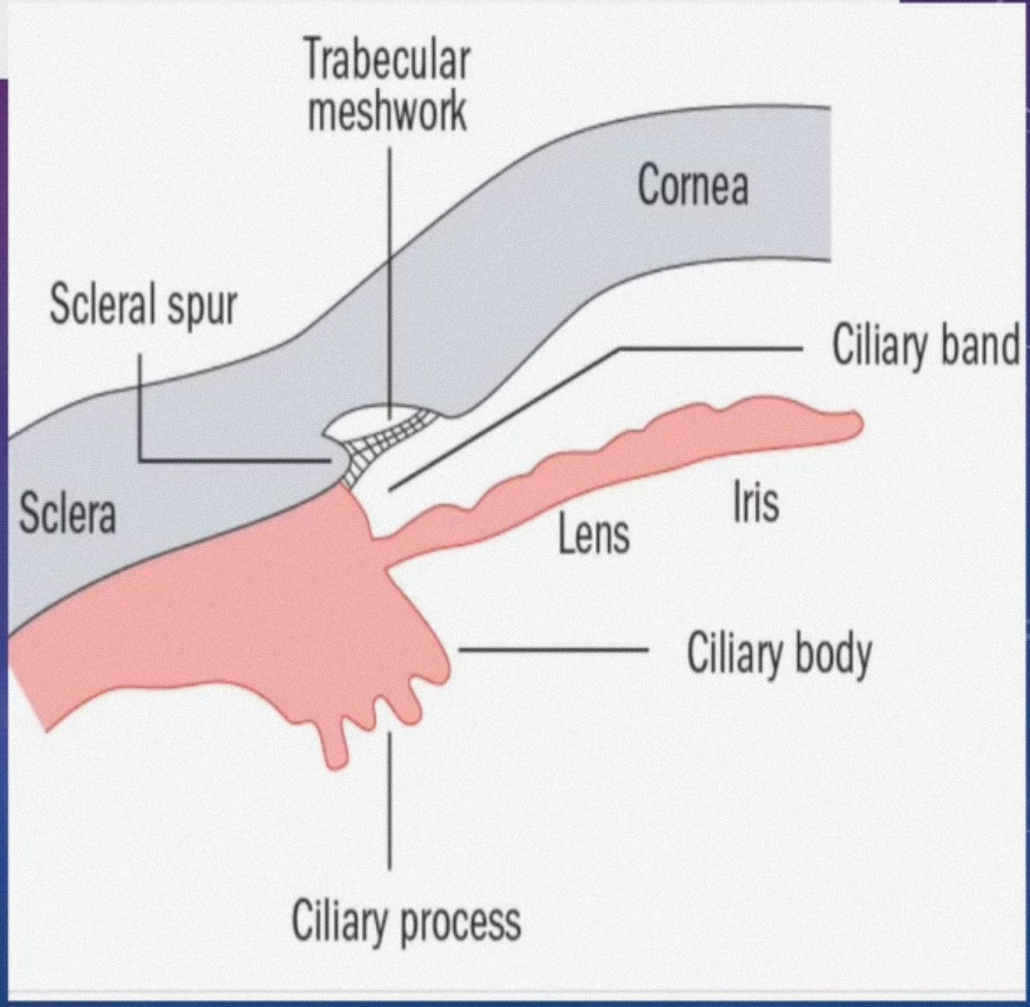
PARTS OF ANGLE OF THE ANTERIOR CHAMBER

- SCHWALBES LINE
- ANTERIOR TRABECULAR MESHWORK
- POSTERIOR TRABECULAR MESHWORK
- SCLERAL SPUR
- CILIARY BODY BAND
- ROOT OF THE IRIS

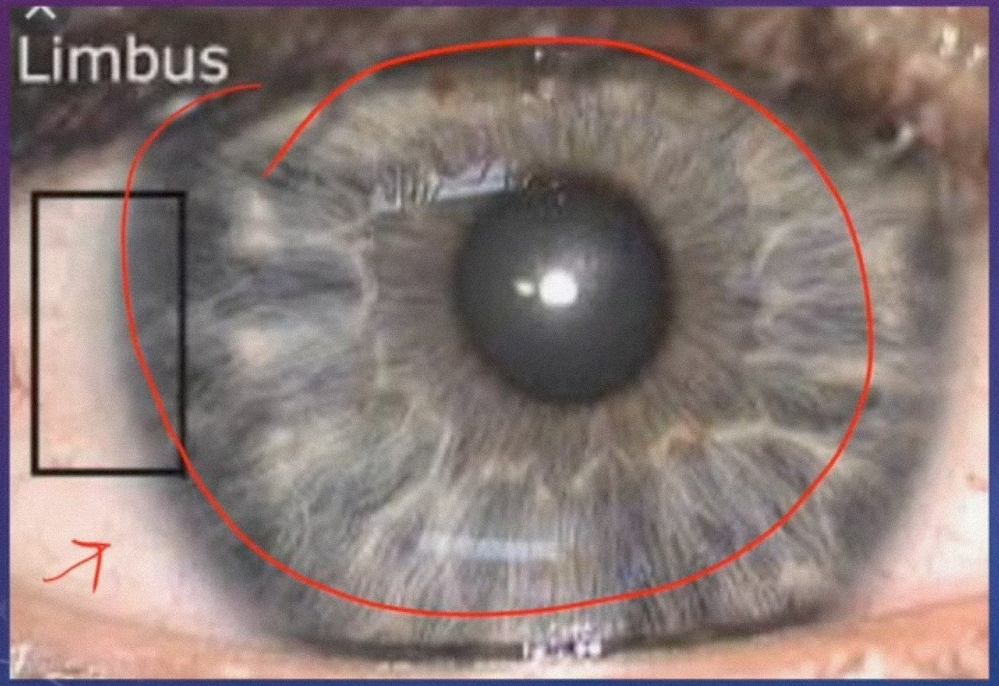


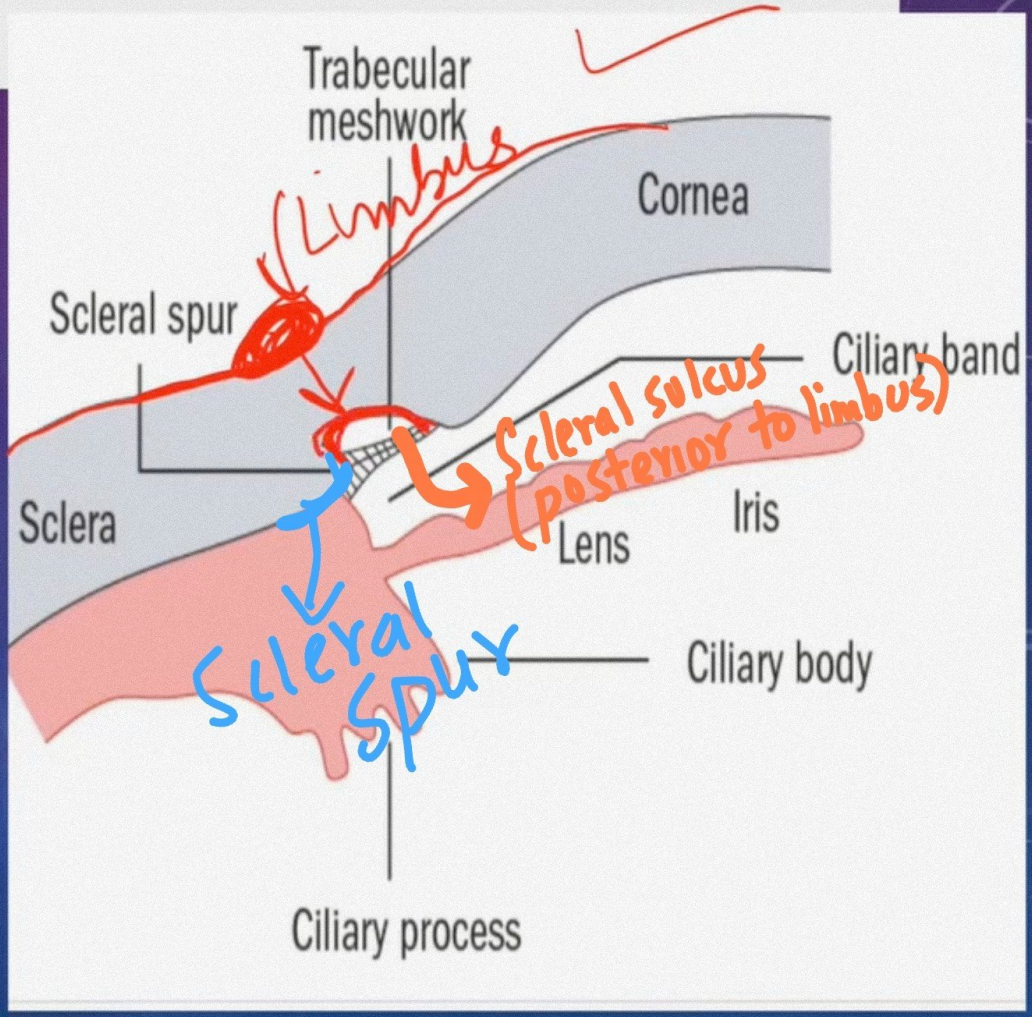
SCLERAL SPUR





SCLERAL SPUR

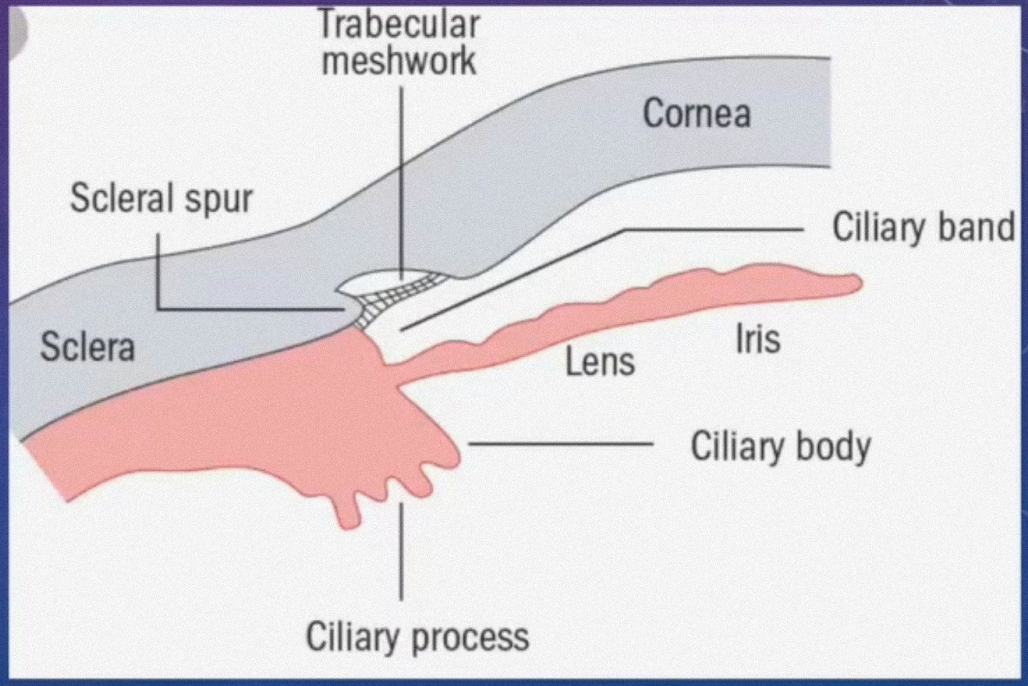




Gonioscopic

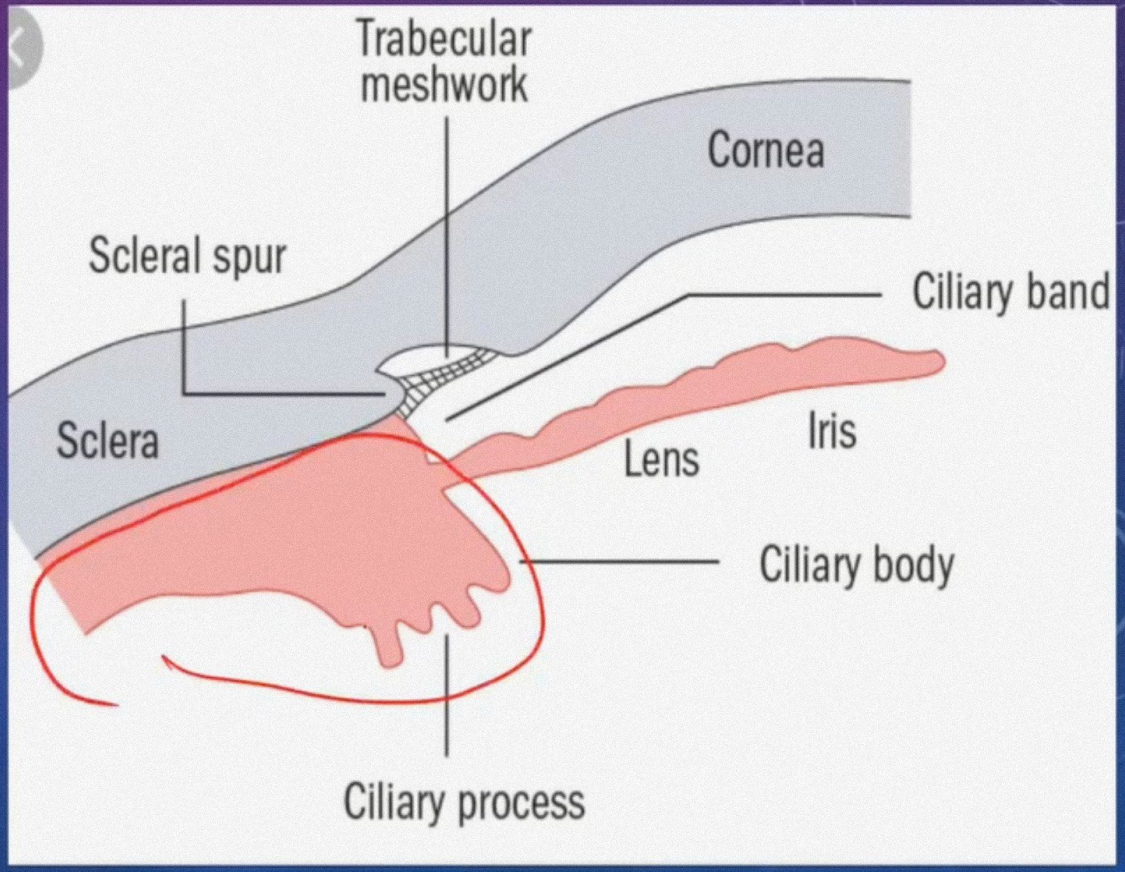
SCLERAL SULCUS & CILIARY BODY BAND

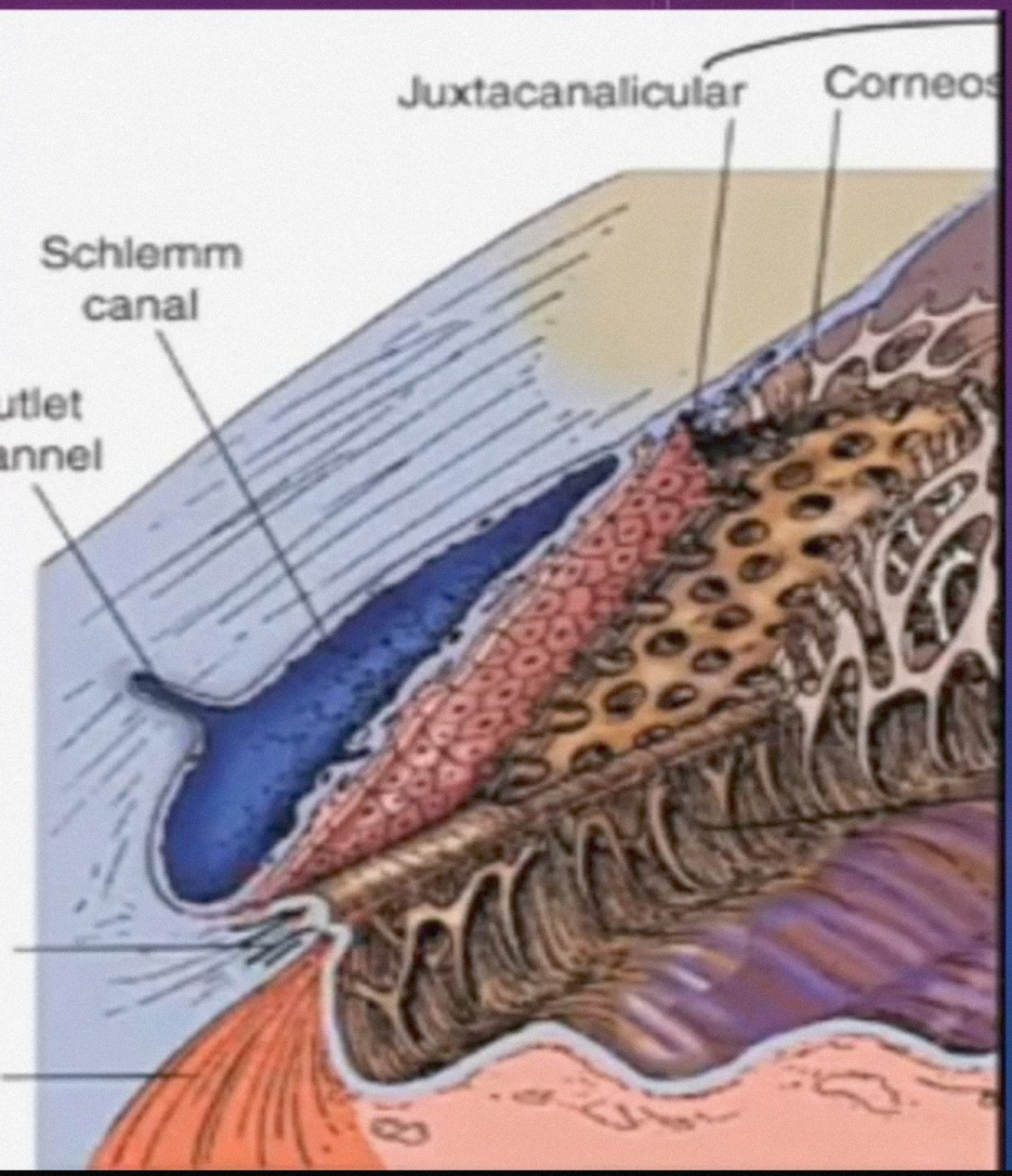
An indentation or groove, which is known as the scleral sulcus.

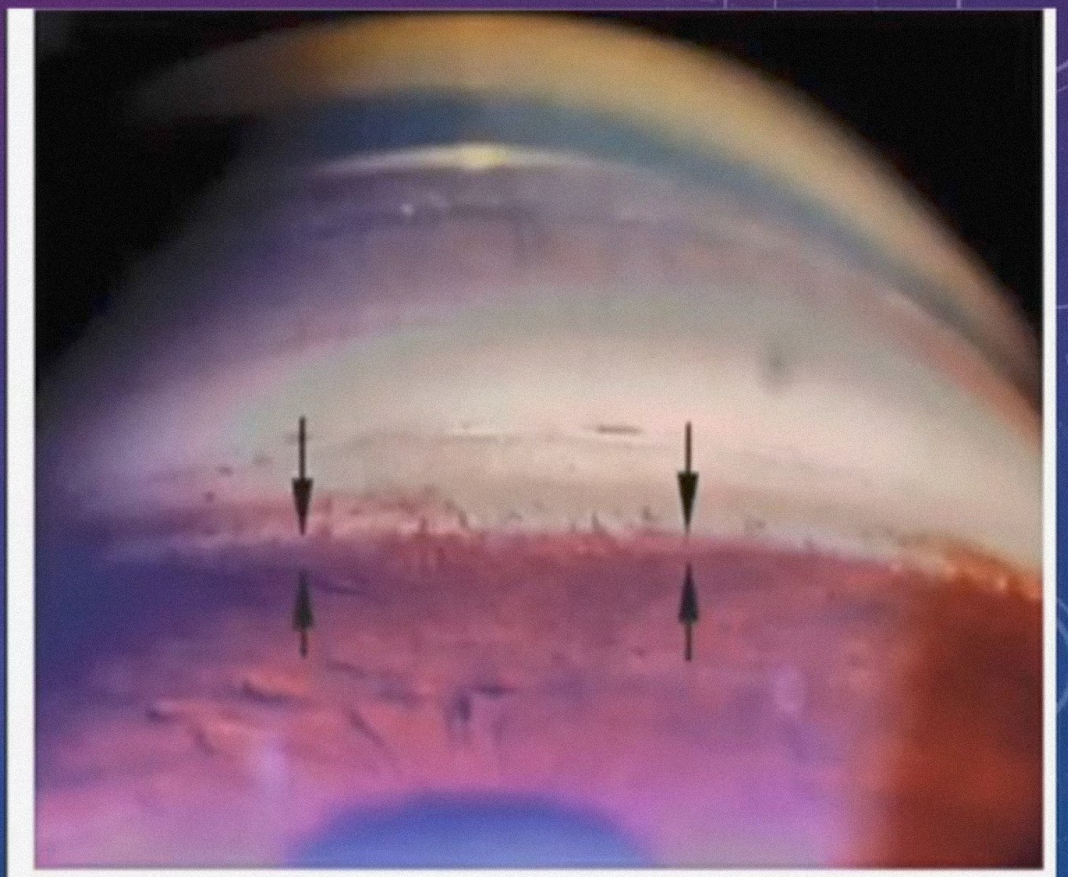


CILIARY BODY BAND

- The ciliary body is attached to the scleral spur and there exists a potential space, the supraciliary space, between ciliary body and the sclera.
- IRIS inserts into the anterior side of the ciliary body and the part of the ciliary body between root of iris & scleral spur is known as ciliary band.



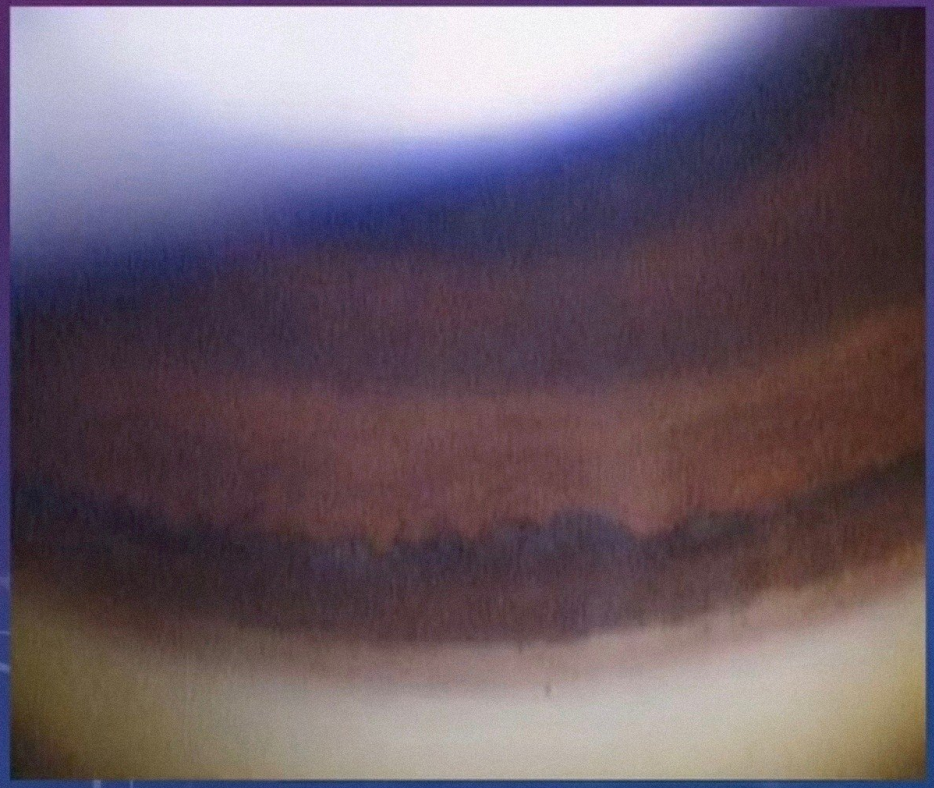

Juxtacanalicular
Corneos
Schlemm
canal
utlet
annel

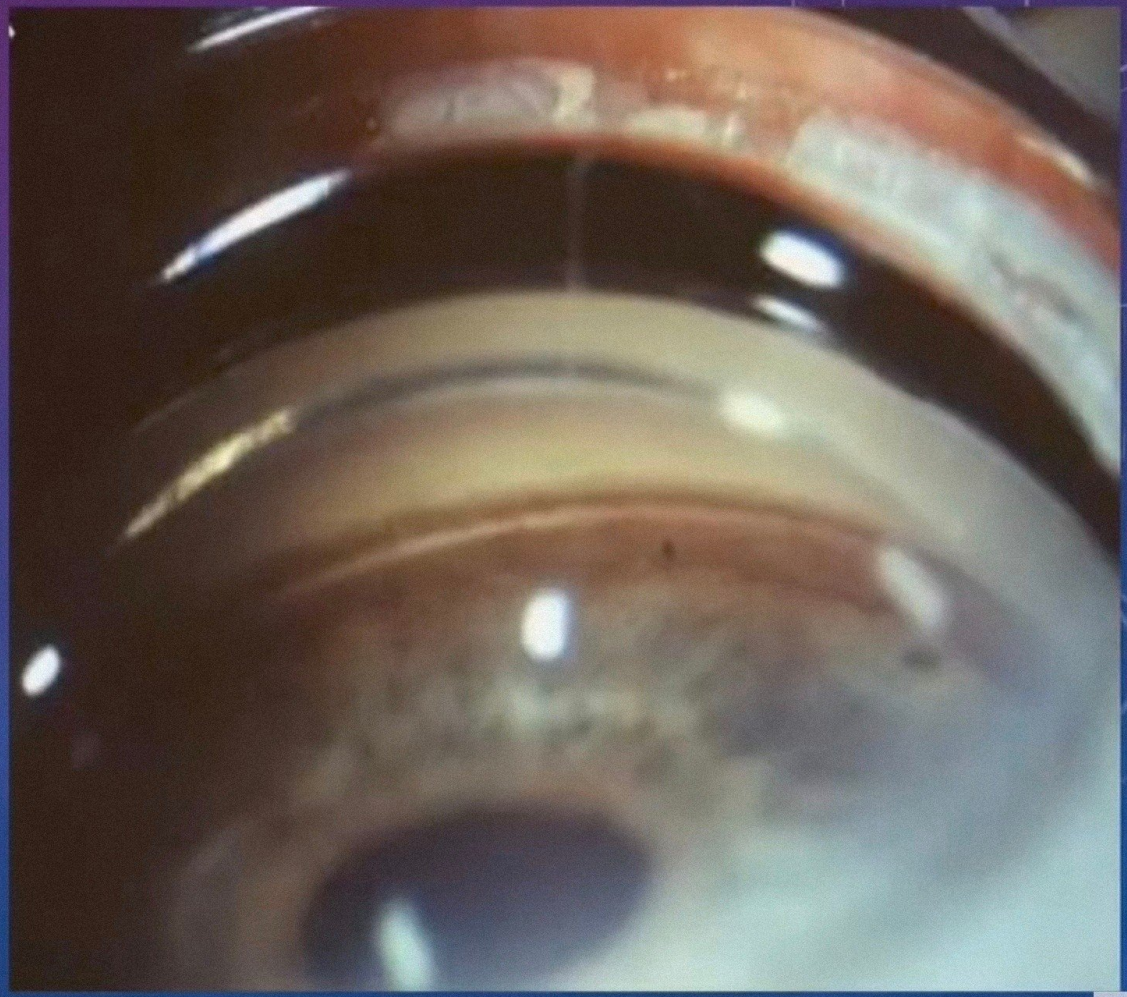


ANGLE RECESSION

↑ IOP

→ splitting of layers of ciliary body leading to expansion of ciliary body area





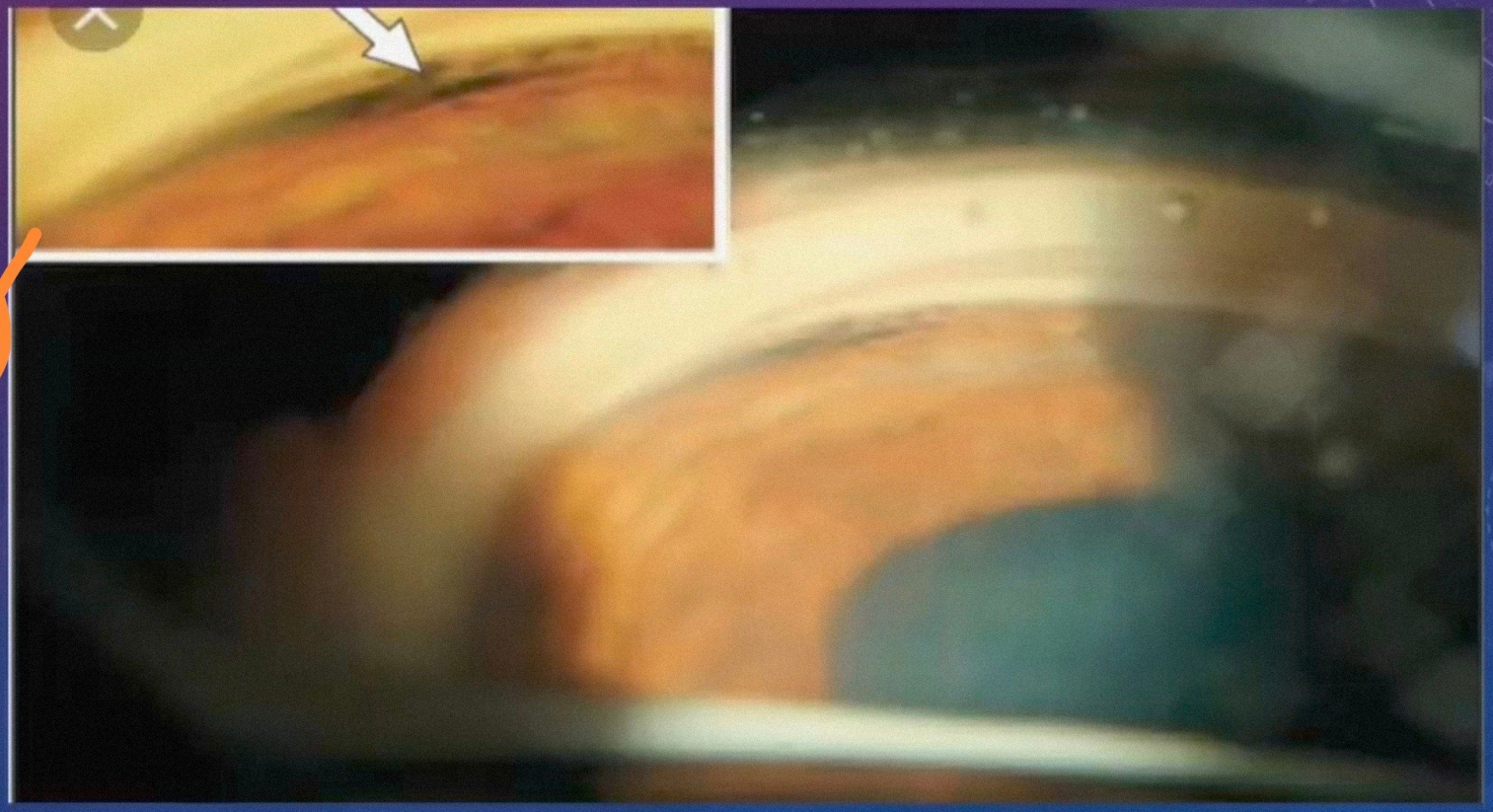
ciliary body get separated from ciliary cleft

CTCLODIALYSIS CLEFT

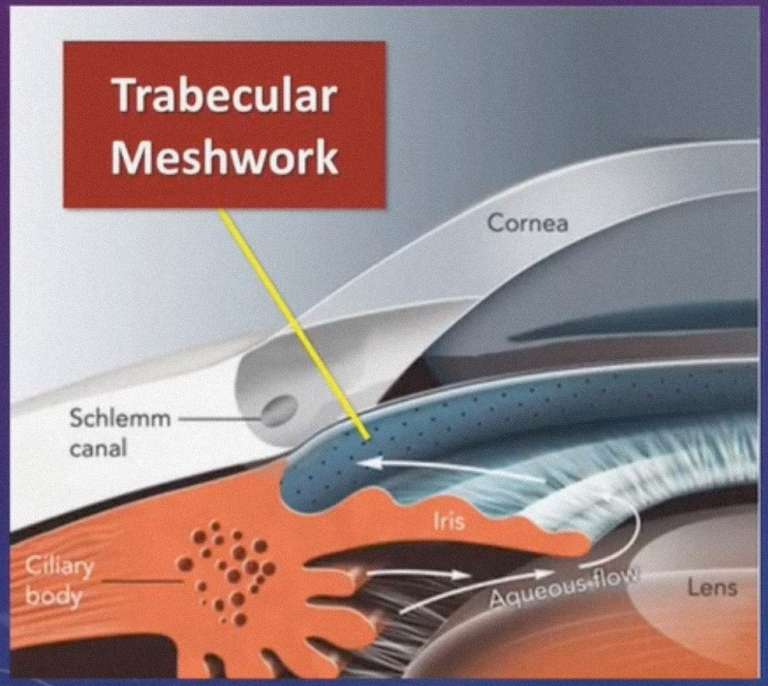
↓IOP

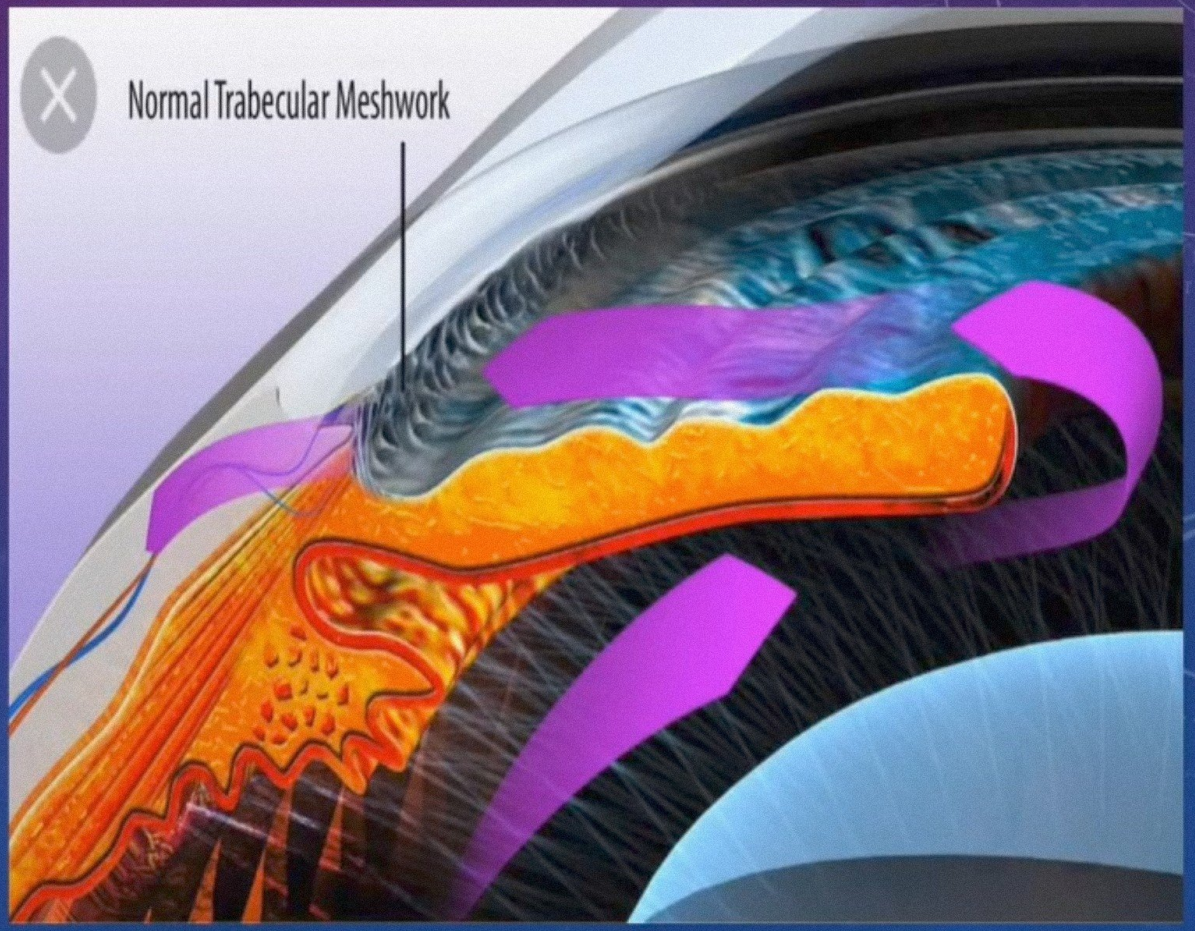
↓

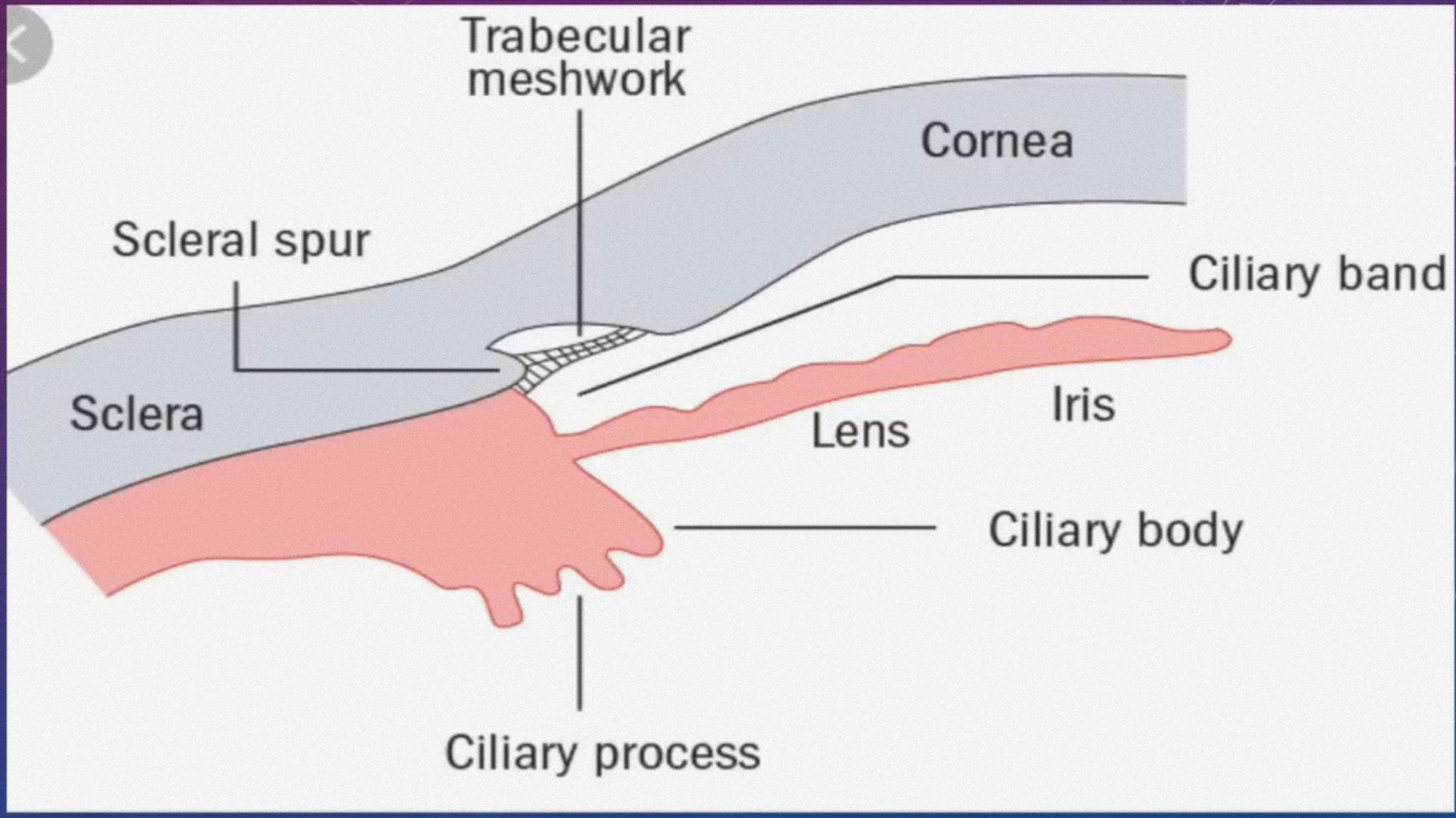
Hypotony



TRABECULAR MESHWORK

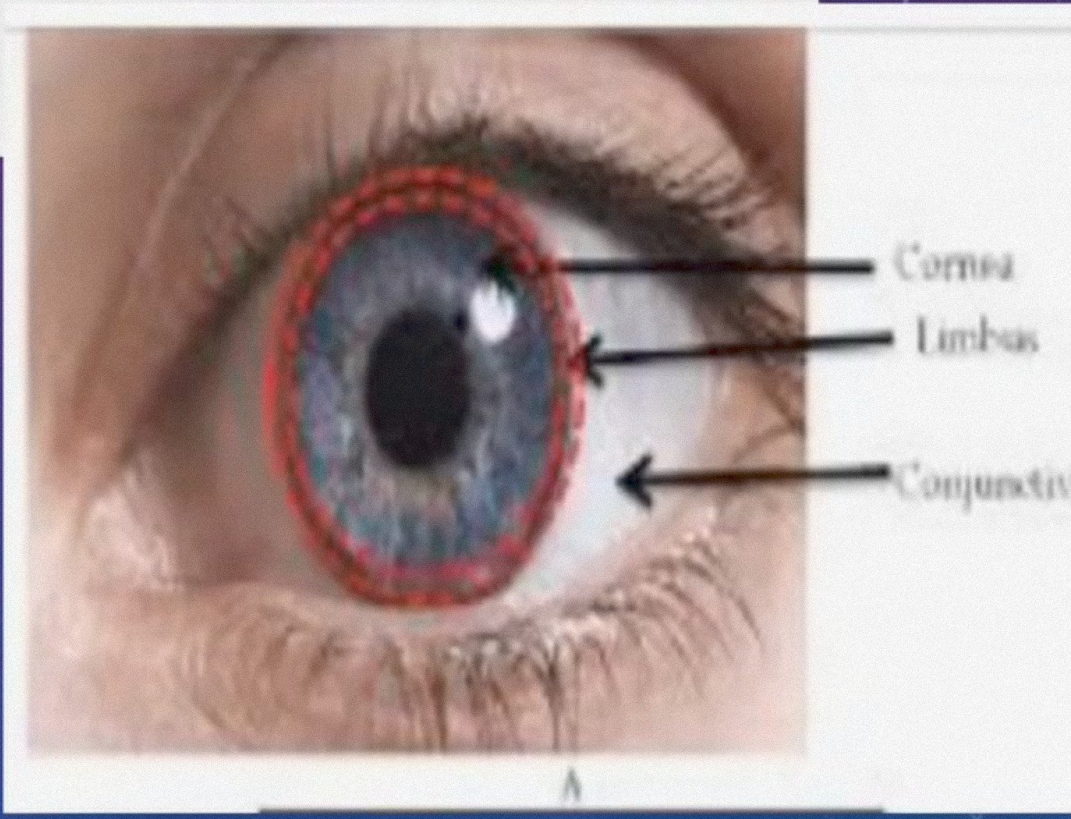


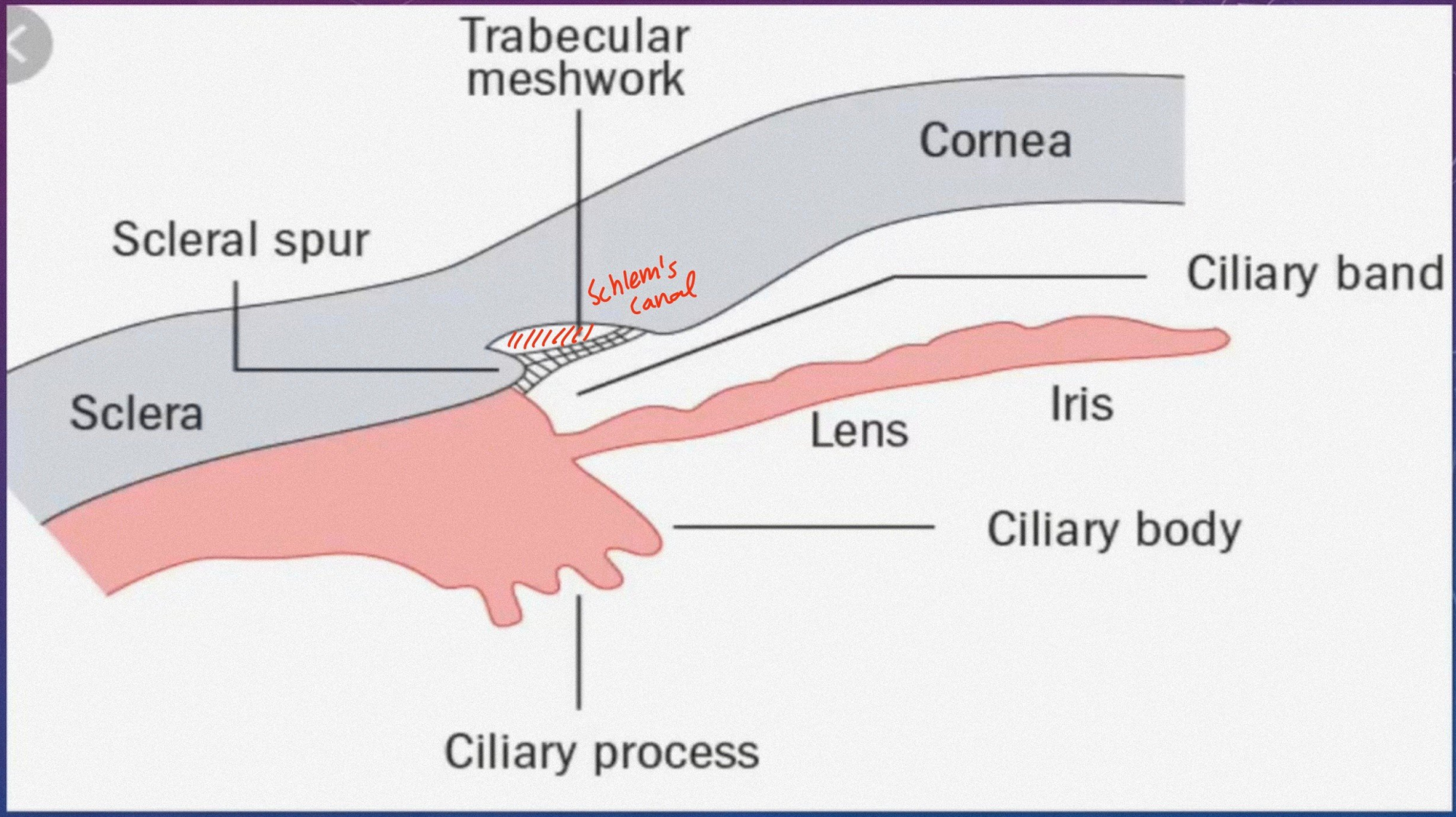



Trabecular meshwork
Cornea
Scleral spur
Ciliary band
Sclera
Lens
Iris
Ciliary body
Ciliary process

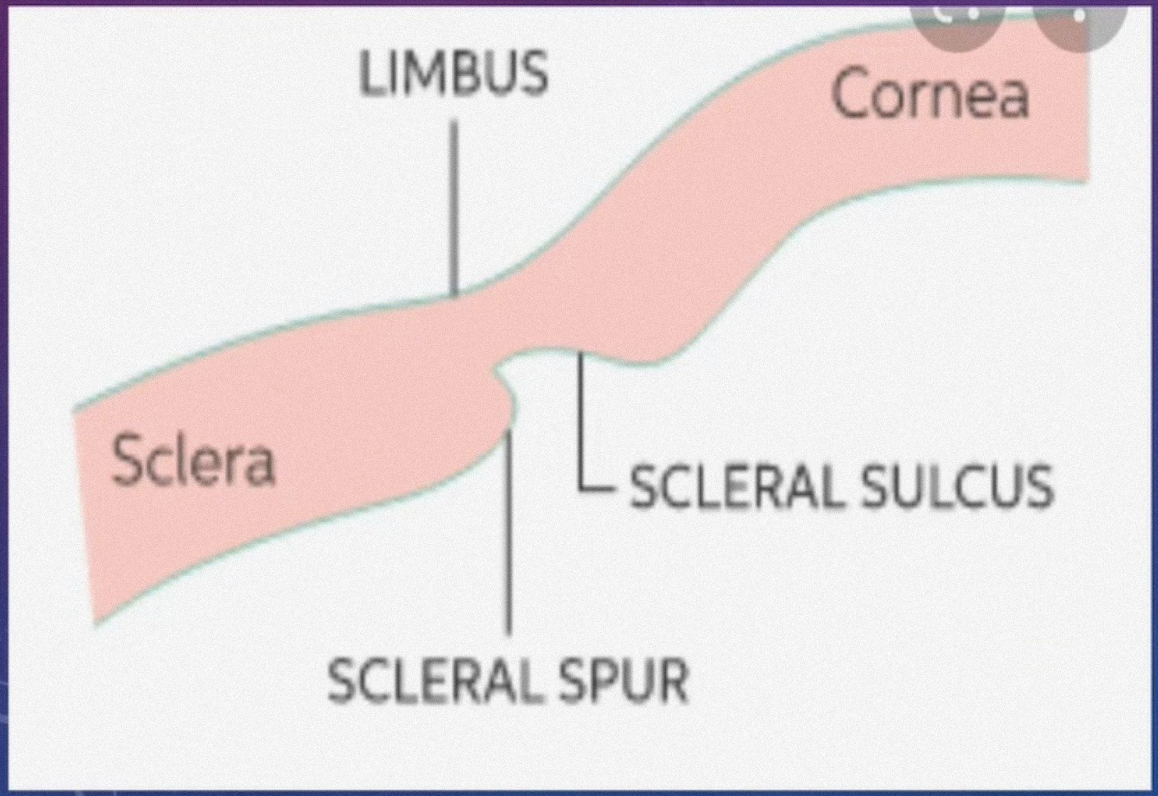
SCHLEMMS CANAL

- The trabecular meshwork, bridges the scleral sulcus converting it into a tube, which is known as schlemm's canal.
- It is a circular canal with a diameter of 190 to 350 microns, in the sclera which lies posterior to the sclerocorneal junction.



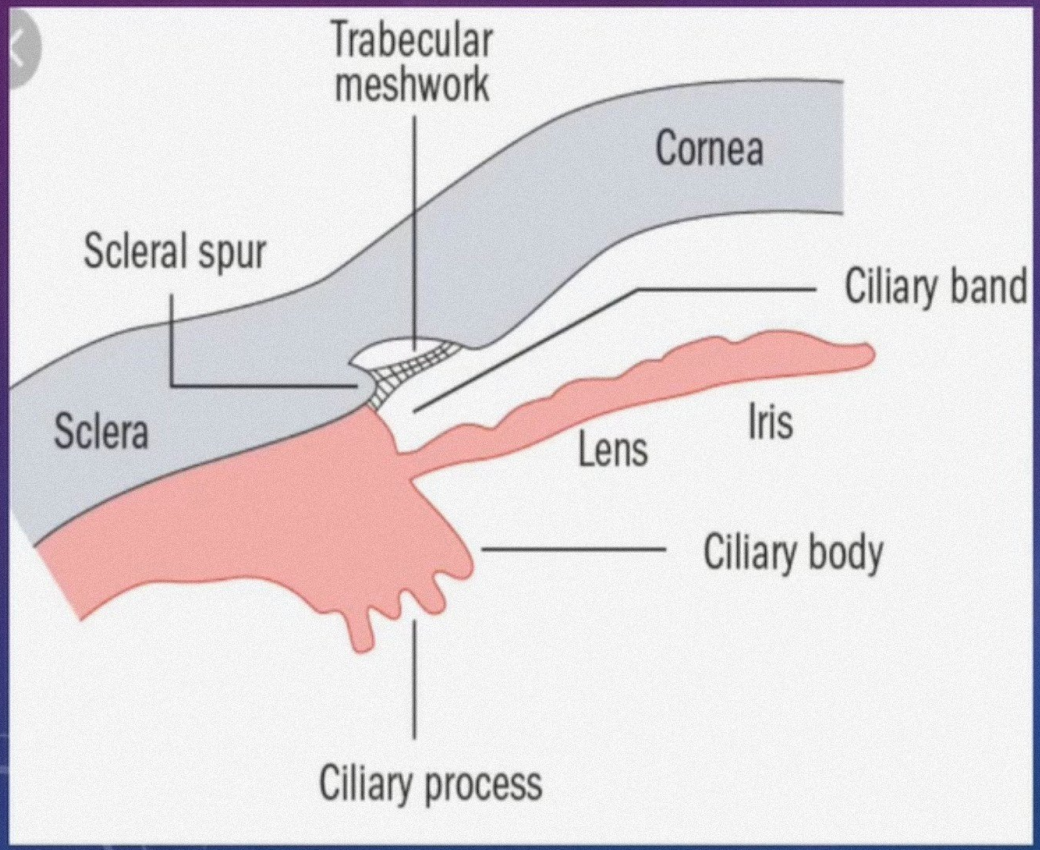

Trabecular meshwork
Cornea
Scleral spur
Schlem's canal
Ciliary band
Sclera
Lens
Iris
Ciliary body
Ciliary process

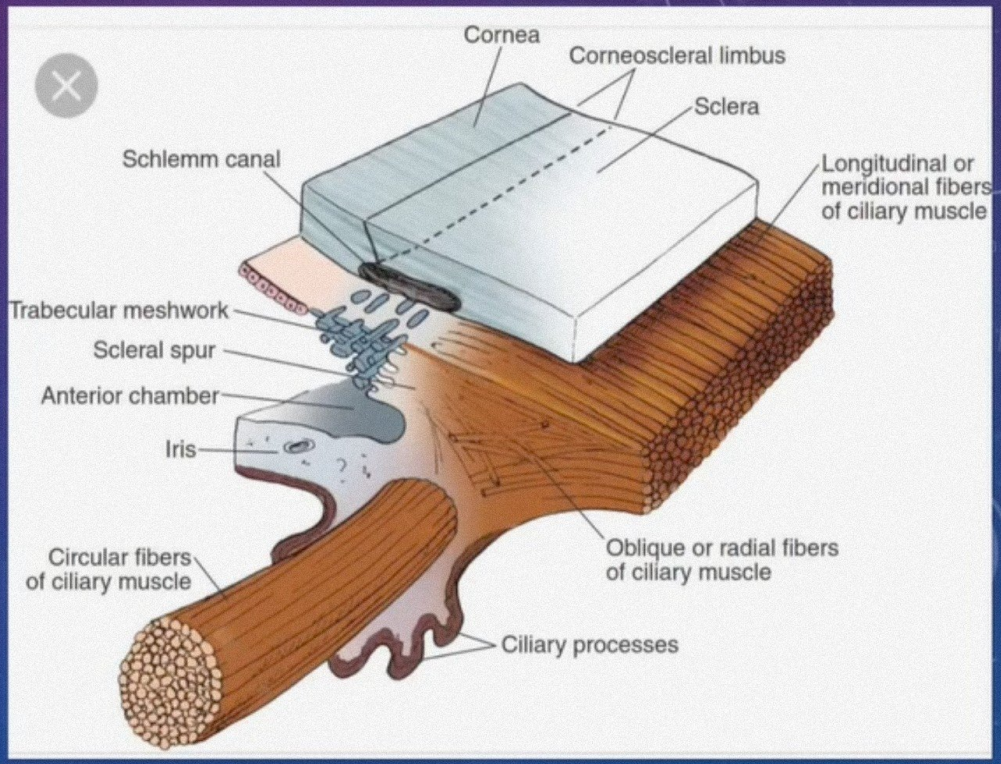
SCHLEMMS CANAL



1. Is oval in shape and lined by endothelium.
2. It communicate with anterior chamber through the trabecular meshwork internally.
3. Schlemm is perforated by approximately 25 to 30 aqueous collector channels which branch into intrascleral and deep scleral plexi.

NOT A RIGID TUBE!

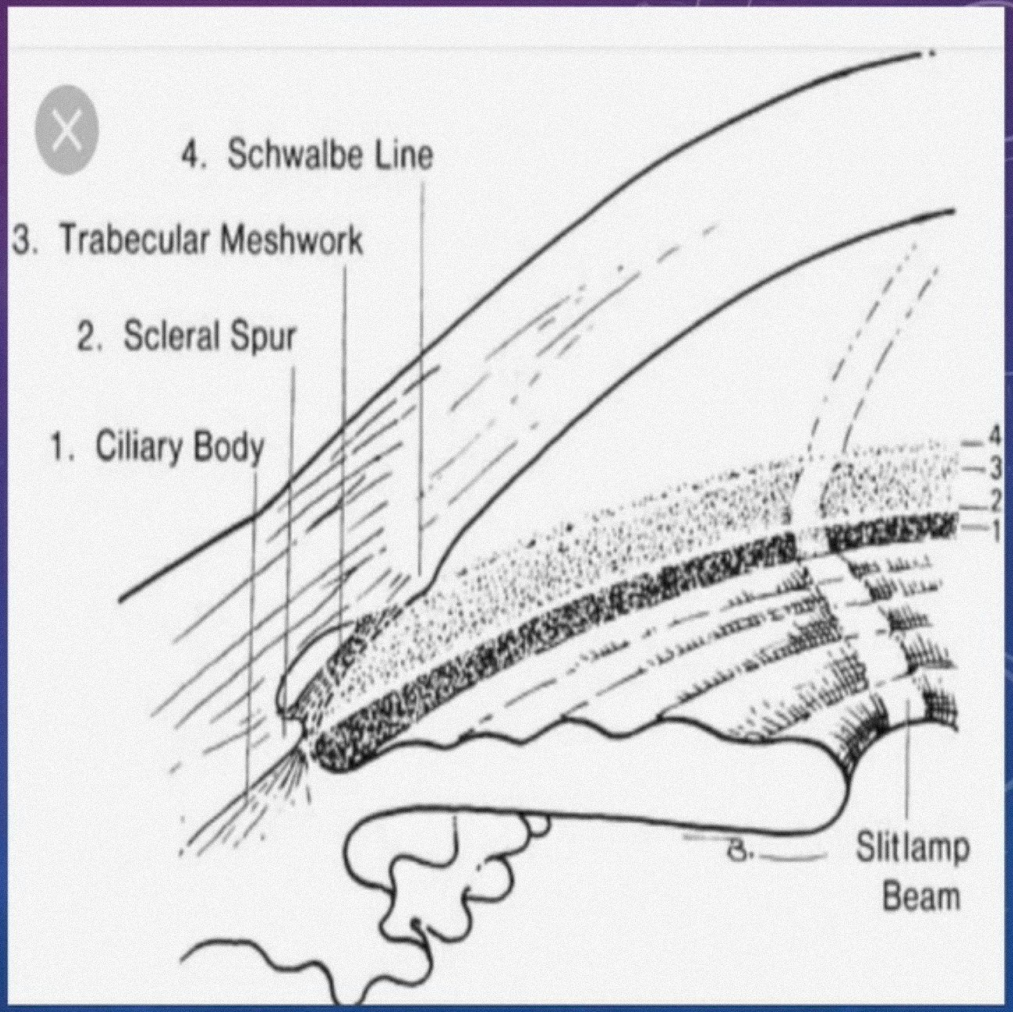




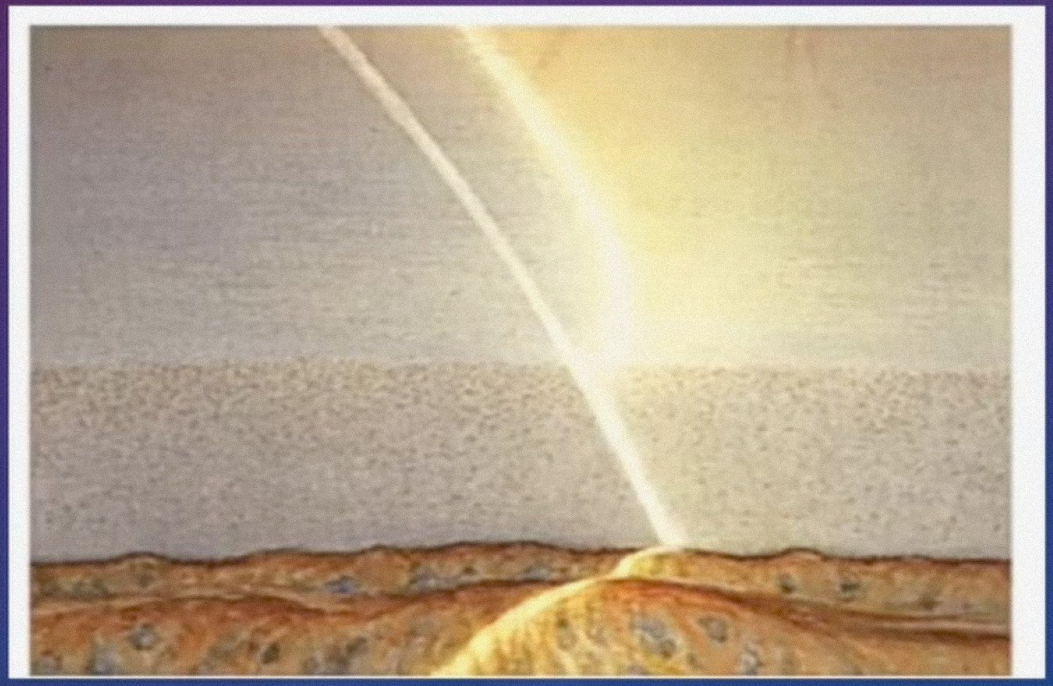
1-4 The scleral sulcus, in which the trabecular meshwork lies, is clearly demonstrated in this histopathological specimen stained with the Masson trichrome stain. The scleral sulcus is bordered anteriorly by Schwalbe's line (white arrow) and posteriorly by the scleral spur (black arrow). The longitudinal muscle (**LM**) of the ciliary body attaches to the scleral spur. The separation between sclera and ciliary body (*) is an artifact.

SCHWALBE'S LINE

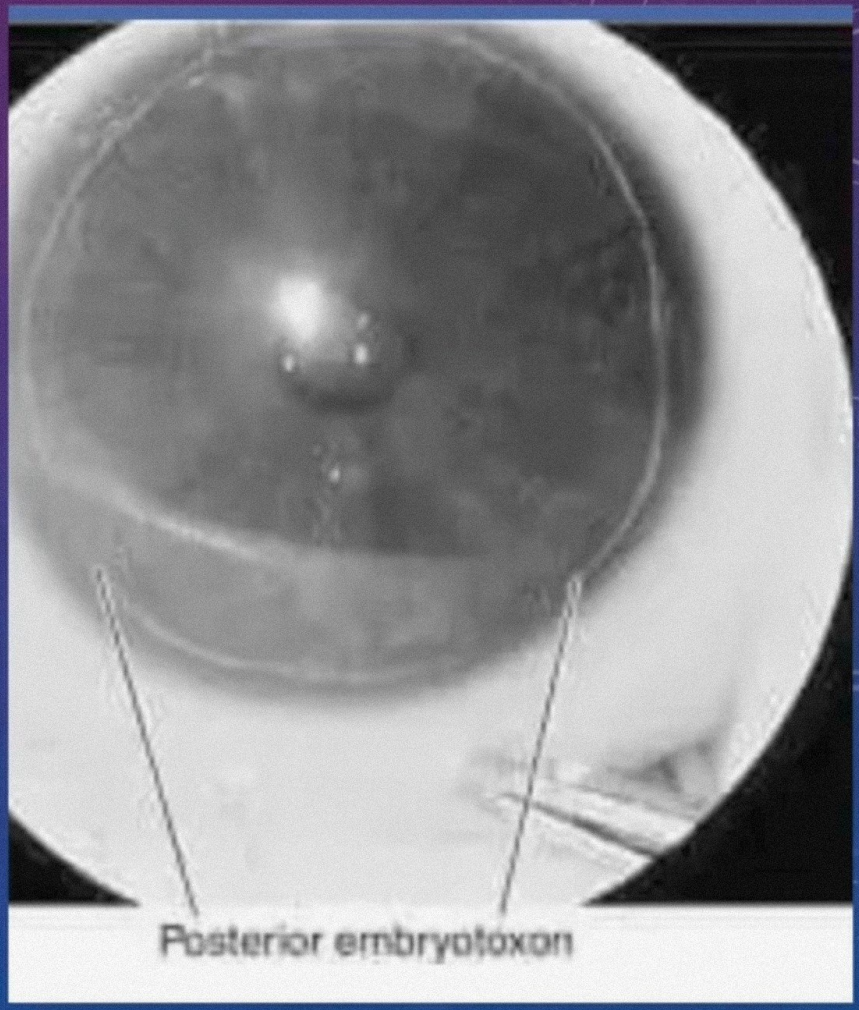
- Trabecular meshwork inserts in to the periphery of cornea, a ridge is created, known as Schwalbe's line. It also marks the prominent end of Descemet's membrane of the cornea



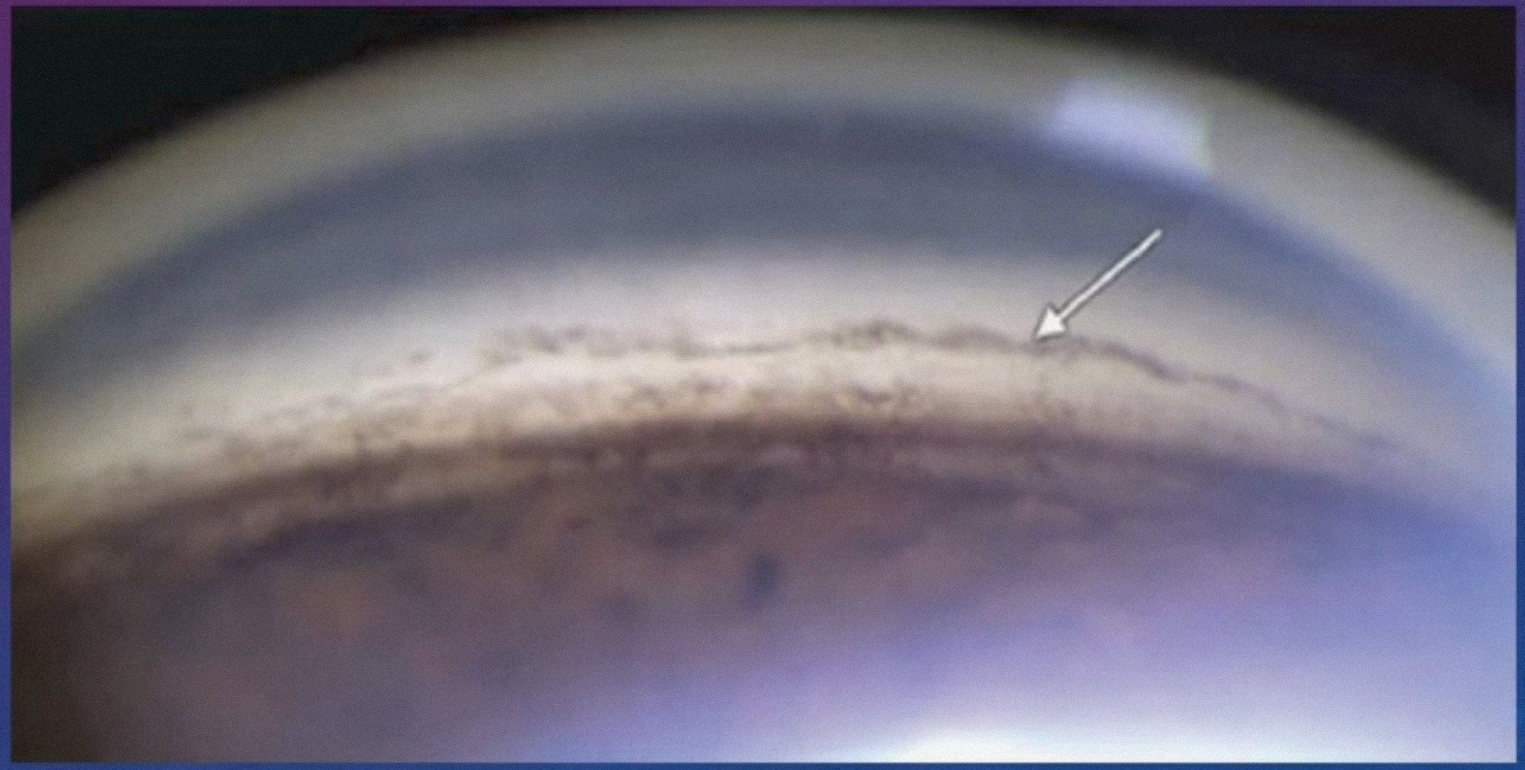
CORNEAL WEDGE : IDENTIFIES THE SCHWALBE'S LINE!



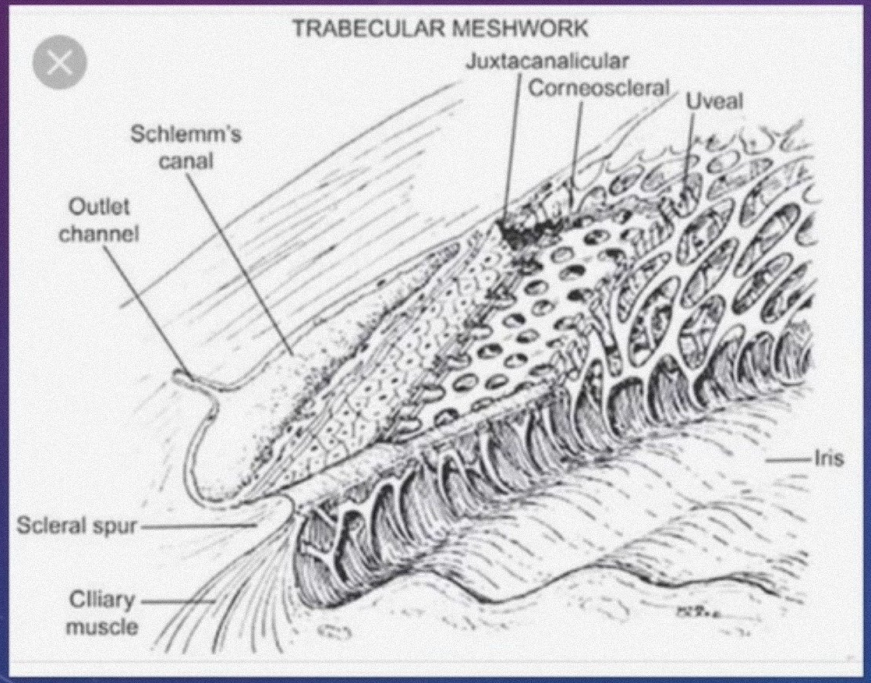
POSTERIOR EMBRYOTOXON

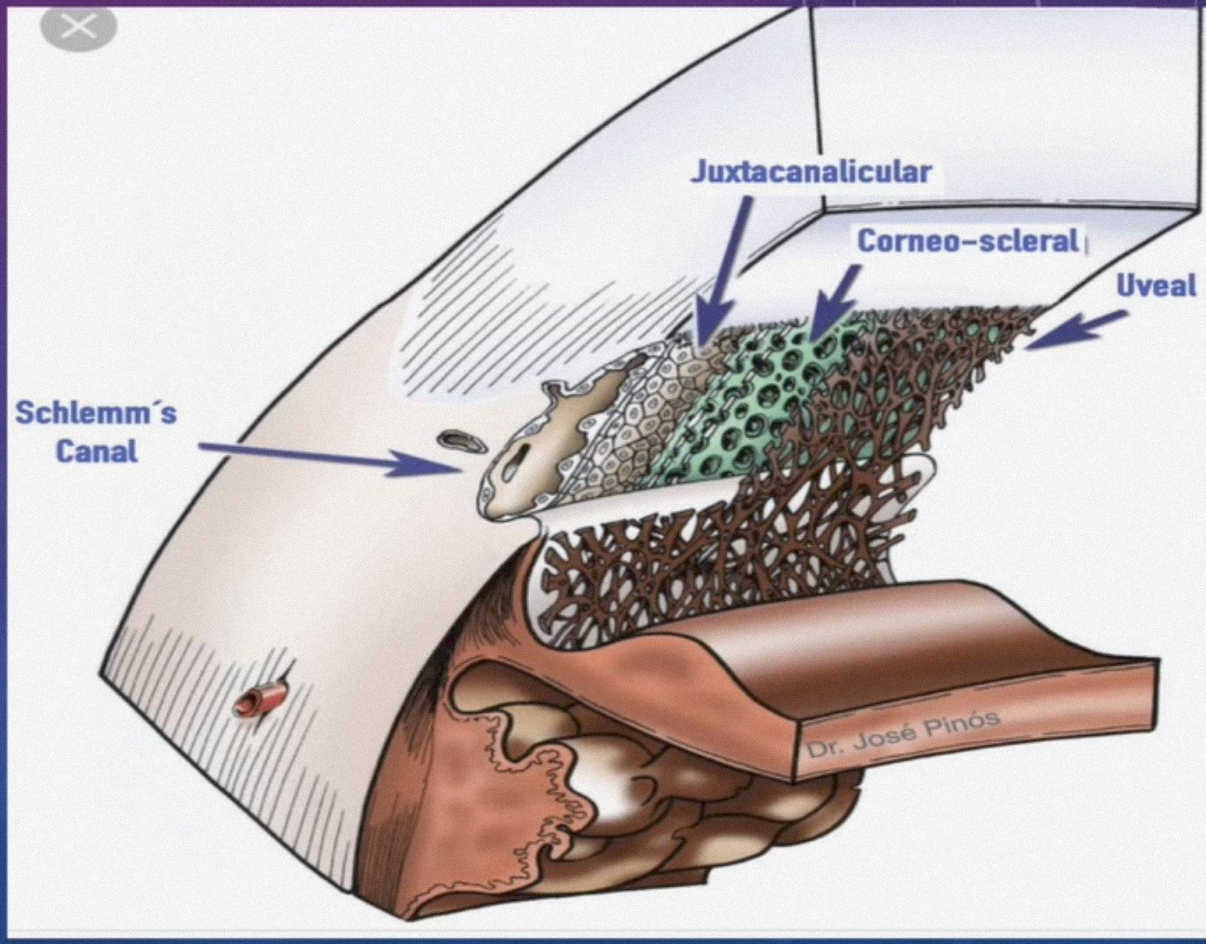


SAMPAOLESI LINE

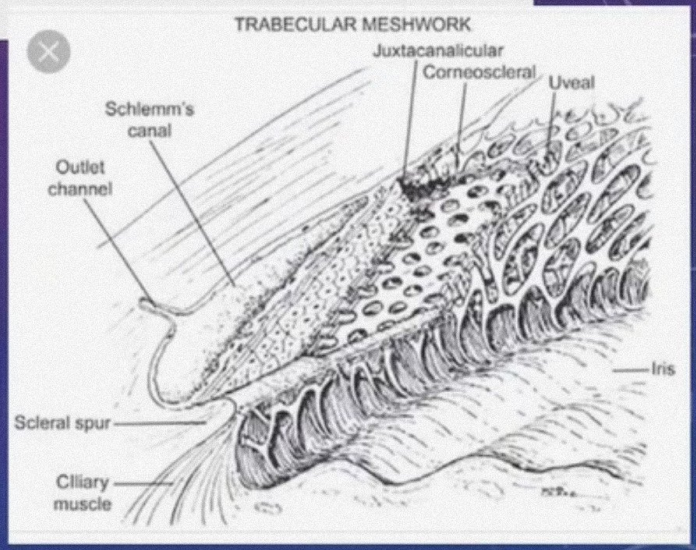


DETAILS OF THE TRABECULAR MESHWORK





PARTS OF TRABECULAR MESHWORK



- **ANTERIOR T.M : Non functional**
- **POSTERIOR T.M**

1) Uveoscleral
2) Corneoscleral
3) Juxtacanalicular

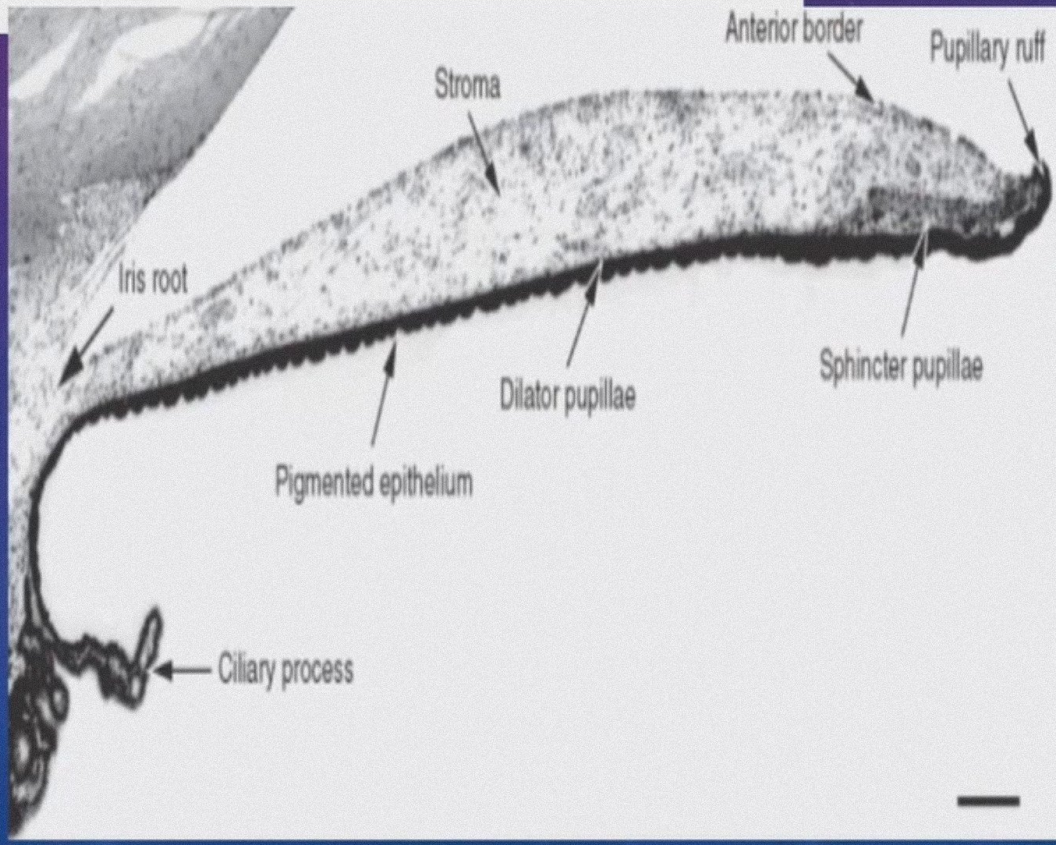
Juxtacanalicular trabecular meshwork is sometimes referred to as the cribriform layer

AGE RELATED CHANGES IN TRABECULAR MESHWORK

- Increased pigmentation
- Reduced endothelial cells
- Thickened basement membrane
- Accumulation of debris
- Glycosaminoglycans deposition with age in extracellular space
- Increased resistance to outflow

ROOT OF THE IRIS / PERIPHERAL IRIS

- INSERTION OF THE IRIS
- THIINEST HERE
- INSERTS AT THE ANTERIOR PART OF THE CILAIRY BODY
- WHAT IS PLATEAU IRIS CONFIGURATION ?



IRIDODIALYSIS

NORMAL BLOOD VESSELS IN ANGLE

- Radial vessels
- Vertical branches of the anterior ciliary artery

NEVER CROSS SCLERAL SPUR