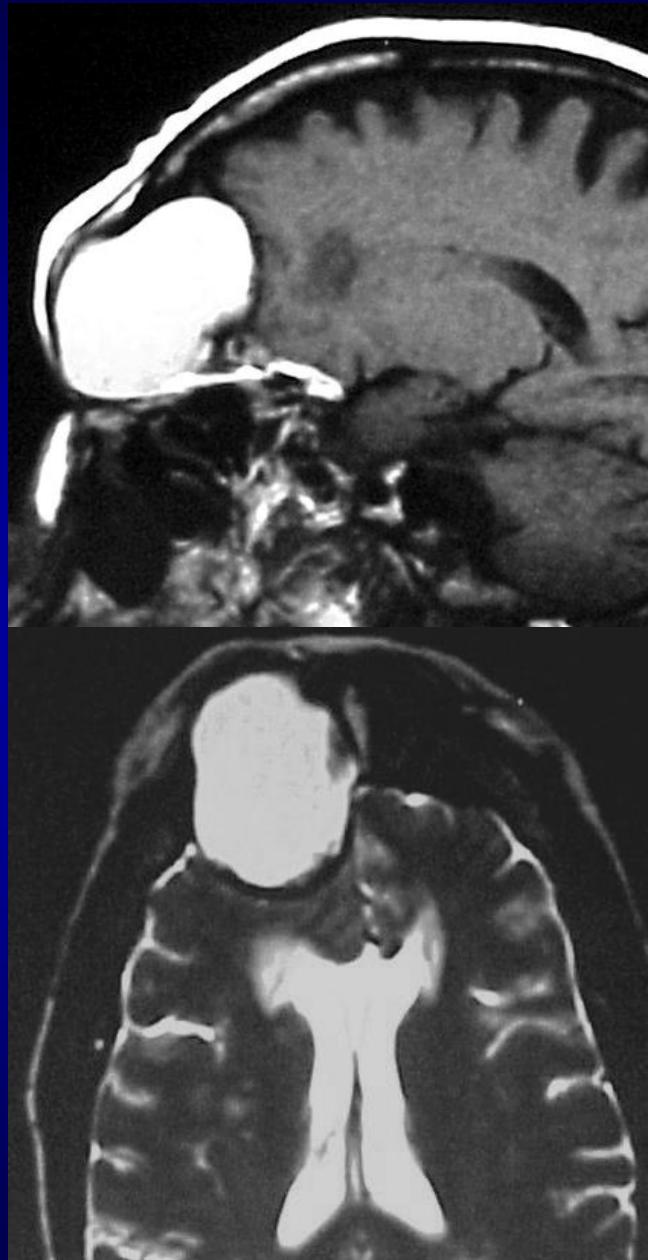


Mucocele

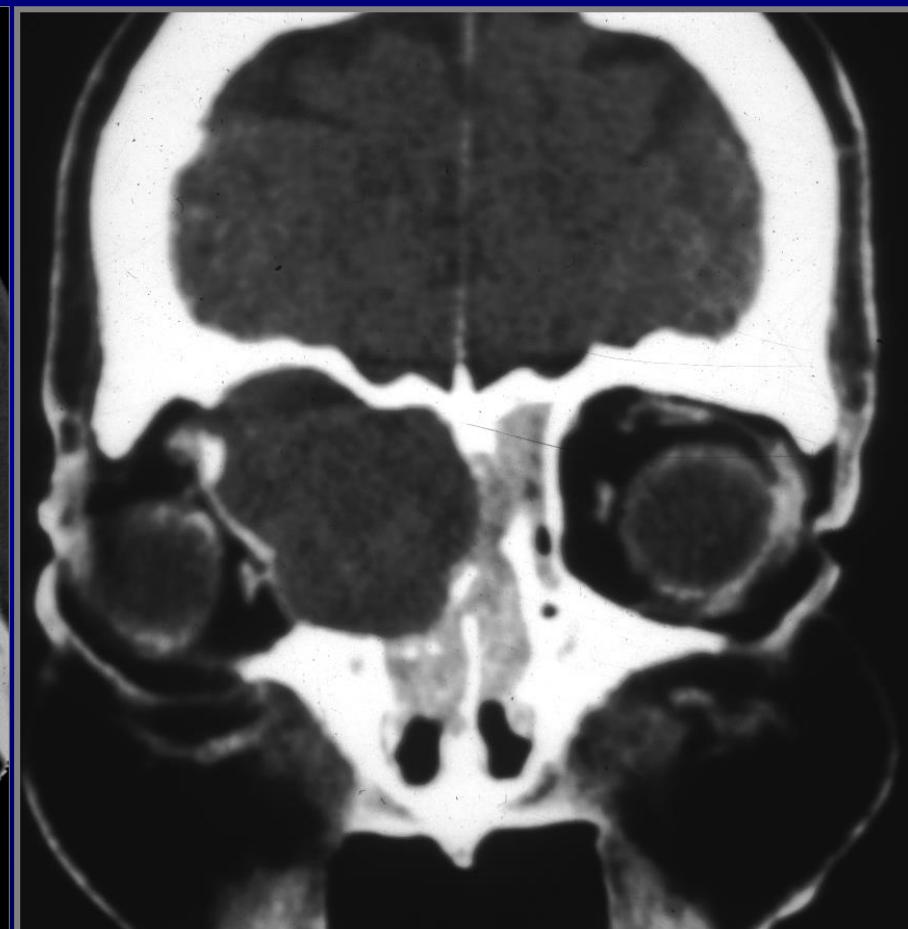
- Opacified, **expanded** sinus with **smooth remodeling** of walls
May occur in septated sinuses & pneumatized anatomic variant air cells
- **Frontal (60-65%) > ethmoid (25%) > maxillary (5-10%) > sphenoid (2-5%)**
- Results from obstruction of primary ostium of affected sinus.
- Extensive peripheral enhancement may suggest mucopyocele
- If central enhancement present, consider neoplasm
- **Image Interpretation Pearls**
 - Look for thin peripheral rim of expanded bone
 - No central enhancement on postcontrast CT or MR

Mucocele

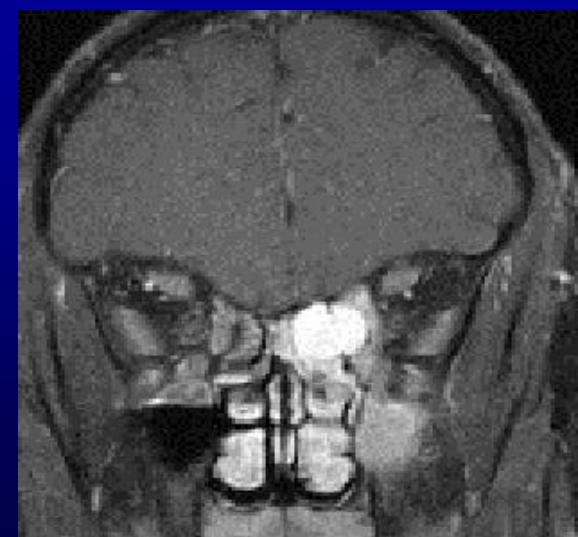
- Airless, expanded sinus
- Sinus walls thinned, may appear dehiscent
- Frontal, ethmoid, maxillary, sphenoid in order of frequency
- CT/MR signal intensity variable, depending on age of secretions
- Check sinus ostium for obstructing lesion



Mucocele



Spheno-ethmoidal mucocoele with intra-orbital expansion





Axial T2WI FS MR shows a large right frontal mucocele containing a fluid-fluid level (black solid arrow) with material of varying signal intensities. This mucocele extended into the superficial soft tissues (white open arrow), causing swelling and edema.



Axial T1WI C+ FS MR in the same patient shows superficial soft tissue swelling and enhancement (white solid arrow) over the ruptured mucocele. There is also enhancement of the dura (white open arrow) in the anterior fossa consistent with early meningeal inflammation.