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Orbital tumors

ORBITAL TUMOURS

1. Vascular tumours

- Capillary haemangioma
- Cavernous haemangioma

2. Lacrimal gland tumours

- Pleomorphic adenoma
- Carcinoma

3. Neural tumours

- Optic nerve glioma
- Optic nerve sheath meningioma
- Sphenoidal ridge meningioma

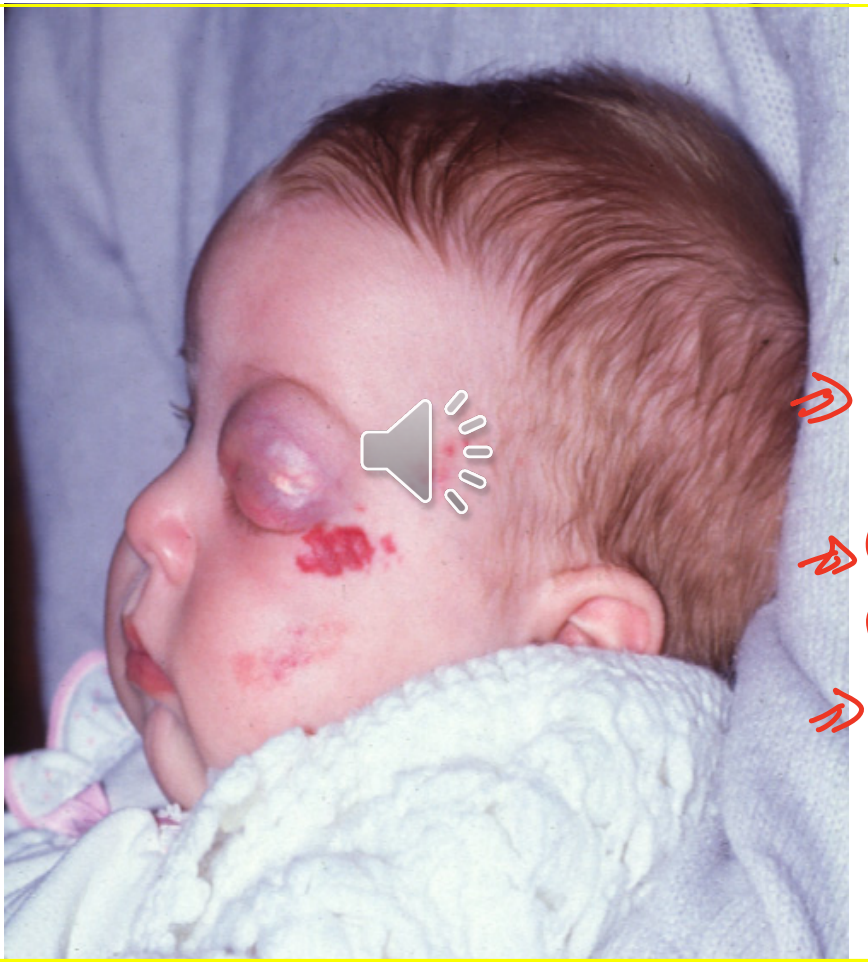
4. Miscellaneous tumours

- Lymphoma
- Rhabdomyosarcoma
- Metastases
- Invasion from sinuses

Capillary haemangioma

Benign + regress with time

- Most common orbital tumour in children
- Presents - 30% at birth and 100% at 6 months



⇒ Imp to treat them because they can cause ambylopia in children

⇒ Rx w/ intra-lesional or oral steroids

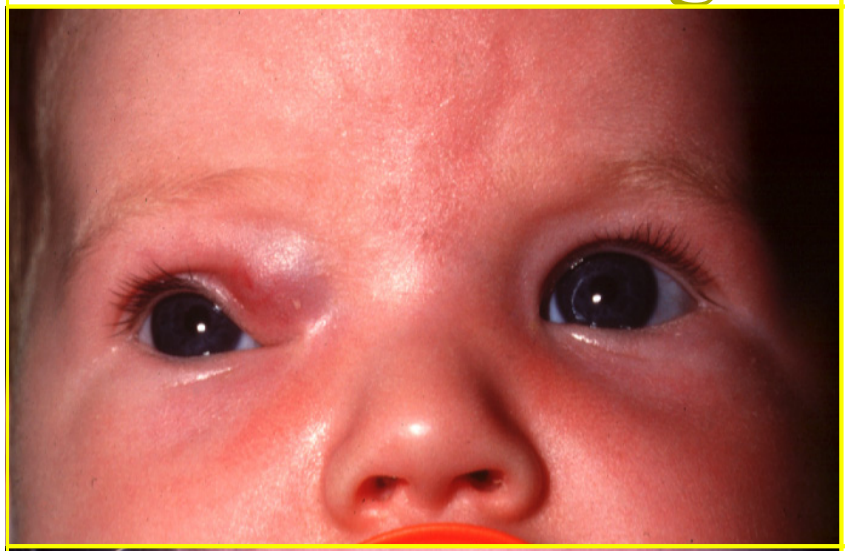
⇒ Beta blockers if they're resistent.

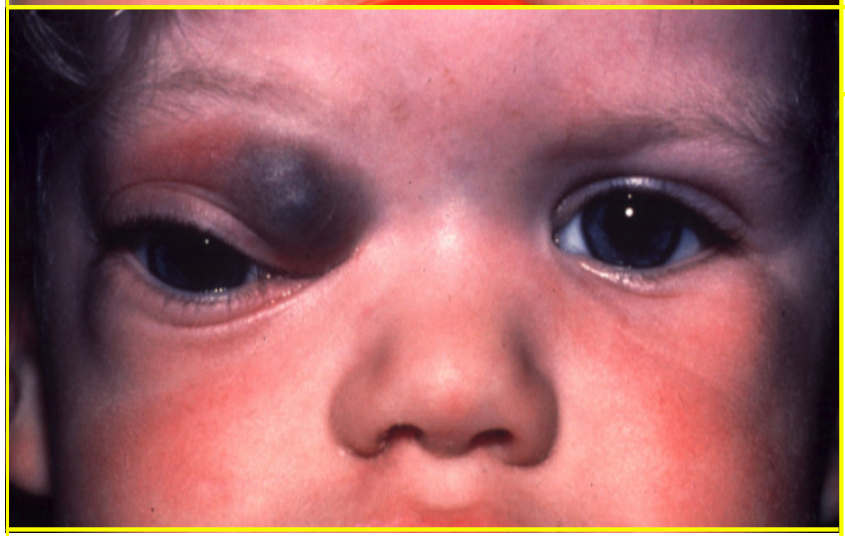
⇒ anti-VGEF

- Most commonly in superior anterior orbit
- May enlarge on coughing or straining
- Associated 'strawberry' naevus is common

Capillary haemangioma

Natural history





- Growth during first year
- Subsequent resolution - complete in 70% by age 7 years

Systemic associations

- High output cardiac failure
- Kasabach-Merritt syndrome - thrombocytopenia, anaemia
- Maffuci syndrome - skin haemangiomas, enchondromata

Treatment

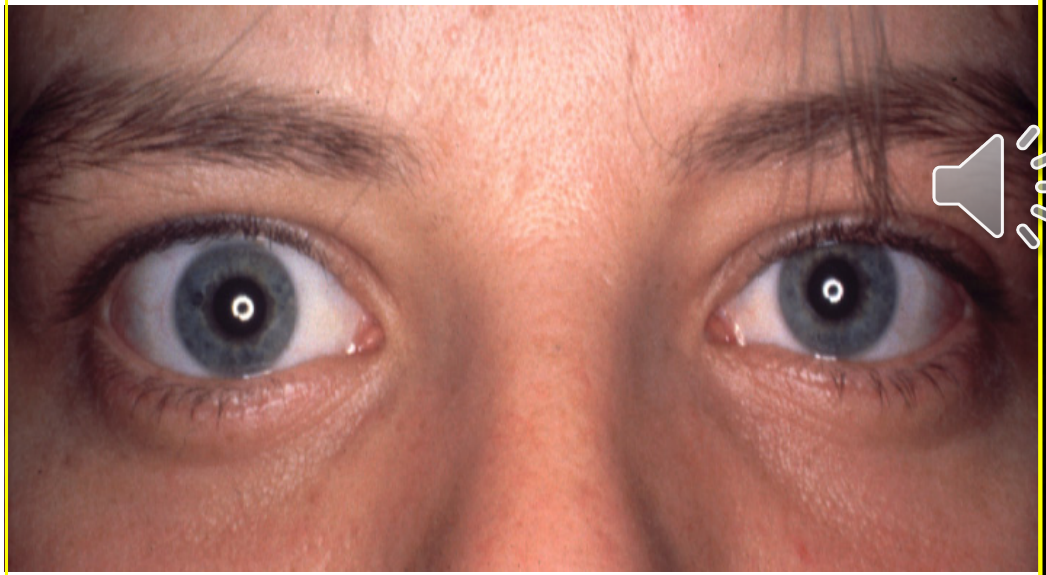
- Steroid injections - for superficial component
- Systemic steroids
- Local resection - difficult

Cavernous haemangioma

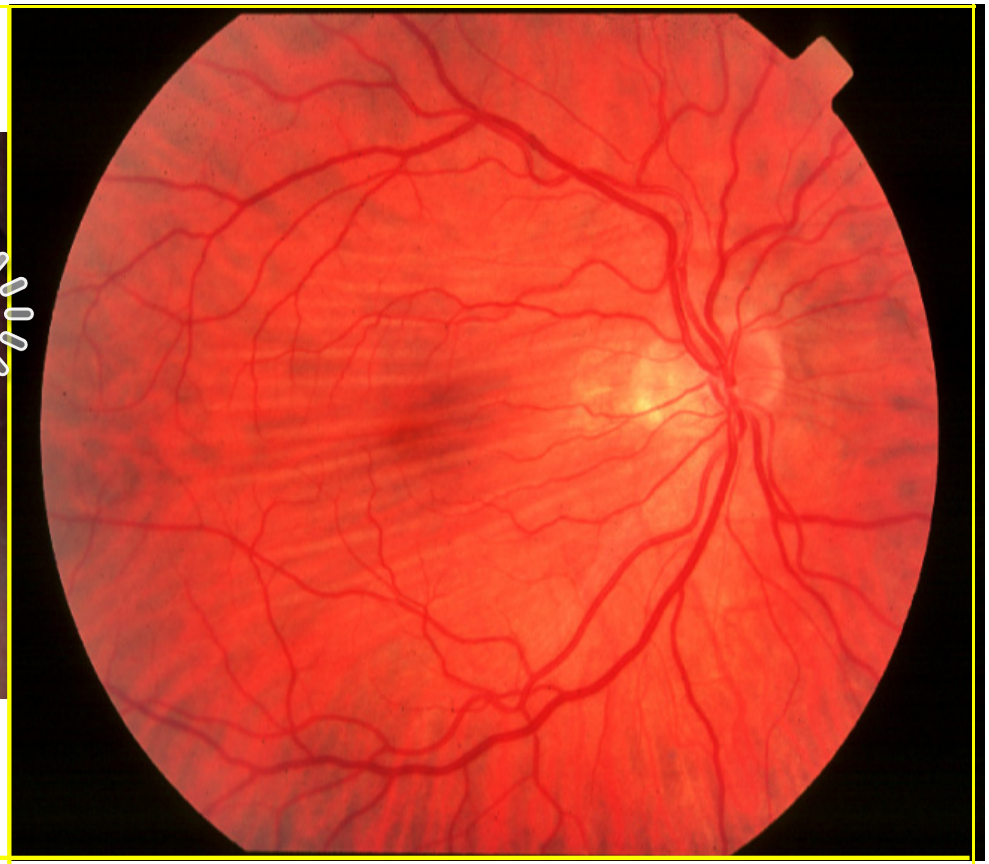
- Most common benign orbital tumour in adults
- Usually located just behind globe
- Female preponderance - 70%

presents as a lady complaing of ptosis in the unaffected eye

- Presents - 4th to 5th decade



Slowly progressive axial proptosis

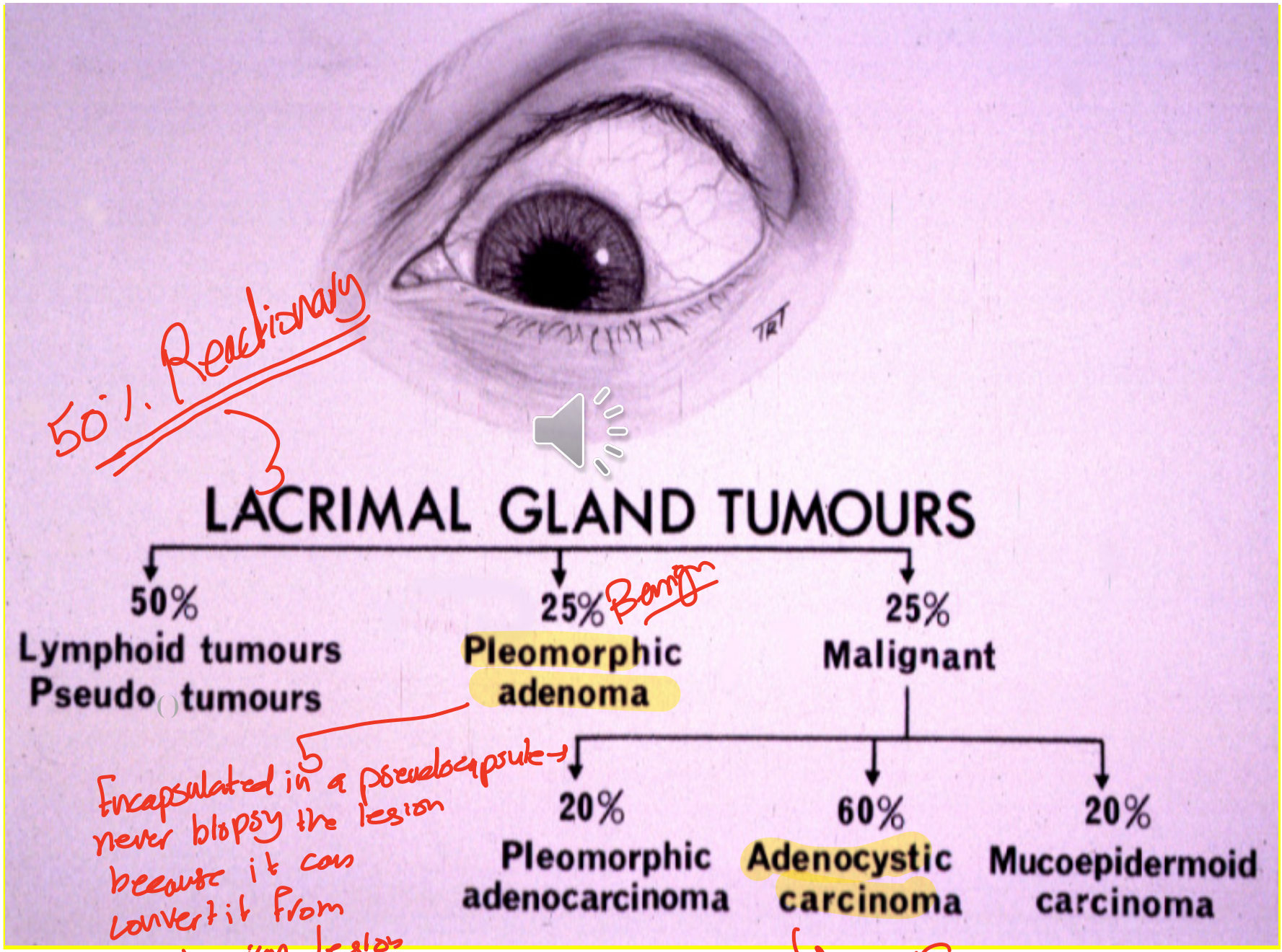


May cause choroidal folds

Treatment - surgical excision

cryotherapy (freeze the blood inside

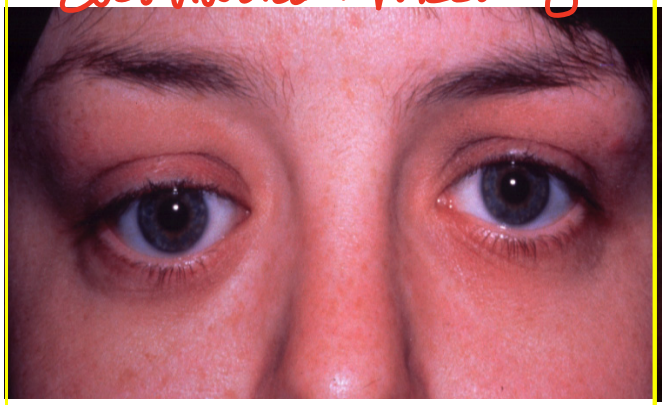
Classification of lacrimal gland tumours

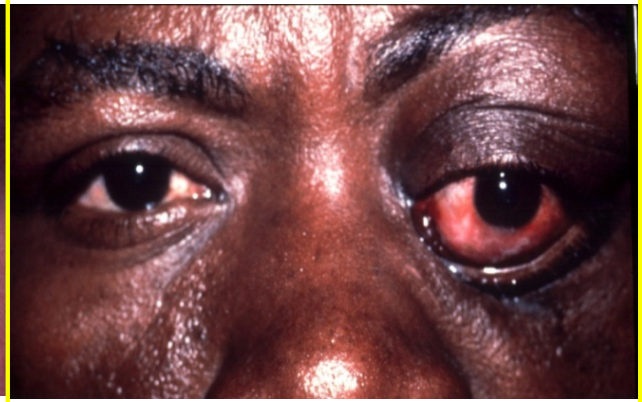


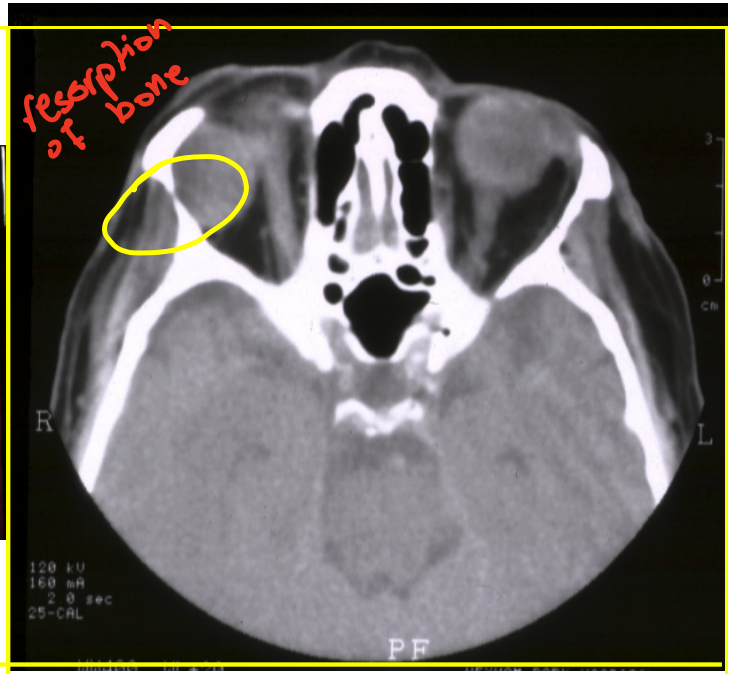
Pleomorphic Lacrimal Gland Adenoma

Presents - 4th to 5th decade

can cause dystopia: the eye is pushed downwards + medially







- Painless and very slow-growing, smooth mass in lacrimal fossa
- Inferonasal globe displacement

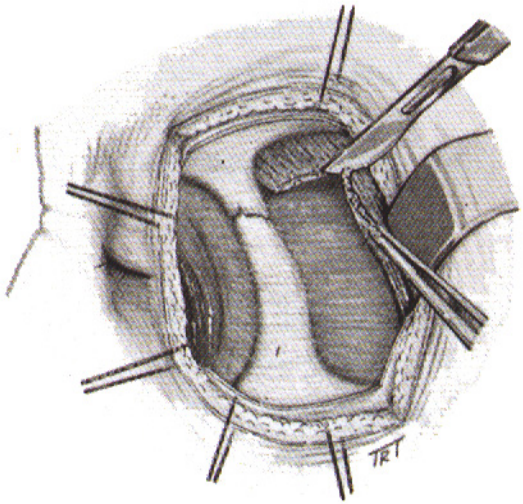
- Posterior extension may cause proptosis and ophthalmoplegia

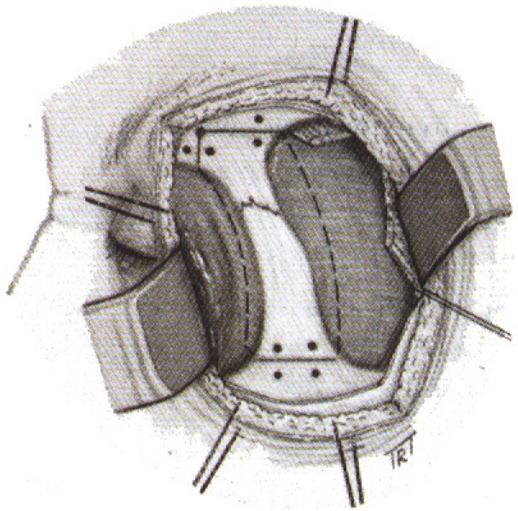
- Smooth, encapsulated outline
- Excavation of lacrimal gland fossa without destruction

Technique of surgical excision

- Biopsy is contraindicated
- Prognosis - good if completely excised

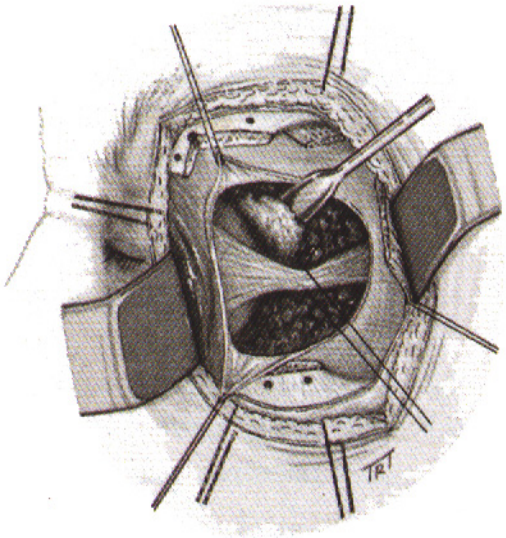
Incision of temporal muscle and periosteum

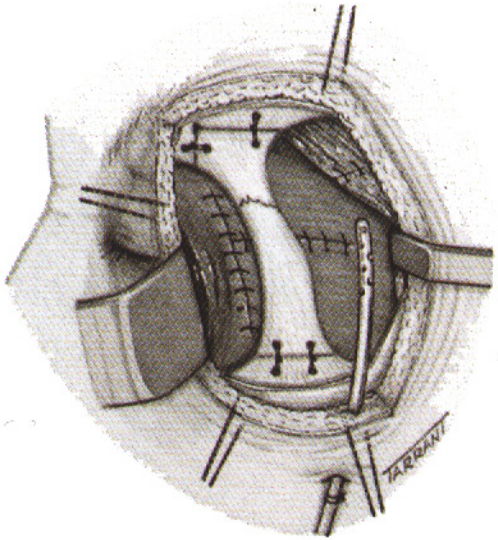




Drilling of bone for subsequent wiring

Removal of lateral orbital wall and dissection of tumour

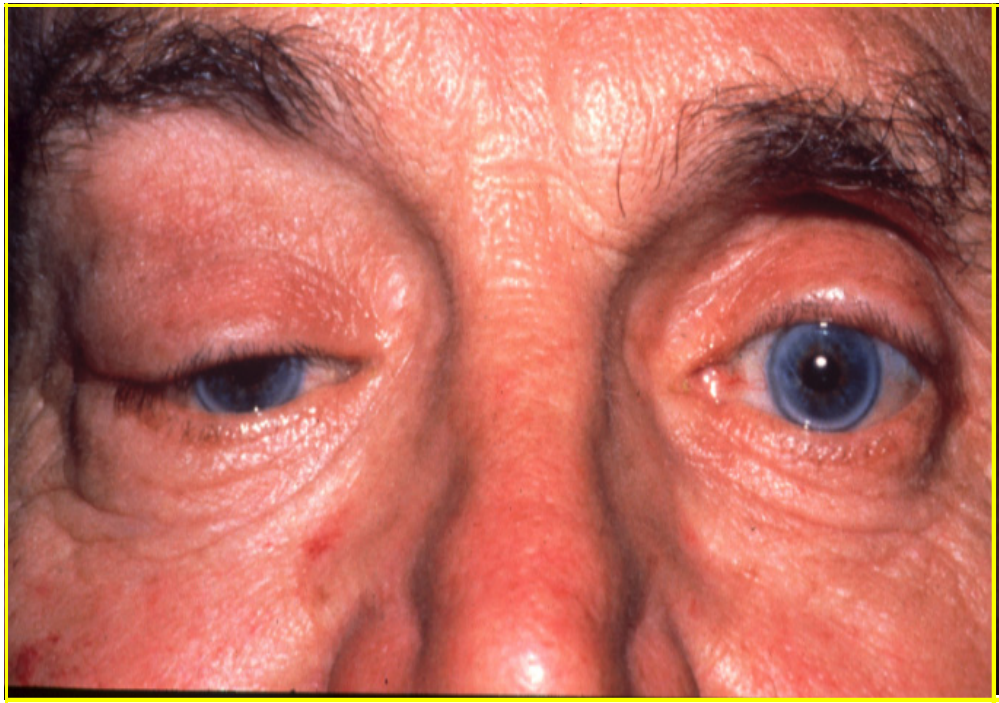


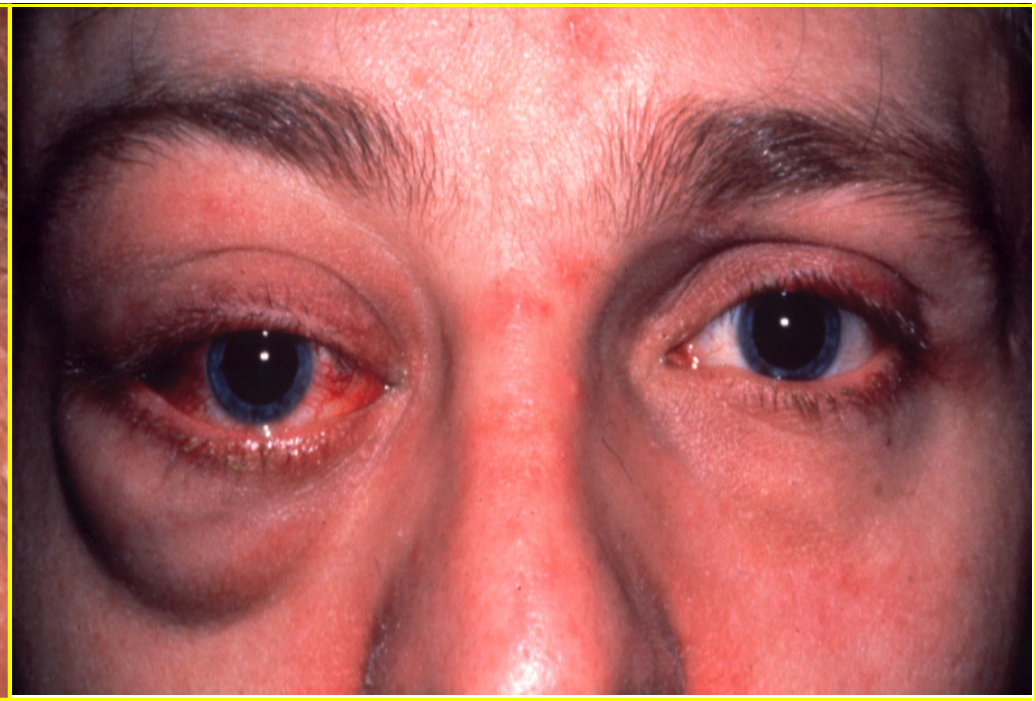


Repair of temporal muscle and periosteum

Lacrimal gland carcinoma

- Presents - 4th to 6th decades
- Very poor prognosis





- Painful, fast-growing mass in lacrimal fossa
- Infero-nasal globe displacement

- Posterior extension may cause proptosis, ophthalmoplegia and episcleral congestion
- Trigeminal hypoaesthesia in 25%

Management

- Biopsy
- Radical surgery and radiotherapy

tumor of the astrocytes

Optic nerve glioma

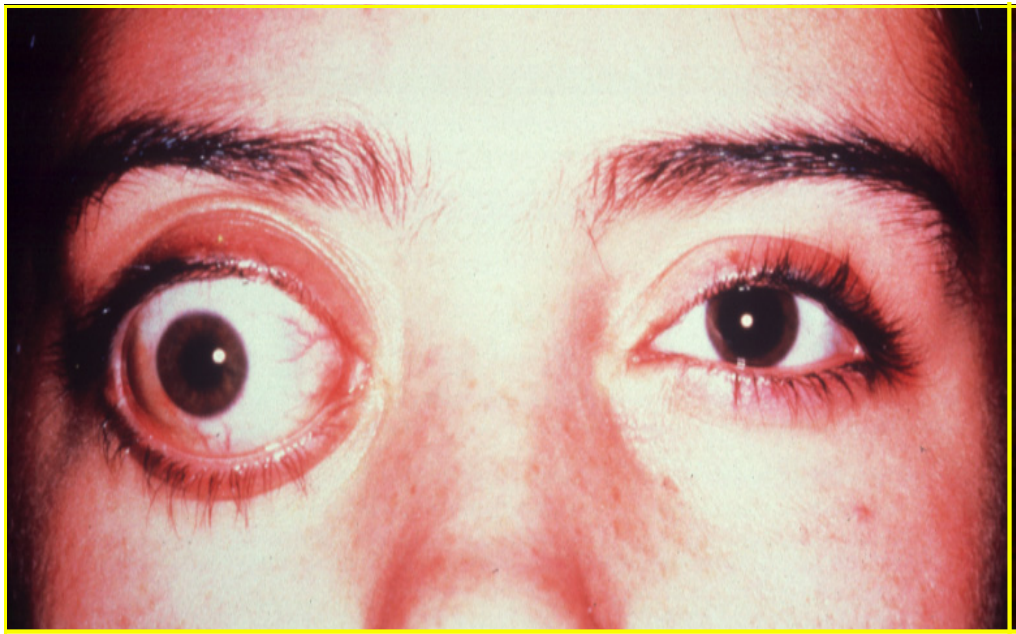
(1°ly astrocytomas.)

supporting cells of the retina: muller cells supporting cells of the head of the optic nerve : Astrocytes. of the optic nerve beyond the head: oligodendrocytes

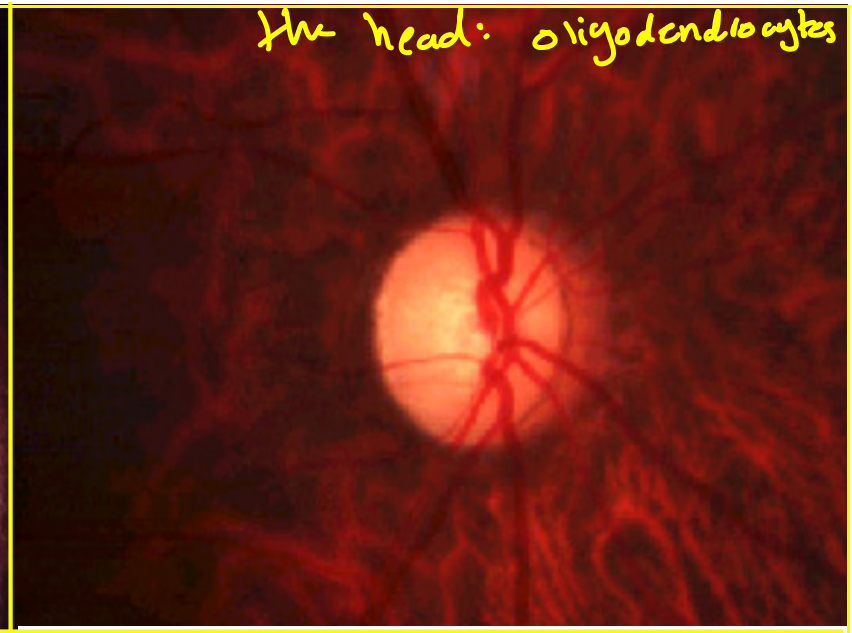
- Typically affects young girls
- Associated neurofibromatosis -1 is common

AD on chromosome 17

- Presents - end of first decade with gradual visual loss



Gradually progressive proptosis



Optic atrophy

Treatment

- Observation - no growth, good vision and good cosmesis
- Excision - poor vision and poor cosmesis (20 mm ت ب)
- Radiotherapy - intracranial extension

↳ no rate unless you have a chiasmal lesion involvement

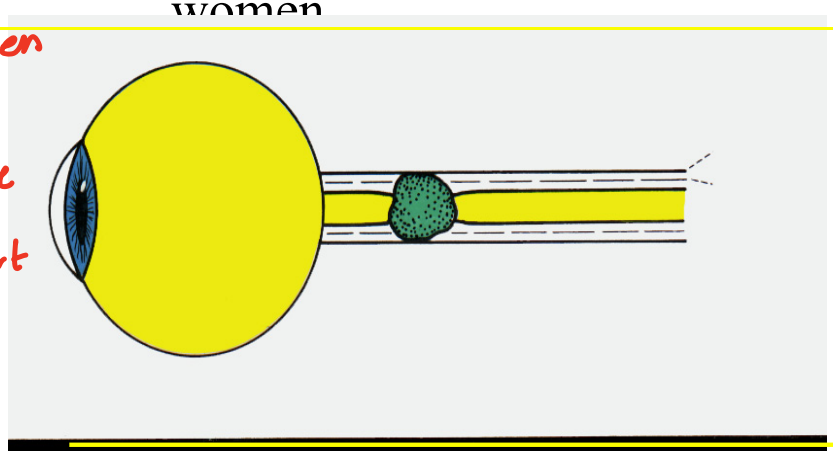
unless it's growing back onto the optic chiasma → we don't

Optic nerve sheath meningioma

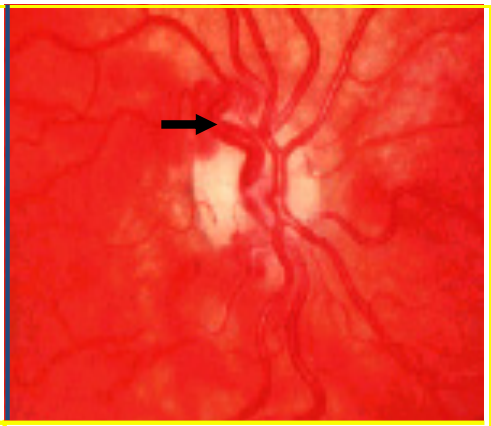
Typically affects middle-aged women

2nd most common tumor of the optic nerve

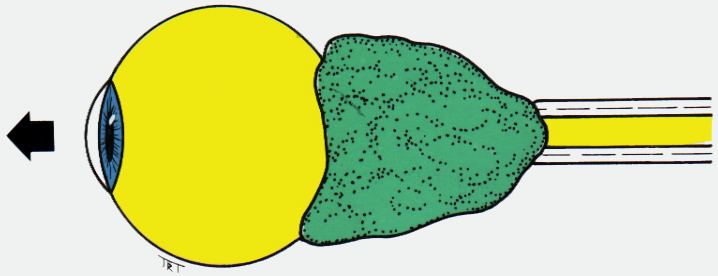
* usually arise from the cranium and then involve the orbit secondarily.
* primary optic nerve meningioma are very rare and start at the middle of the optic nerve.
* optic nerve glioma starts at the tip and goes back in a tram-track appearance.



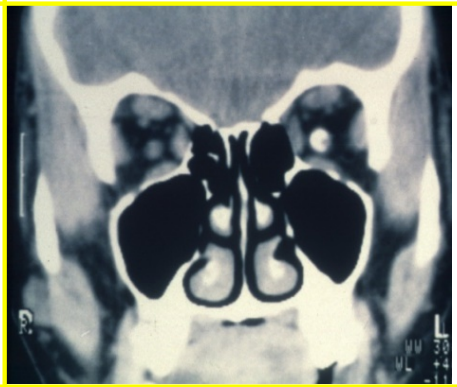
Gradual visual loss due to optic nerve compression



Optociliary shunts in 30%



Proptosis due to intraconal spread



Thickening and calcification on CT

* histologically: presence of psammoma bodies which are calcifications inside the tumor itself.

Treatment

- Observation - slow-growing tumours
- Excision - aggressive tumours and poor vision
- Radiotherapy - slow-growing tumours and good vision

OCPs + pregnancy worsen meningiomas ⇒ responsive to

Steroid dependent

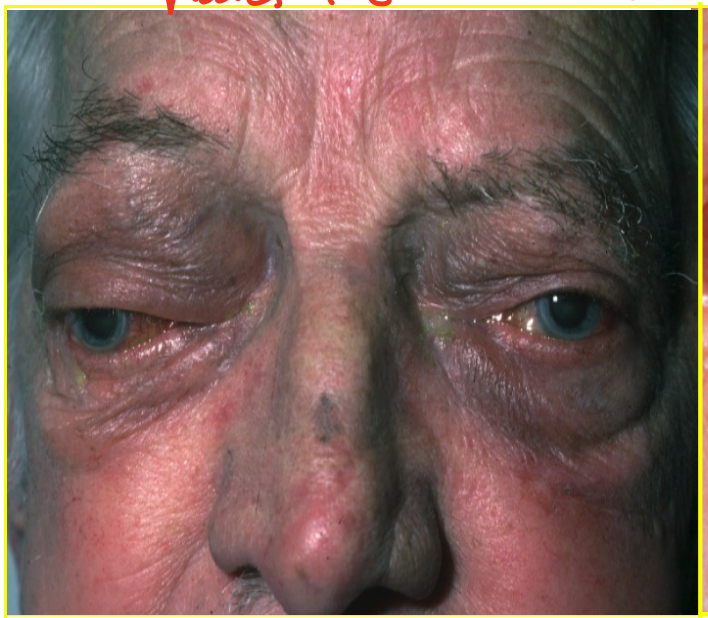
=>Non Hodgkin

Lymphoma

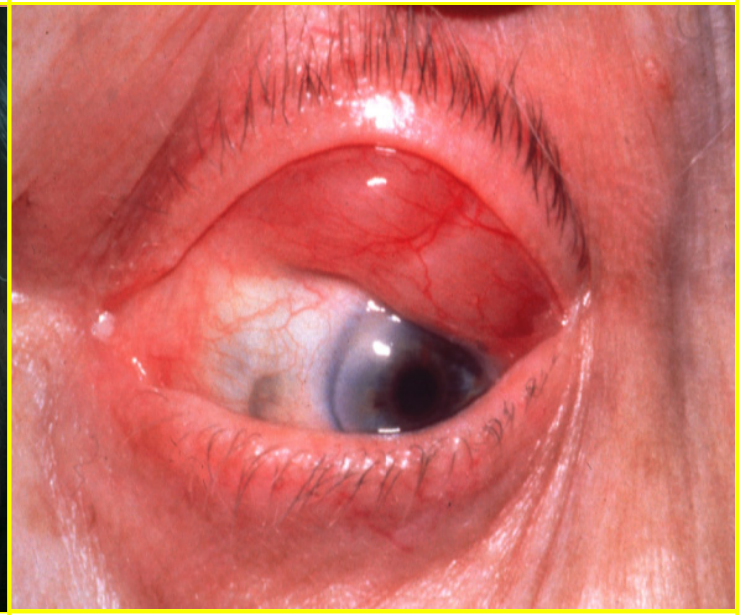
on MRI you can see the tumor eating most of the orbit structure.

Lymph is in all nodes inside the orbit

Presents - 6th to 8th decades

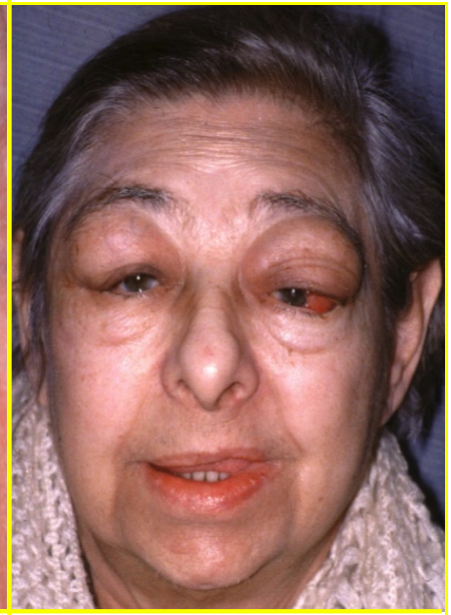


Affects any part of orbit and may be bilateral



Anterior lesions are rubbery on palpitation

Beefy red/ Salmon patch like



May be confined to lacrimal glands

Treatment

- Radiotherapy - localized lesions
- Chemotherapy - disseminated disease

Types:
1. Embryonal
2. Alveolar
3. Mixed

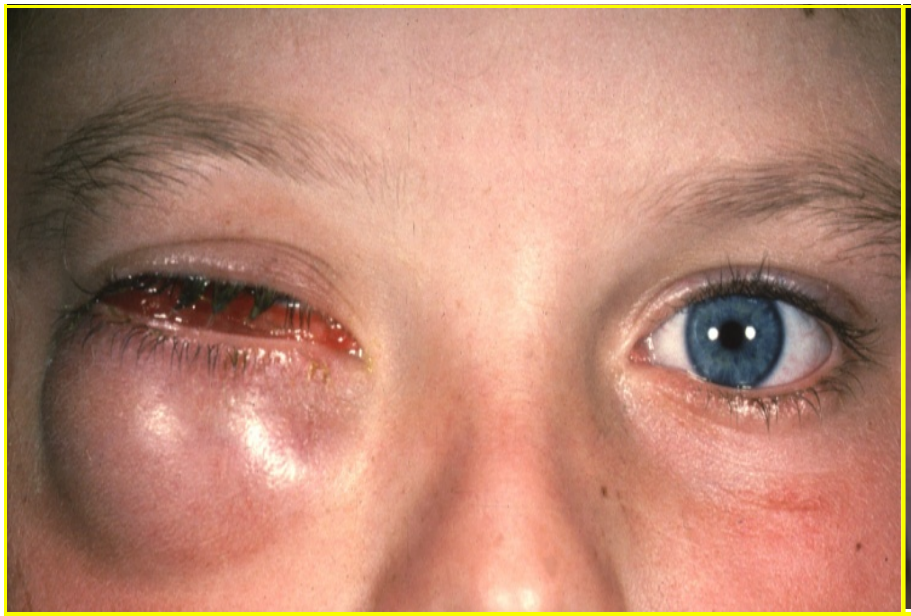
M.C.C. (70%) a good prognosis in adults

Rhabdomyosarcoma

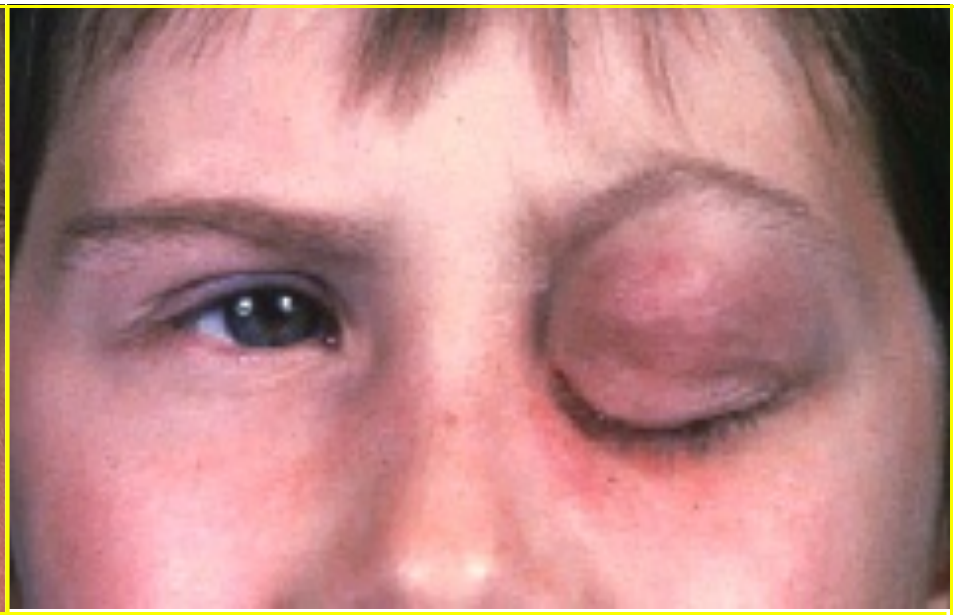
usually mistaken for cellulitis

bad prognosis

- Most common primary childhood orbital malignancy
- Rapid onset in first decade (average 7 yrs)



May involve any part of orbit



Palpable mass and ptosis in about 30%

Treatment

- Radiotherapy and chemotherapy
- Exenteration for radio-resistant or recurrent tumours

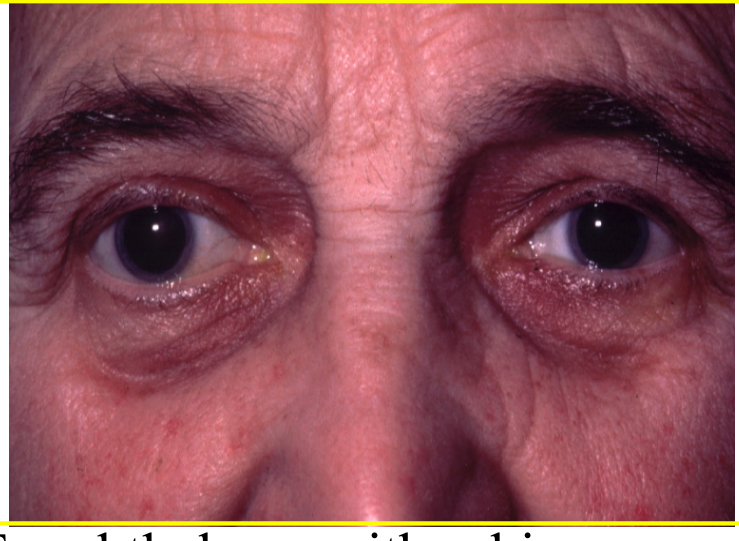
M.C. in adults: Mets

Adult metastatic tumours

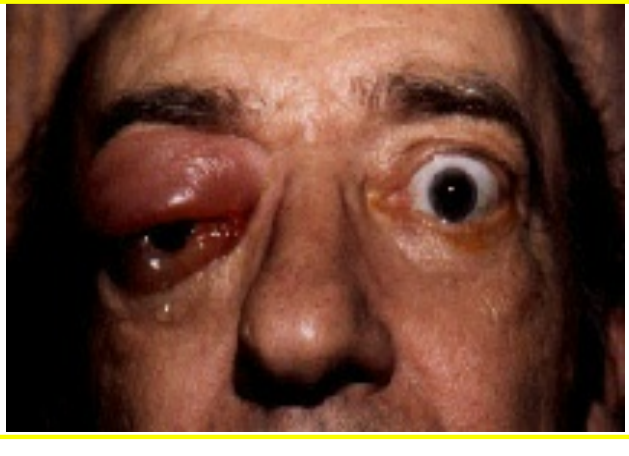
Common primary sites - breast, bronchus, prostate, skin melanoma, gastrointestinal tract and kidney

Presentations

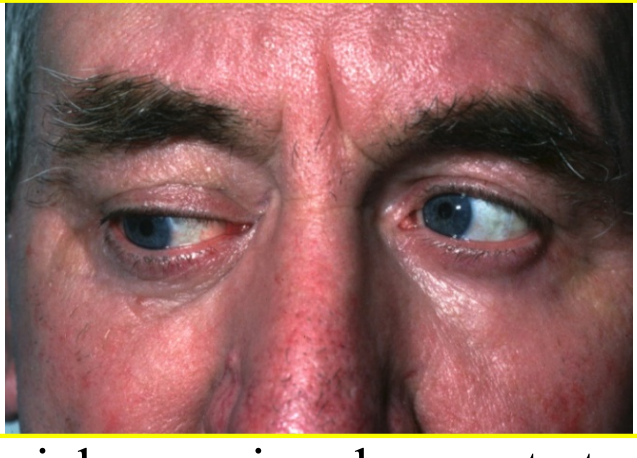
Anterior orbital mass with non-axial globe displacement



Enophthalmos with schirrous tumours

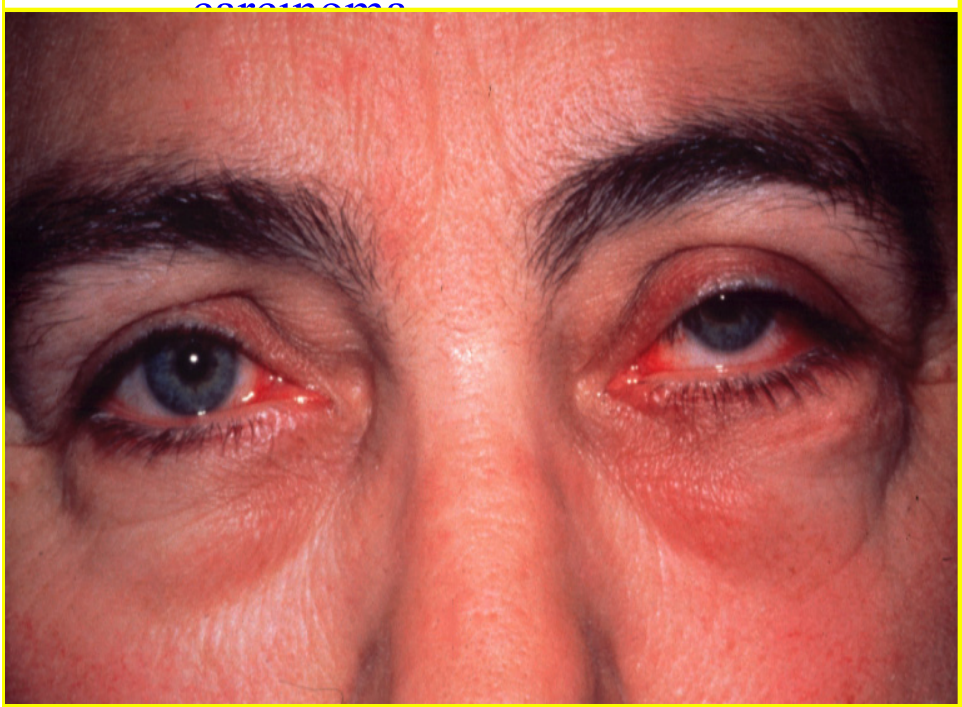
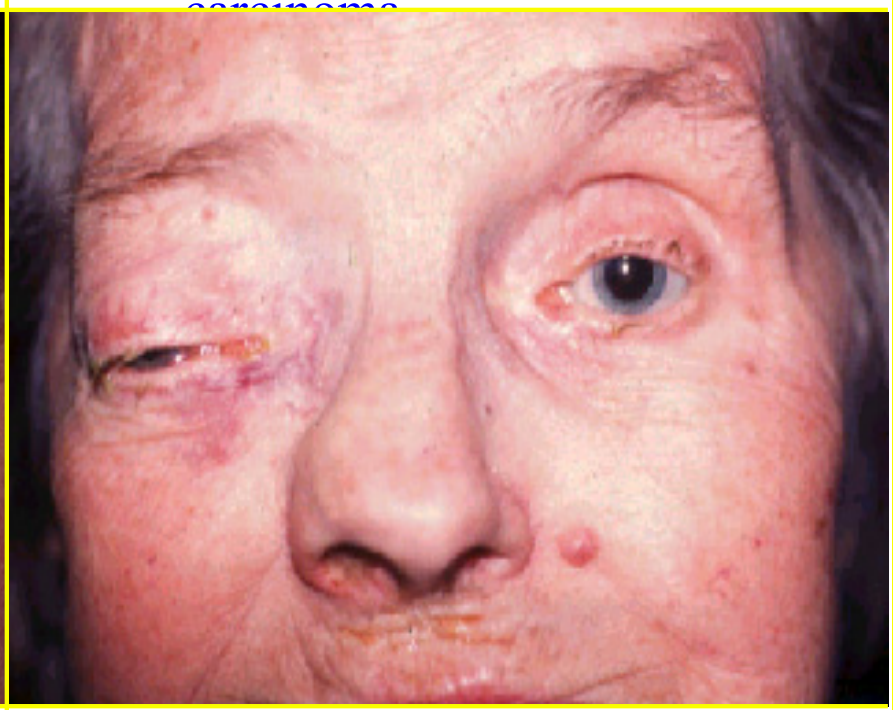


Similar to orbital pseudo-tumour

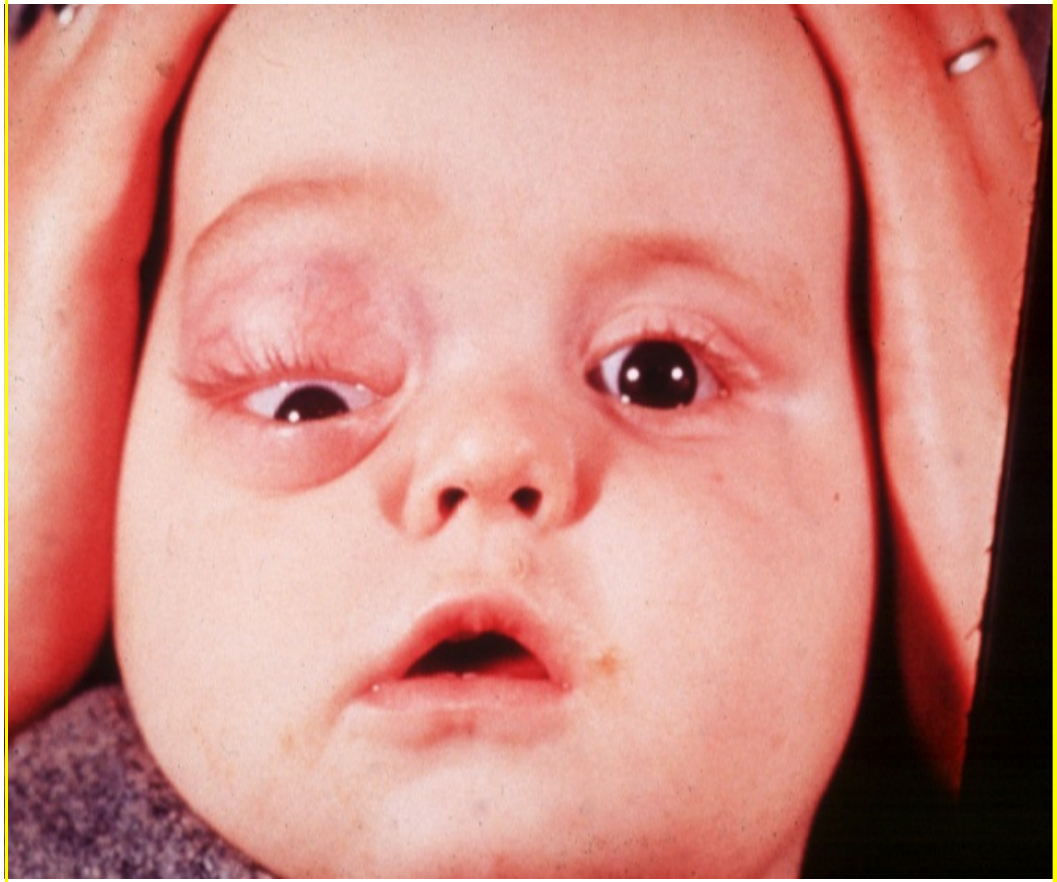
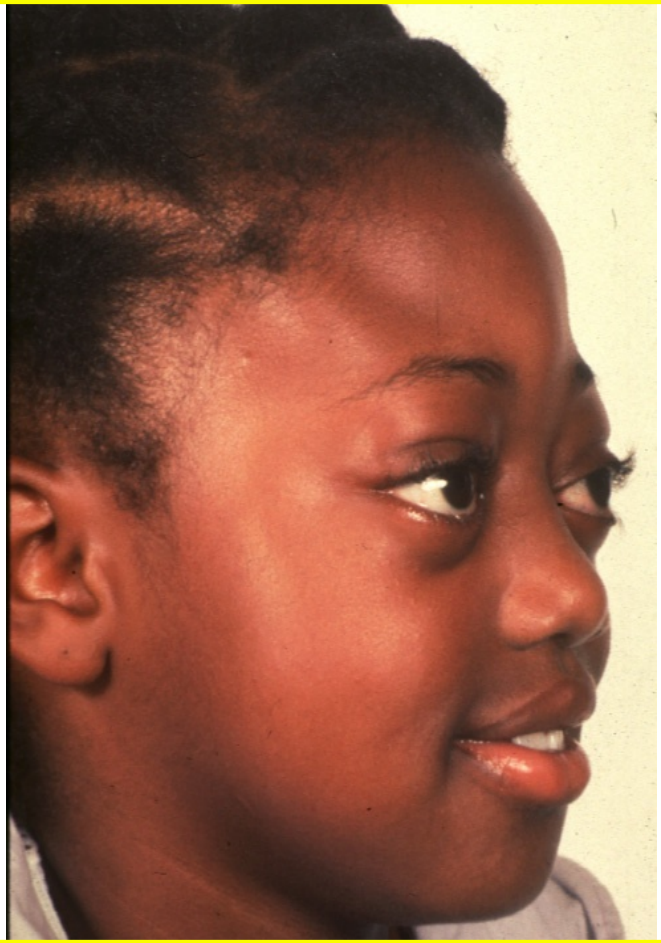


Cranial nerve involvement at orbital apex and mild proptosis

Orbital invasion by sinus tumours

Maxillary carcinoma	Ethmoidal carcinoma
	
Upward globe displacement and epiphora	Lateral globe displacement

Childhood metastatic tumours

Neuroblastoma	Chloroma
	
• Presents in early childhood • May be bilateral • Typically involves superior orbit	• Presents at about age 7yrs • Rapid onset proptosis - may be bilateral • Subsequent systematic dissemination to full-blown leukaemia


Thank you