50 y/o female with headache

Edward Gillis, DO
Cerebellopontine angle
Meningioma
TW1: Extra-axial mass is seen involving the left cerebellopontine angle (orange arrow) that is isointense to the brain. Slight extension into IAC is present (blue arrow).
T2W: Extra-axial mass involving the left cerebellopontine angle that is slightly hyperintense to the brainstem (arrow).
T1W C+: Homogenously enhancing dural based mass involving the left cerebellomedullary angle (arrow).
Meningioma

Imaging Features

- Lobulated extra-axial mass that enhances homogenously with contrast
- Broad dural base
- Iso/hypointense to gray matter on T1W images
- Iso/hyperintense to gray matter on T2W images
- Avid, homogenous enhancement
- Dural tail extends from mass on post contrast images
- Vascular or CSF cleft between the tumor and the brain (best seen on T2W images)
- When very large, displacement of vessels helps determine whether extra-axial or not.
- MRA and MRV can be needed when important vessels are near mass.
- Fat suppression is recommended with Gd because osseous involvement is common.
Meningioma

• General Features
  – Arise from arachnoid cap cells
  – Most common nonglial primary neoplasm of the CNS
  – > 95% are WHO grade 1
  – 2nd most common CP angle mass (In CPA, acoustic tumors outnumber meningiomas 4:1).
  – F > M at a 4:1 ratio
  – Peak: 5th-6th decade
  – Hormonally sensitive and may enlarge during pregnancy
Meningioma

• Locations:
  – Parasagittal/convexity - 50%
  – Sphenoid wing – 20%
  – olfactory groove – 10%
  – Parasellar – 10%
  – Miscellaneous locations – 10%
    • Ventricles (most common site in children)
    • If infratentorial, CPA is most likely to be involved
References
