44 y/o female with dizziness and dull headache

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Axial T1W
Axial T2-FLAIR
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)
References
