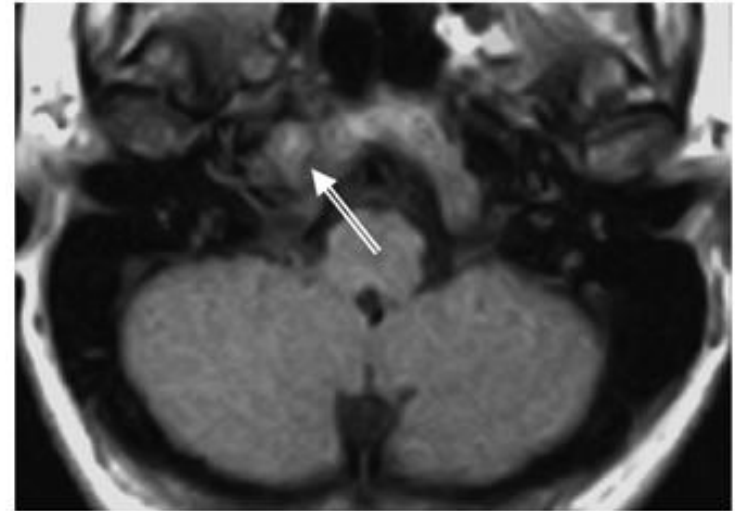


# Petrous Apex Mucocele

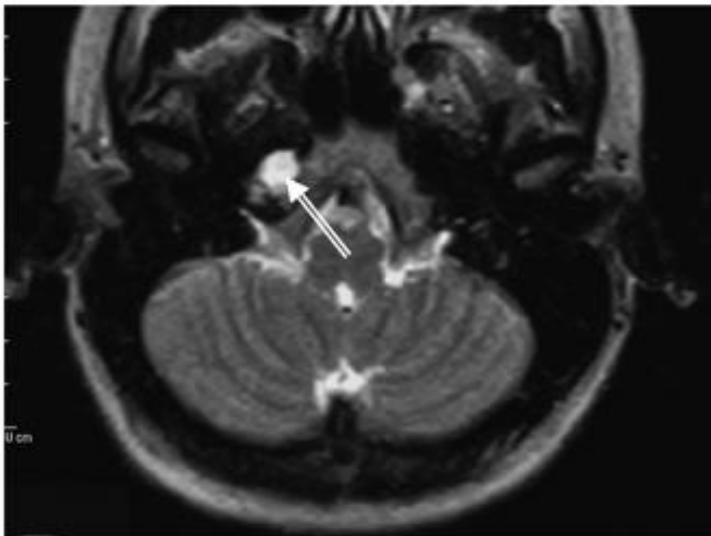
- Mucus-containing, expanded petrous apex (PA) air cell(s) lined by secretory epithelium resulting from chronic ostial obstruction
- Requires pneumatized PA
- CT: Fluid-filled, expanded PA air cell(s)
  - PA cell walls are **remodeled**
  - May be thinned, focally absent, or normal thickness
- MR: Nonenhancing, T1 low, T2 high signal; DWI with no restricted diffusion



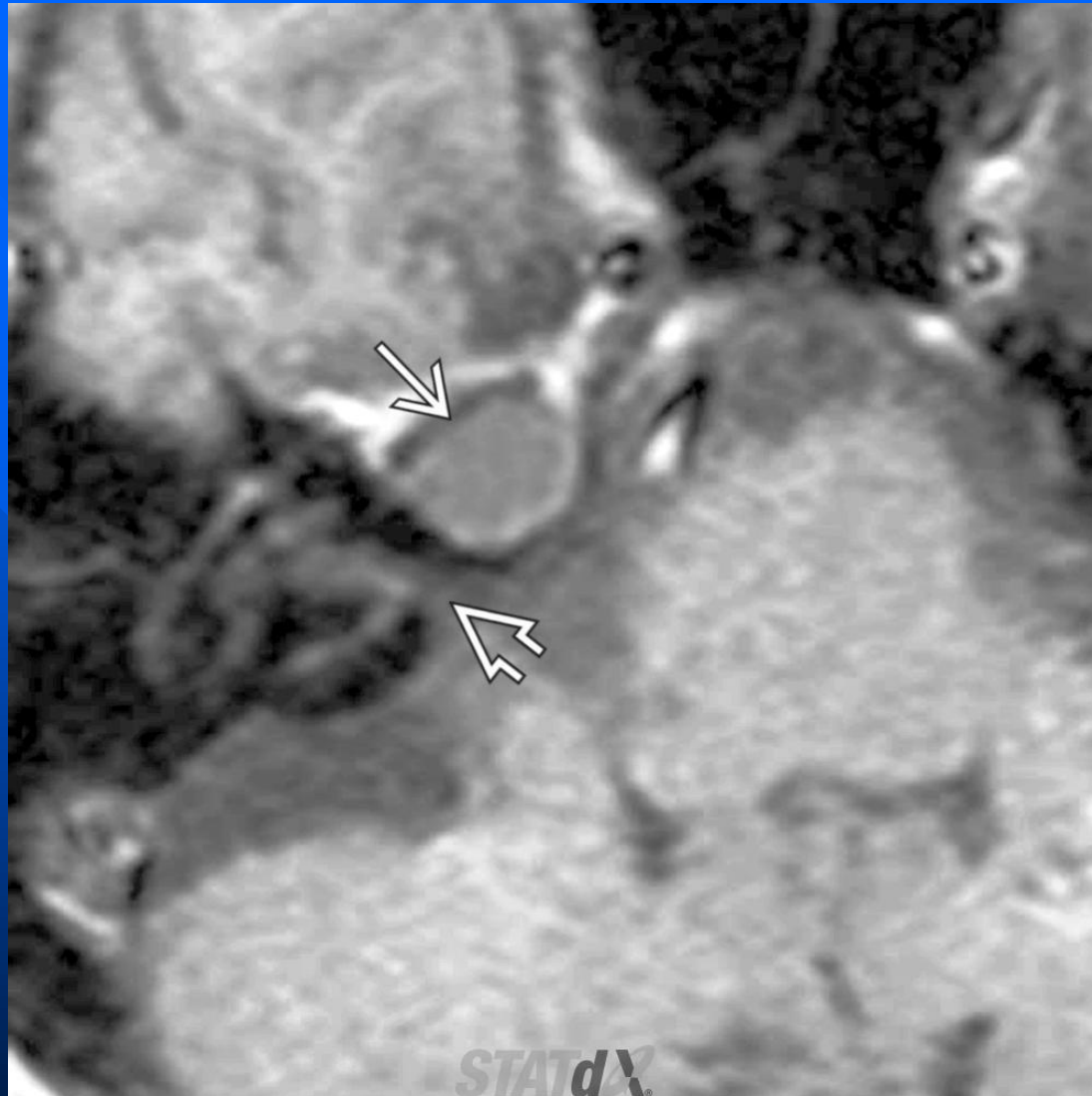
A



B

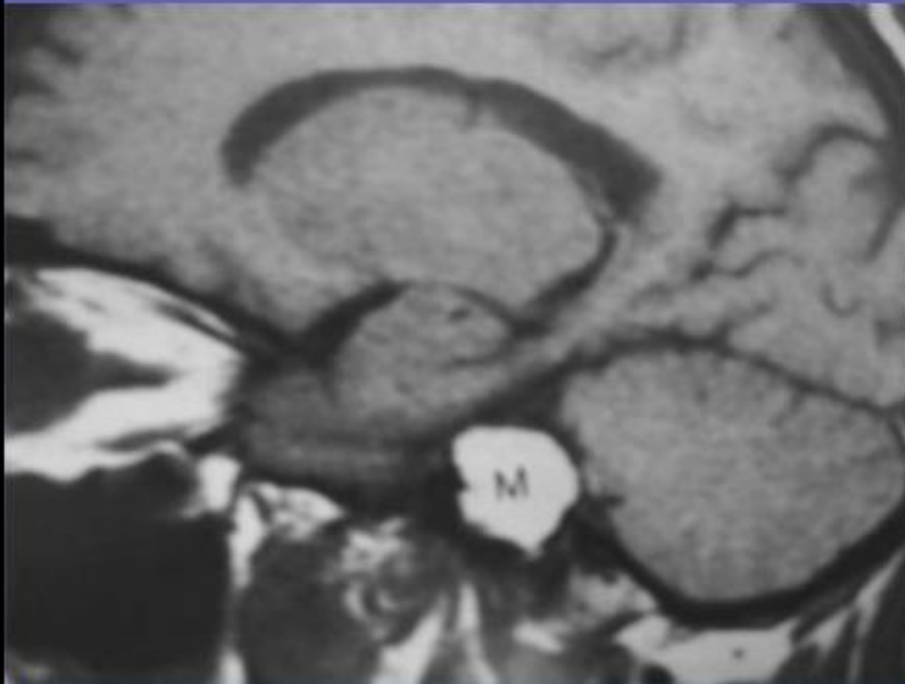


C

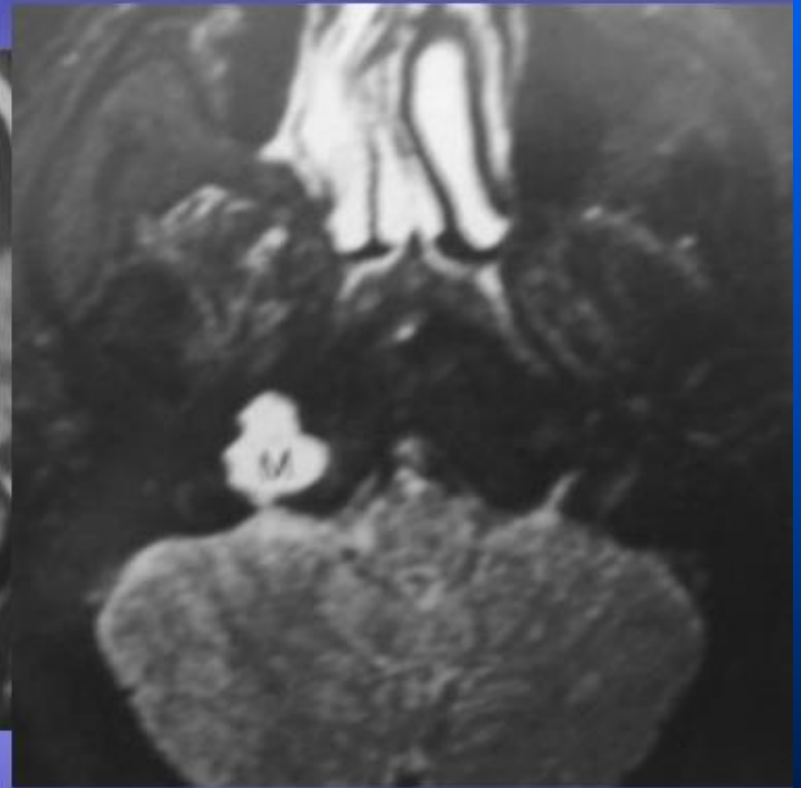


Axial T1WI, same patient, demonstrates an expansile PA mucocoele (white solid arrow) with minimally higher signal than CSF. Note low signal CSF of internal auditory canal (white open arrow) just posterolateral to the lesion. Low signal on T1WI excludes cholesterol granuloma.

# Mucoceles of the Petrous Apex



T1

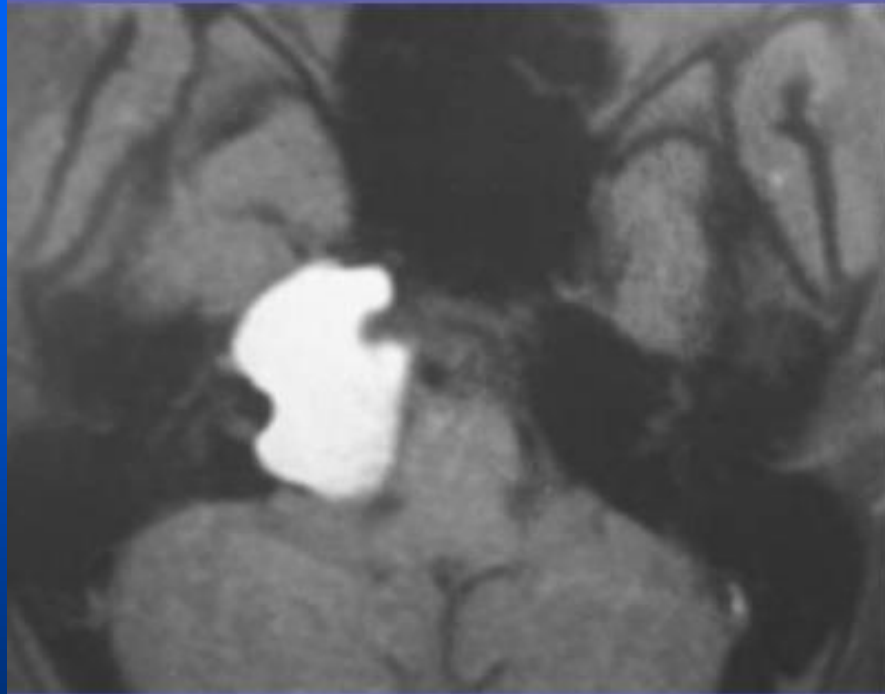


T2

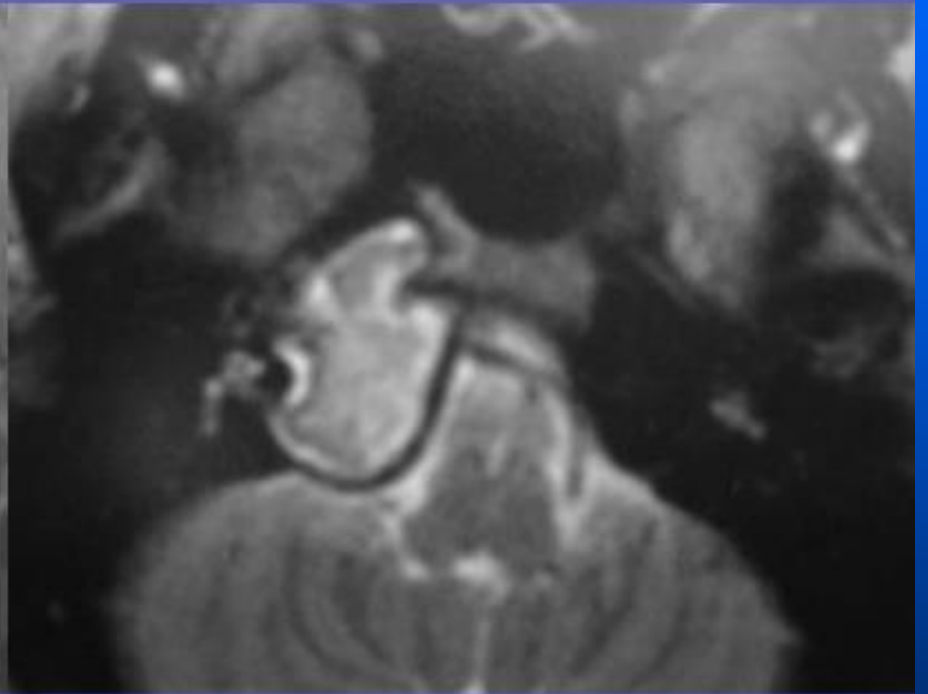
# Mucoceleles of the Petrous Apex

- Mucoceleles are often also bright on both T1 and T2, but they are not as common as cholesterol granulomas/cysts
- Lined by cuboidal or columnar epithelium and contain mucus.
- Soms: Usually dark on T1 and bright on T2, like epidermoid cysts.

Mucoceleles can also have mixed signal on T2



T1



T2