44 y/o female with dizziness and dull headache

Edward Gillis, DO
Mark Kane, MD
Leo Wolansky, MD
Axial 3D-T2W
Arachnoid Cyst
Axial T1W: Right CP angle mass isointense to CSF, with leftward mass effect on the medulla.
Axial MRI T2W: Right CP angle mass isointense to CSF, with leftward mass effect on the medulla
Axial MRI
T2W: Right CP angle mass causing mass effect on exiting 7th / 8th cranial nerve bundle (arrow)
Axial MRI T2 FLAIR: Complete loss of signal of right CP angle mass, following CSF signal
Axial MRI T1W C+: Right CP angle mass is non-enhancing
Arachnoid Cyst

Imaging Features

• Isointense to CSF on all sequences
  – Sharply marginated extra-axial fluid collection
• Completely suppresses with FLAIR
• No restriction on DWI and identical to ventricles
• No contrast enhancement
• Features of extra-axial mass
  – Displaces cortex
  – Buckling of gray-white matter interface
Arachnoid Cyst

General Features

• Location
  – Middle cranial fossa most commonly
  – Cerebellopontine angle
  – Suprasellar

• Giant periventricular arachnoid cysts can cause hydrocephalus
  – Association with stenosis of Foramen of Monro & Aqueduct

• M:F is 3-5:1

• Usually asymptomatic, incidental finding, but depends on size & location

• DDx:
  – Epidermoid cyst (Hyperintense on DWI & FLAIR)
  – Chronic subdural hematoma (most SDH are not CSF signal)