

Glaucoma classification

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What is Glaucoma?

*Glaucoma is an eye disease where the optic nerve is damaged that is associated with visual field loss with or without elevated IOP.

*It is one of the leading causes of blindness.

Glaucoma is classified according to:

- age of onset: congenital, infantile, juvenile and adult.
- Mechanism of pressure elevation.
- Primary or secondary .

Glaucoma

Closed

Open

+ Pupillary block

- Pupillary block

Secondary

Primary

PACG
Inflammatory
Lens related

Inflammatory (PAS)
Neovascular
Traumatic
Tumour related
Plateau iris
ICE
Malignant G
Chorioretinal abnormalities

PXF
PDS
Inflammatory
Traumatic
Lens related
Tumour related
EVP
Angle dysgenesis

POAG
OHT
NPG

PRIMARY OPEN ANGLE GLAUCOMA(POAG): (the most common type)

- * Elevated IOP.
- * Optic nerve changes.
- * Visual field loss.

OCULAR HYPERTENSION (OH)

NORMAL PRESSURE GLAUCOMA (NPG)

* IOP > 21 mmHg without treatment.

* IOP **NORMAL** without treatment.

* Optic nerve **NORMAL**.

* Optic nerve **DAMAGE** typical of glaucoma.

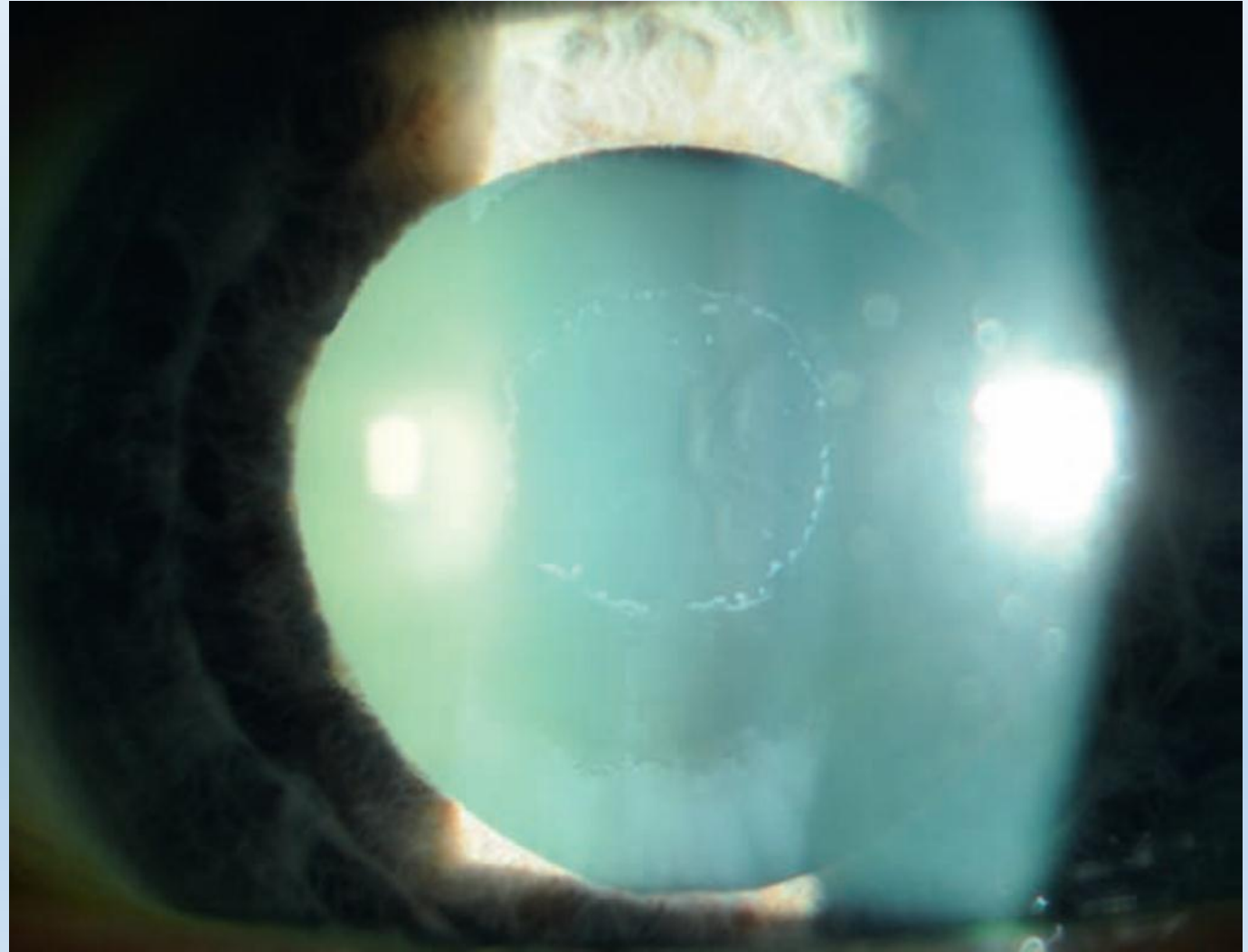
* Visual field **NORMAL**.

* Visual field **DEFECTS** typical of glaucoma.

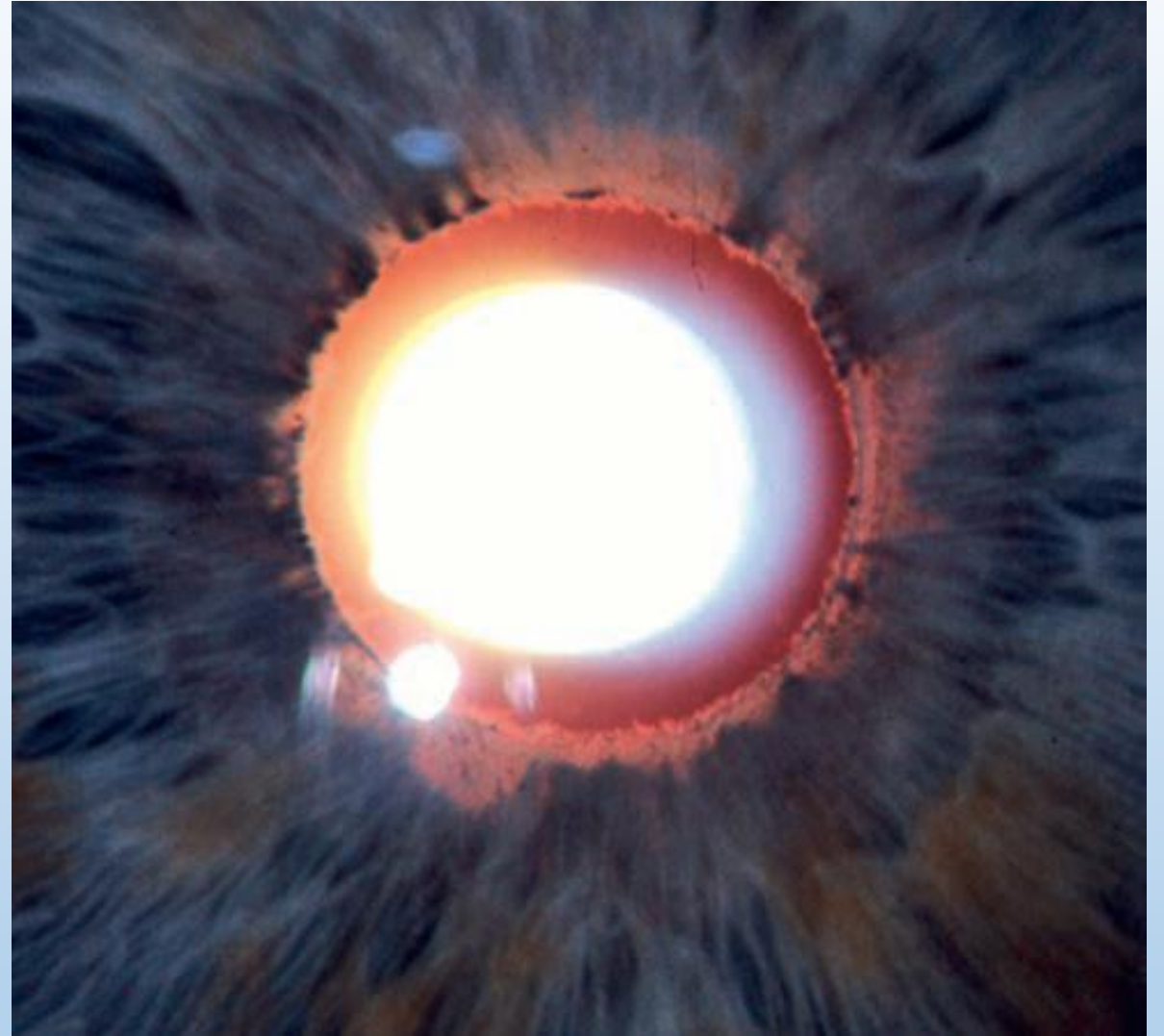
Pseudoexfoliation Glaucoma (PXF):

*Unilateral.

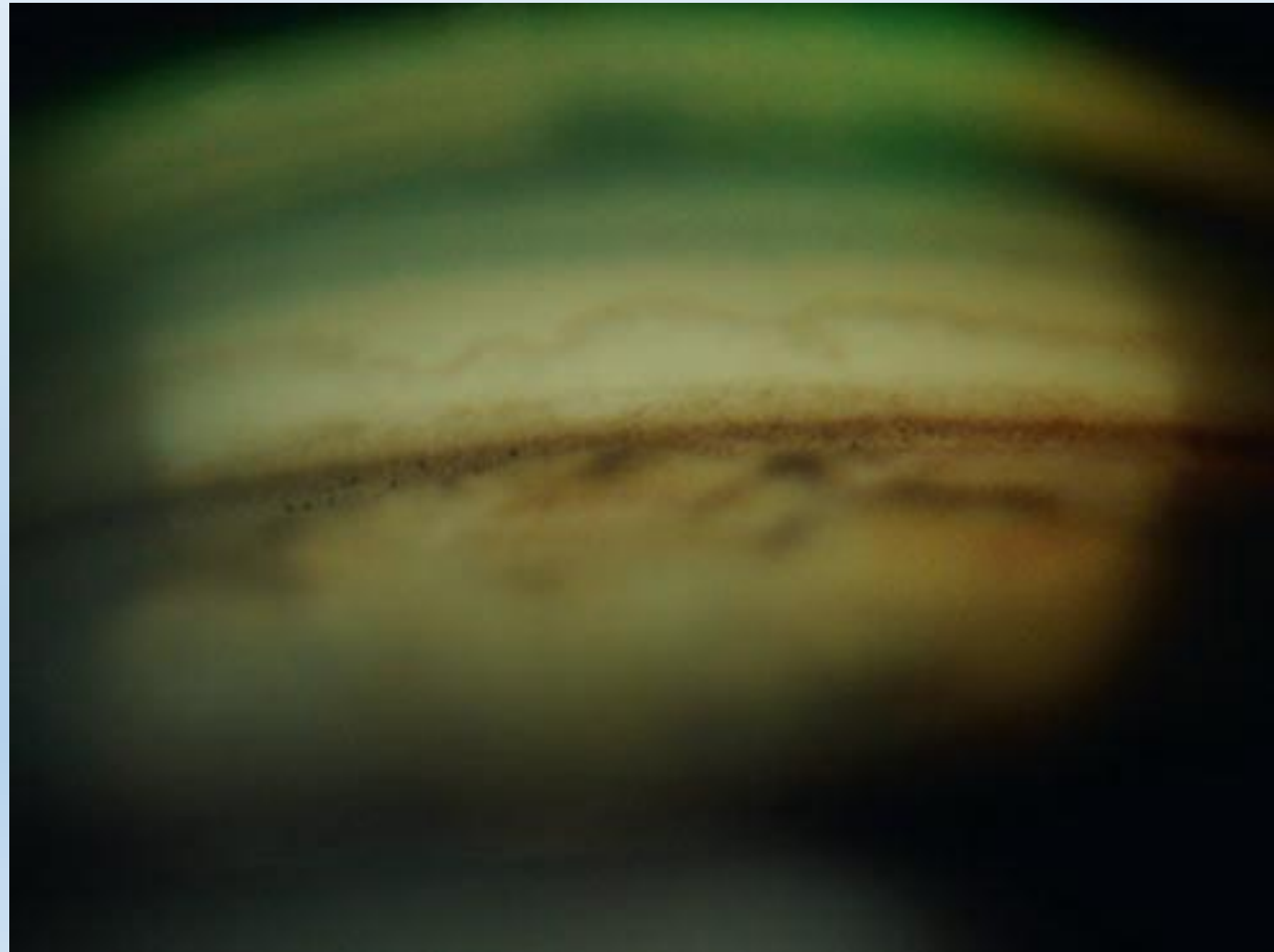
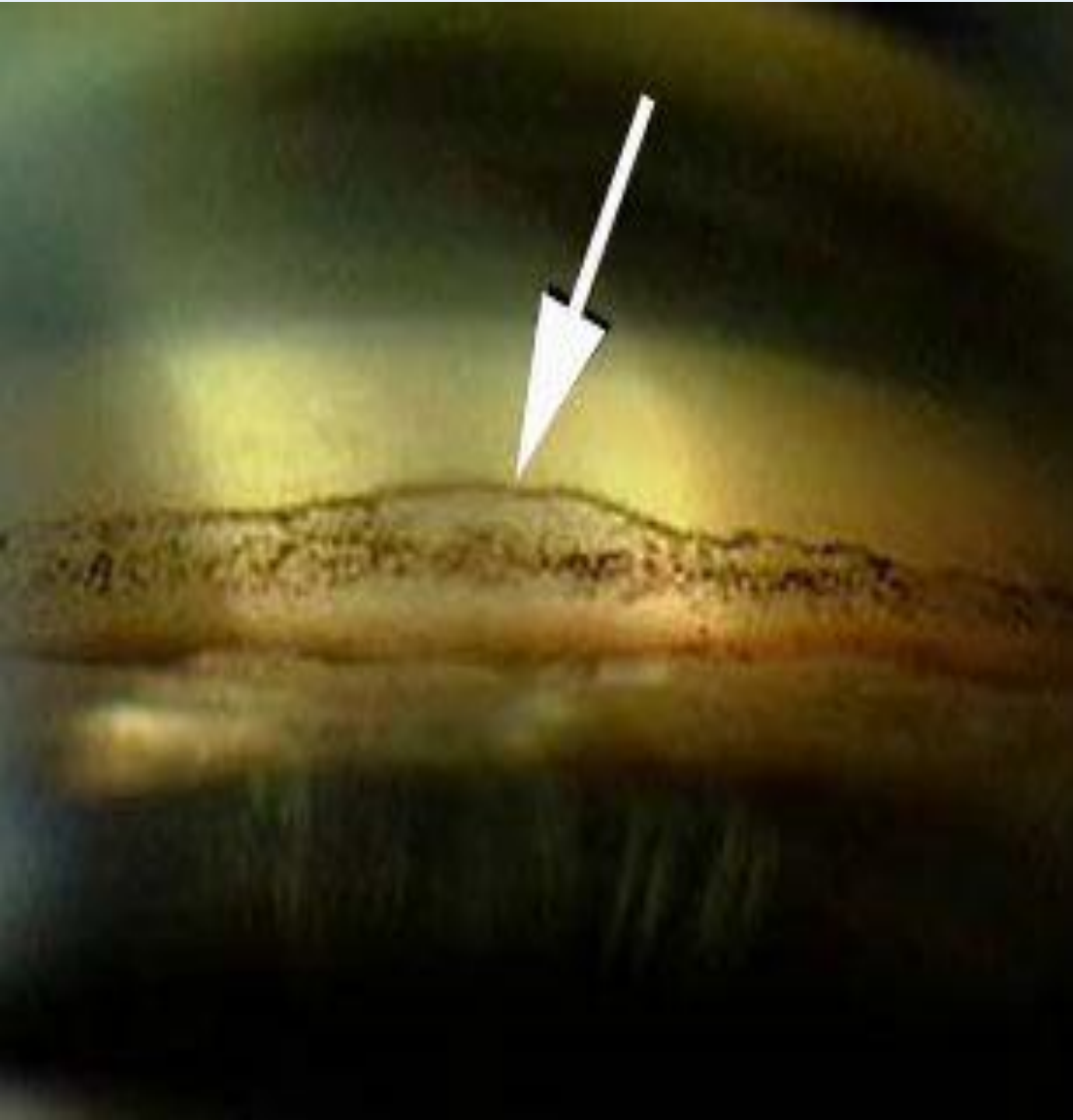
*female.



*Mouth eaten defect



- * patchy pigmentation of trabeculum
- * sampaolesi line



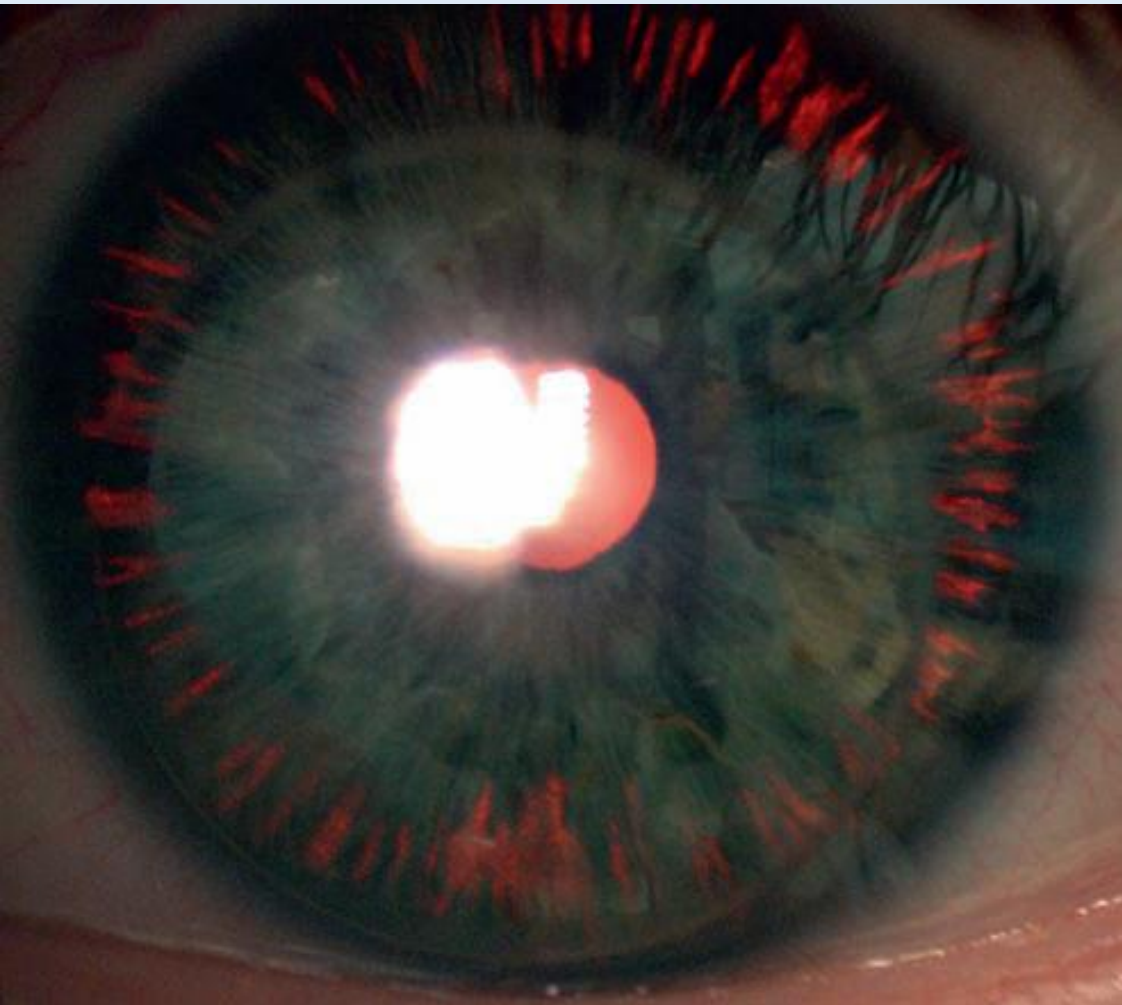
Pigmentary Glaucoma (PDS):

- *bilateral
- *male
- *krukenberg spindle
- * Induced by exercises



*radial slit like defects

*homogeneous pigmentation of trabeculum.



A

inflammatory Open Angle Glaucoma:

- * UVEITIS :
 - acute:
 - a. steroids
 - b. trabecular obstruction
 - c. acute trabeculitis (herpes, posner, schlossman)
 - chronic:
 - a. trabecular scar.
 - b. cletaneous exudate on trabeculum

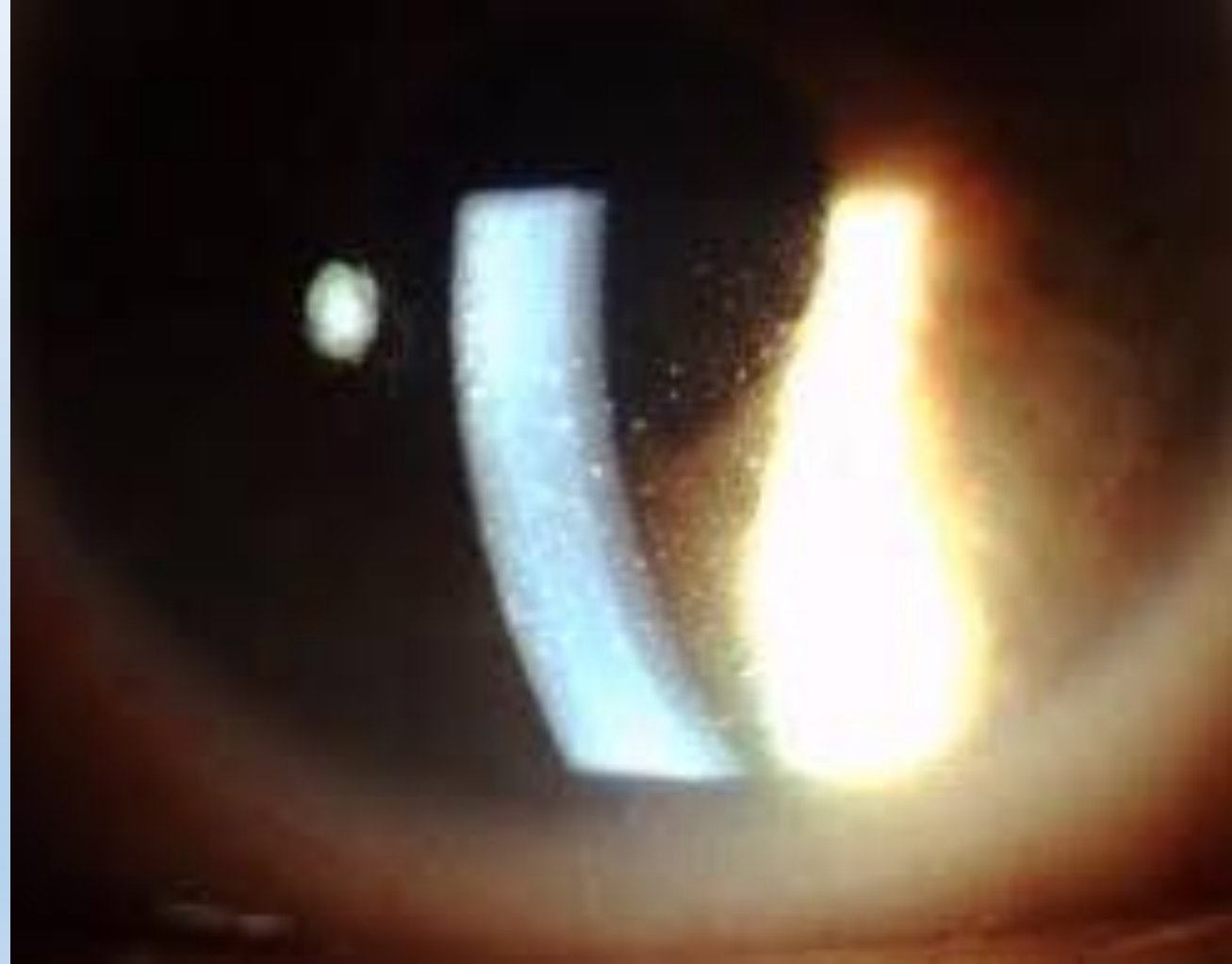
posner-schlossman syndrome:

*recurrent attacks of open angle
glaucoma with ant. Uveitis.

*unilateral..young adults.

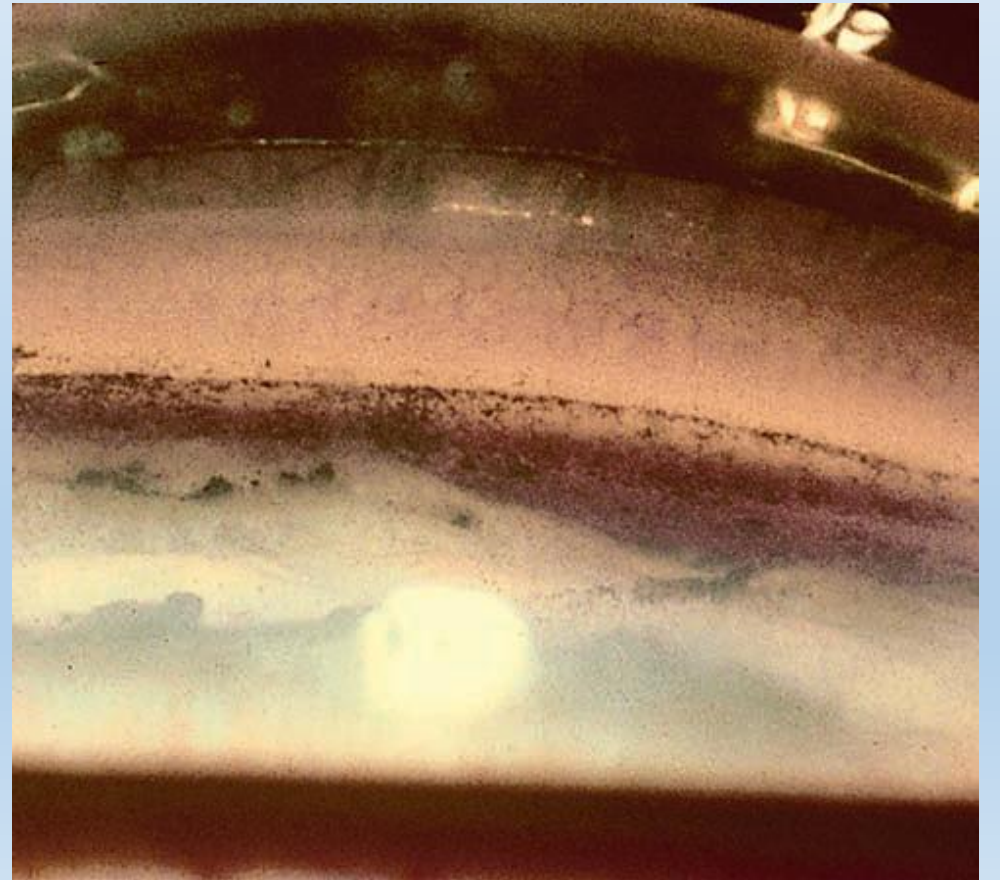
*iop (40-60)mmhg

*no PAS.



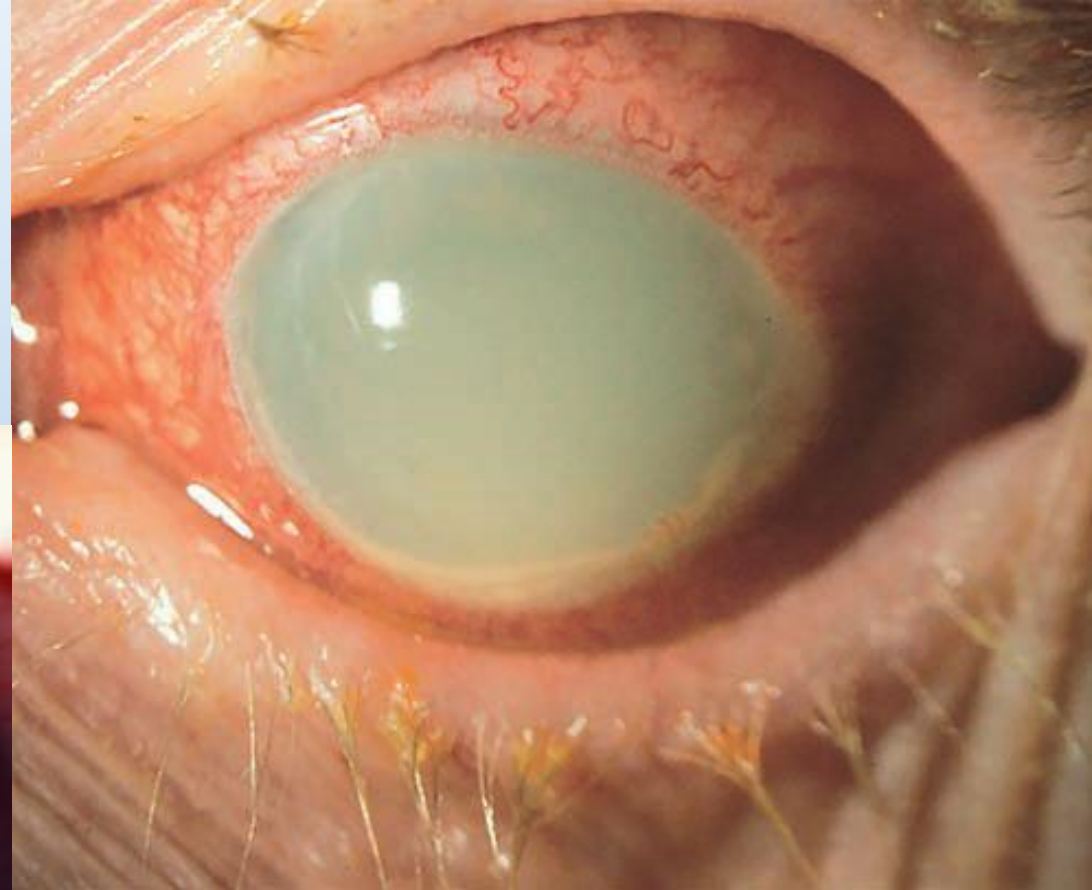
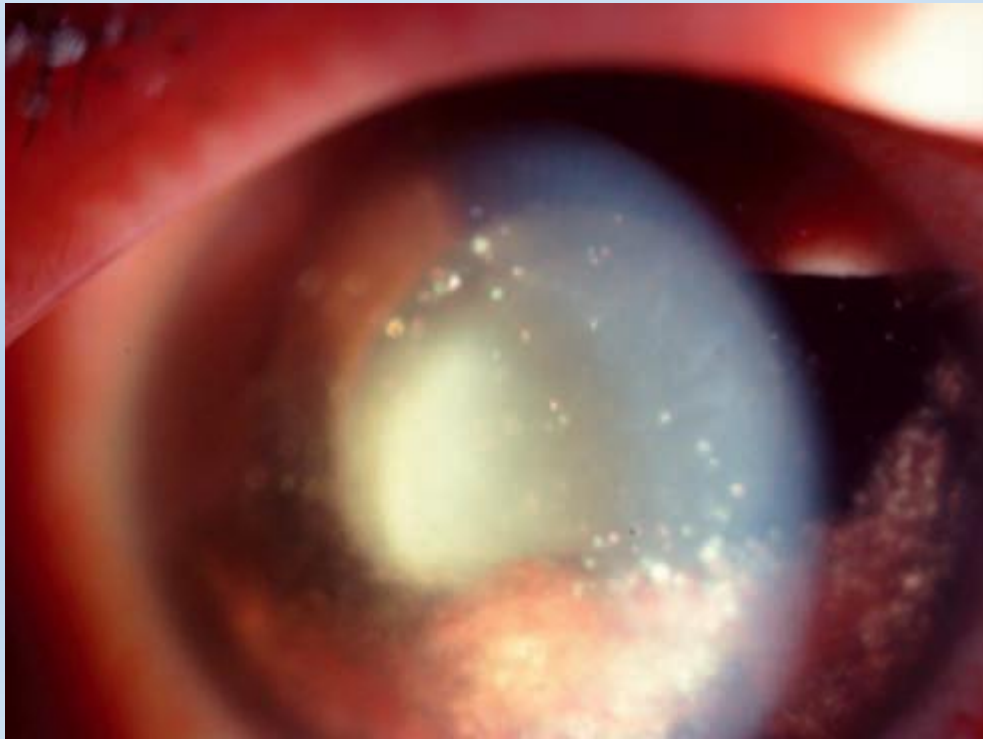
Traumatic Open Angle Glaucoma:

- * hypheama: - trabecular blockage by RBC..(RBCG)
- * angle recession



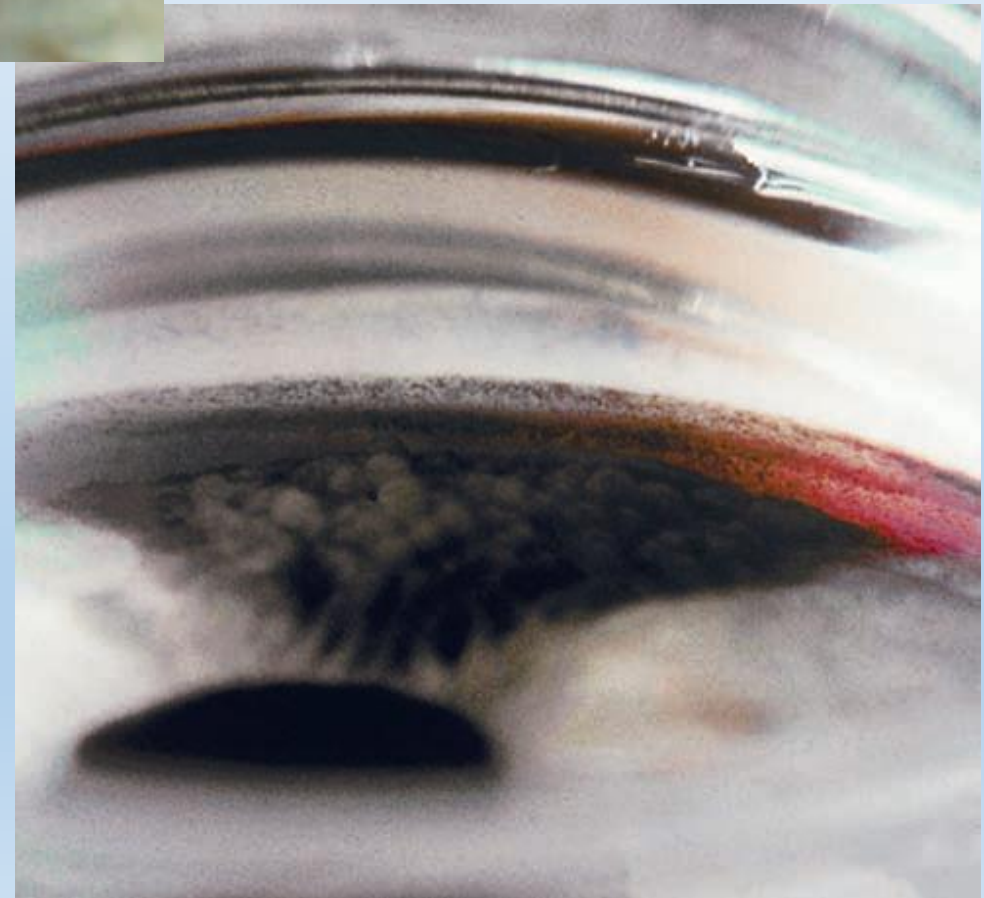
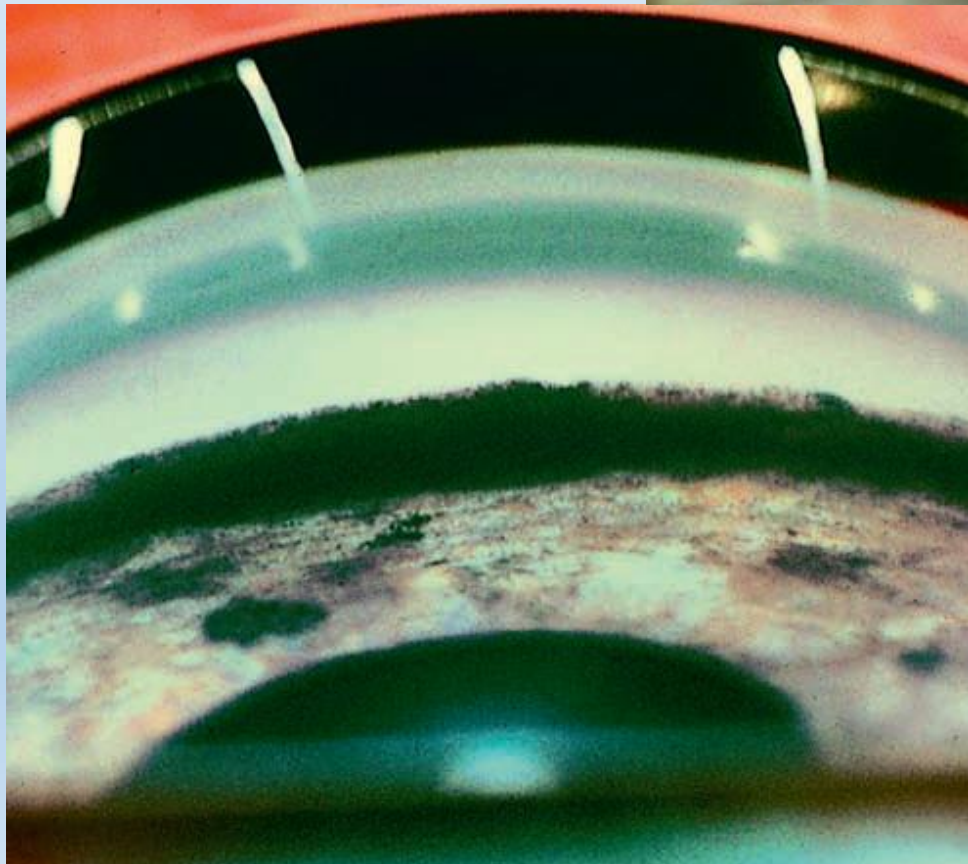
Lens Related Open Angle Glaucoma

- * Phacolytic
- * phacoanaphylctic...
- * Lens particle syndrome



Tumor Related Open Angle Glaucoma

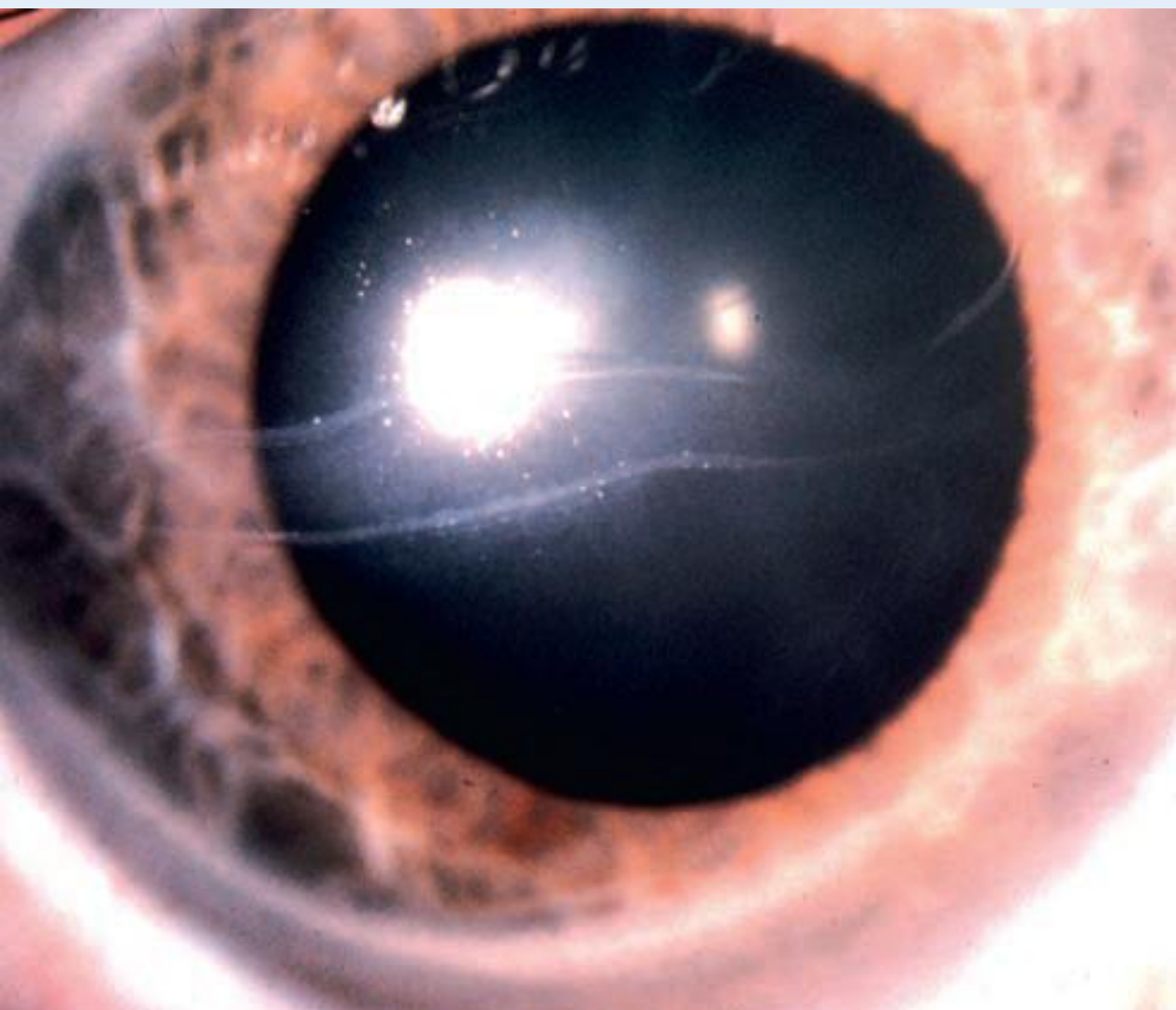
- * Trabecular block:
 - Angle invasion by a solid iris melanoma.
 - Trabecular infiltration by neoplastic cells originating from an iris melanoma . Rarely, tumour seeding from a retinoblastoma may also invade the trabeculum.
 - Melanomalytic glaucoma may occur in some eyes with iris melanoma; it is due to trabecular blockage by macrophages that have ingested pigment and tumourcells, similar to phacolytic glaucoma.



↑ Episcleral venous pressure

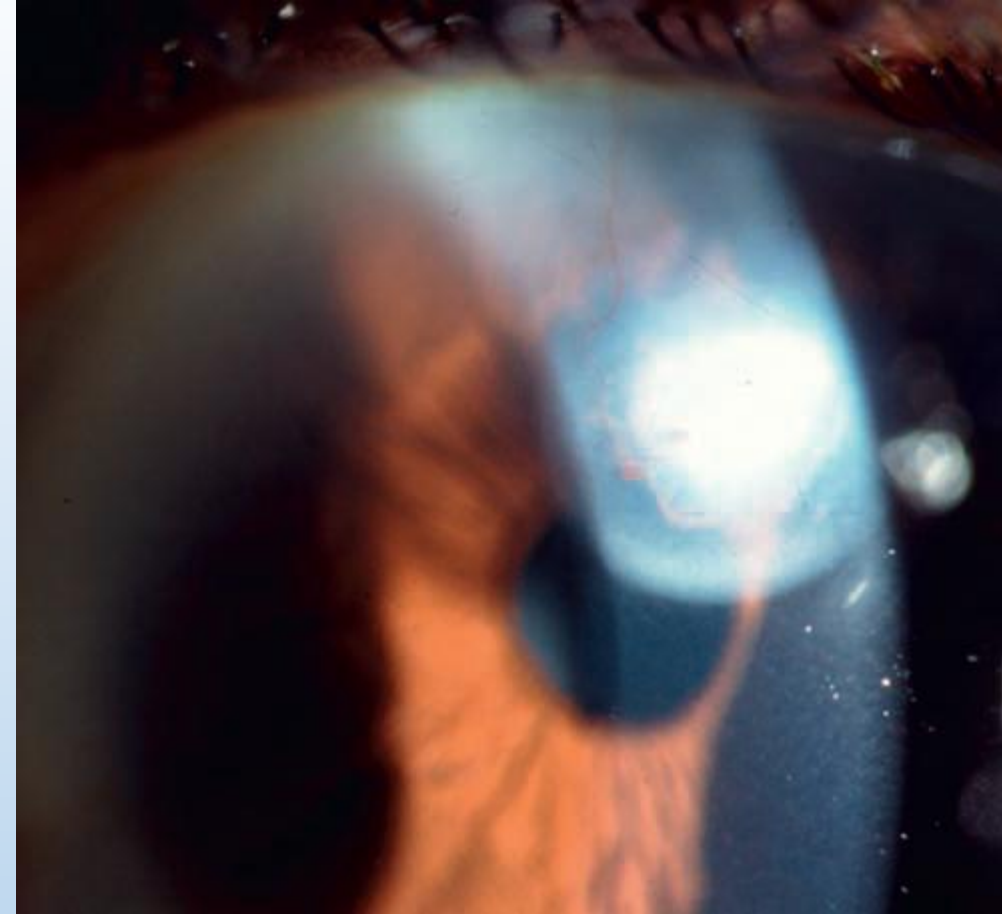
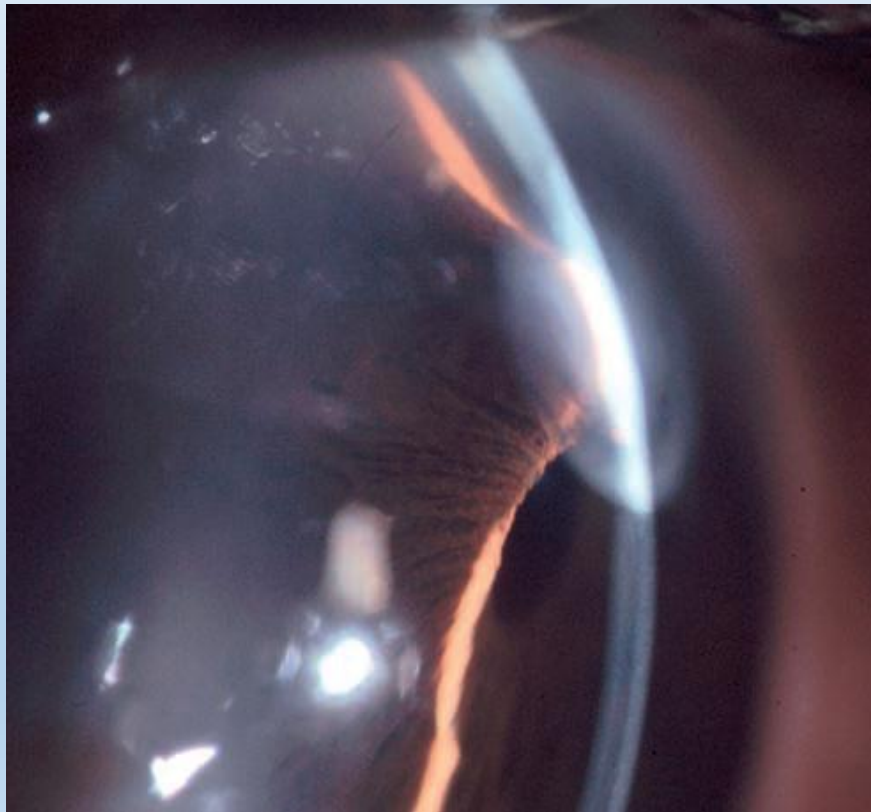
- ✓ Sturge-weber syndrome
- ✓ Carotid-cavernous fistula
- ✓ Obstruction of superior vena cava
- ✓ Cavernous sinus thrombosis
- ✓ Thyriodopathy
- ✓ Retrobulbar tumours

*Congenital Glaucoma

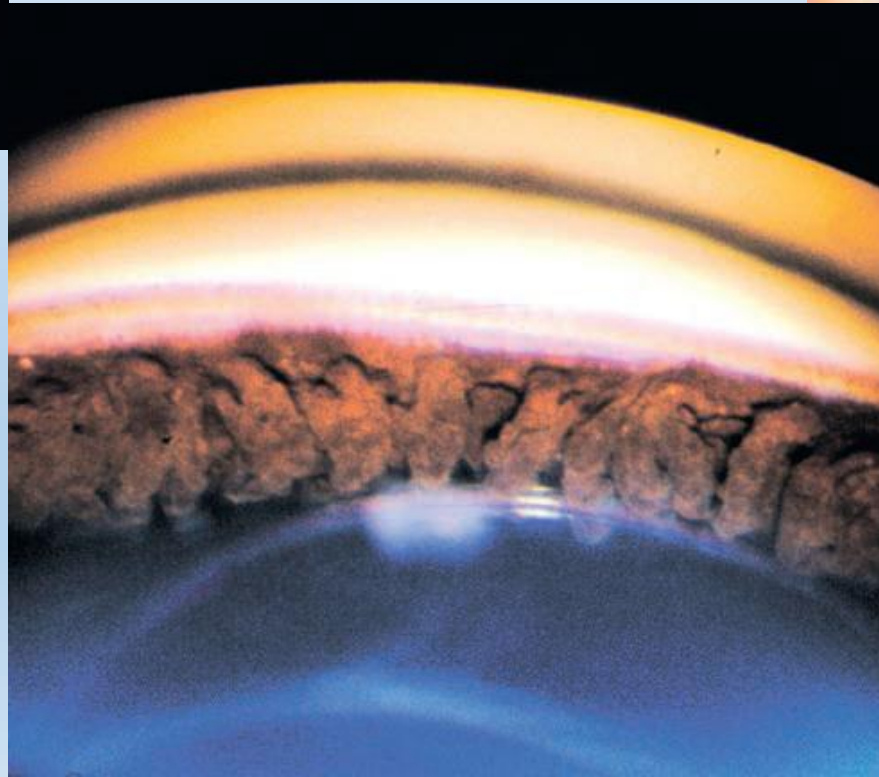
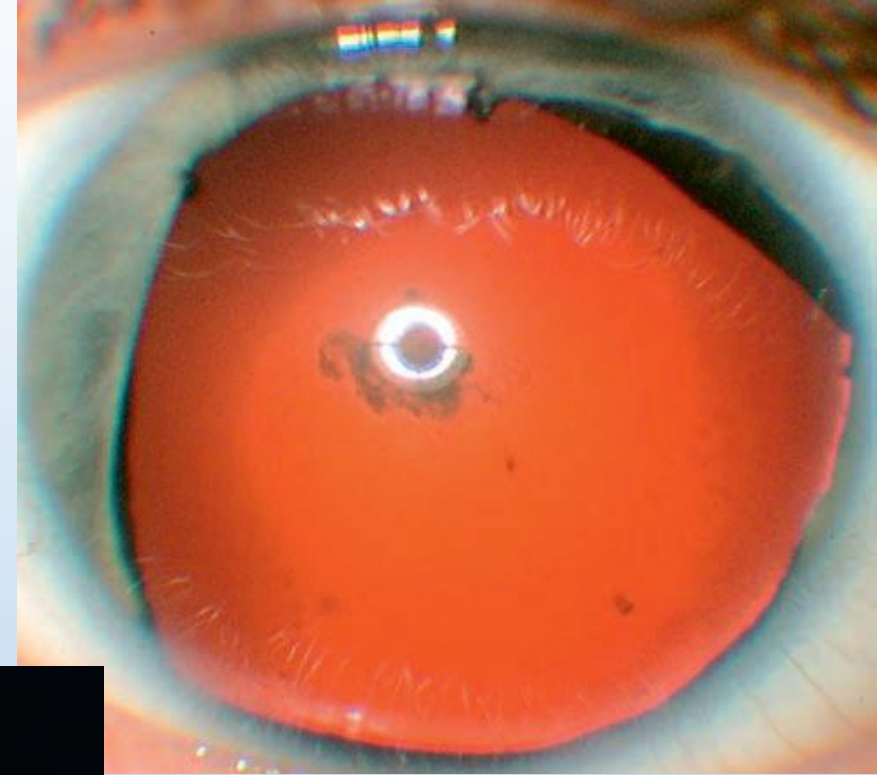
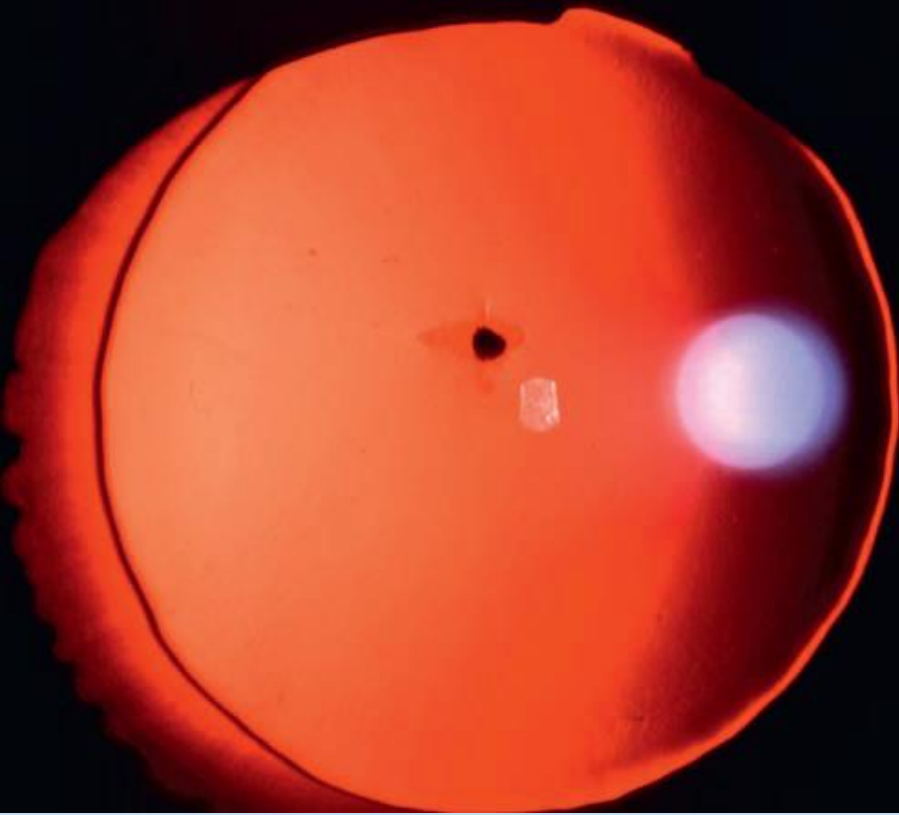


Angle Dysgenesis:

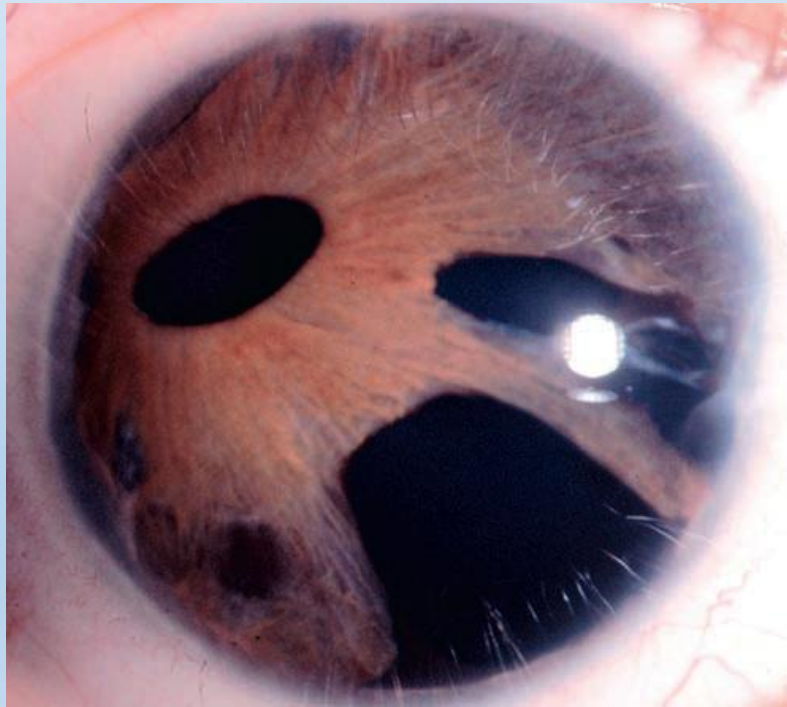
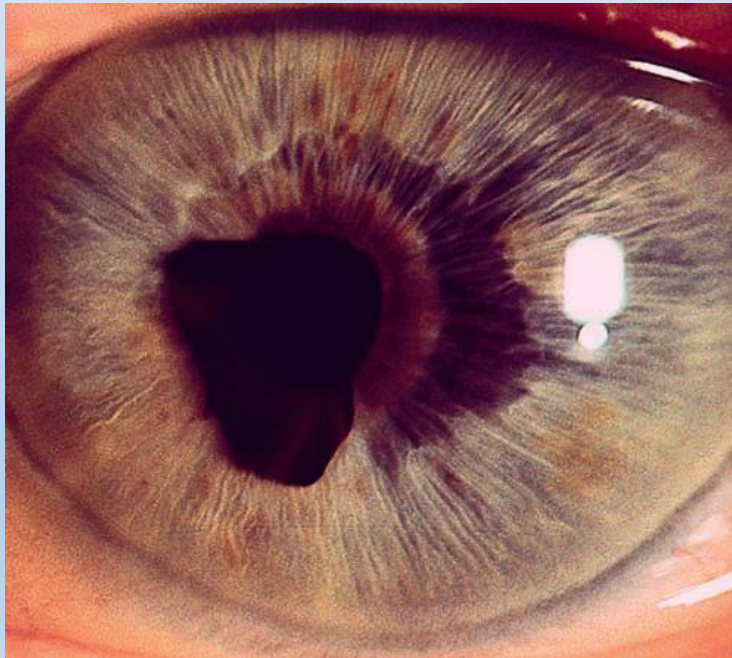
*Peter anomaly



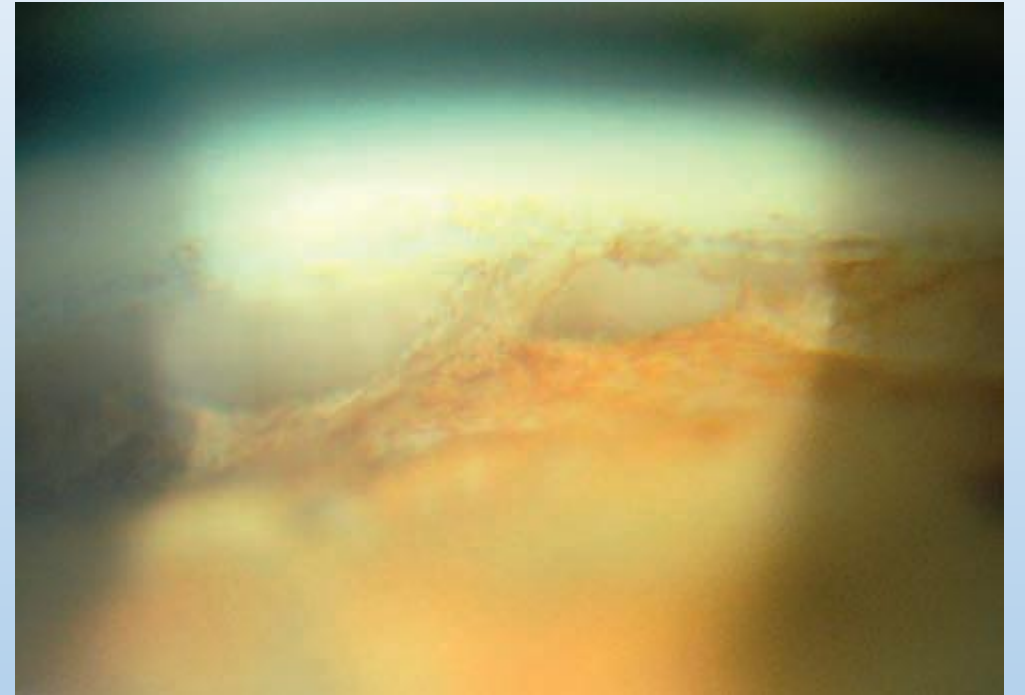
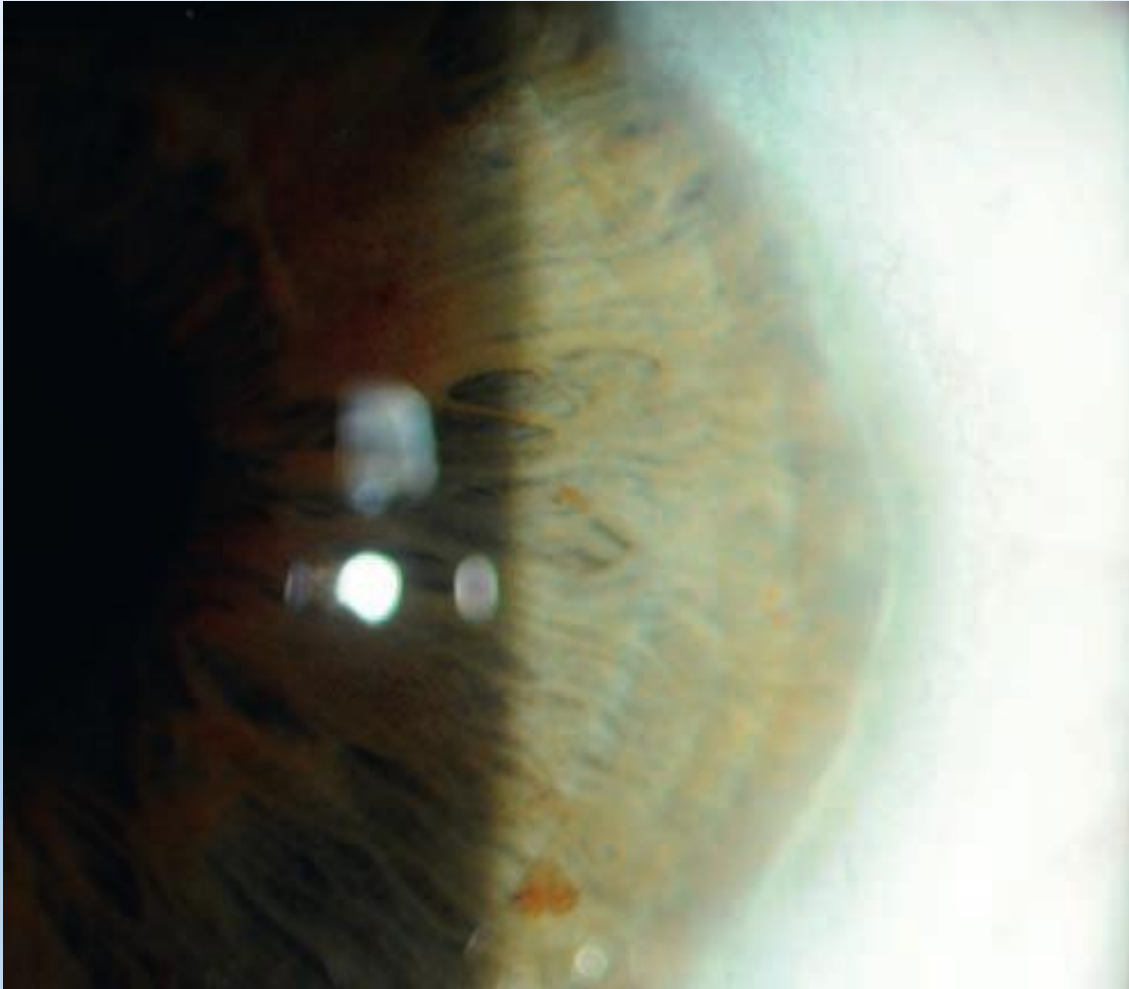
*Aniridia



*Axenfeld rieger



*Axenfeld rieger



Primary Angle Closure Glaucoma (PACG)

*Primary angle closure suspect:

- ITC in 3 or more quadrants.
- no PAS.
- NORMAL: IOP ,OPTIC DISC ,VISUAL FIELD.

*Primary angle closure (PAC):

- ITC in 3 or more quadrants.
- + or – PAS.
- elevated IOP.
- NORMAL :OPTIC DISC AND VISUAL FIELD.

*Primary angle closure glaucoma (PACG) :

- ITC in 3 or more quadrants.
- optic neuropathy.

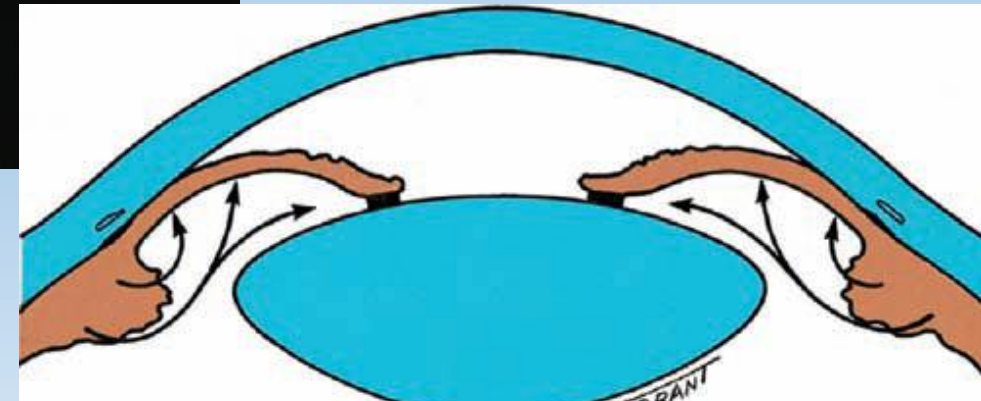
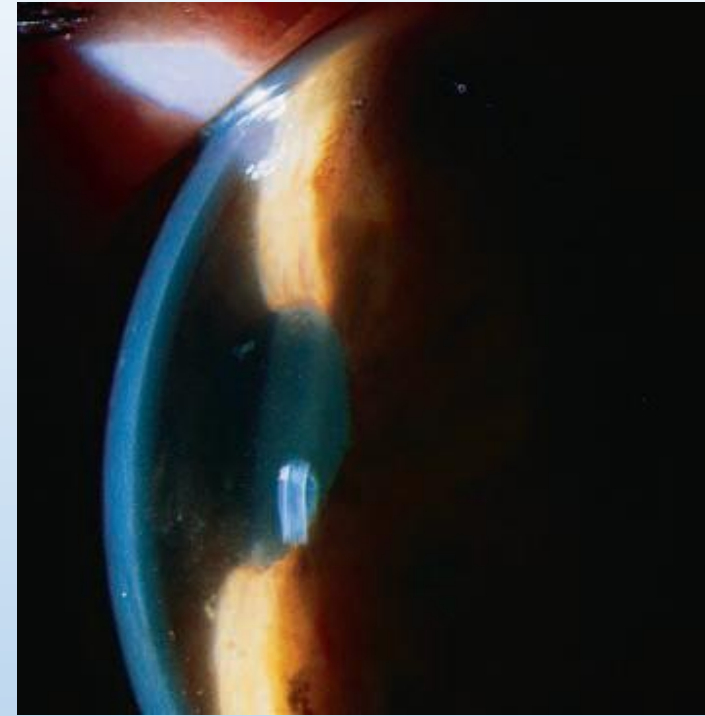
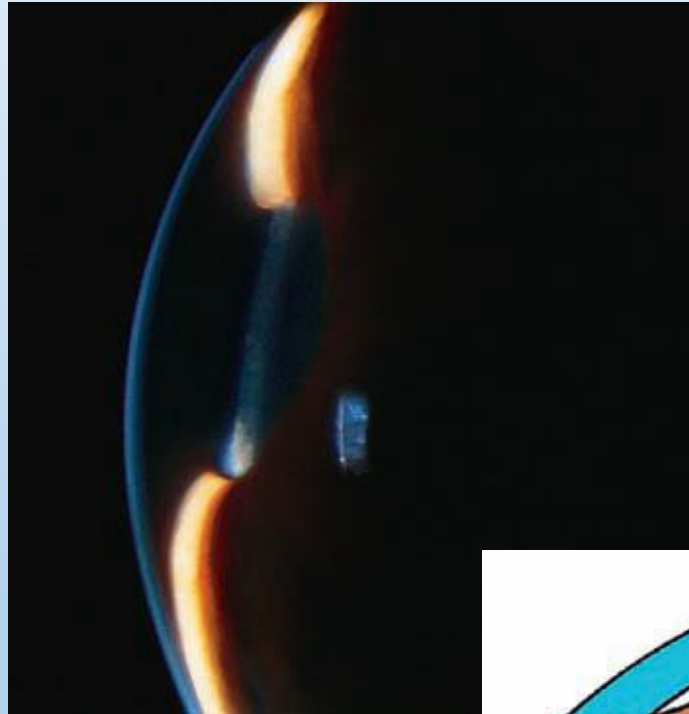
Lens Related Glaucoma:

*phacomorphic



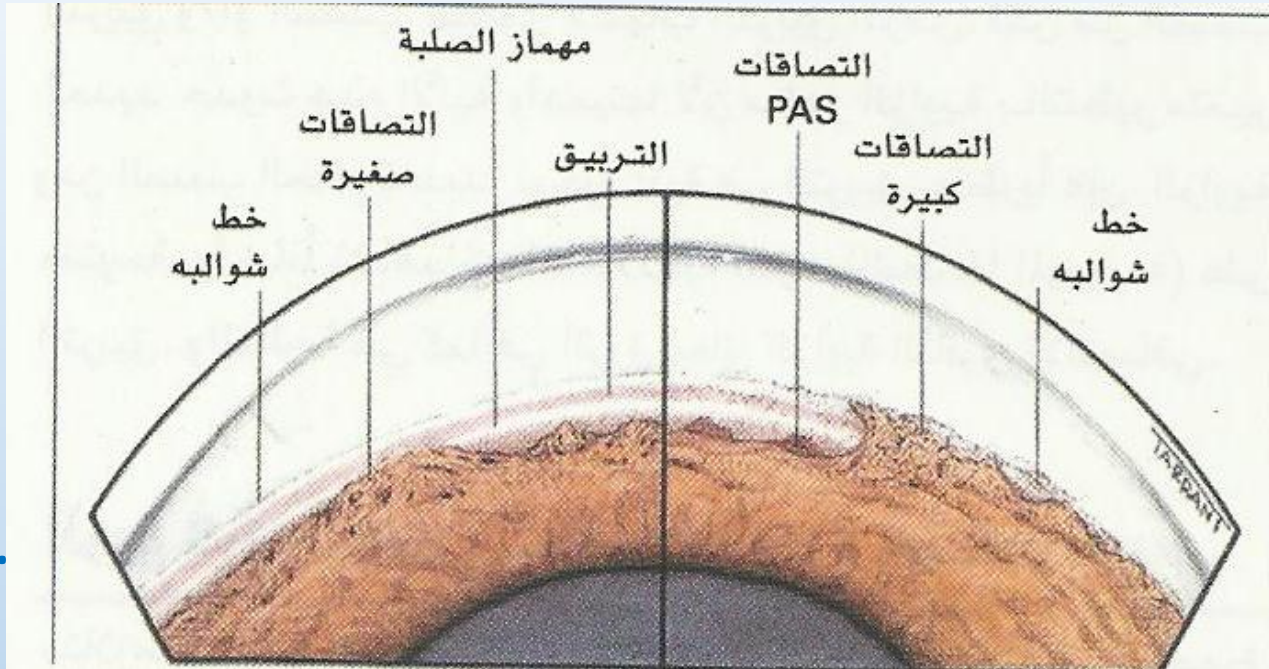
Inflammatory Angle Closure Glaucoma+ Pupillary Block

- *seclusio pupillae (360 ring posterior synechia).
- *Iris bombe.
- * Recurrent iridocyclitis.



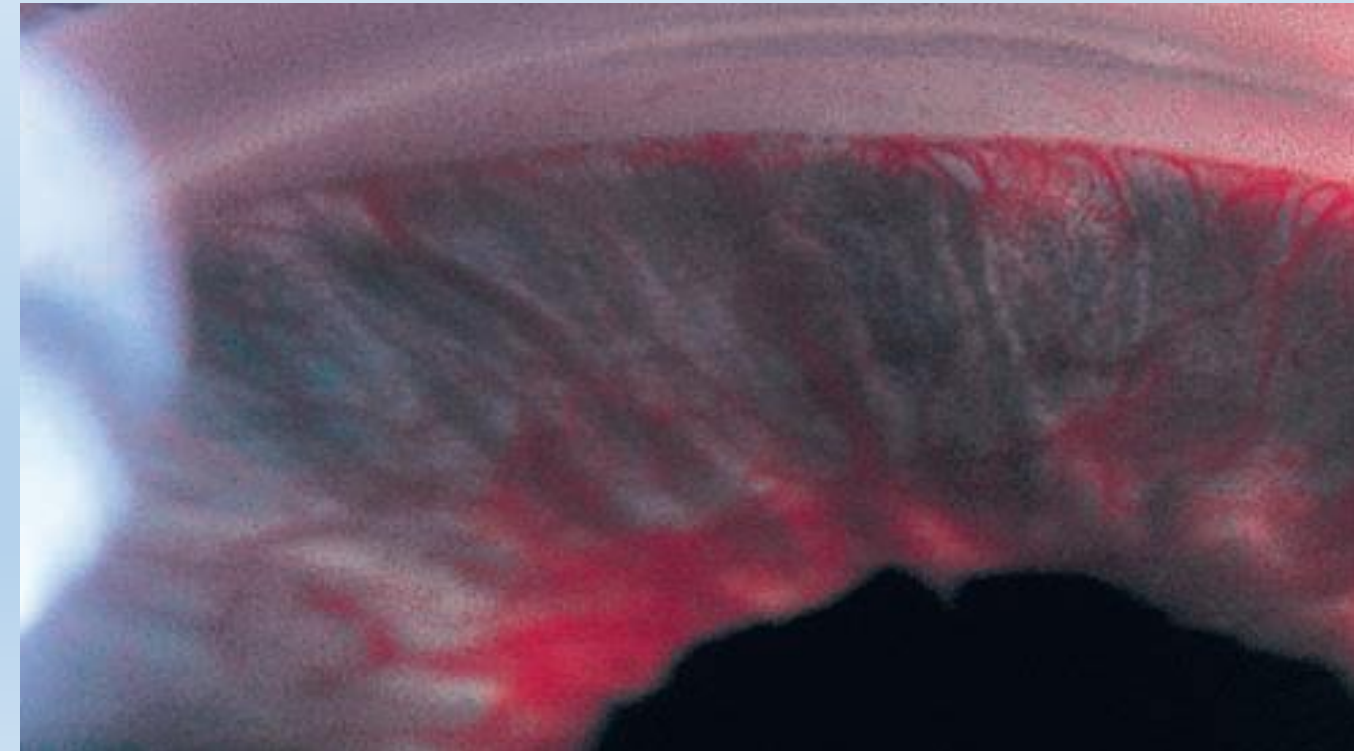
Inflammatory Angle Closure Glaucoma – Pupillary Block

- * Chronic anterior uveitis.
- * Peripheral anterior synechiae (PAS).
- .



Neovascular Angle Closure Glaucoma – Pupillary Block

* PAS (contraction of fibro vascular tissue).



Tumor Related Angle Closure Glaucoma – Pupillary Block

- *neovascular glaucoma: : -neovascular glaucoma is the most common.
(retinoblastoma, chorio-melanoma)
- * ant. Displacement of iris-lens diaphragm:
(ciliary body or iris cyst or tumors)

Plateau Iris Syndrome

* Anteriorly positioned iris processes + thick and anteriorly positioned iris.

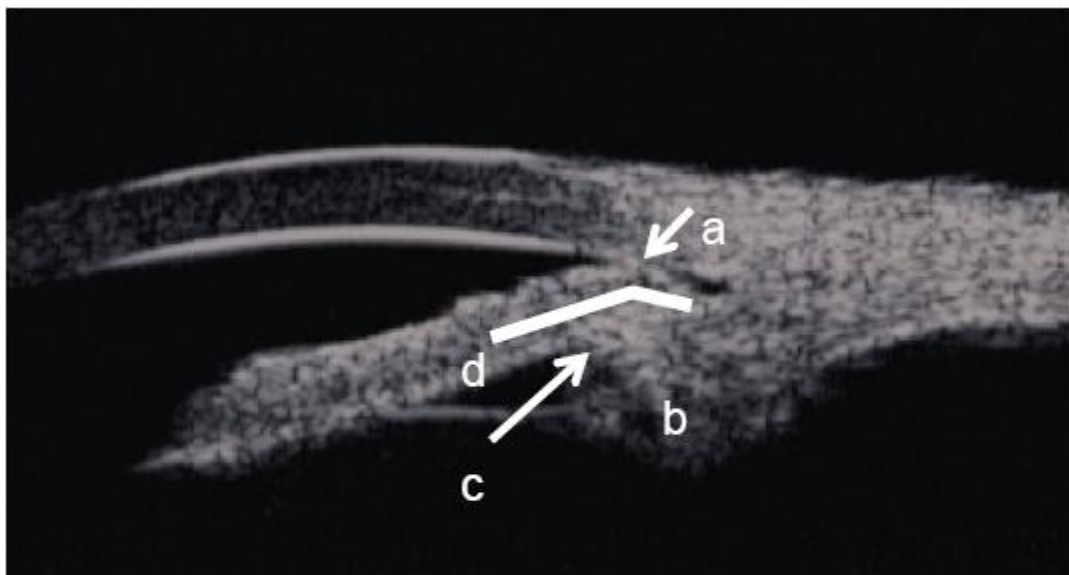
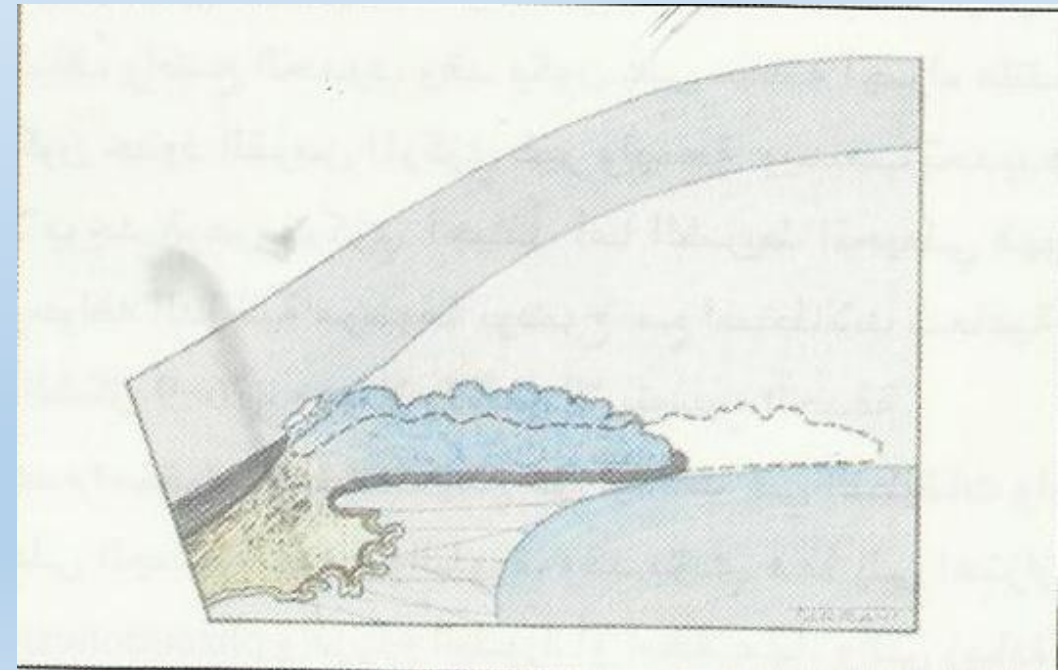
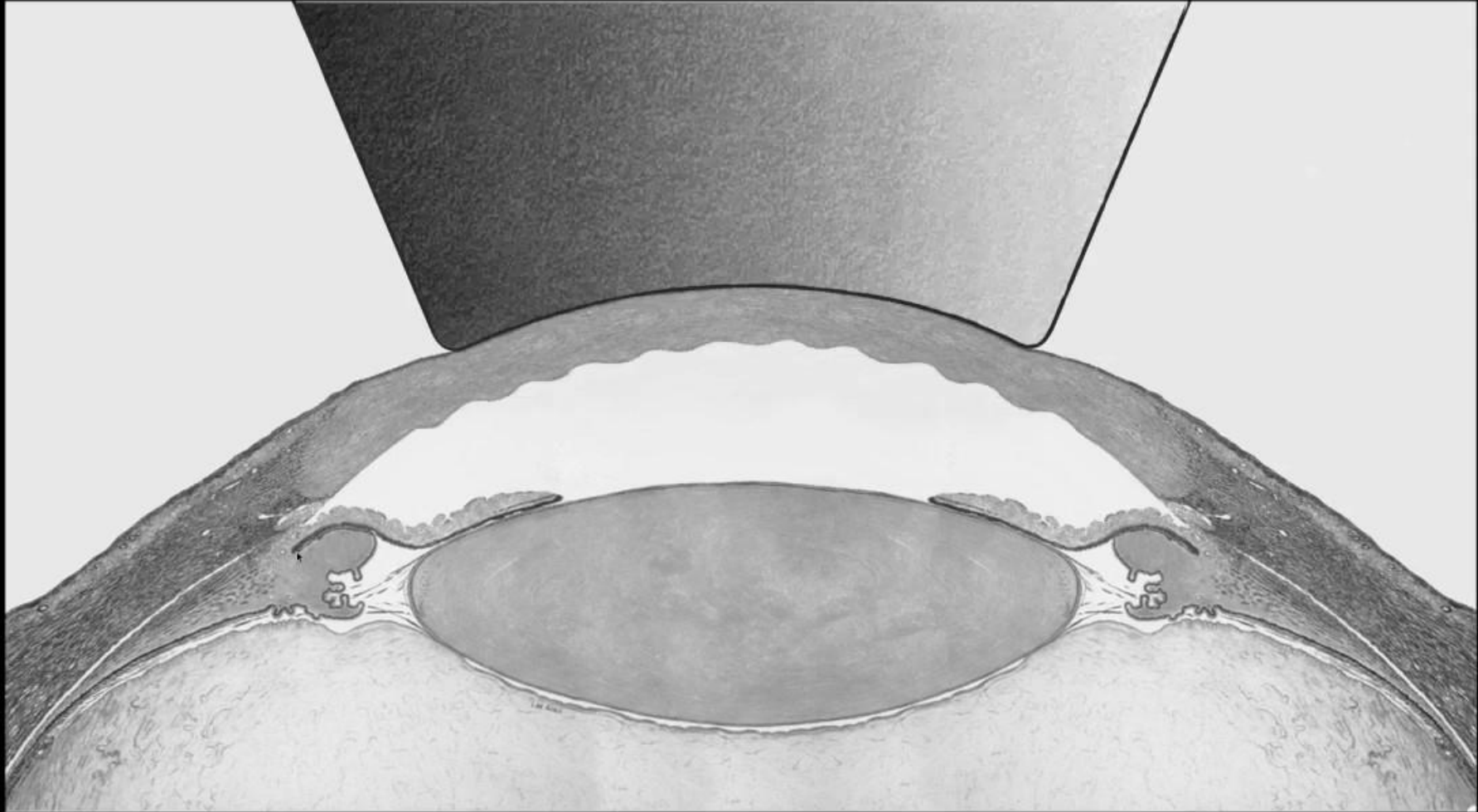


Figure 1 Ultrasound biomicroscopy image of a quadrant of a primary angle closure glaucoma eye with plateau iris.

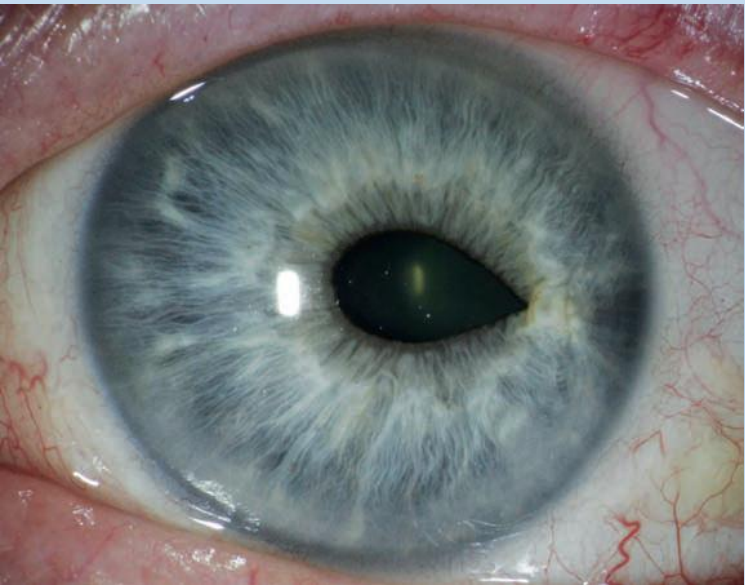
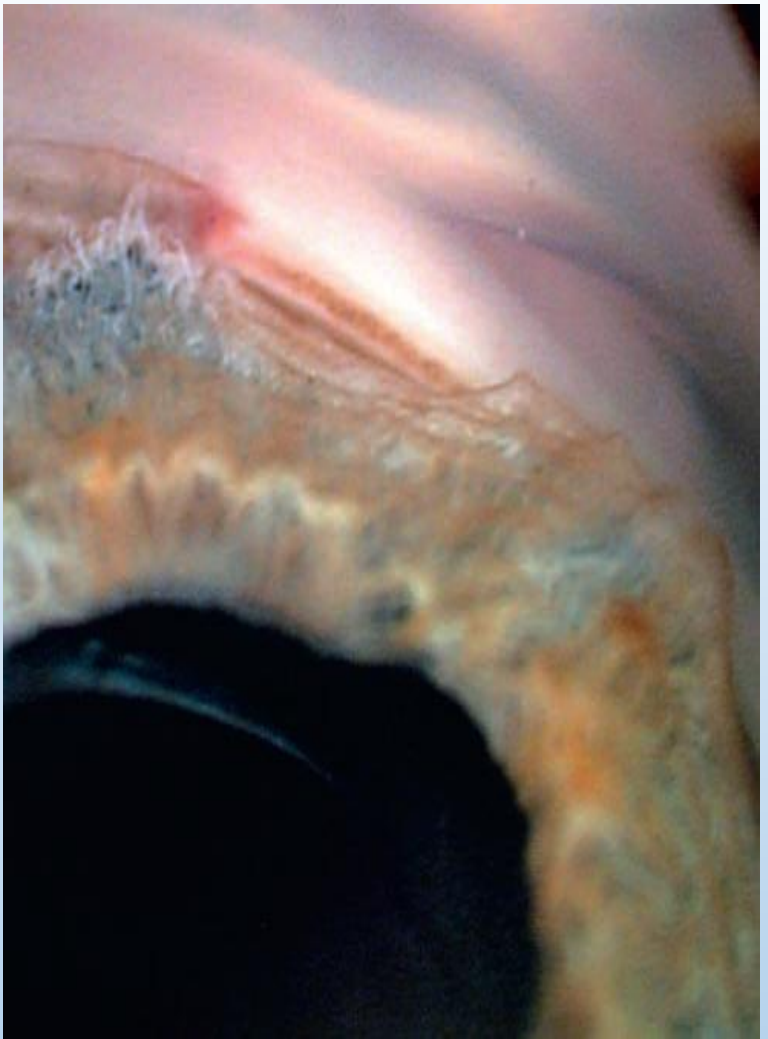
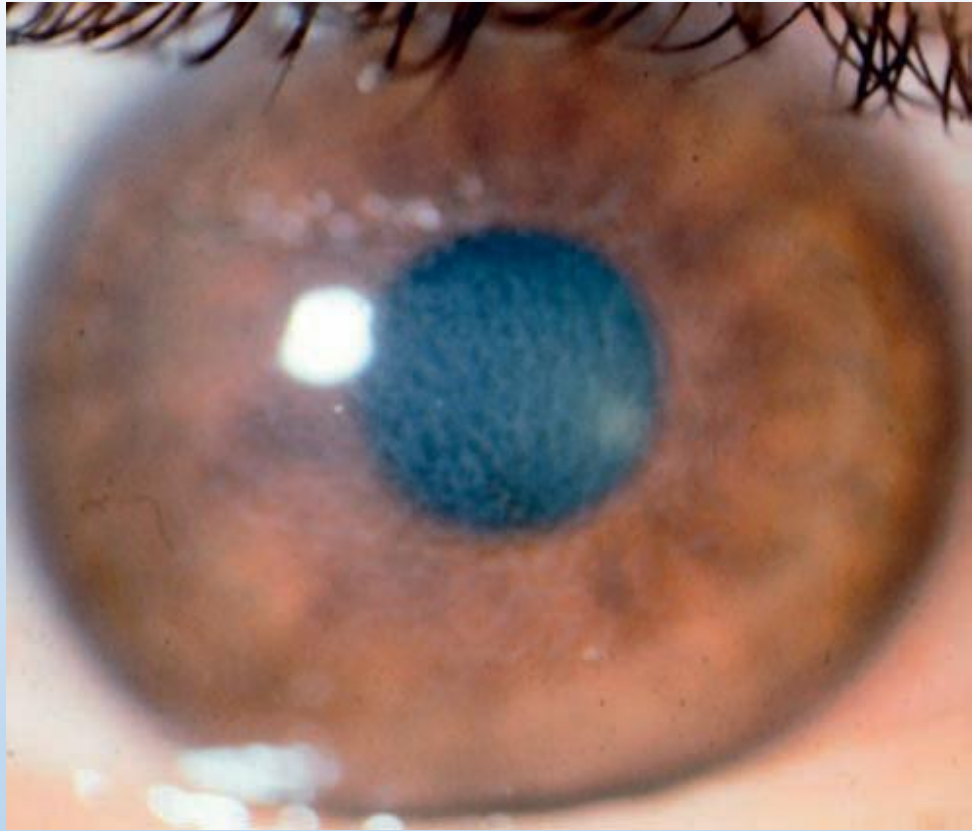
Notes: Irido-angle contact (a), anteriorly directed ciliary process (b), absent ciliary sulcus (c), and iris angulation (d) are shown.





Iridocorneal Endothelial Syndrome (ICE)

- * Abnormal corneal endothelial cell layer (PAS).
- * Chandler syndrome, Iris naevus (Cogan–Reese) syndrome, Progressive (essential) iris atrophy
- * Corectopia , pseudopolycorea , Iris atrophy.



Malignant Glaucoma

*aqueous misdirection

Thank You