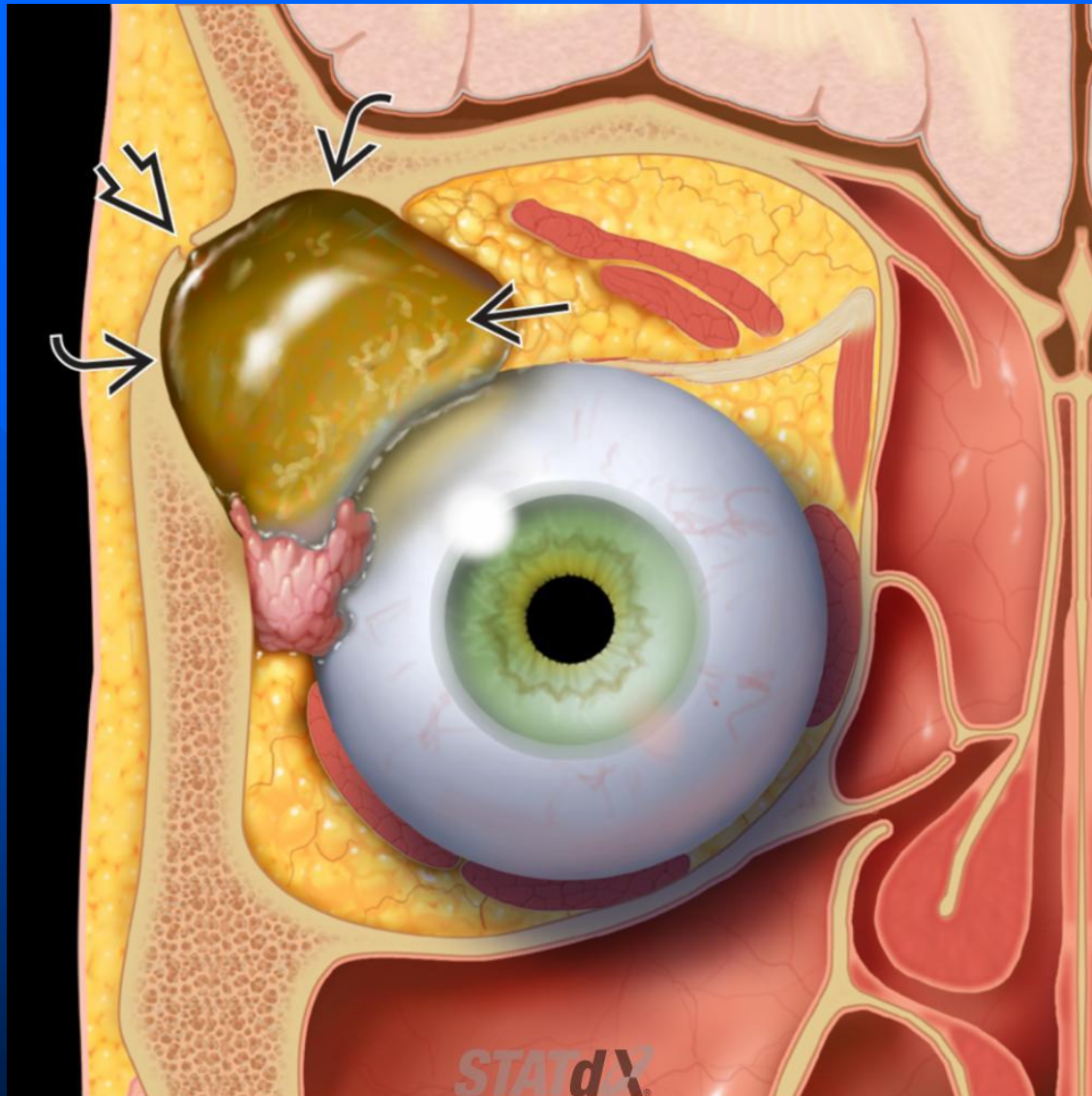


Orbital Dermoid and Epidermoid

- Congenital orbital ectodermal inclusion lesion resulting in choristomatous cyst
- Dermoid:
 - Includes dermal appendages
- Epidermoid:
 - Dermal adnexal structures absent



Coronal graphic depicts a superotemporal dermoid cyst (black solid arrow) located adjacent to the frontozygomatic suture of the right orbit (black open arrow). There is resultant mass effect on the globe with remodeling of the bony orbit (black curved arrow).

Imaging

- Cystic, well-demarcated, extraconal mass with lipid, fluid, or mixed contents
- Adjacent to orbital periosteum, near suture lines
- Superolateral at frontozygomatic suture most common
- May contain debris or fluid levels
- Osseous remodeling in majority of lesions, with smooth scalloped margins and thinning or dehiscence
- Distinguishing features
 - Dermoid: Typically but not exclusively contains fat; more heterogeneous, with complex signal on MR
 - Epidermoid: Density and intensity similar to fluid; more homogeneous; diffusion restriction on MR
- CT without contrast often adequate for diagnosis
- Pursue MR with contrast if features not characteristic, particularly with lesion growth

Dermoid



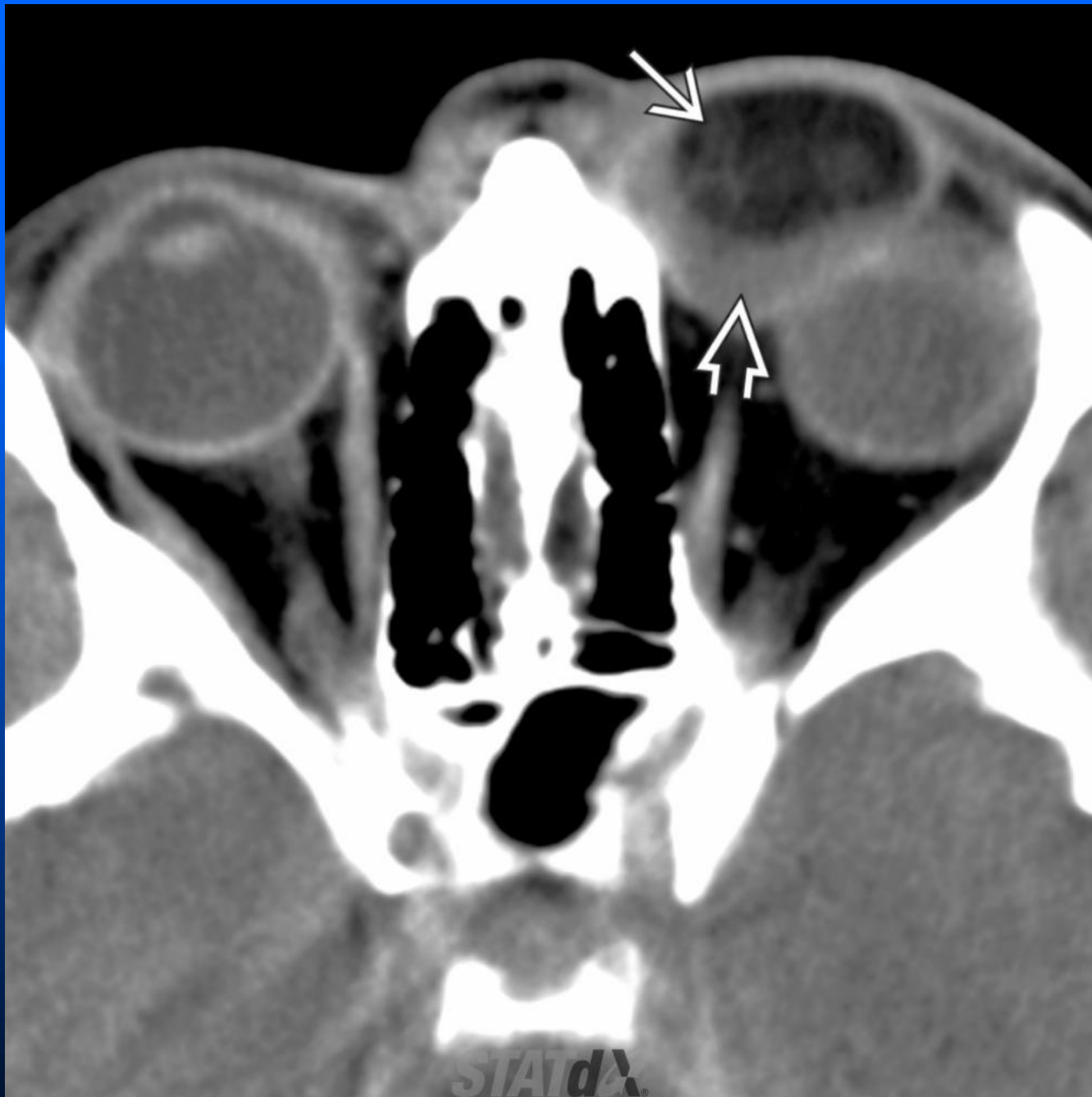
- Most common benign orbital tumor.
- Usually present in 1st decade, may present in adulthood
- Arise at frontozygomatic suture
- Low density fat center.
- Bone scalloping is present
- Will be bright on T1 and will fat suppress



Axial T2-weighted MR shows a very large, lobulated mass centered at the deep right orbit and sphenoid (white solid arrow). This epidermoid cyst shows fluid signal with some internal heterogeneity. Marked thinning of the adjacent bony orbit and skull base is evident (white open arrow).



Coronal CT demonstrates an ovoid, well-margined cystic mass in the superotemporal quadrant of the right orbit (white solid arrow). Even on bone windows, the lipid density within the mass can be readily appreciated. Smooth remodeling of the adjacent bony orbit is evident (black curved arrow).



Axial NECT shows a dermoid cyst (white solid arrow) located medially in the orbit, near the location of the frontolacrimal suture. The cyst has fat density contents, as well as dependent soft tissue density debris (white open arrow).