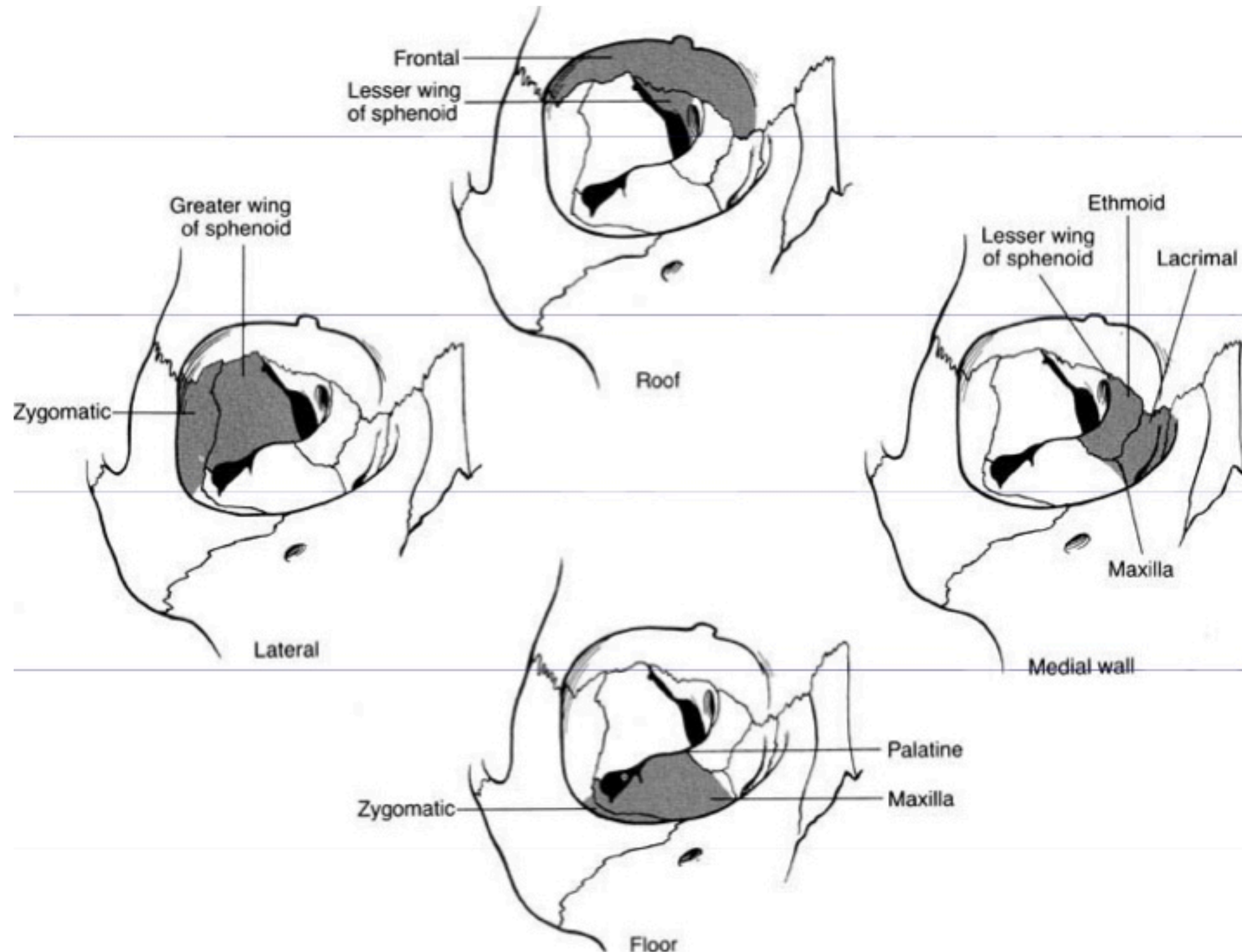


# Lid, Lacrimal and Orbital Disorders

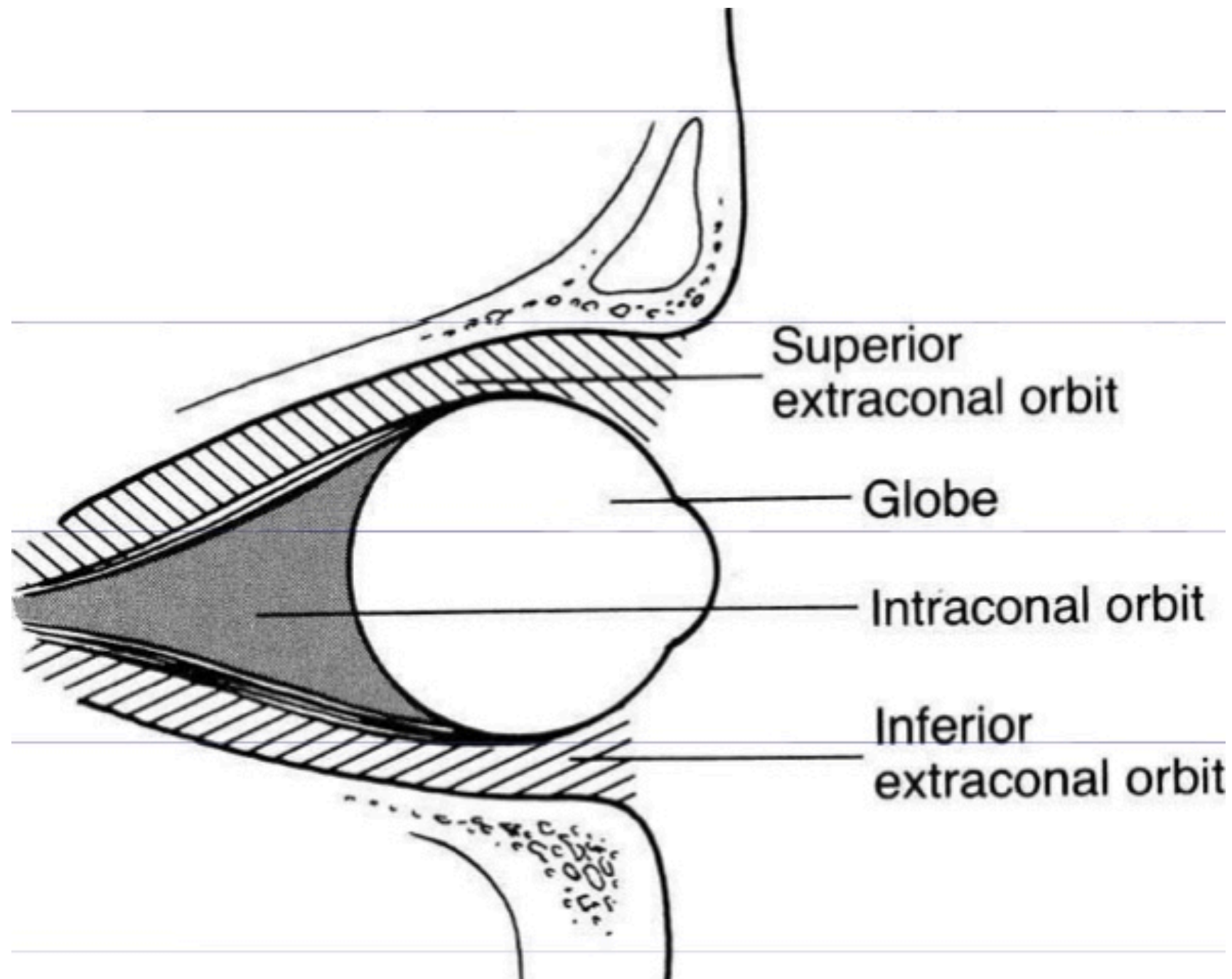
SAQ's

By: AlBatool AlAmmari

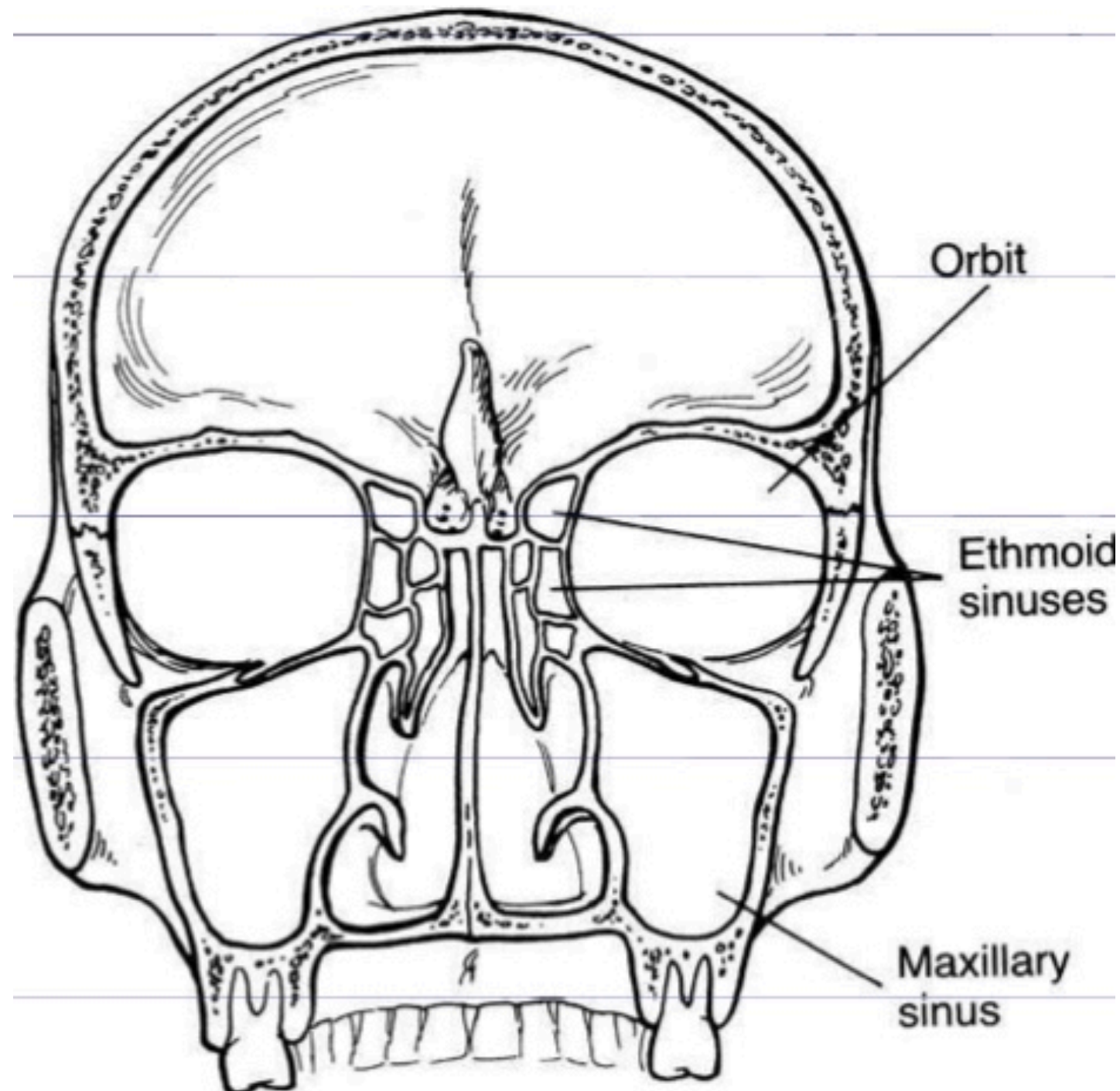
# Orbital Walls



# Orbital Compartments

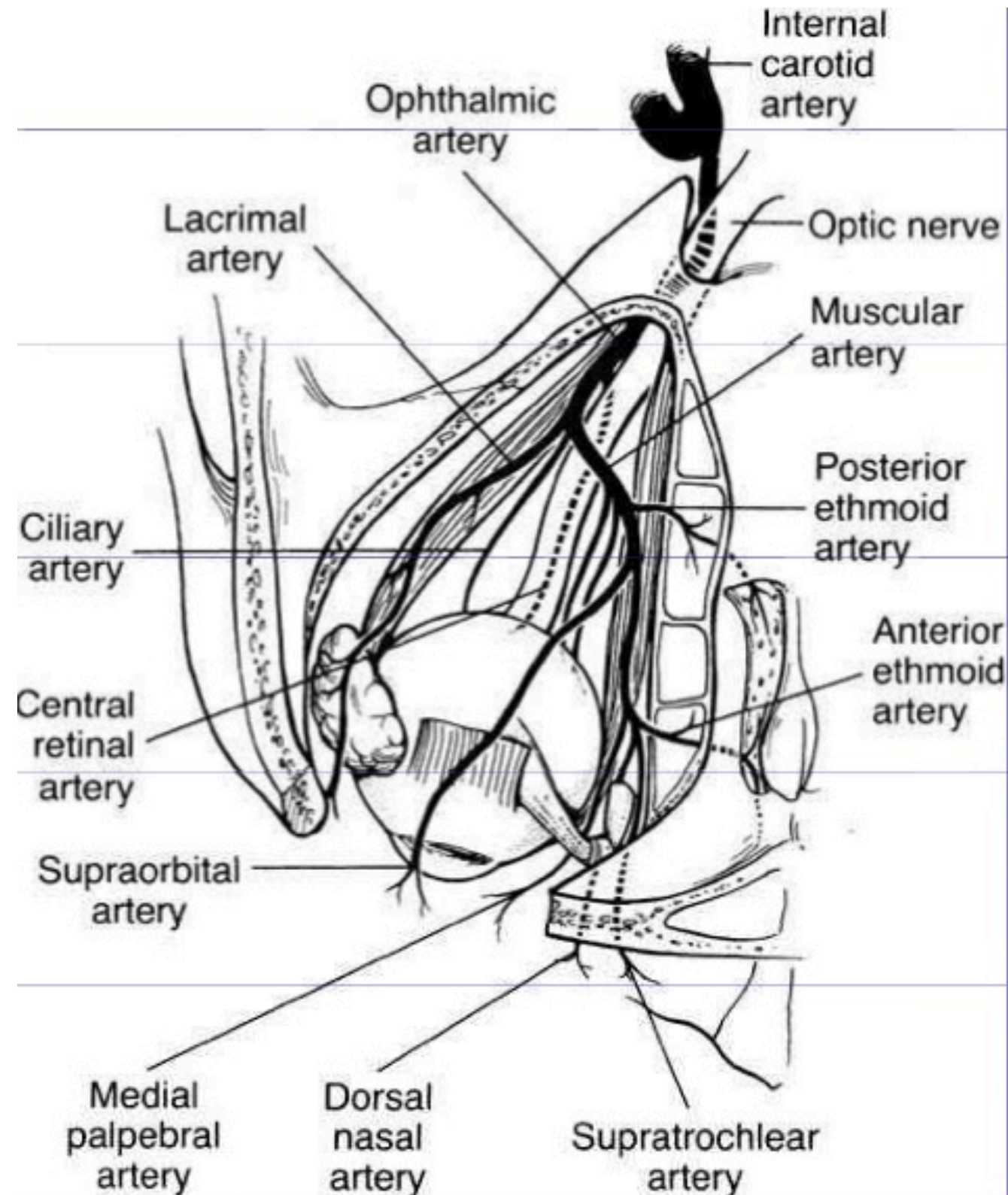


# Orbital Sinuses

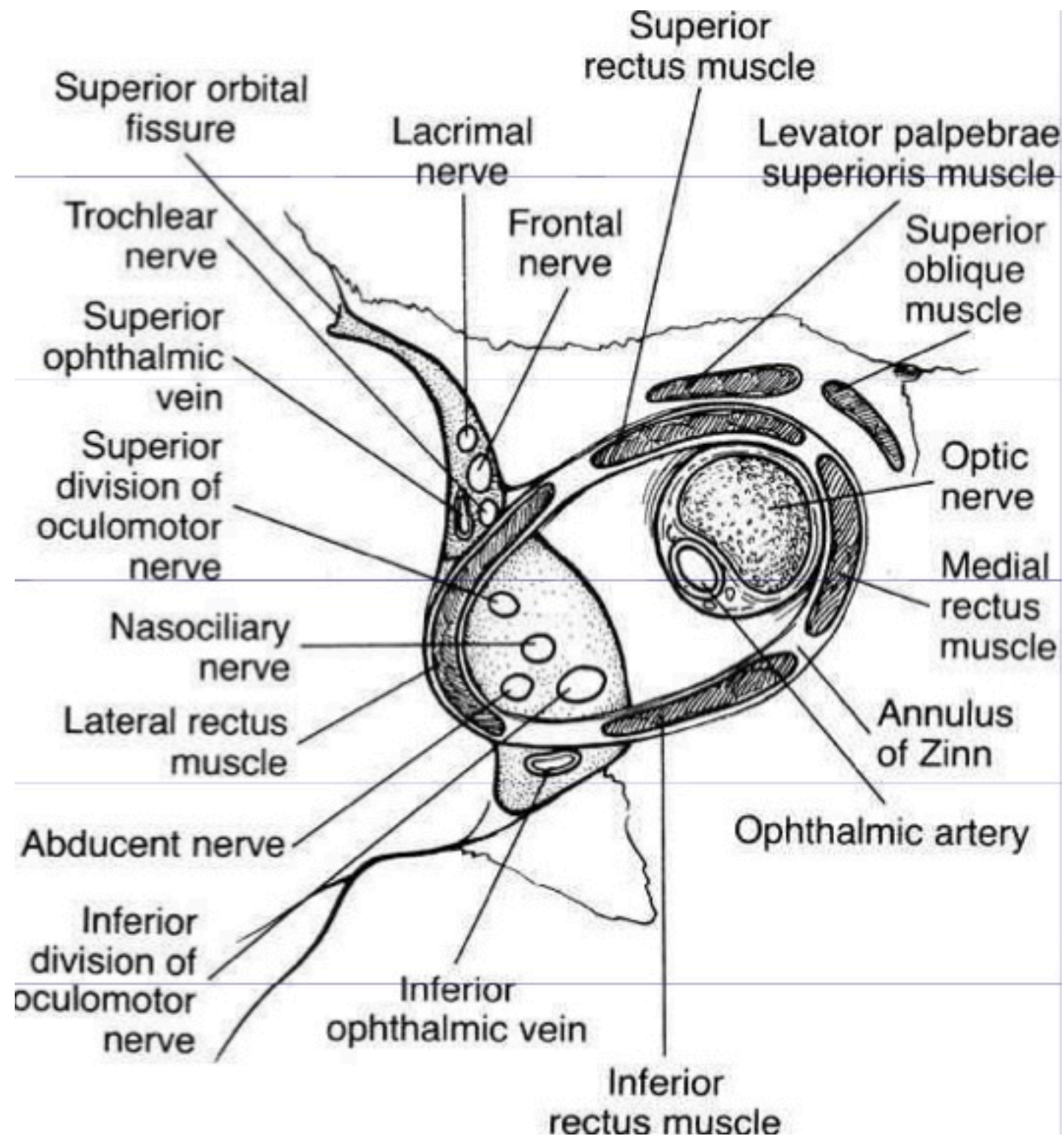




# Blood Supply to The Orbit



# Annulus of Zinn



# Painful eye



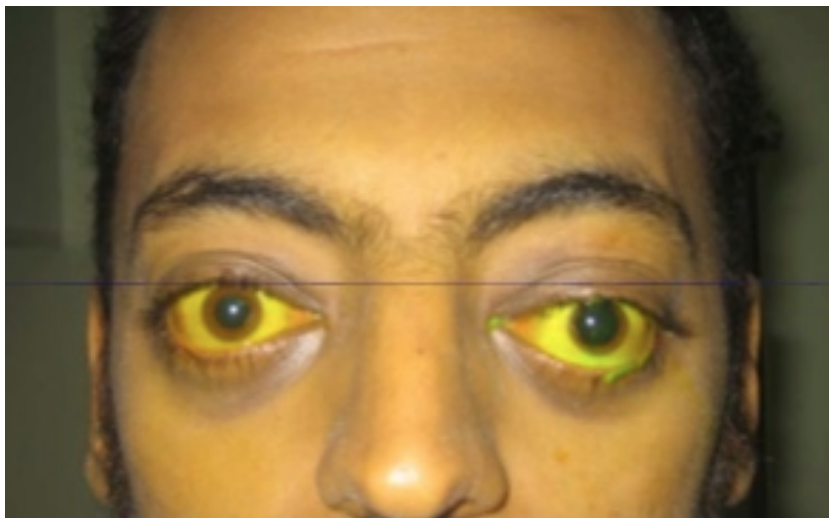
- Due to infection or inflammation



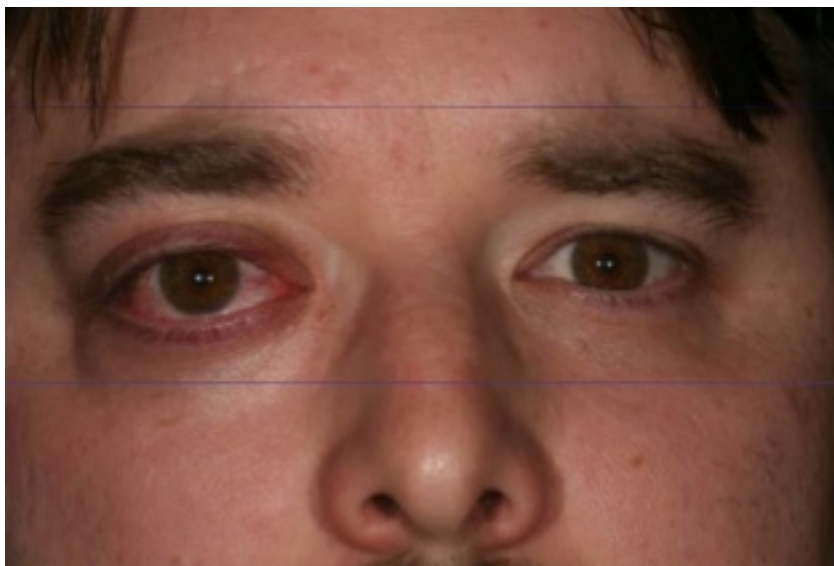
- Due to hemorrhage



# Rapid progression of eye presentation

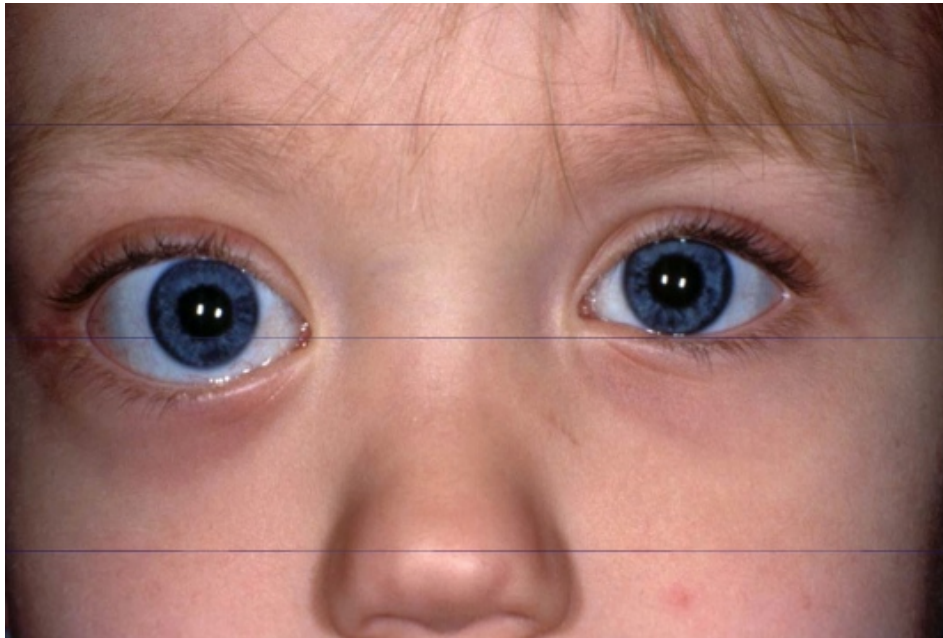


Rapid progression of proptosis within minutes to hours



Rapid progression of eye presentation (within minutes to hours) mostly due to hemorrhage or varix

# Types of Proptosis



Axial Proptosis



Non-Axial Proptosis



# Pseudoproptosis



Normal globe  
with a retracted lid



Endophthalmos in one  
eye

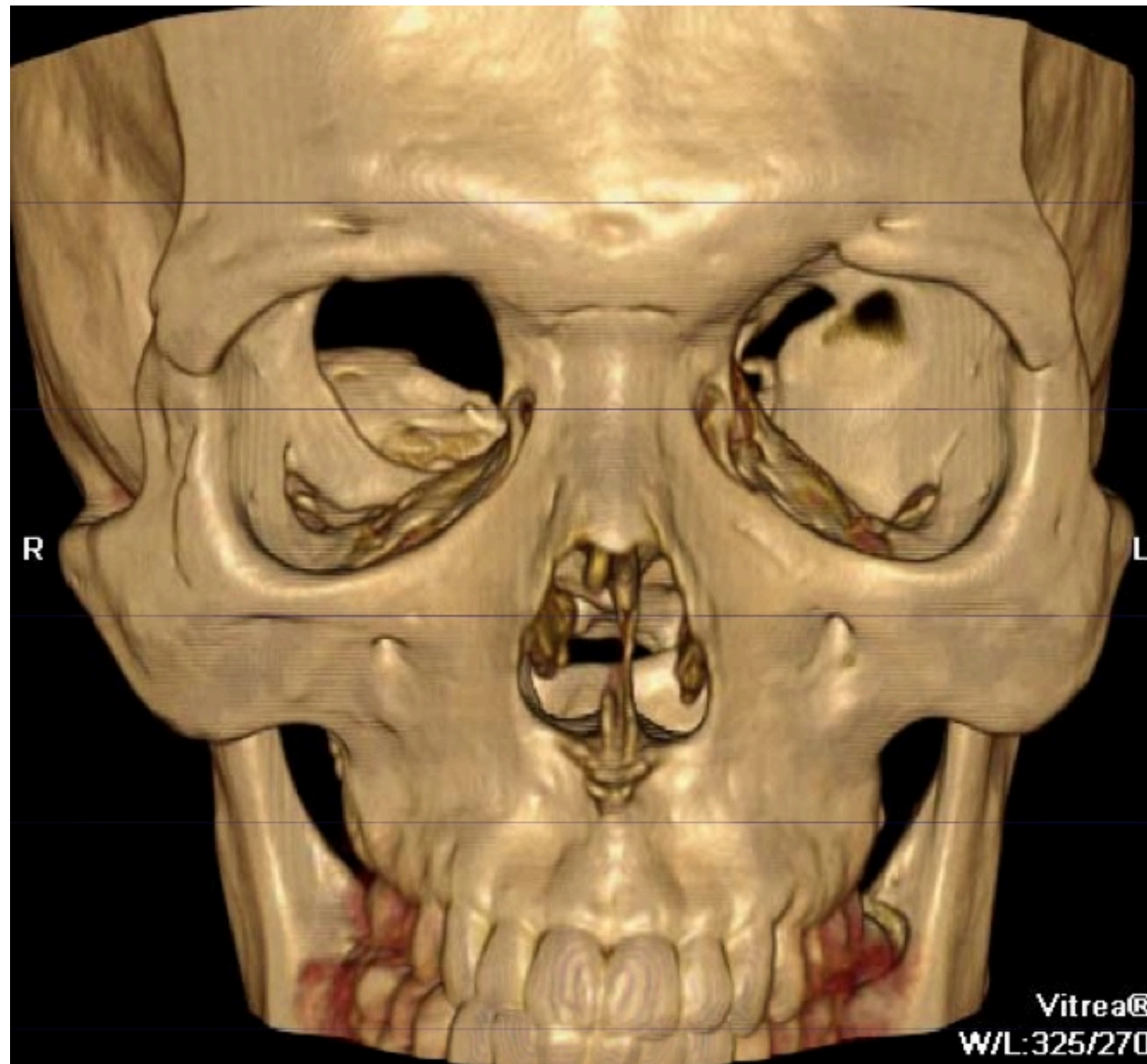


# Hertel exophthalmometer



Used to measure the degree of proptosis  
or to differentiate between true and pseudoproptosis

# Sphenoid Dysplasia



Sign of  
Neurofibromatosis Type 1



# Peri-Orbital Changes



Below the medial canthal



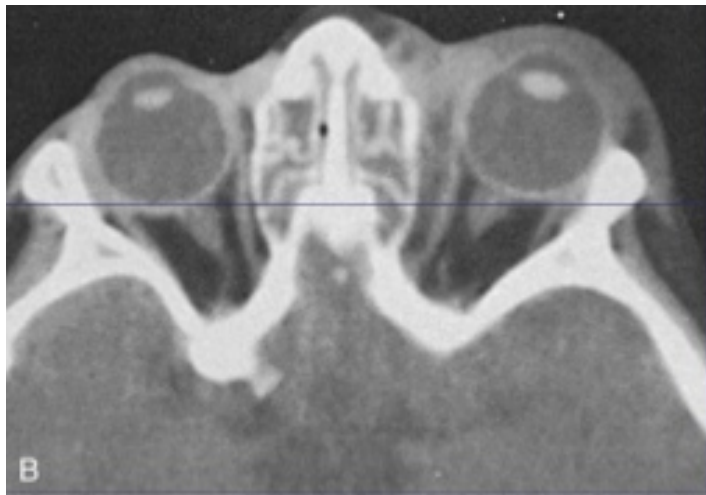
Above the medial canthal

# Cellulitis

## Preseptal vs Orbital



Proptosis and red periorbital edema favor orbital cellulitis



CT scan shows preseptal and orbital opacification which is a sign of orbital cellulitis

Orbital cellulitis is treated by antibiotics



# Allergic Eyelid swelling



# Capillary Hemangioma



Progression of eye presentation within days to weeks in a child

# Progression of eye presentation within days to weeks



In a child  
(Rhabdomyosarcoma)



In an adult



# Grave's Disease



(Active phase)  
Periorbital edema,  
exophthalmos, eyelid  
retraction



Glycosaminoglycan and fluids  
accumulate in the orbital  
tissue, so the orbital  
connective tissue volume  
increases.

Treated with systemic steroids, radiation and optic nerve decompression

# Idiopathic orbital inflammatory disease



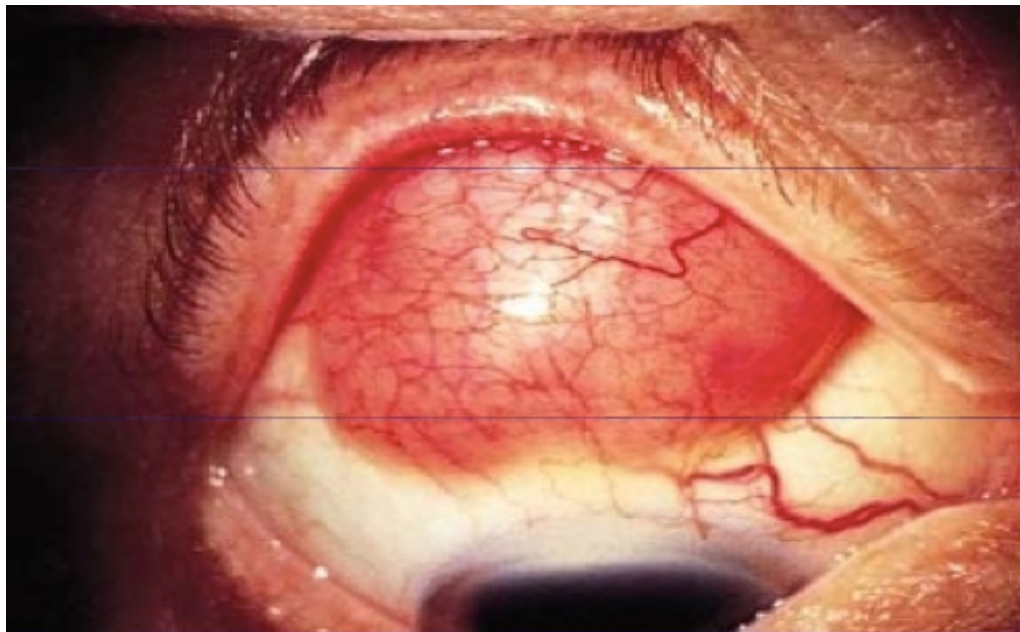
Pain, rapidly progressive, proptosis, and periorbital changes i.g. redness, swelling



**CT shows** ill-defined orbital opacification and loss of definition of contents



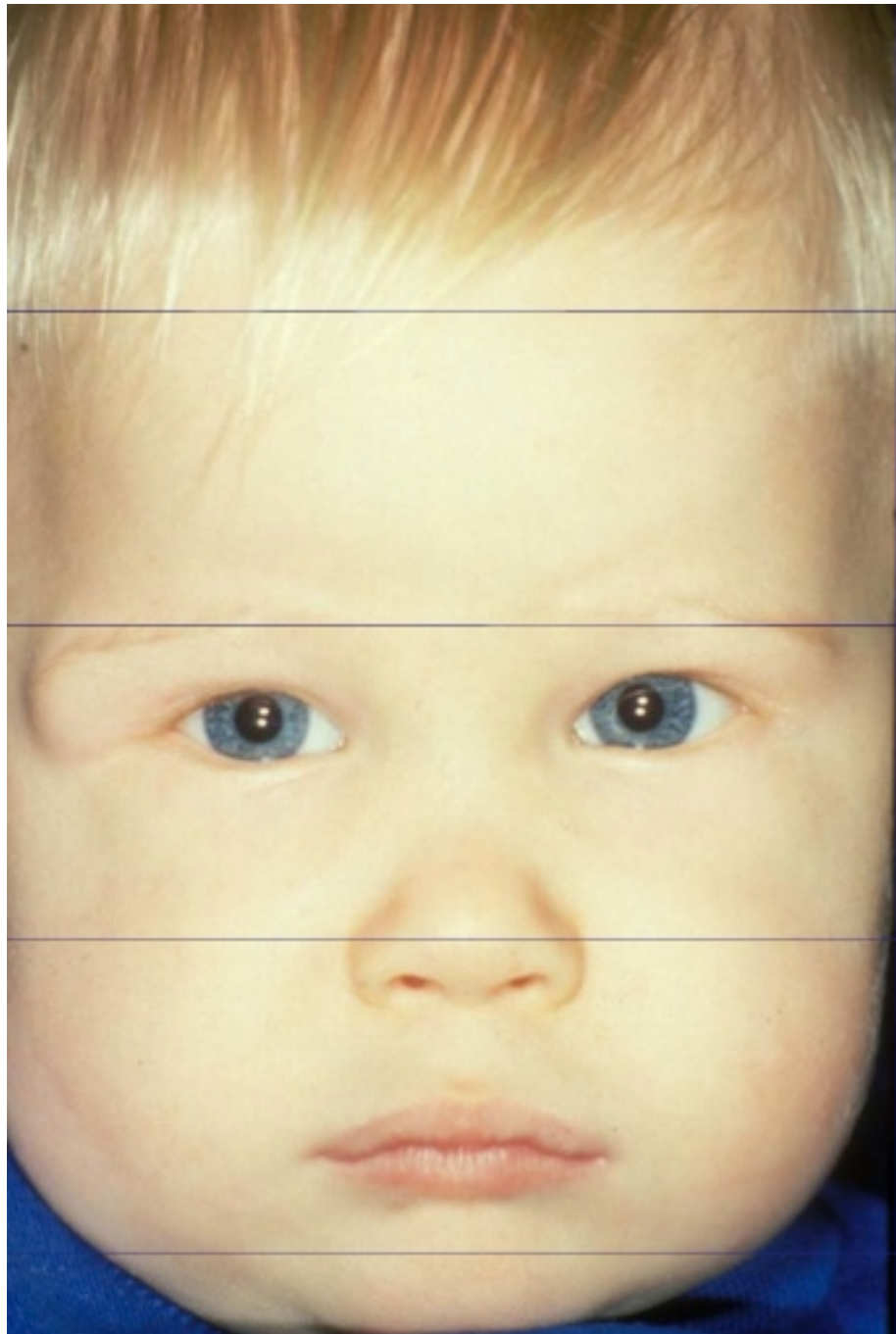
# Lymphoproliferative disorders



Salmon patch appearance



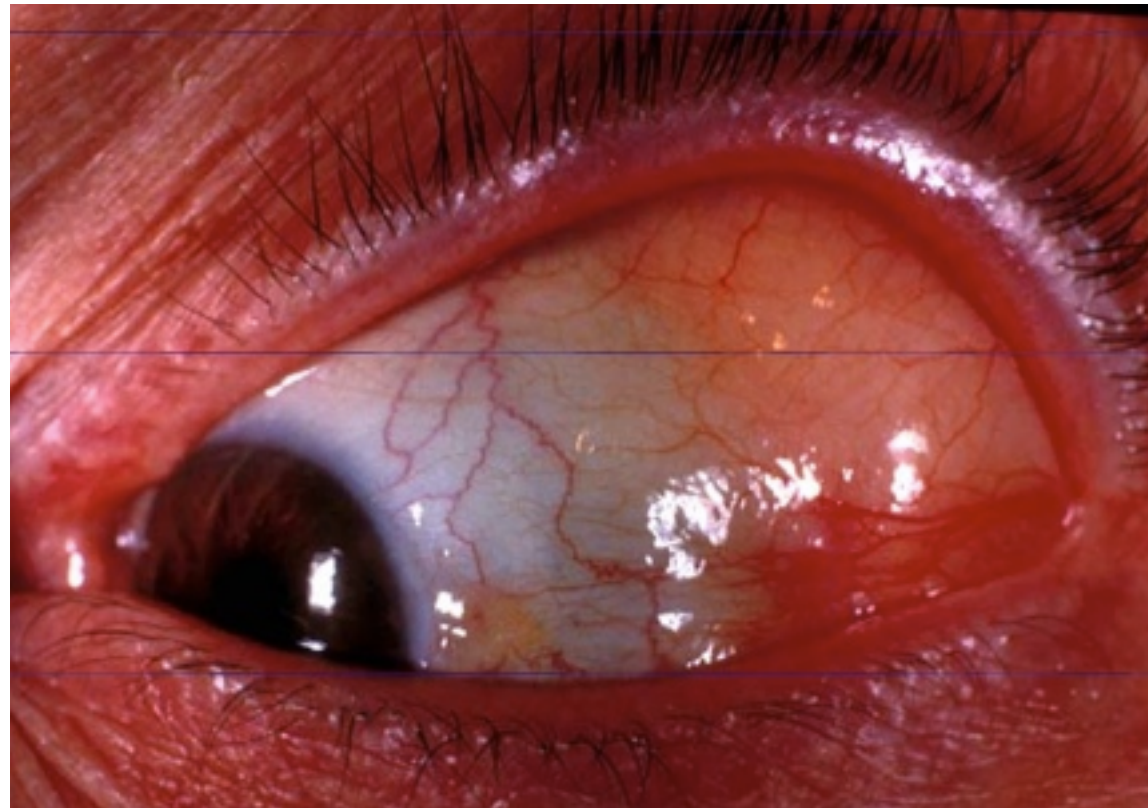
# Dermoid Cyst



Congenital, firm, round, smooth, non-tender, mobile subcutaneous mass.

**Treated** by surgical excision

# Fat Herniation

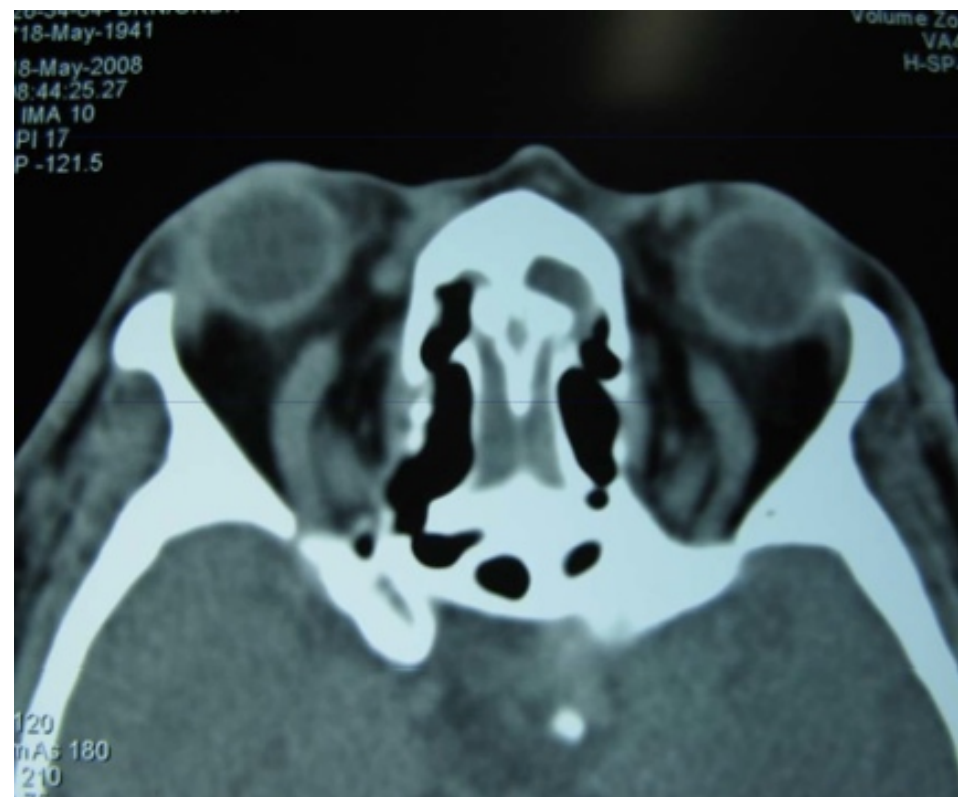




# Cavernous-Carotid Fistula



Patient with C-C Fistula



Superior ophthalmic vein enlargement in C-C fistula

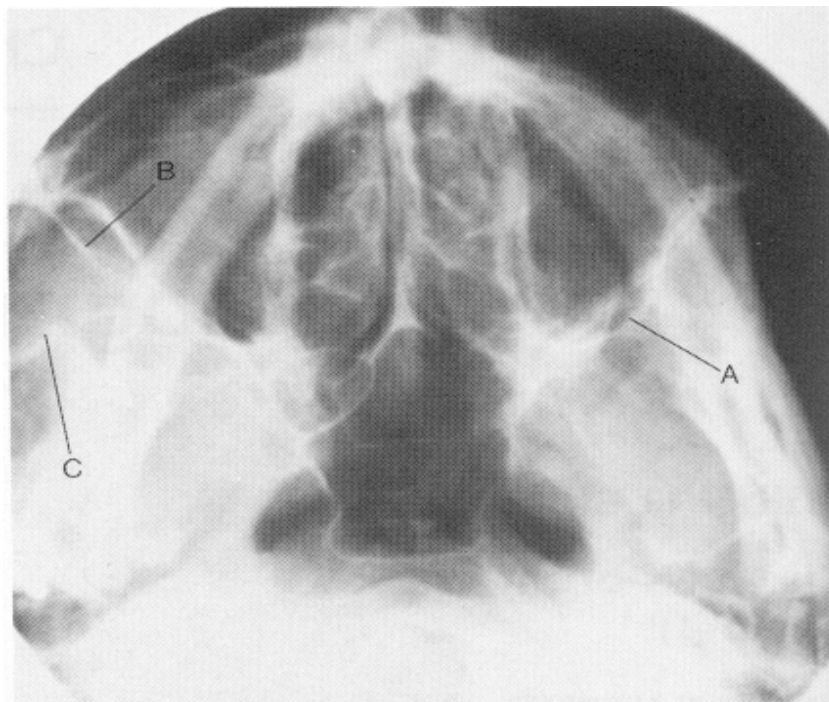
# Rhabdomyosarcoma



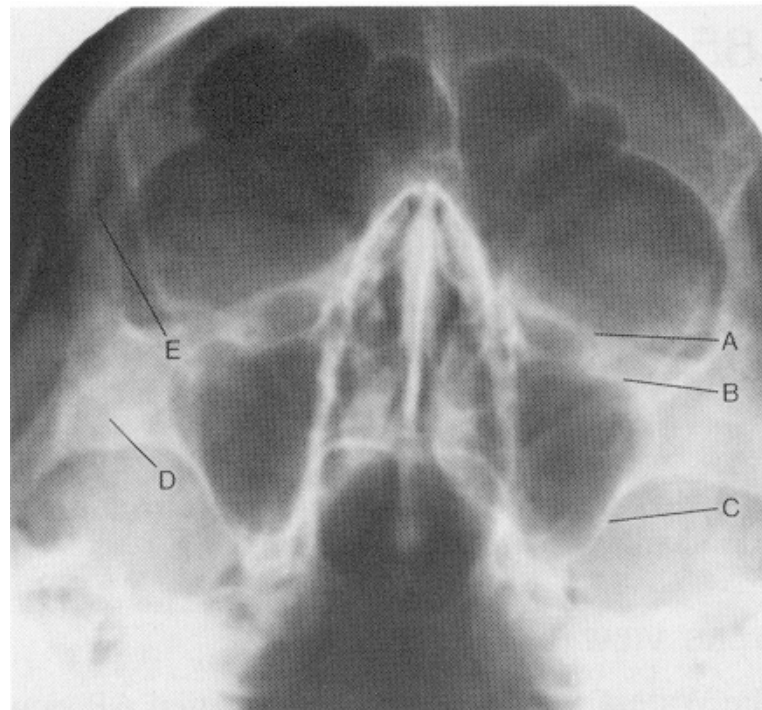
**Rapidly** progressive unilateral proptosis in 7 year olds.  
**Treated** by chemotherapy and radiation



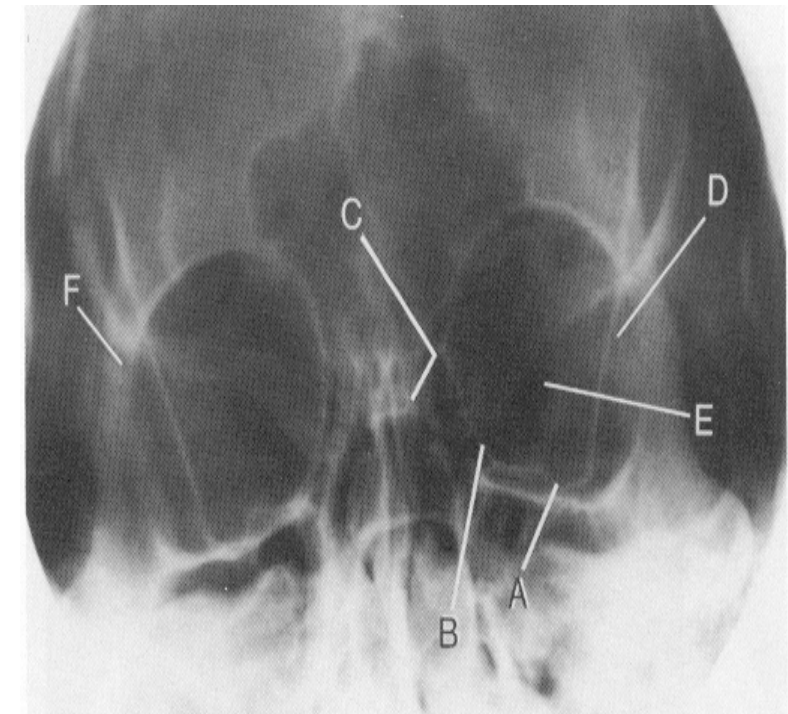
# Plain Films of The Orbit



Base view



Waters' view

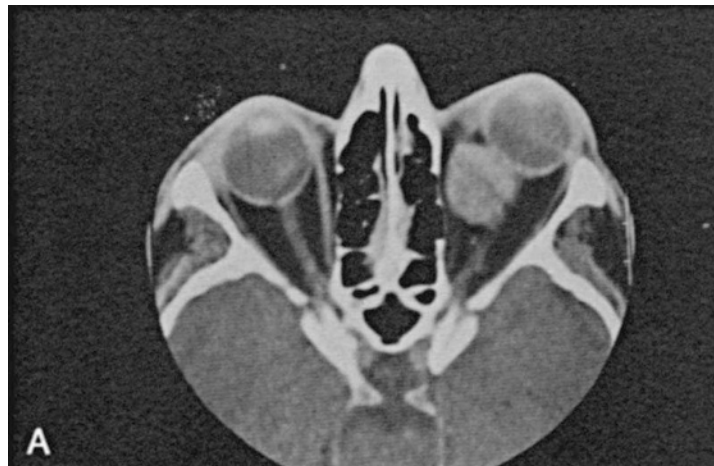
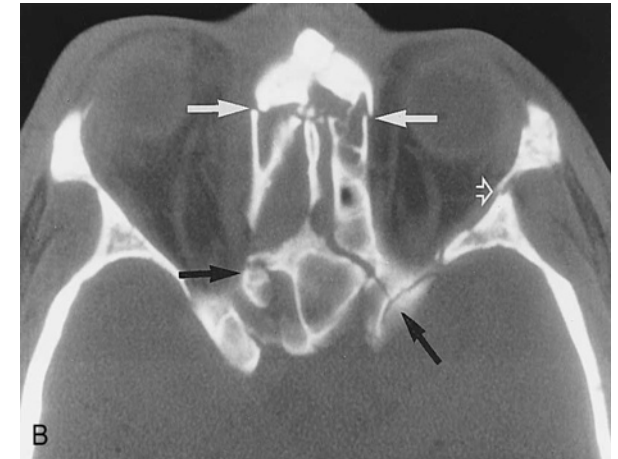
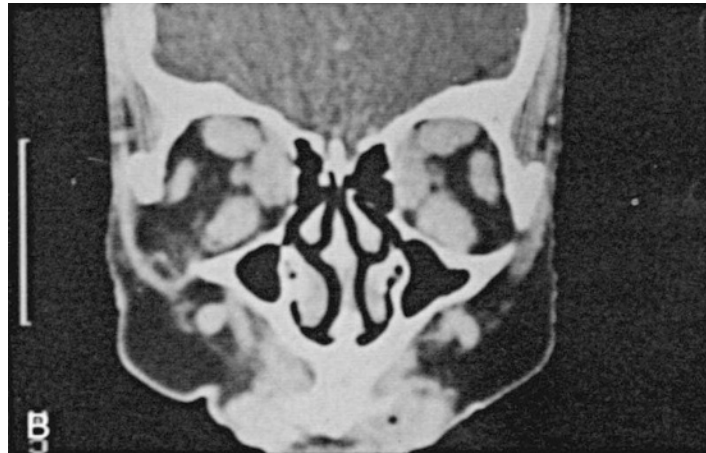


Caldwell's view

## Advantages of Plain Films:

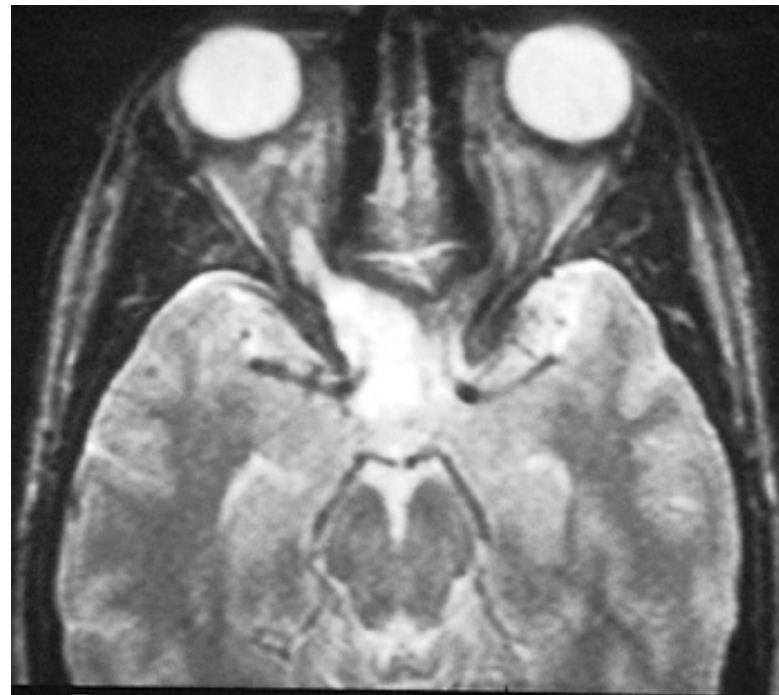
- Quick
- R/o foreign bodies
- Infrequently used

# CT-Scan of The Orbit





# MRI of The Orbit



T1 or T2?

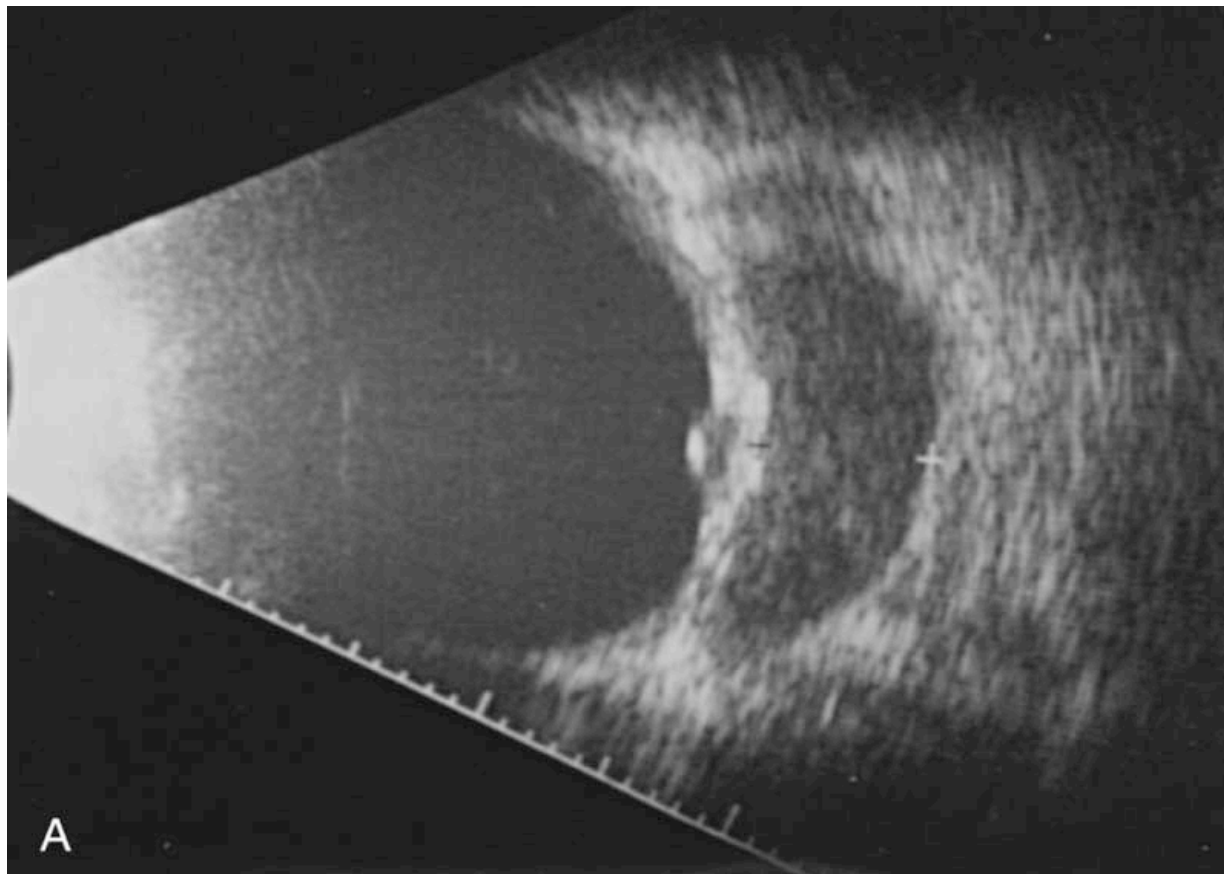
Axial/coronal/sagittal ?

Contrast ?

Lesion ?

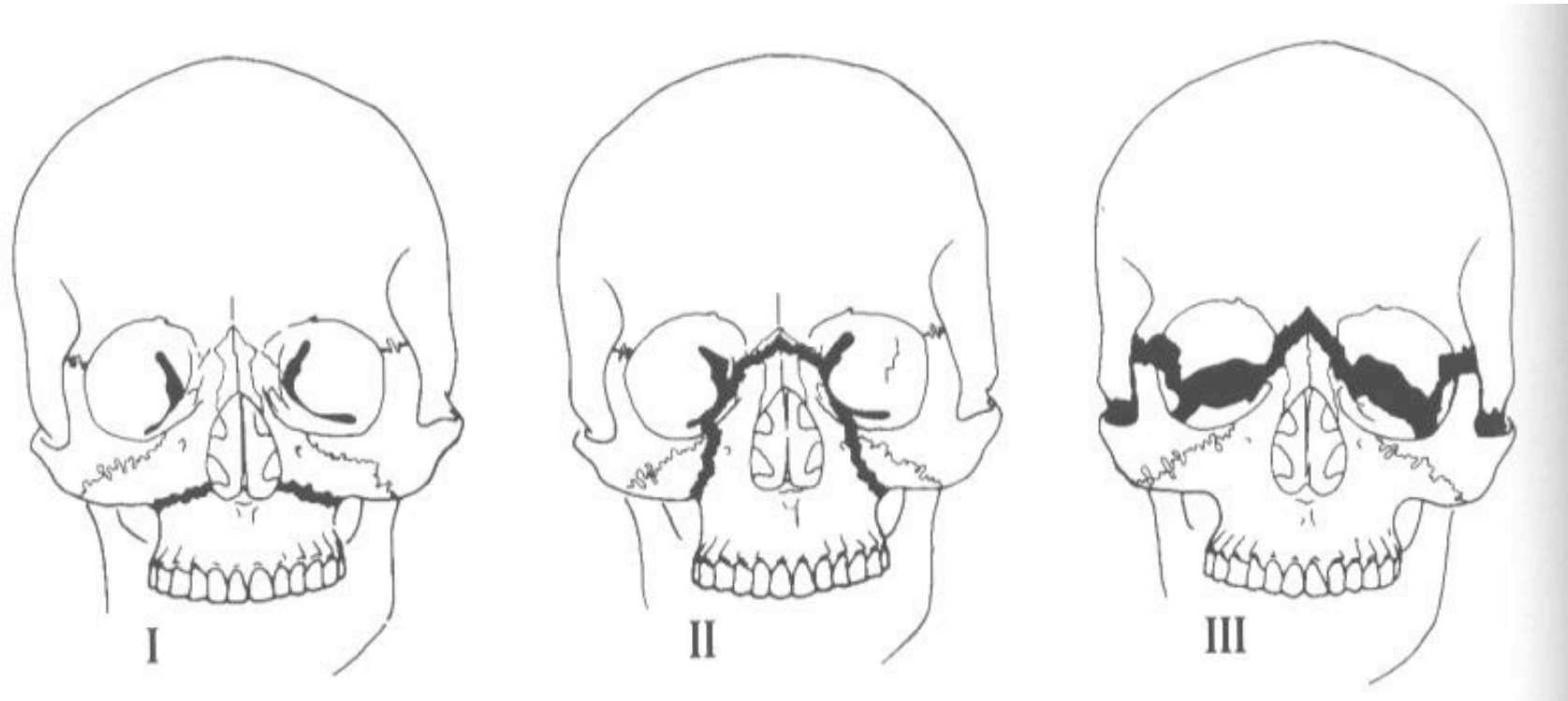


# Orbital Echography



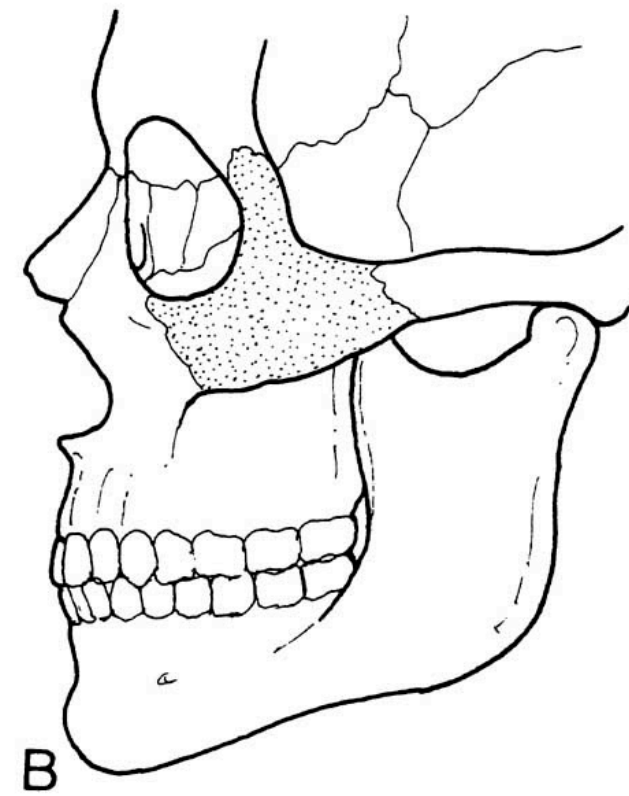
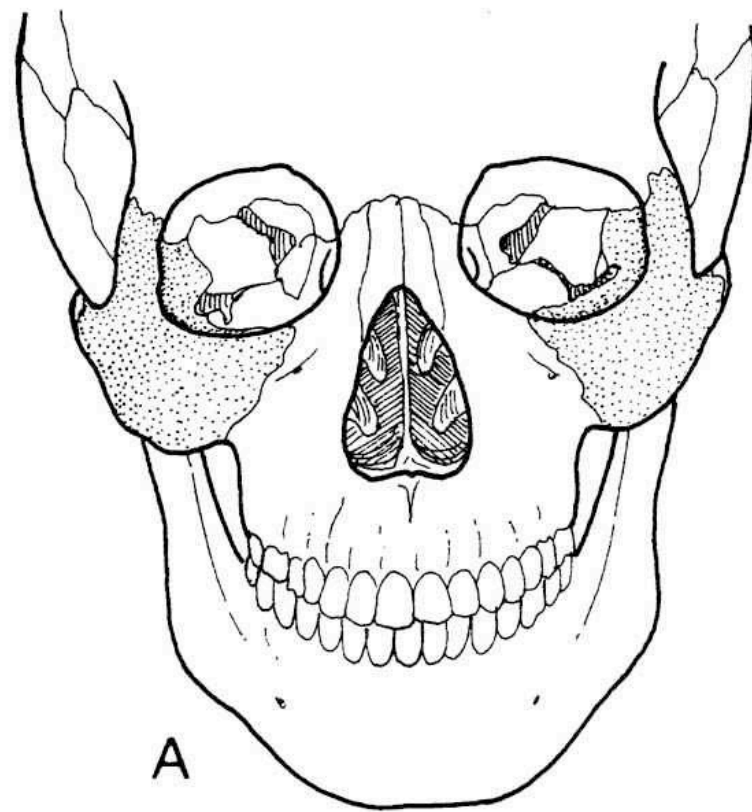
Dynamic  
Less expensive +/-  
Availability variable

# LeForte Fractures



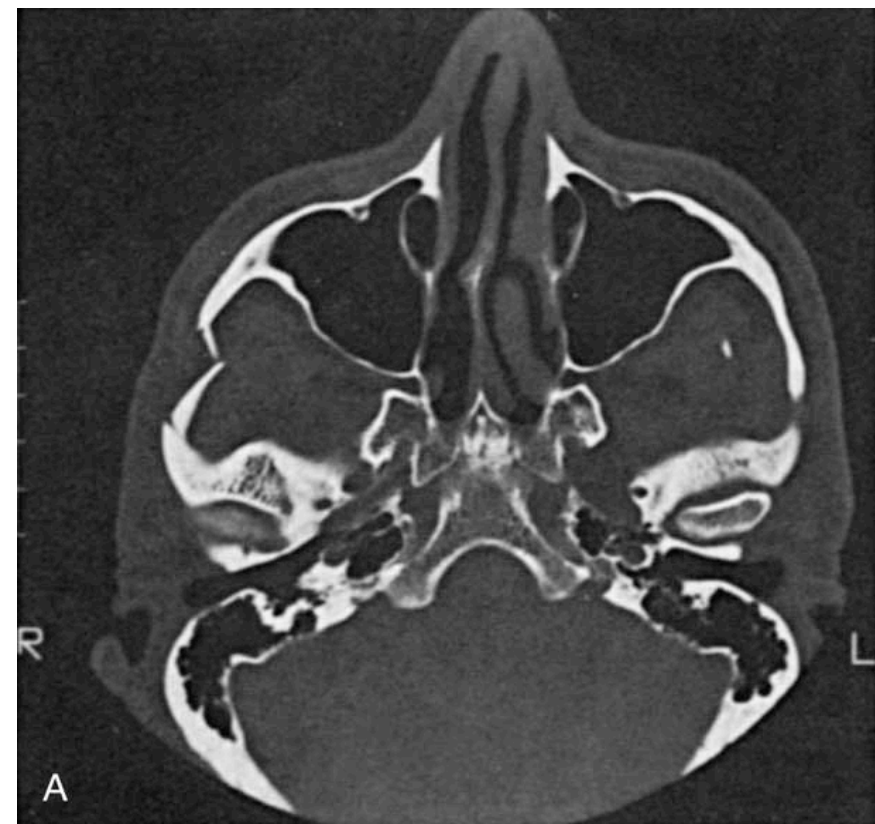
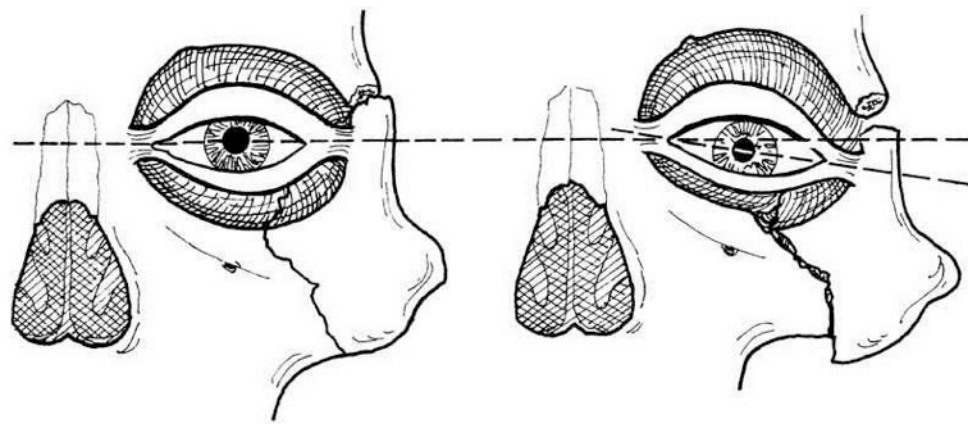
**Fractures** involving the maxillary bone and surrounding structures in a usually bilateral and either horizontal, pyramidal or transverse way.

# Zygoma

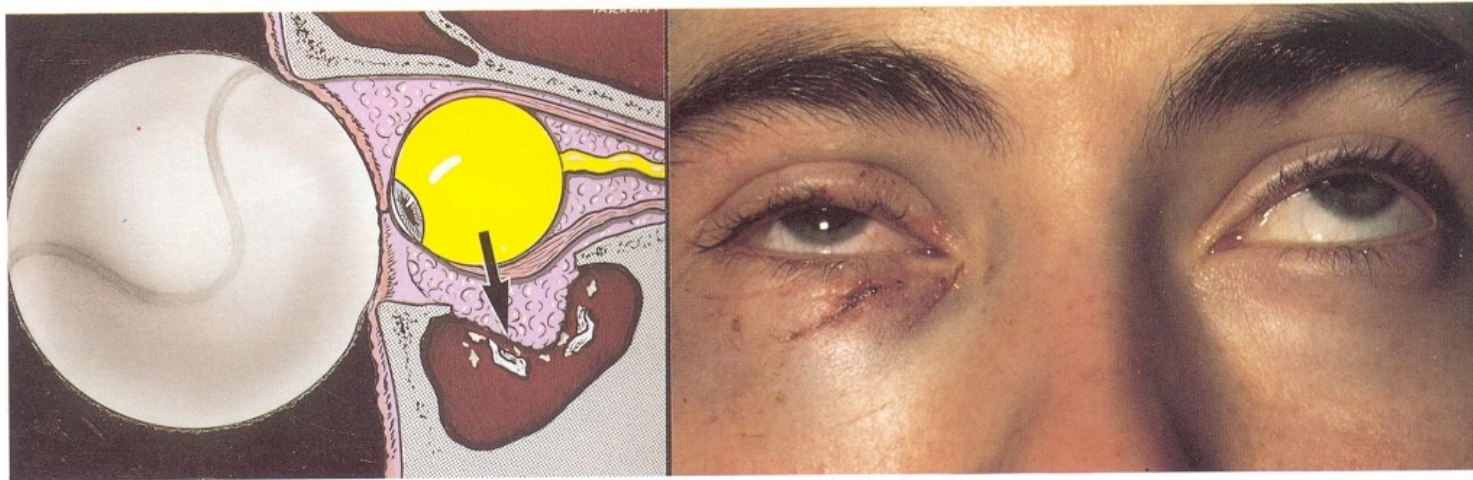




# Zygomaticomaxillary Complex Fractures



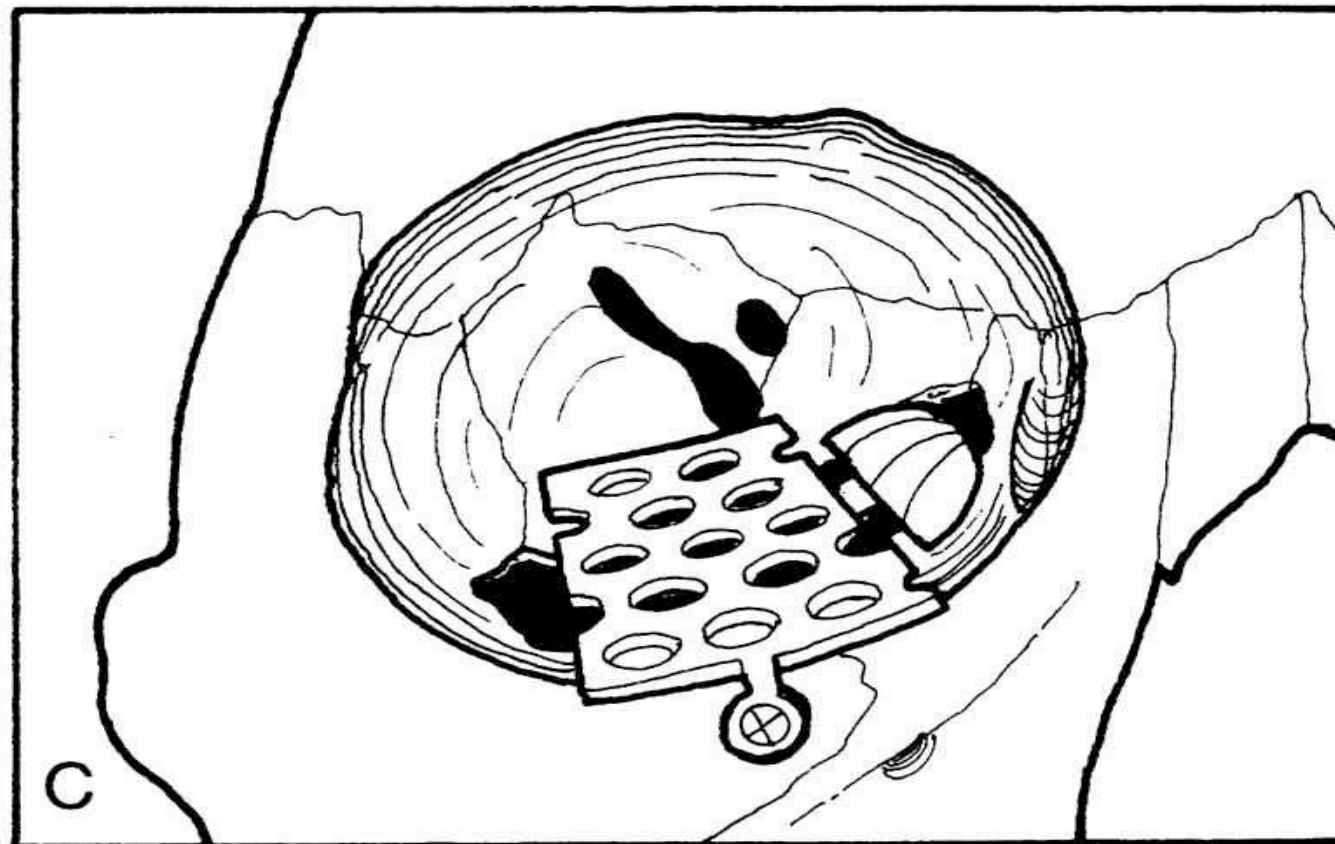
# Orbital Floor Fractures



**Presentations:** Pain, diplopia

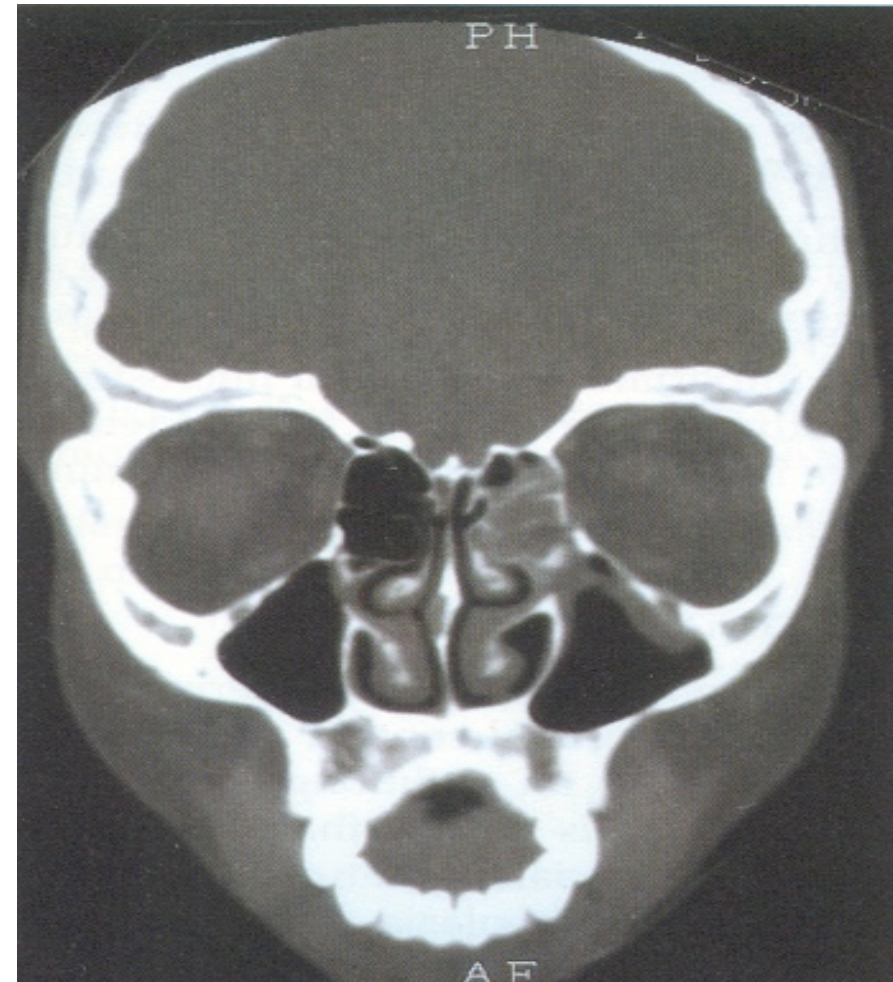
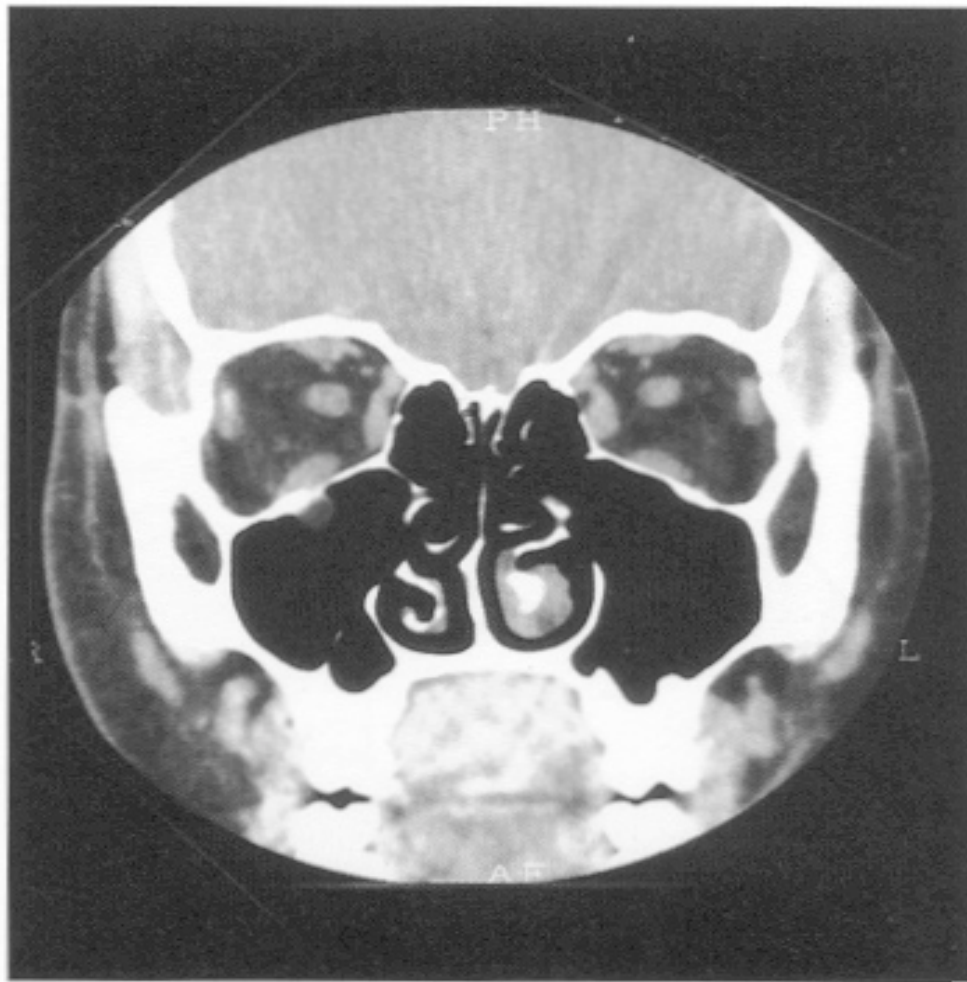
**Signs:** Restricted extra-ocular movement, and infraorbital anesthesia (CN V2), enophthalmos, periorbital ecchymoses

# Orbital implants [Surgical Repair of Blowout Fracture]



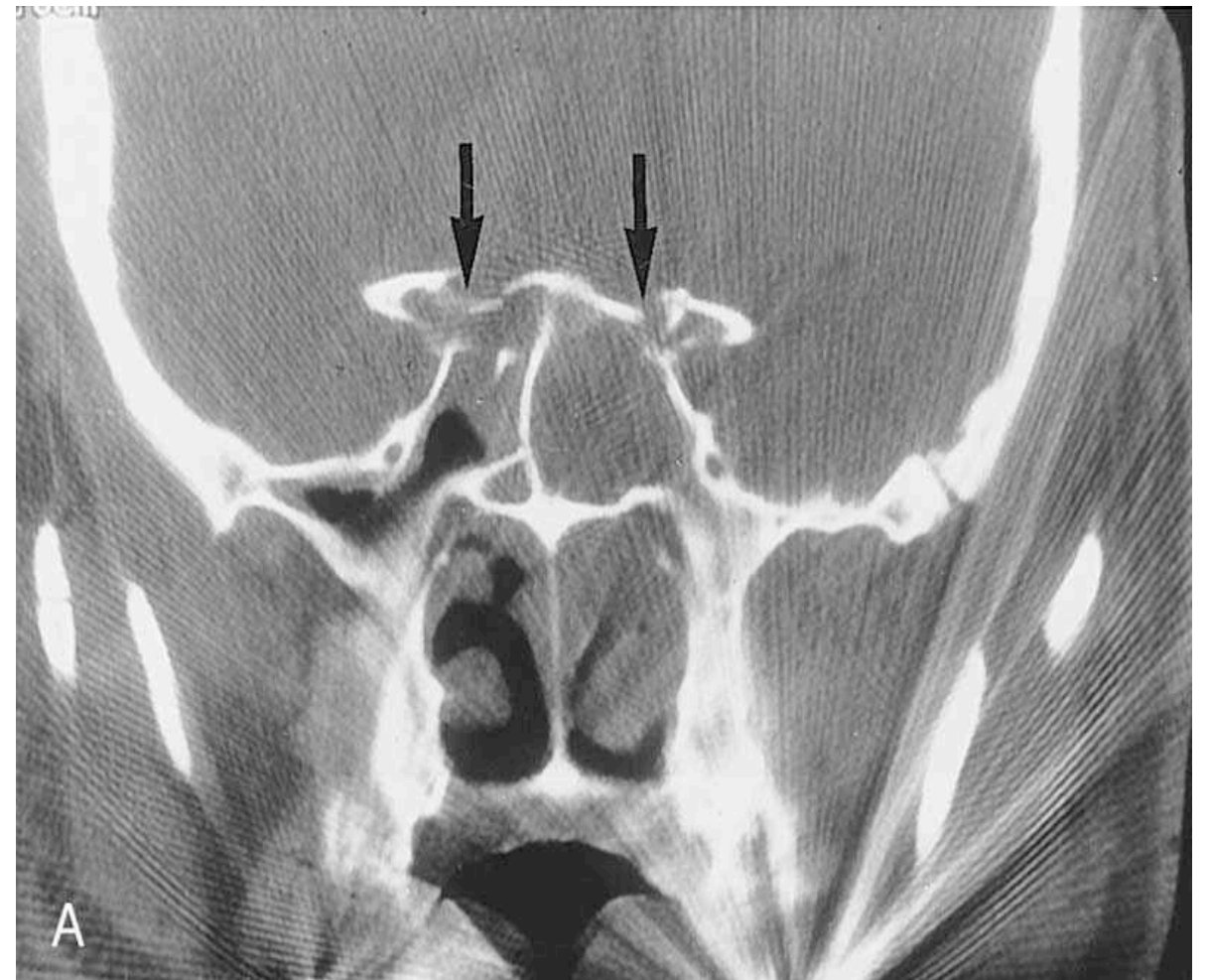
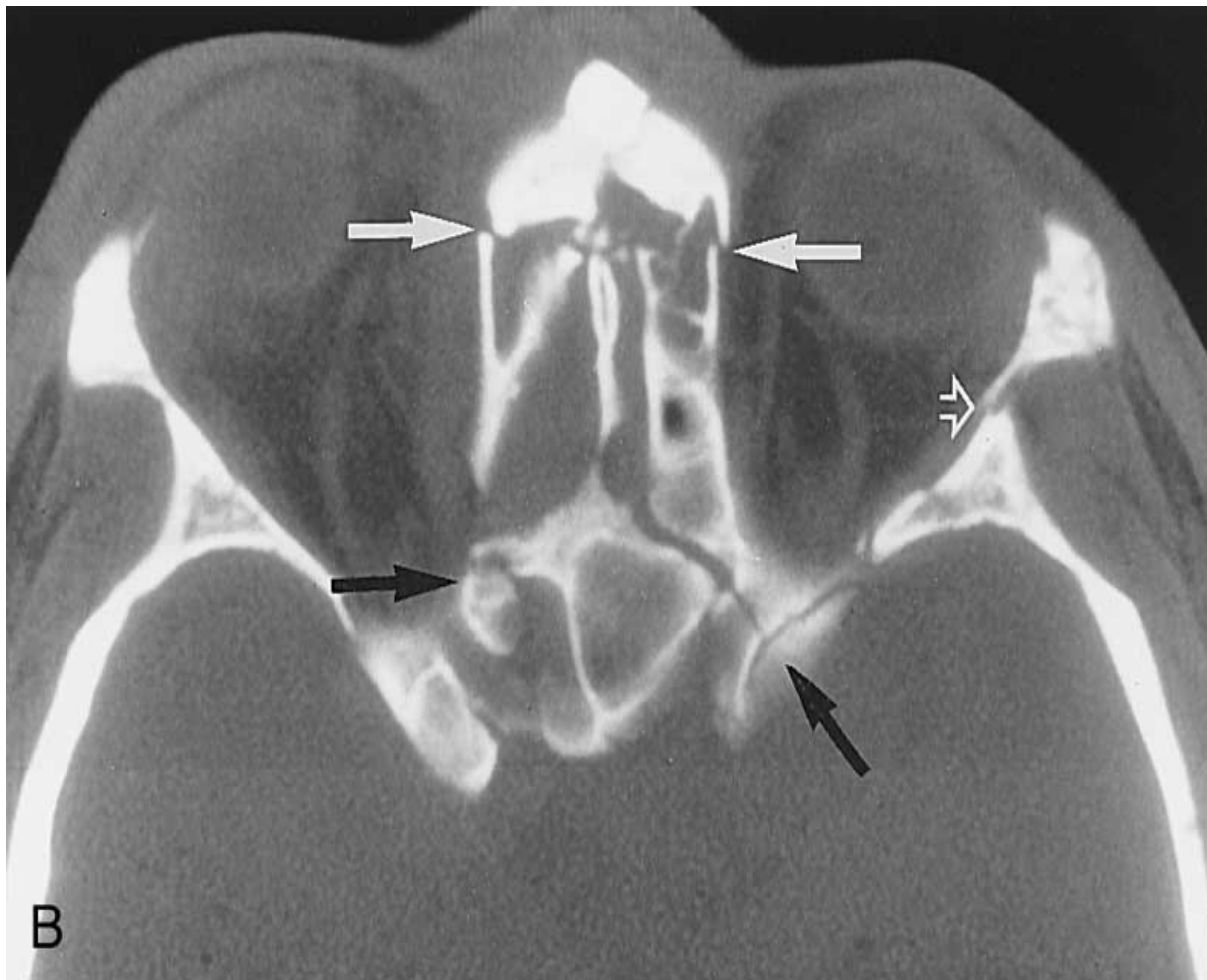


# CT-Scans of Orbital Floor Fracture

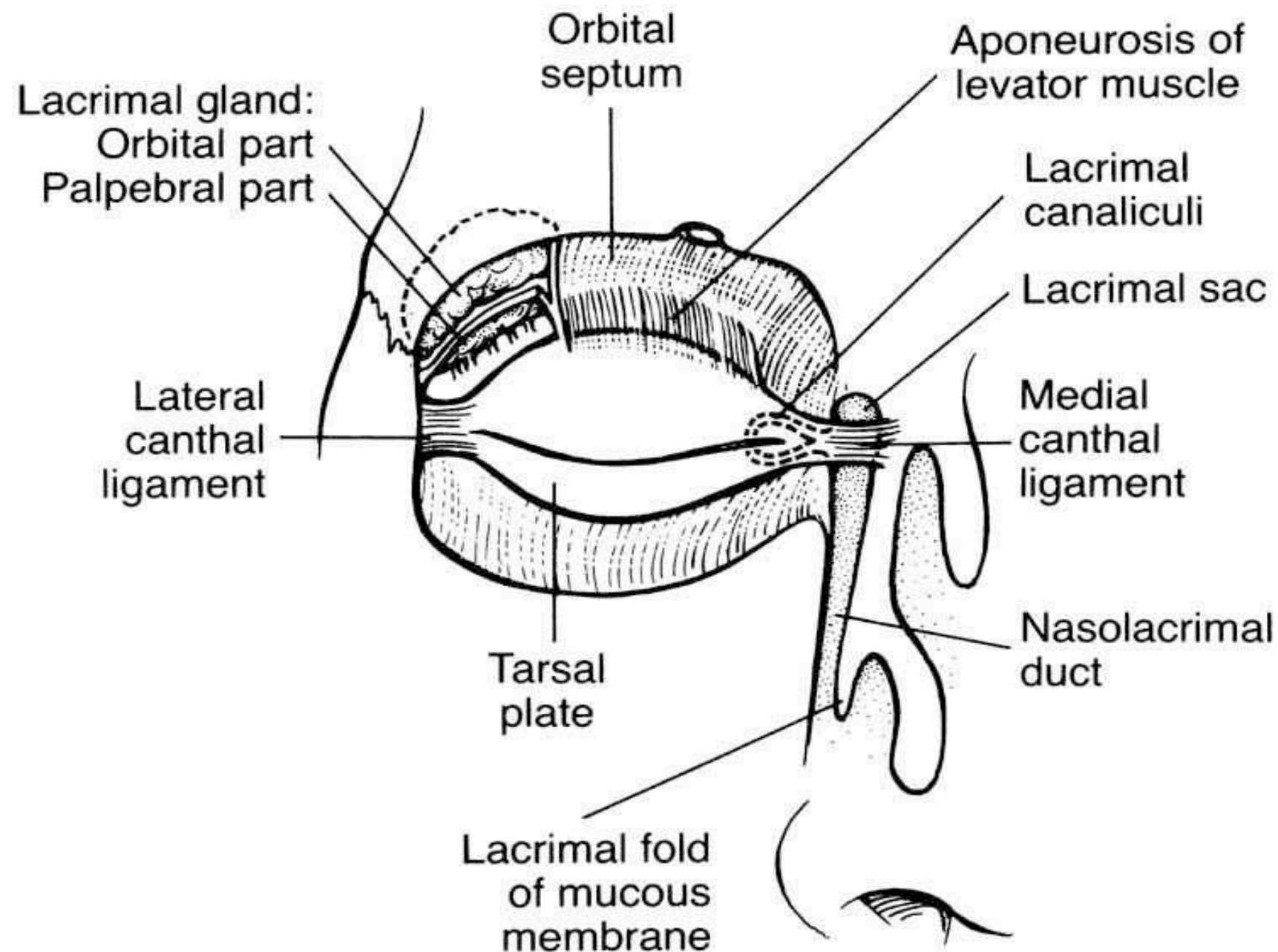


Coronal views showing maxillary soft-tissue densities

# Optic Canal Fracture



# Lacrimal Apparatus





# Excessive Tearing [epiphora]



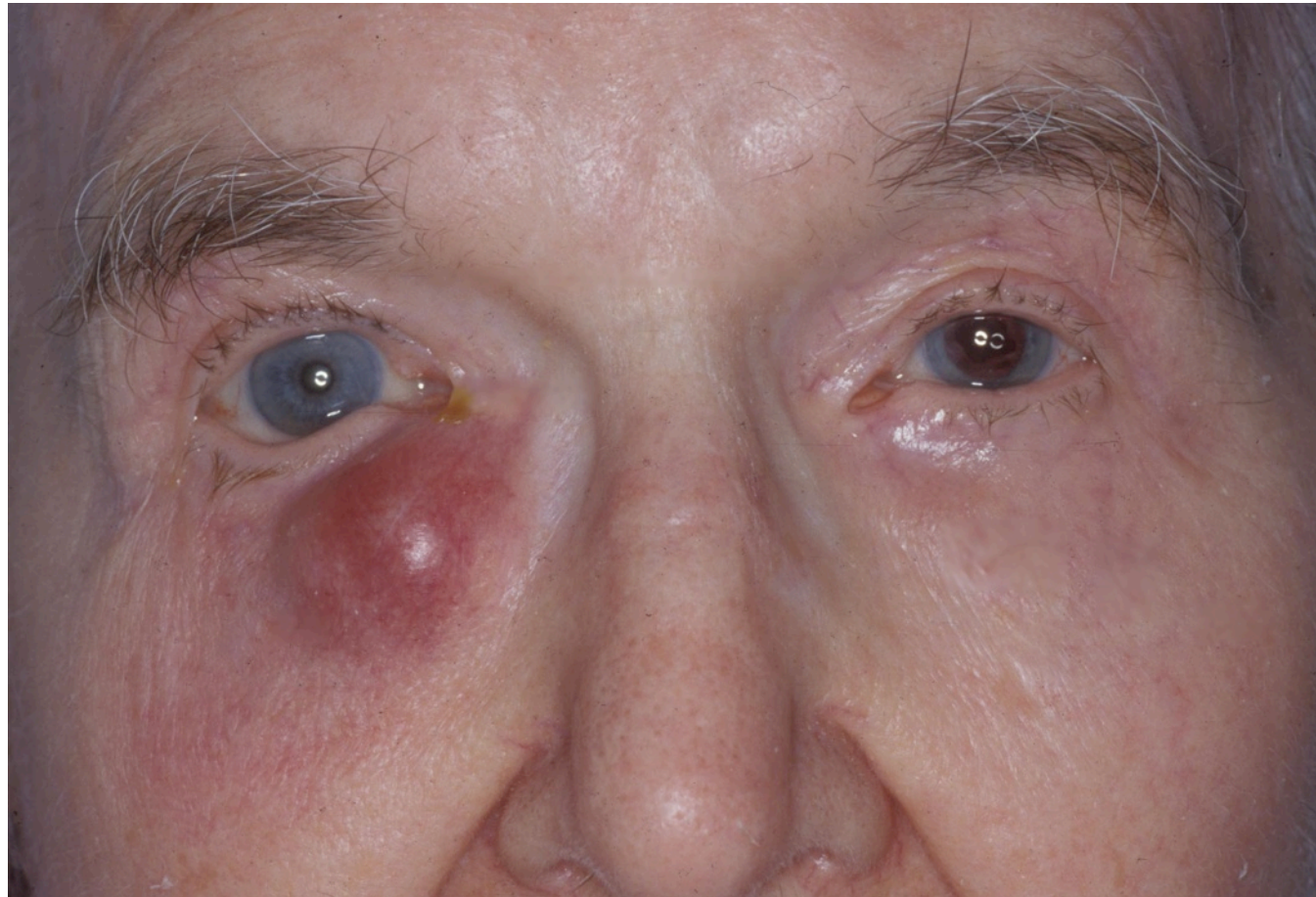
## **DDx:**

Hypersecretion → Dacryocystitis.

Defective drainage → Obstruction or congenital failure of canalization.

Lacrimal pump failure

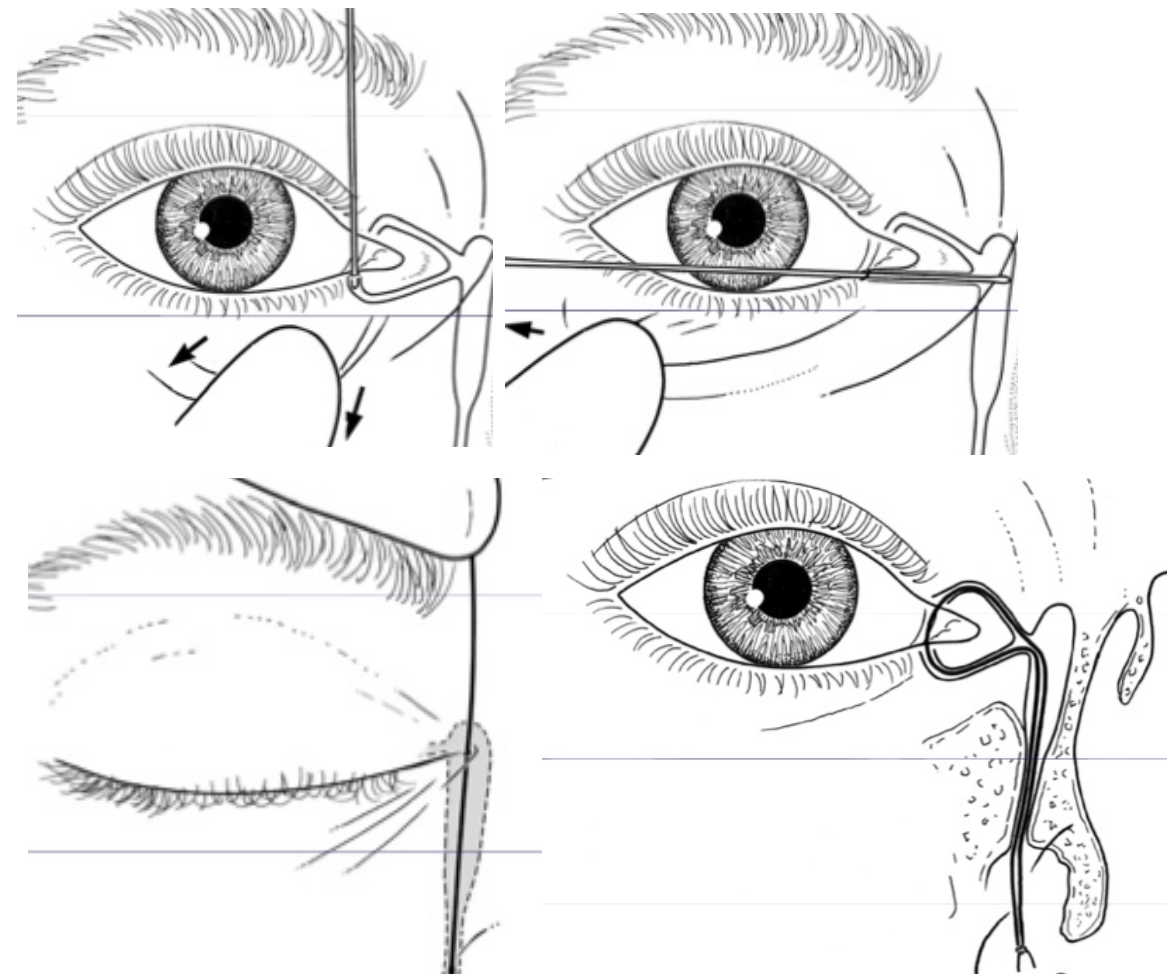
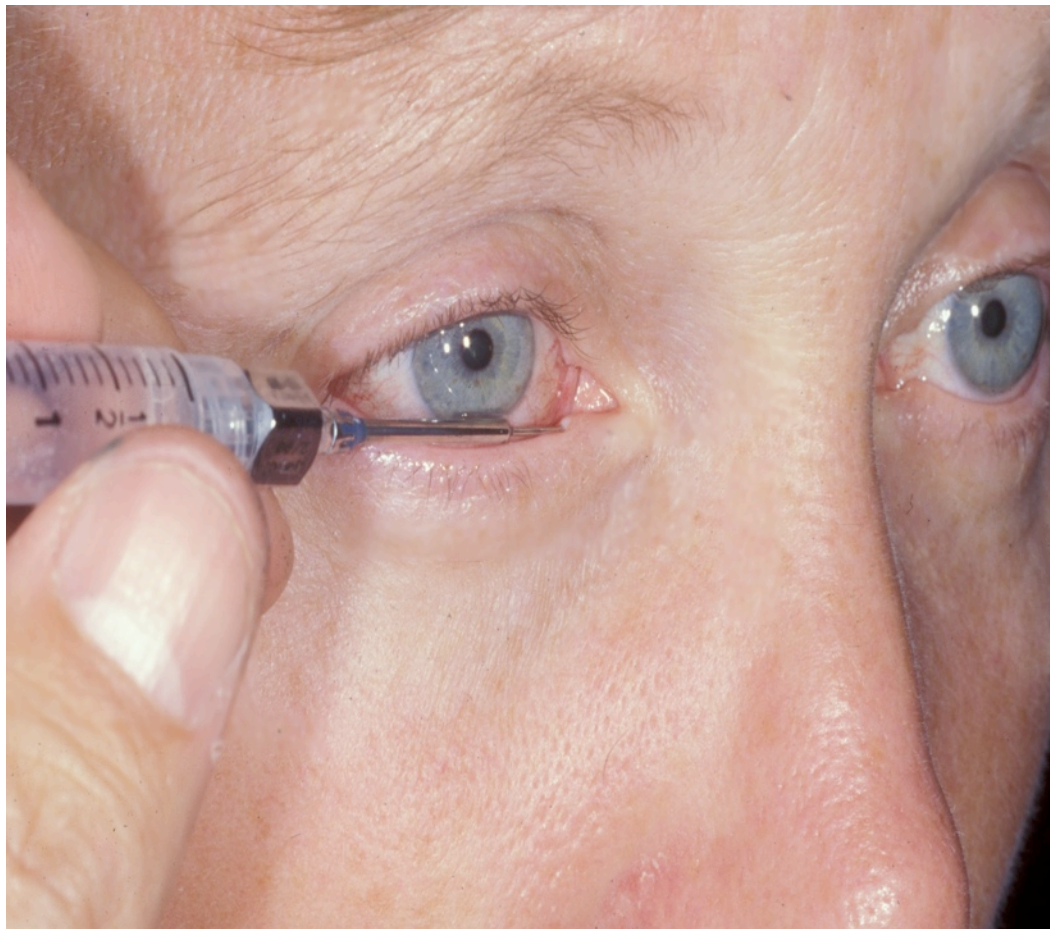
# Acute Dacryocystitis



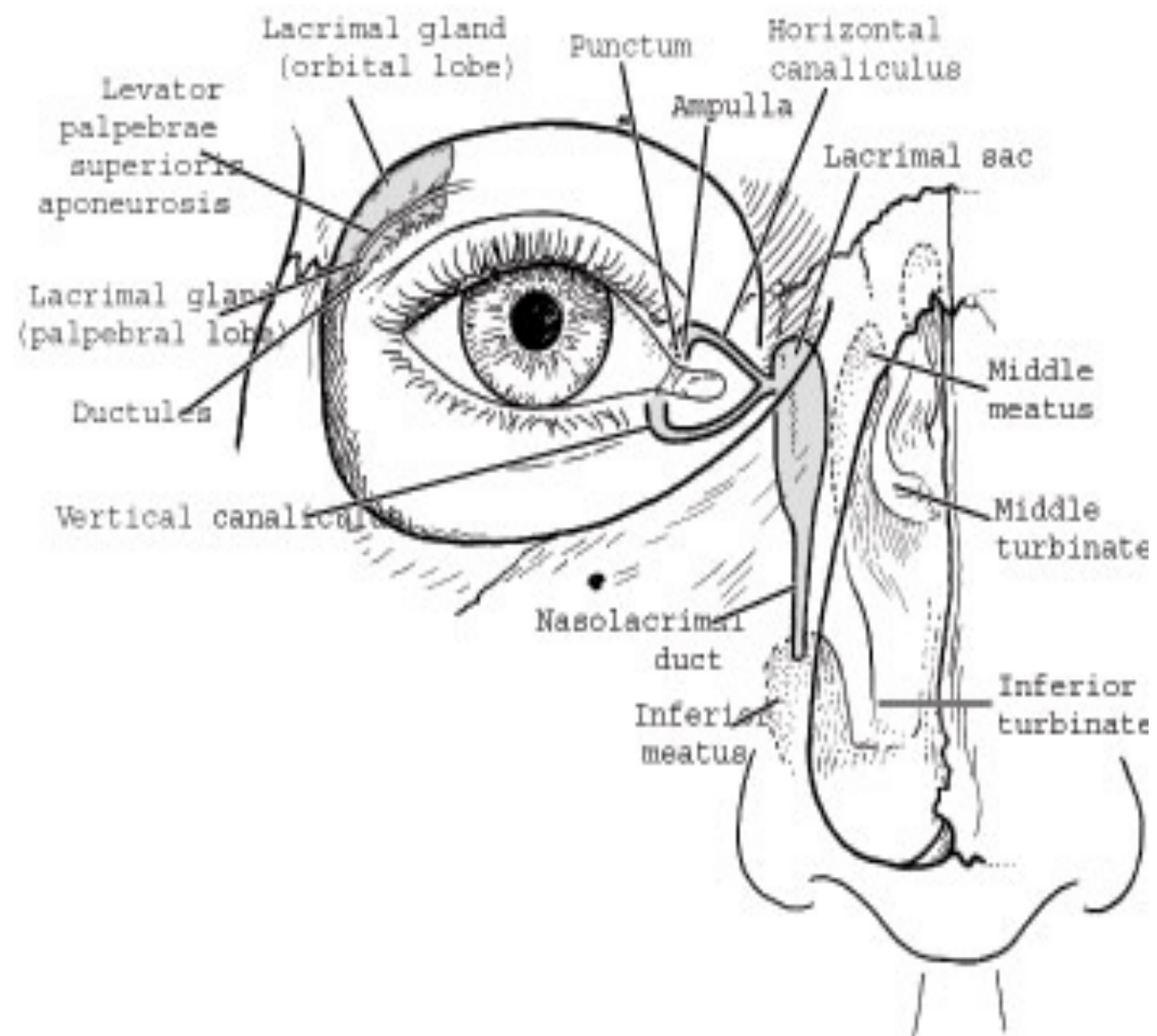
**Presentation:** earring is associated with pain, swelling and redness over the lacrimal sac



# Diagnostic Probing and Irrigation



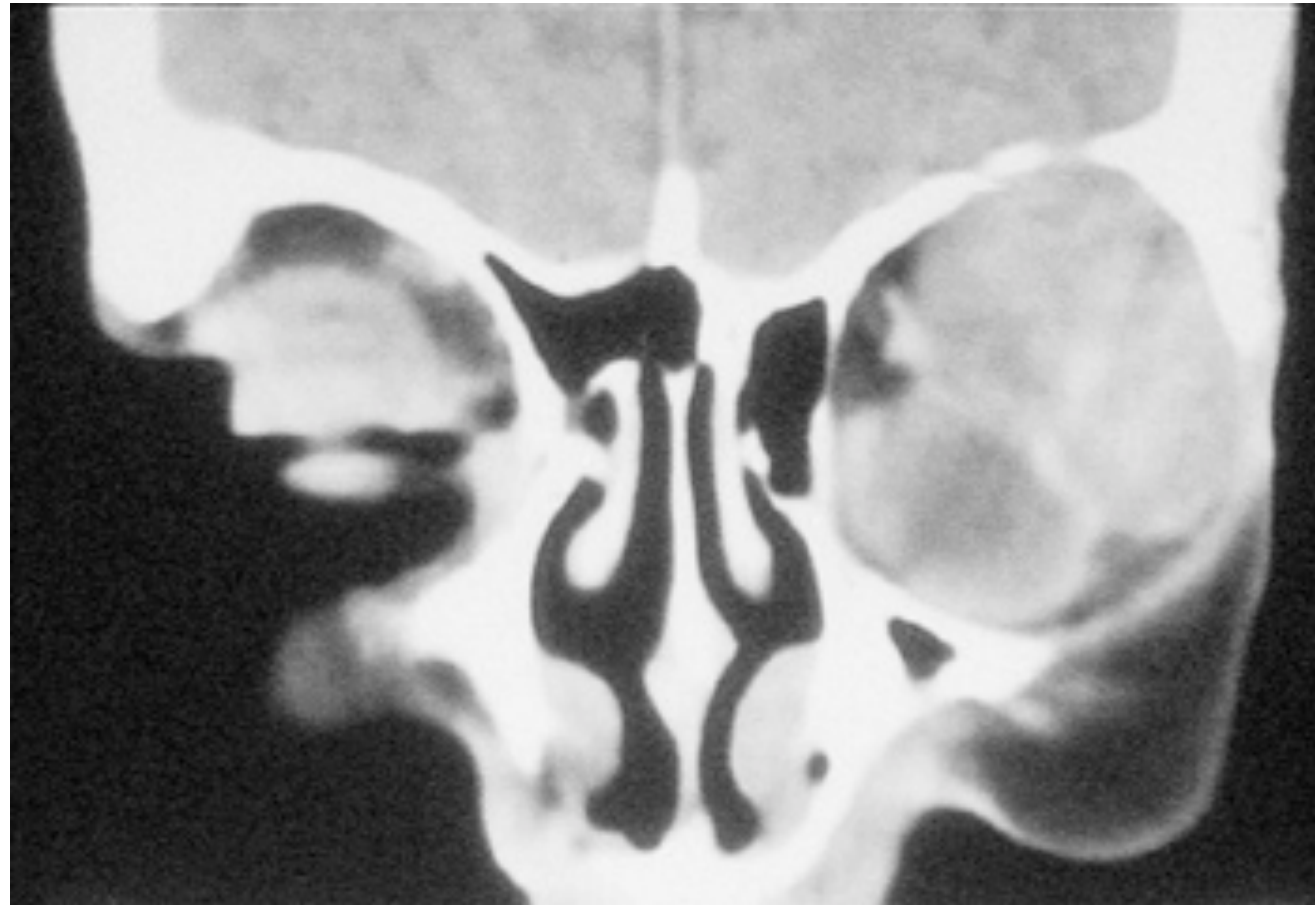




# Lacrimal Gland Mass



# Lacrimal Gland Mass



## Pleomorphic Adenoma

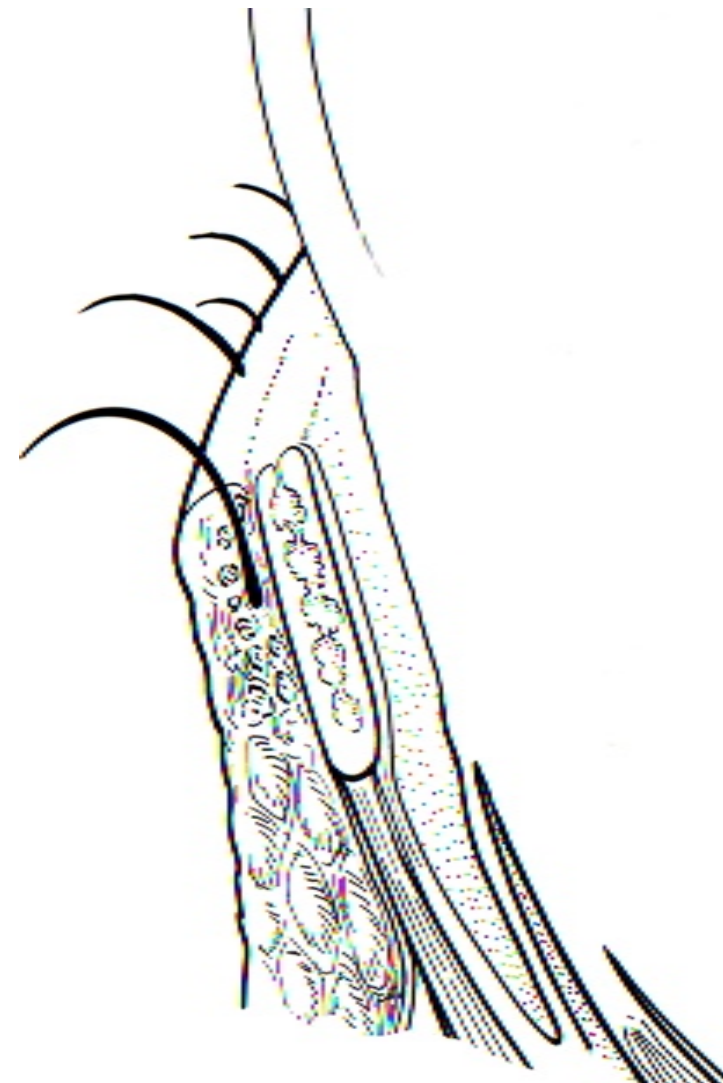
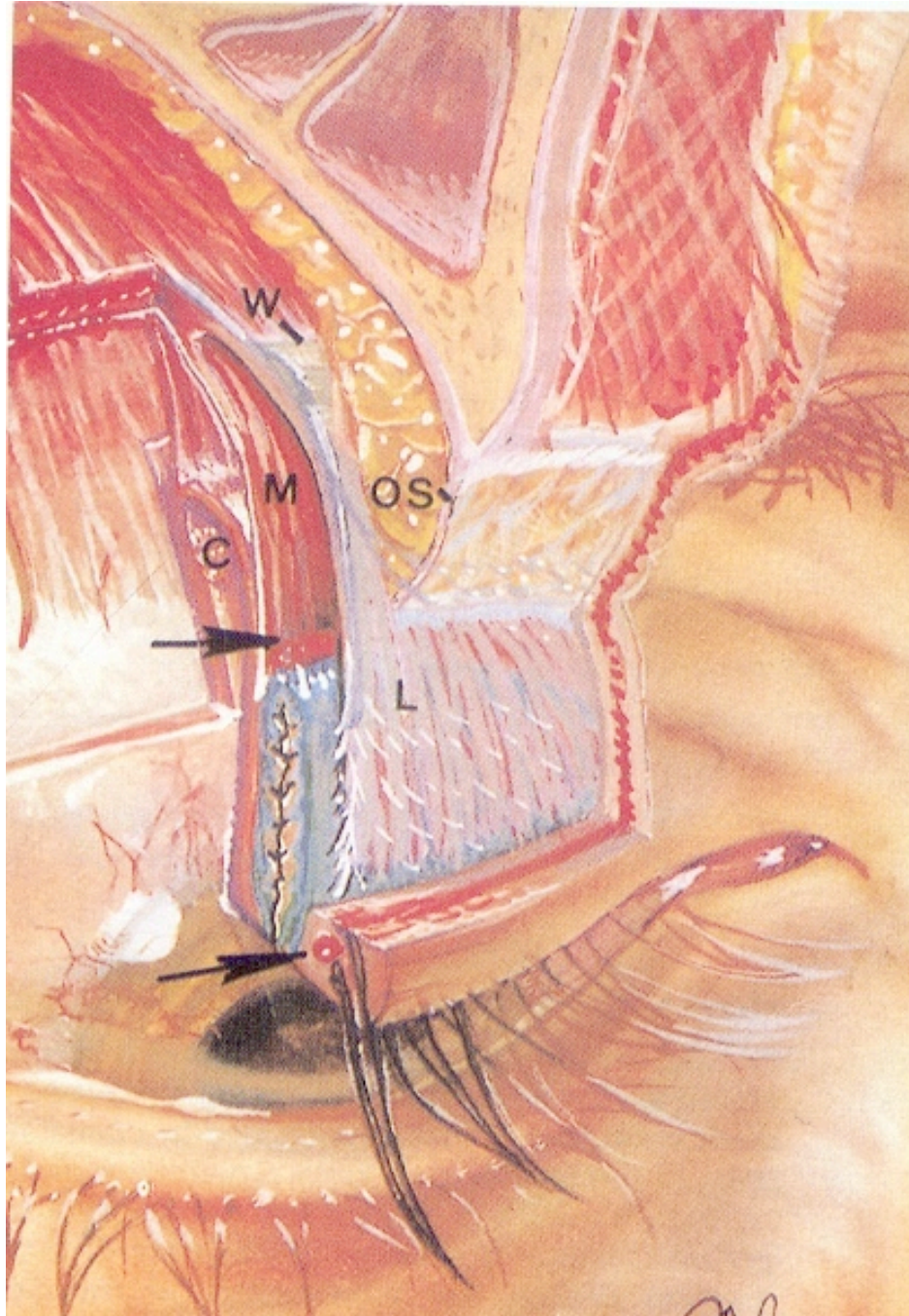
**Signs**: Slowly growing painless mass [Takes years]

**CT-Scan** shows well circumscribed , globular, possible bony expansion or excavation.

**Treatment**: By complete excision with capsule without biopsy.

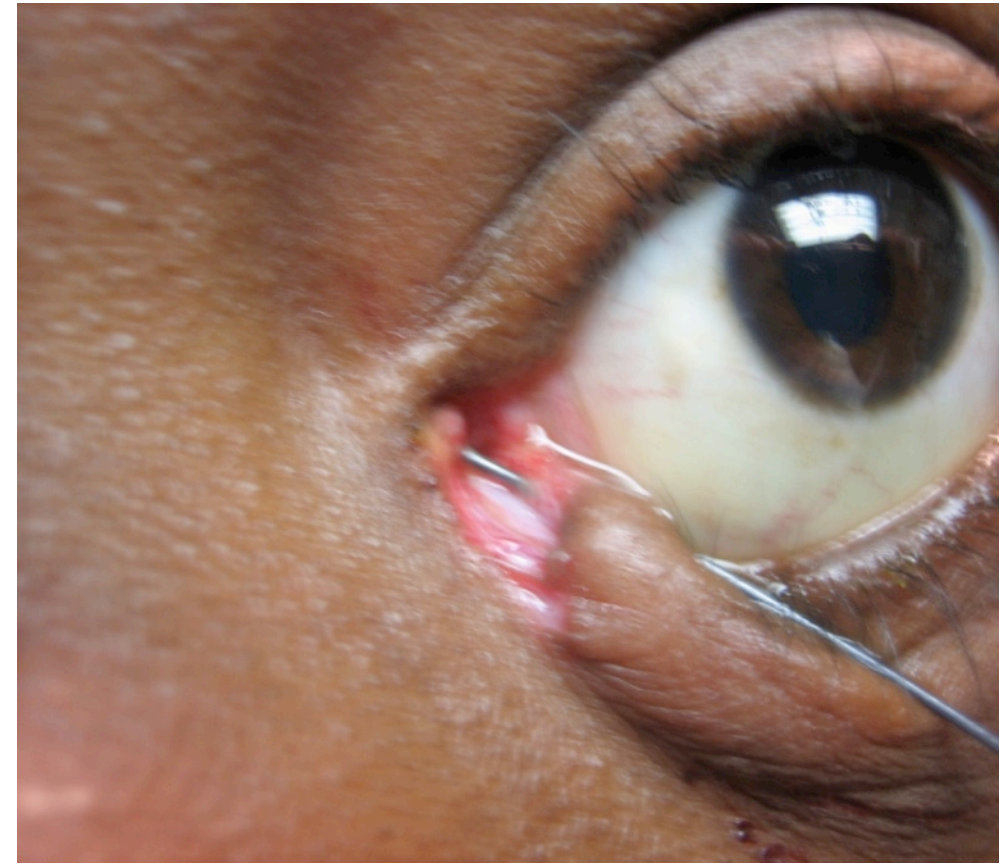
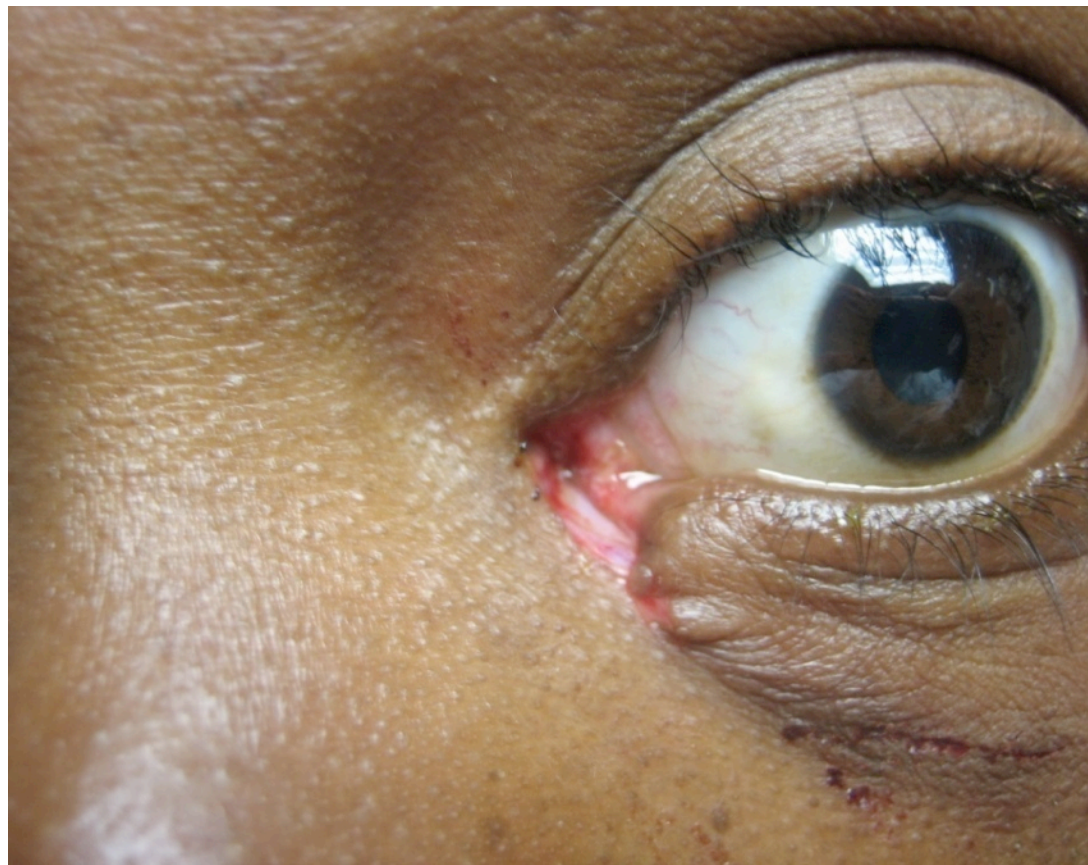


# Lid Anatomy





# Lid Laceration with Canalicular Involvement



# Blephritis



**Presentations**: itching, tearing, foreign body sensation

**Signs**: thickened, red lid margins, crusting, discharge with pressure on lids ("toothpaste sign")

**Treatment**: Warm compresses and lid scrubs with diluted "baby shampoo". Topical or systemic antibiotics as needed • if severe, an ophthalmologist may prescribe a short course of weak topical corticosteroids



# Herpes Zoster Ophthalmicus



**Presentation** is with pain in the distribution of the first division of the trigeminal nerve i.g dermatitis of the forehead.

**Signs**: Hutchinson's sign.

**Treatment**: Oral antiviral immediately.

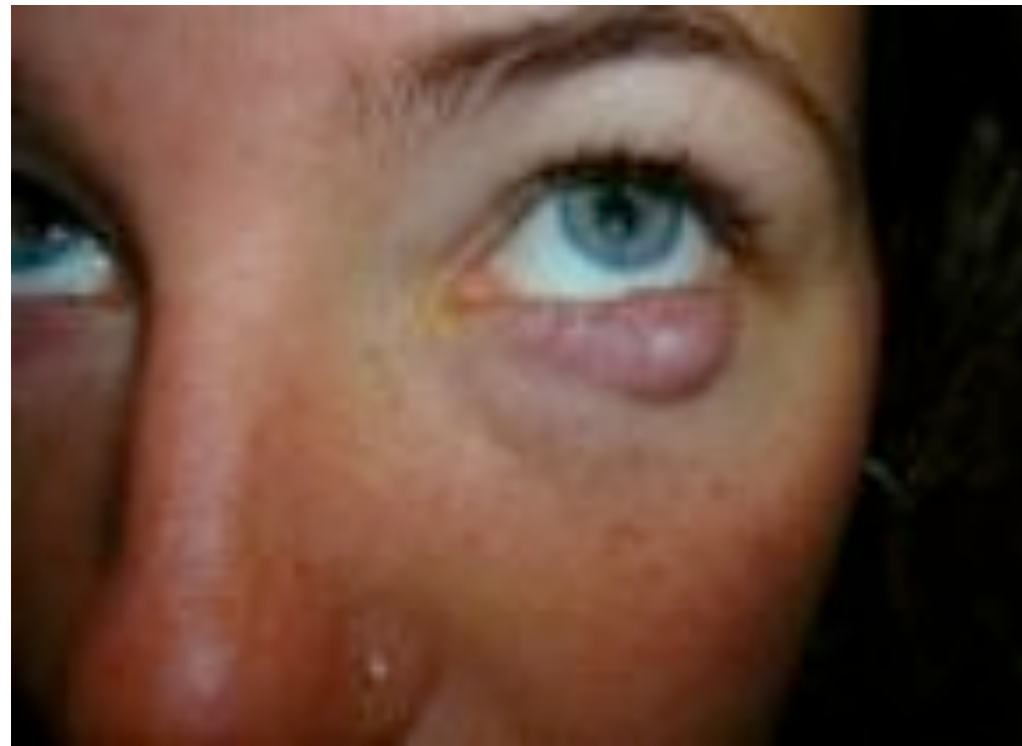
# Hordeolum (Stye)



**Presentation:** A tender, red swelling in the lid margin.

**Treatment:** Warm compresses, lid care, gentle massage and topical antibiotics

# Chalazion



**Presentation** Non-tender swelling in the lid margin. [No signs of acute inflammation]

**Treatment:** warm compresses if shows no improvement after 1 month, consider incision and curettage



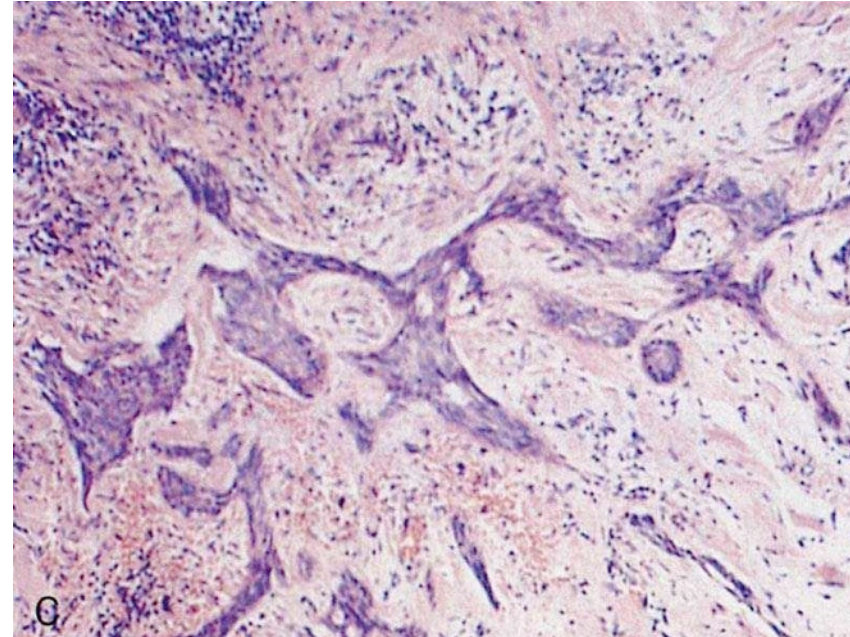
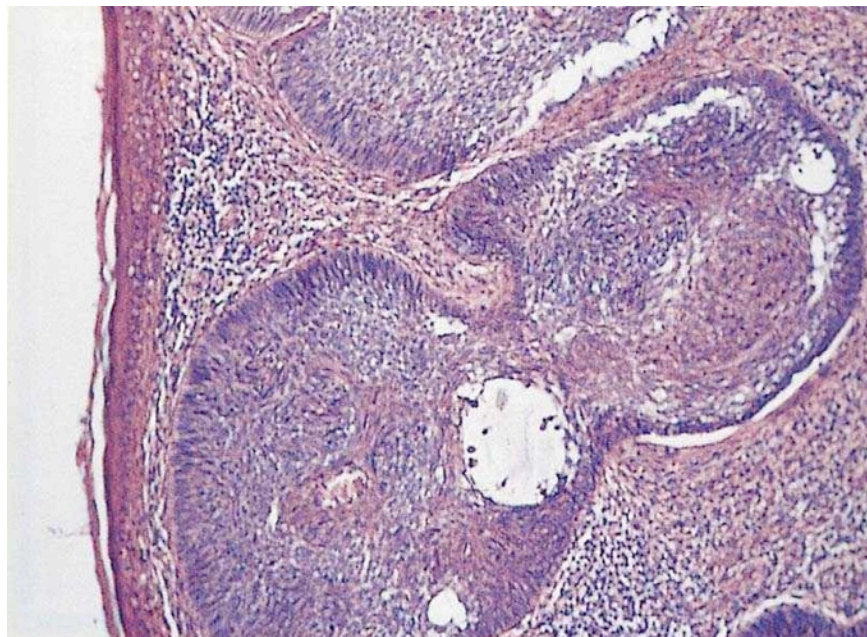
# Xantholasma



**Treatment:** Excision for cosmesis only, recurrences common



# Basal Cell Carcinoma of The Eyelid

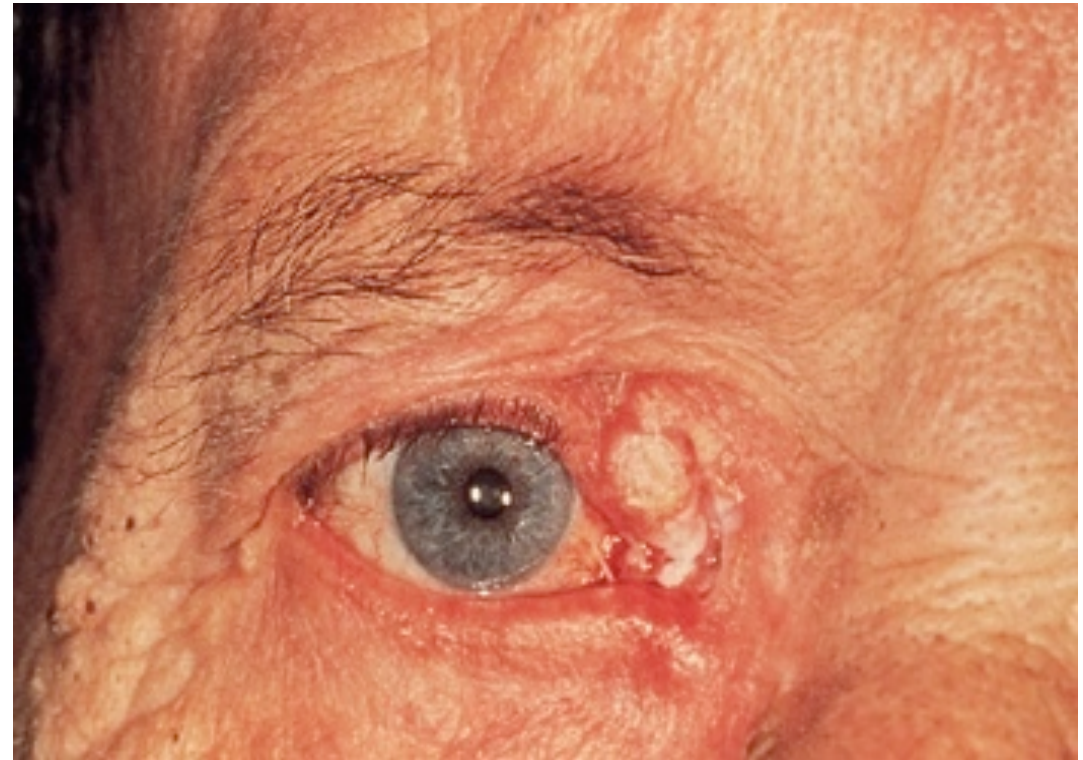


**Nodular**

**Morpheaform**

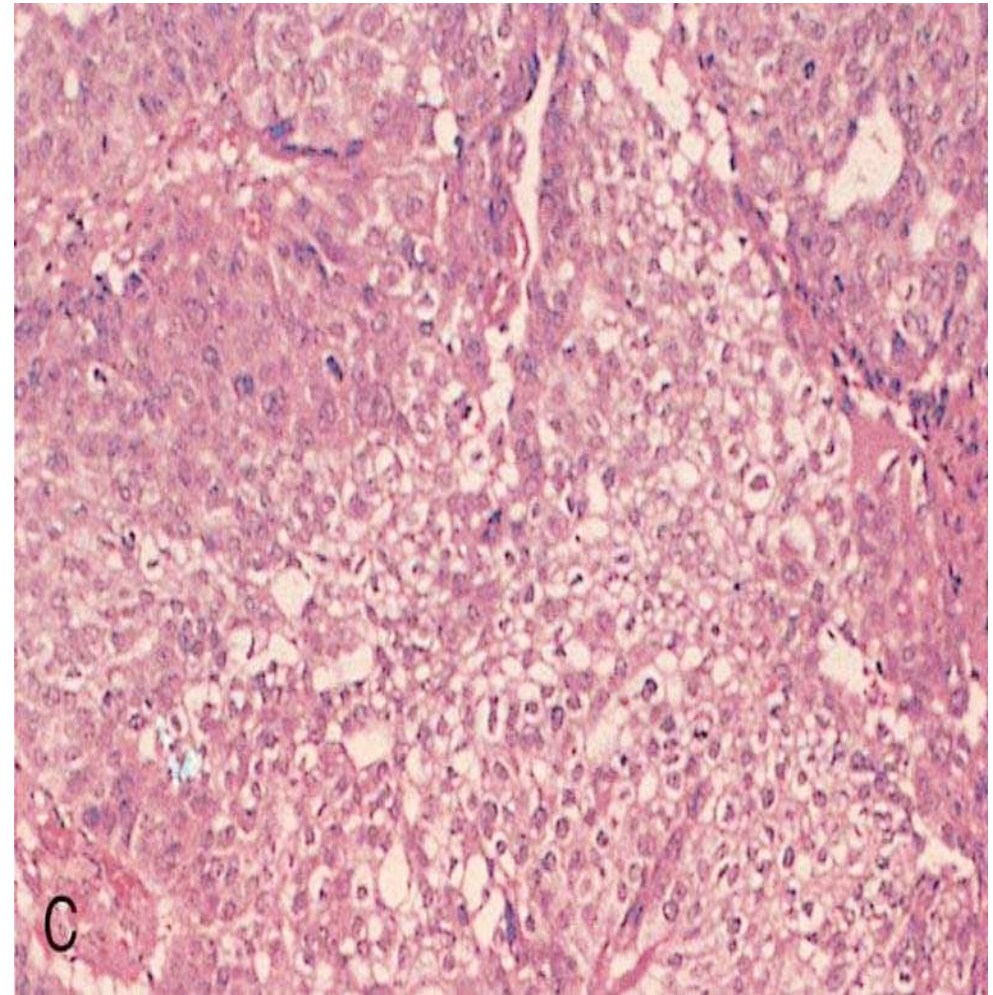


# Squamous Cell Carcinoma of The Eyelid





# Sebaceous Adenocarcinoma



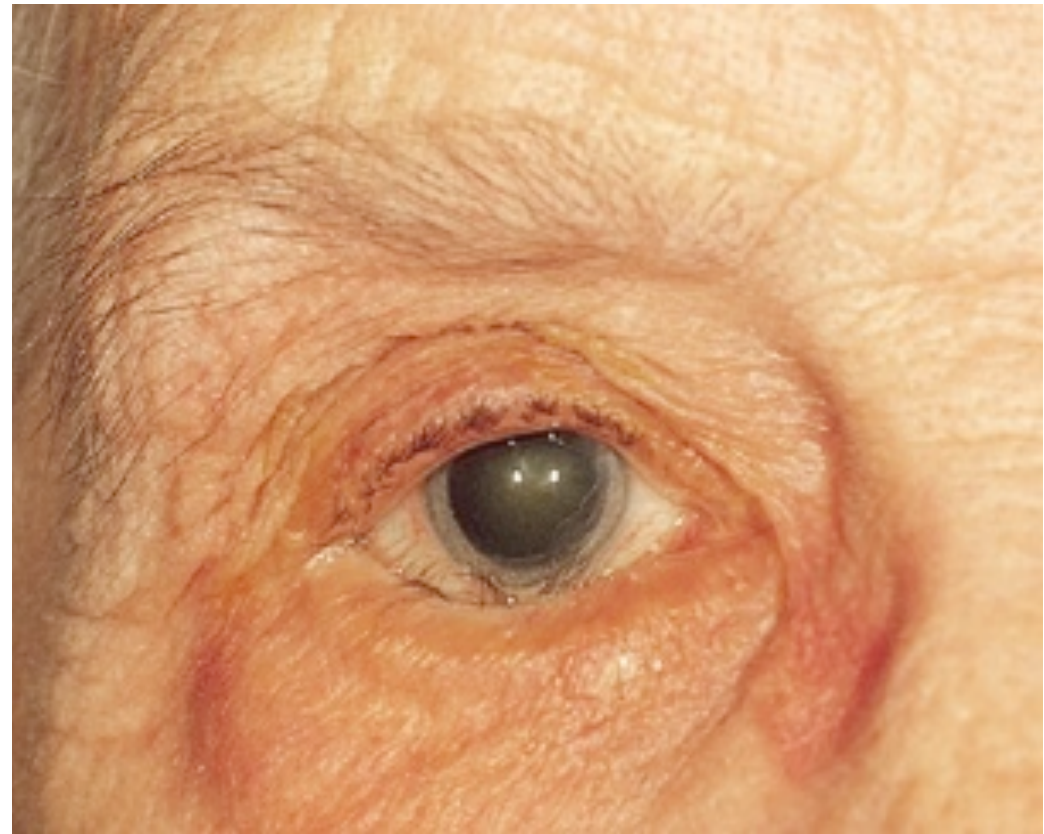
# Ectropion



**Treatment:** topical lubrication, surgery



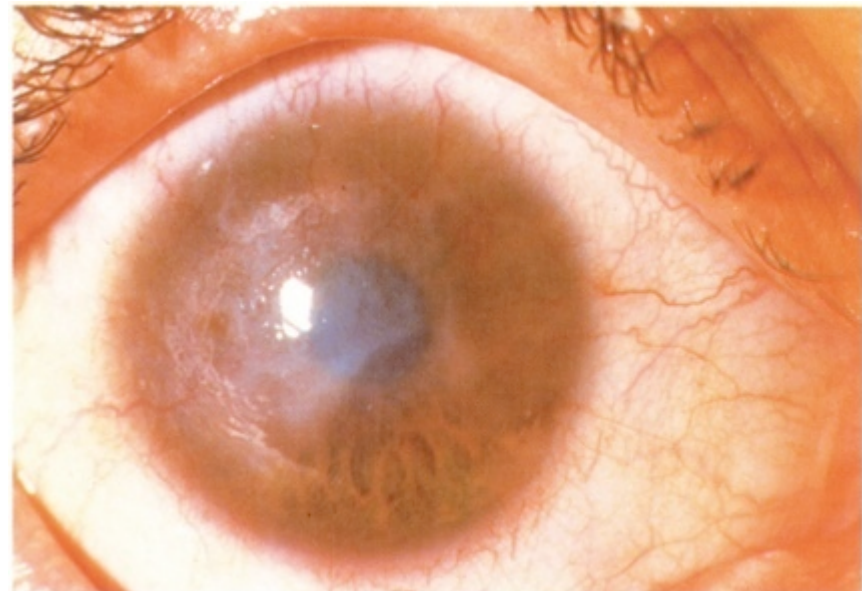
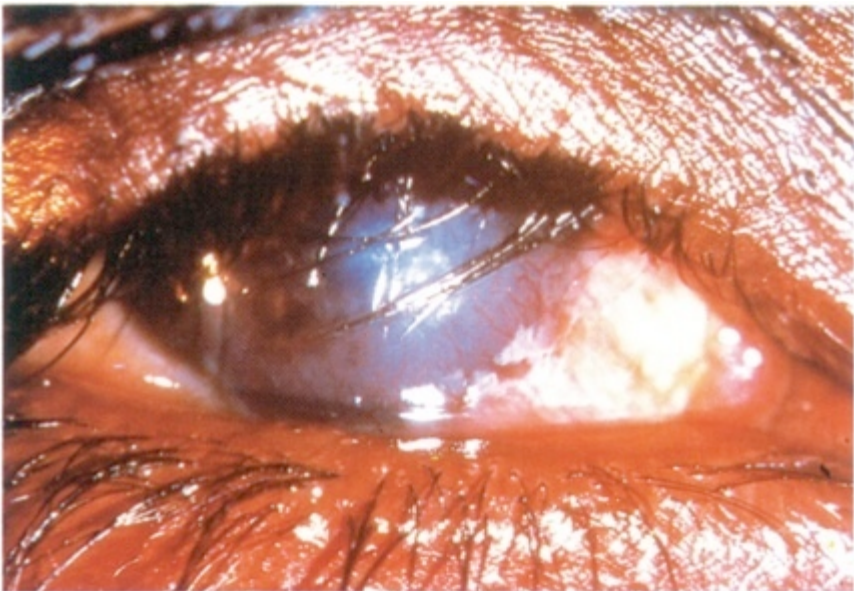
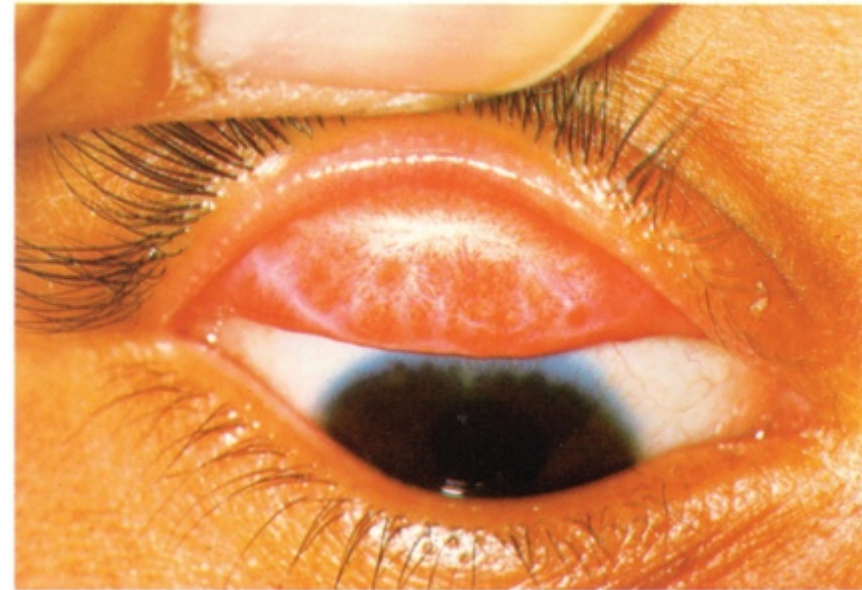
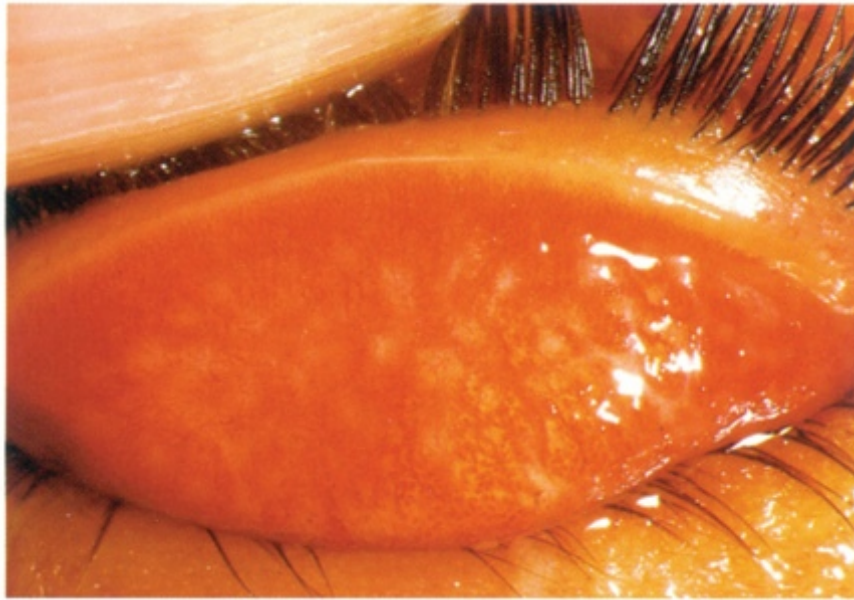
# Entropion



**Treatment:** lubricants, evert lid with tape, surgery



# Trachoma



# Trichiasis



**Treatment:** Topical lubrication, eyelash plucking, electrolysis, cryotherapy



# Myogenic ptosis





# Aponeurotic Ptosis



High lid crease with normal levator function

# Neurogenic Ptosis



## Sign of:

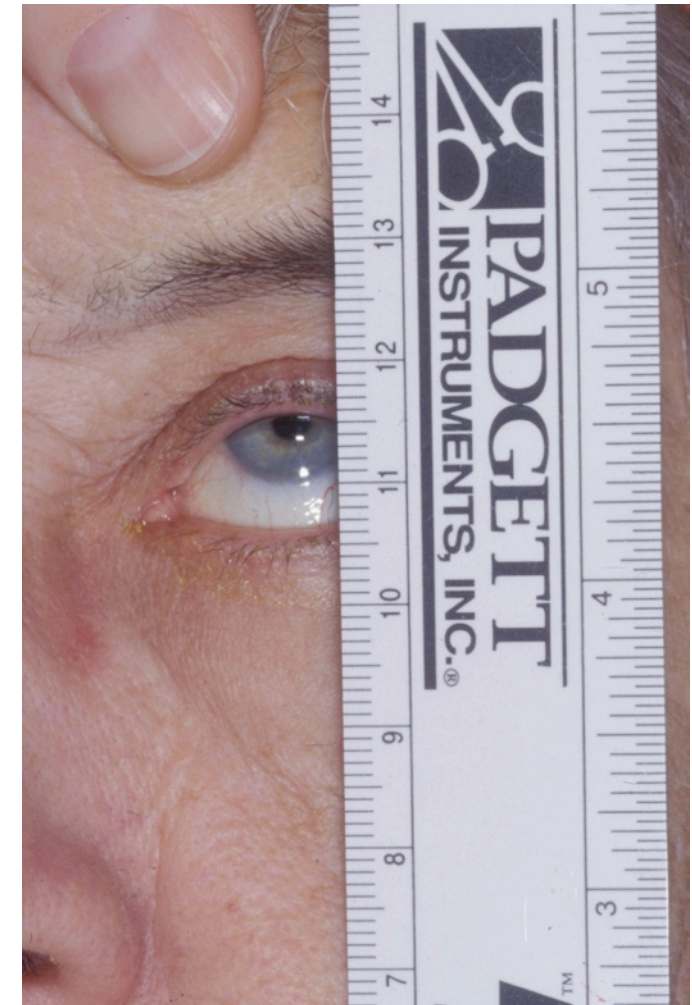
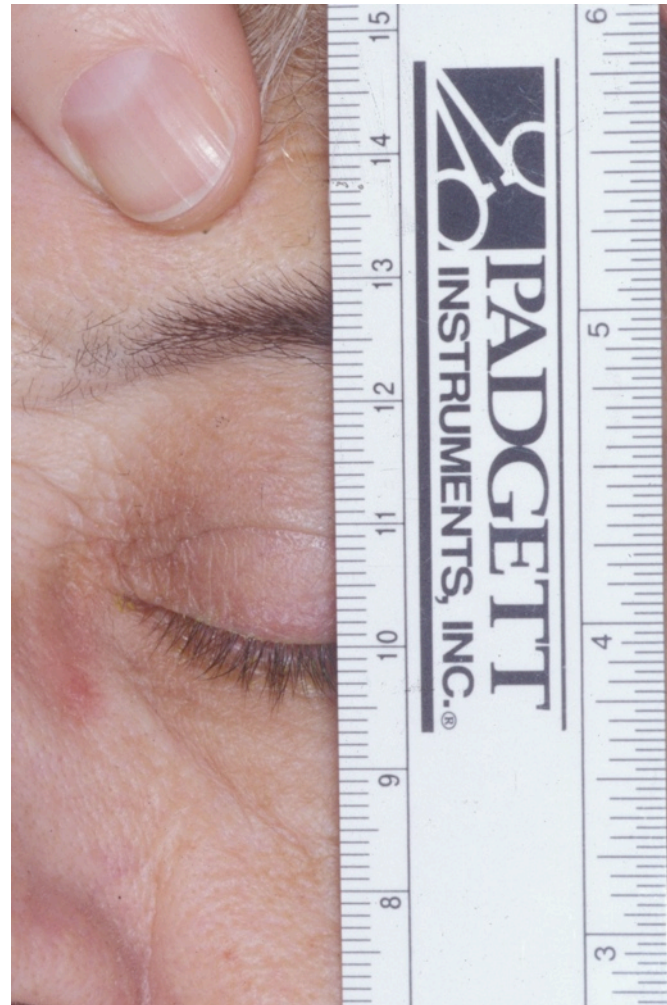
3rd nerve palsy

Horner syndrome

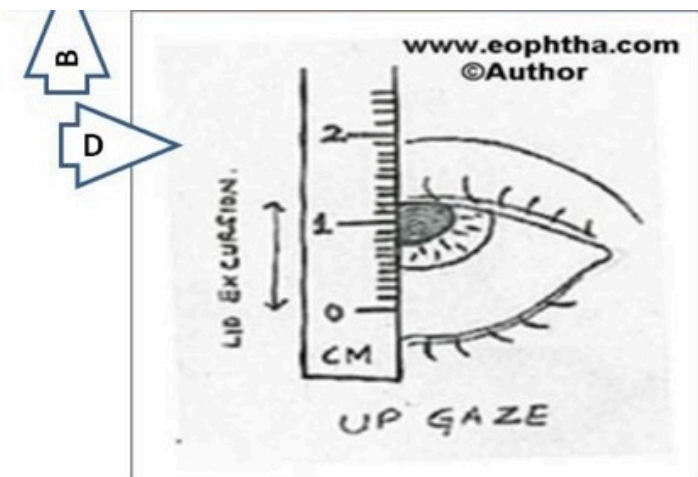
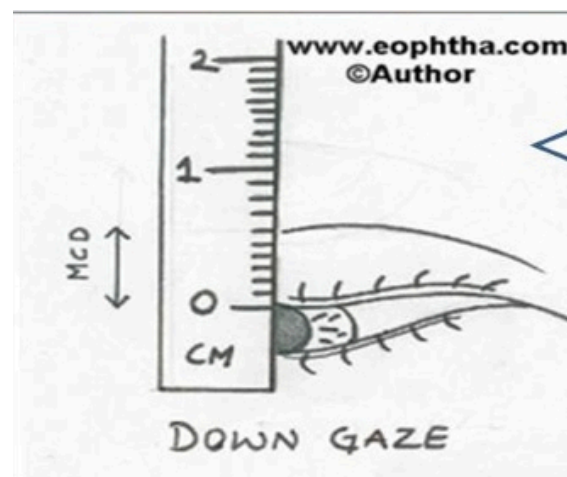
Myasthenia gravis



# Levator Function Test



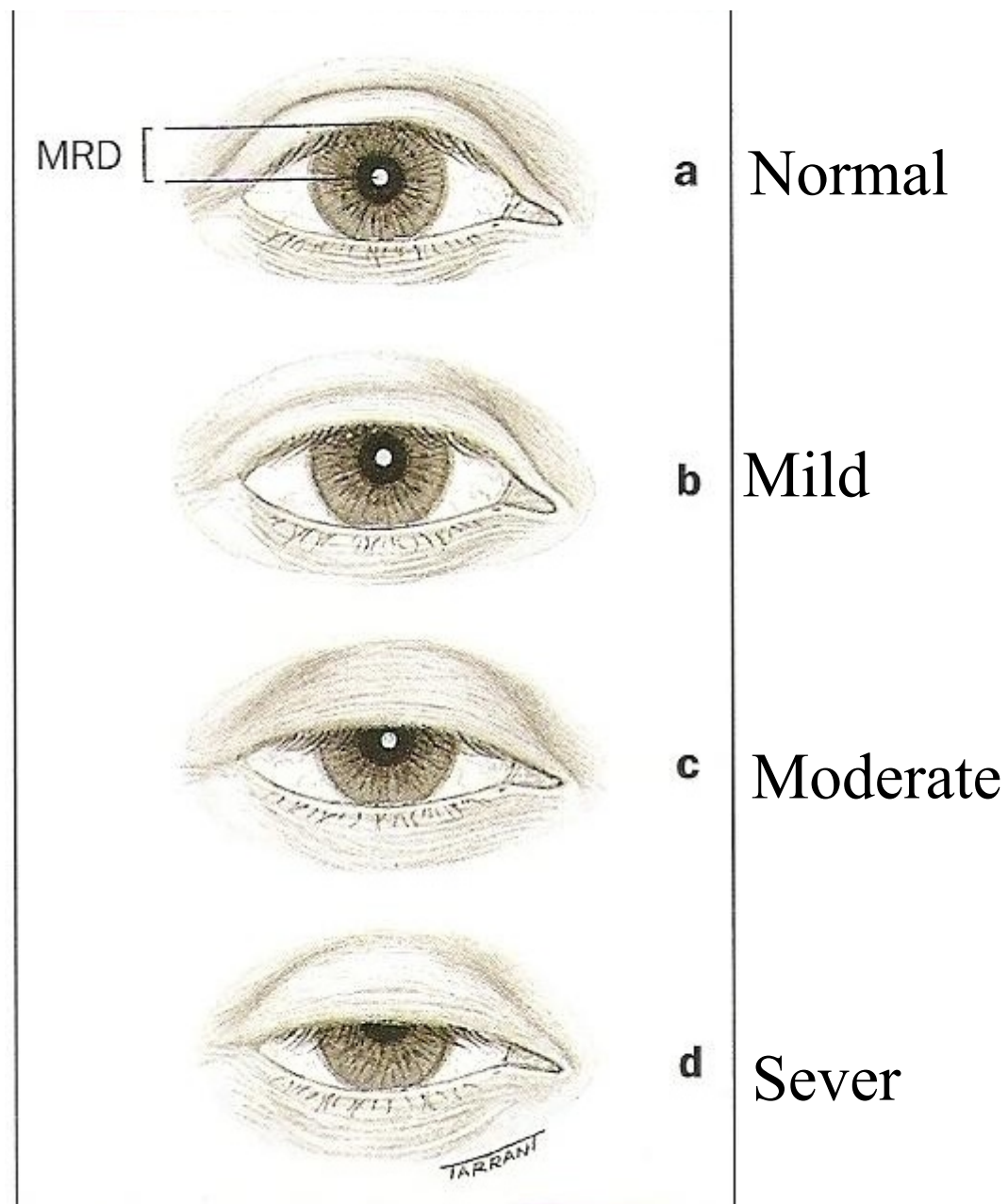
Levator function is graded as normal (15mm or more)





# Margin-reflex distance

the vertical distance between the pupillary light reflex and the eyelid margin with the eye in primary gaze [Normally 4-4.5mm]

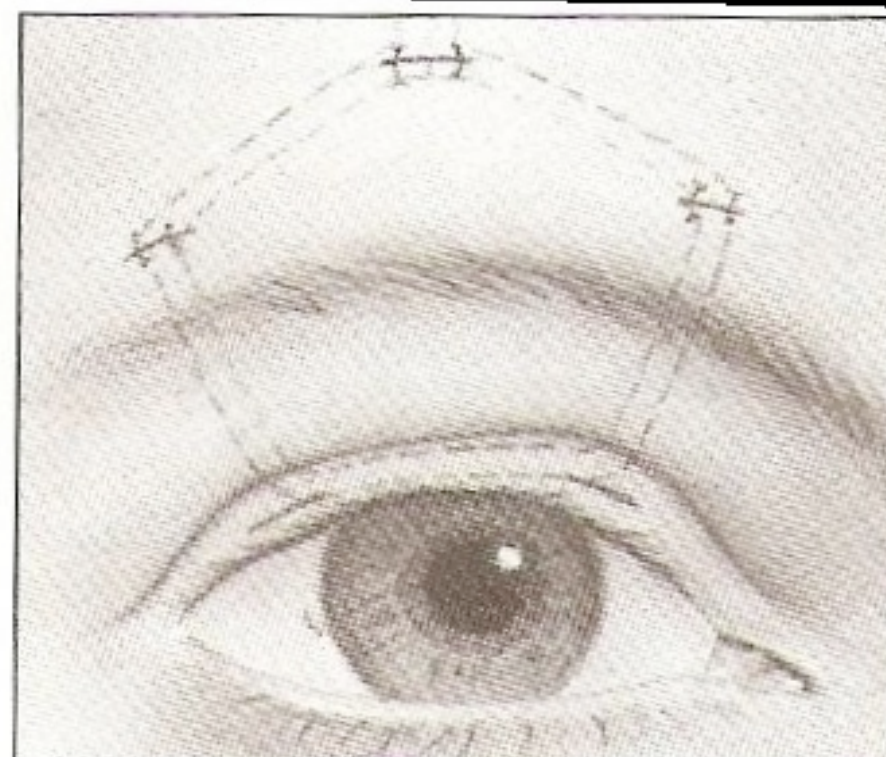
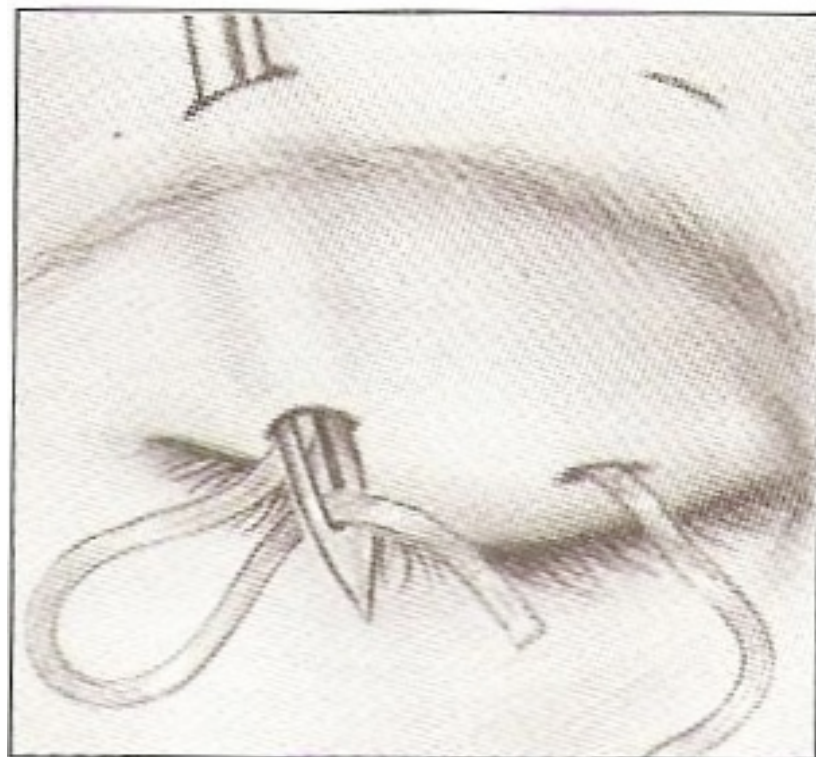
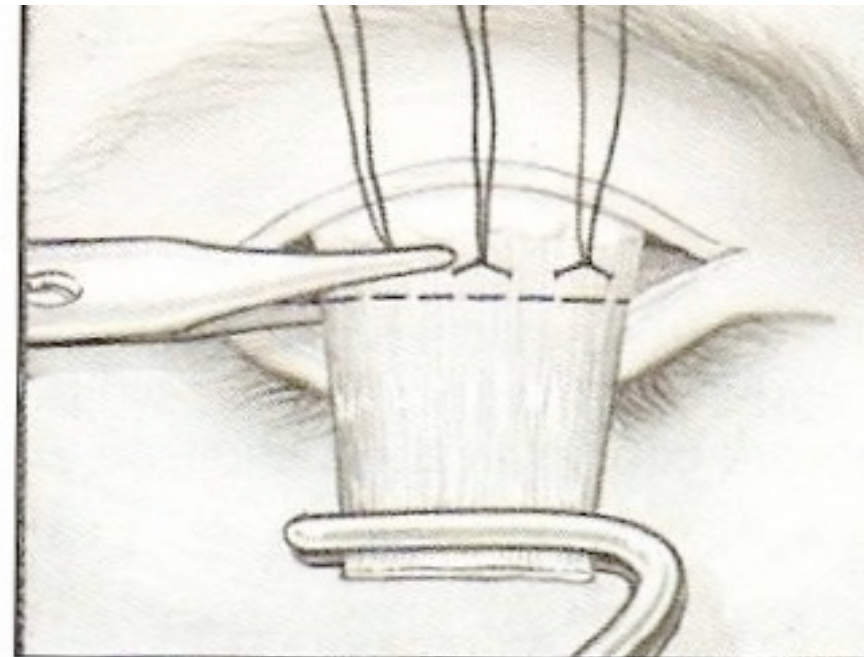
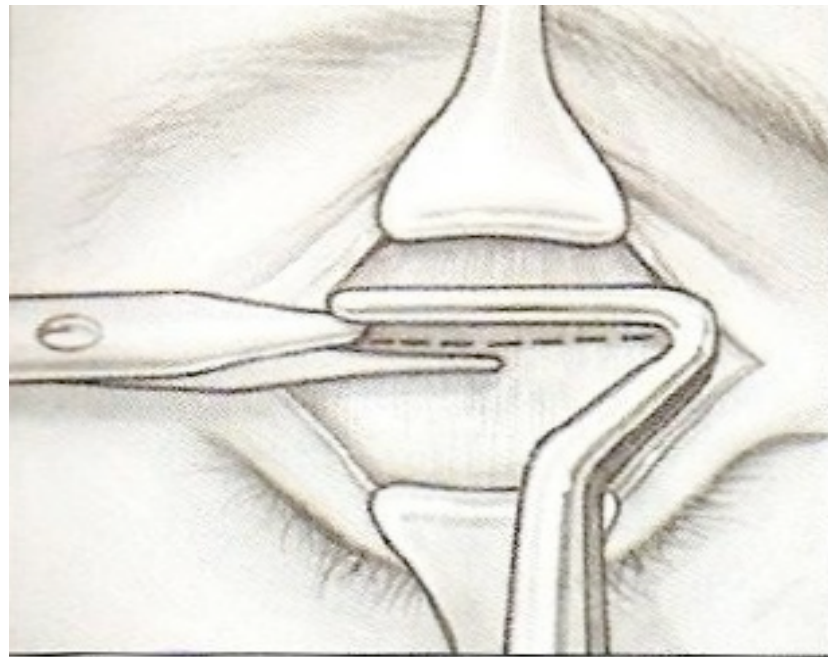


# Mullerectomy





# Levator Resection



**\*Not sure if this is a levator resection or mullerectomy**



# Pseudoptosis



Dermatochalasis



Brow ptosis



Brow ptosis

# Pseudoptosis



Pre and post-op Dermatochalasis



# Pseudoptosis



Pre and post-op Dermatochalasis



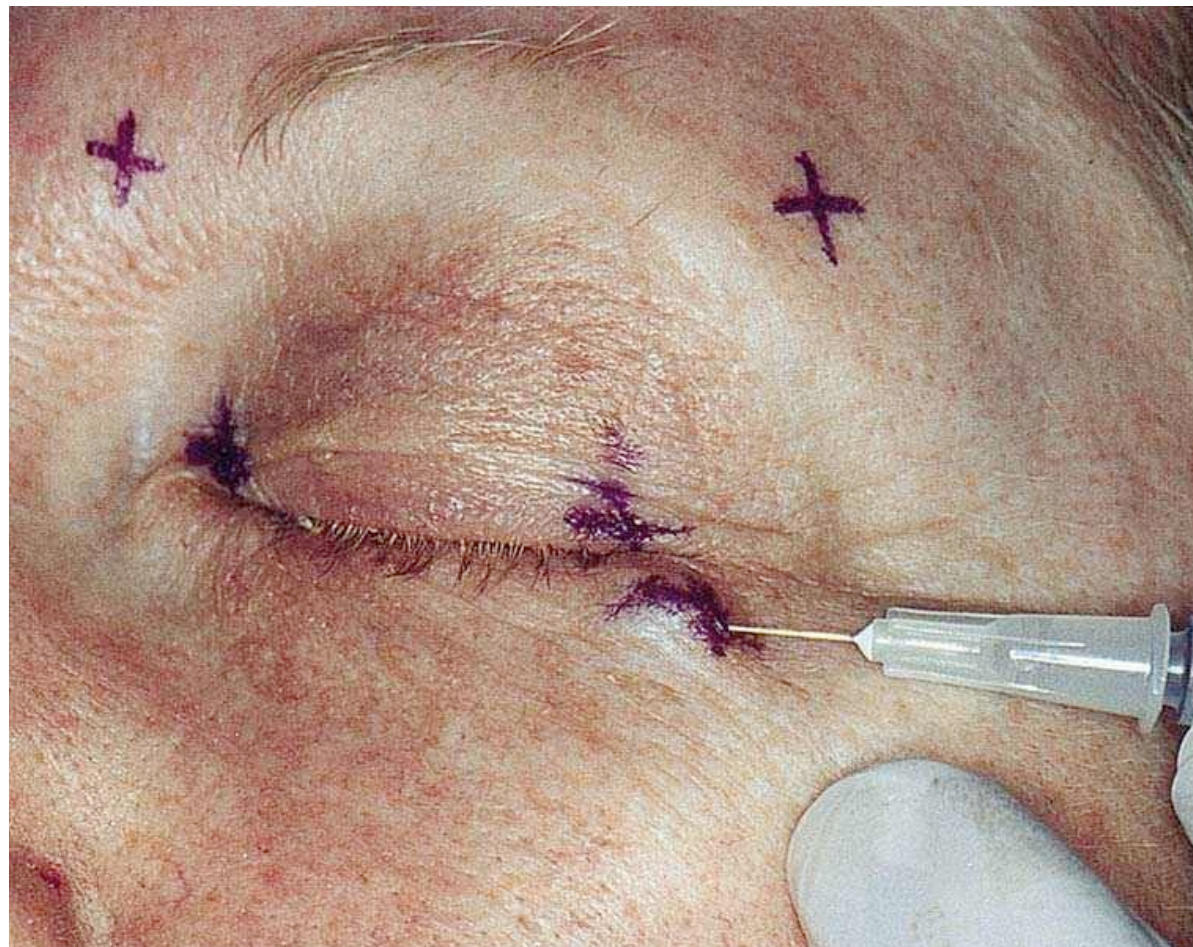
# Blepharospasm



Involuntary tonic, spasmodic contraction of orbicularis



# Botulinum Toxin injections



Treatment of Blepharospasm

# Strabismus



Treated with Botulinum Toxin



# Glabellar Botox



# Botox for Horizontal Forehead Lines





# Botox for Crow's-Feet

