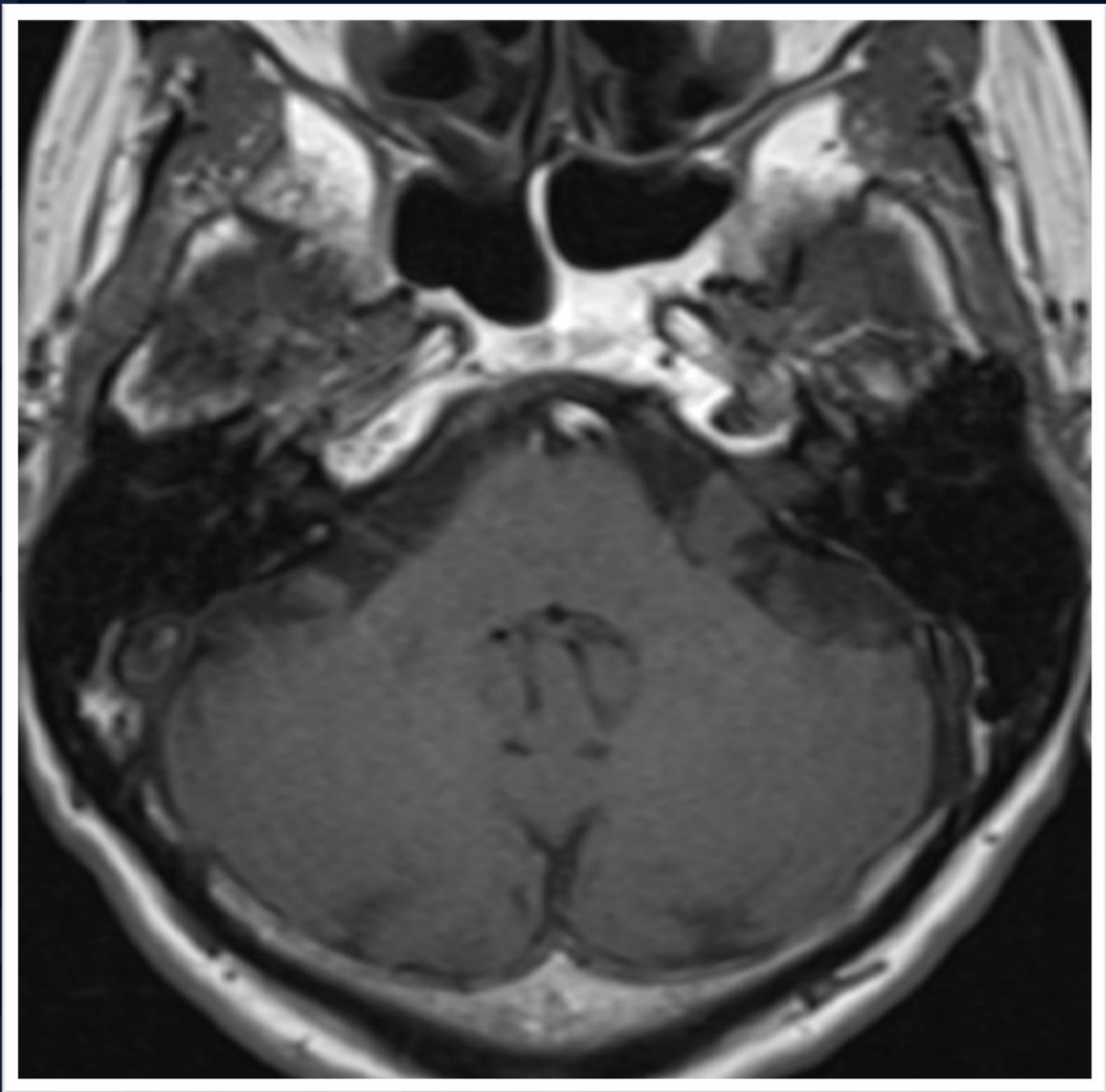
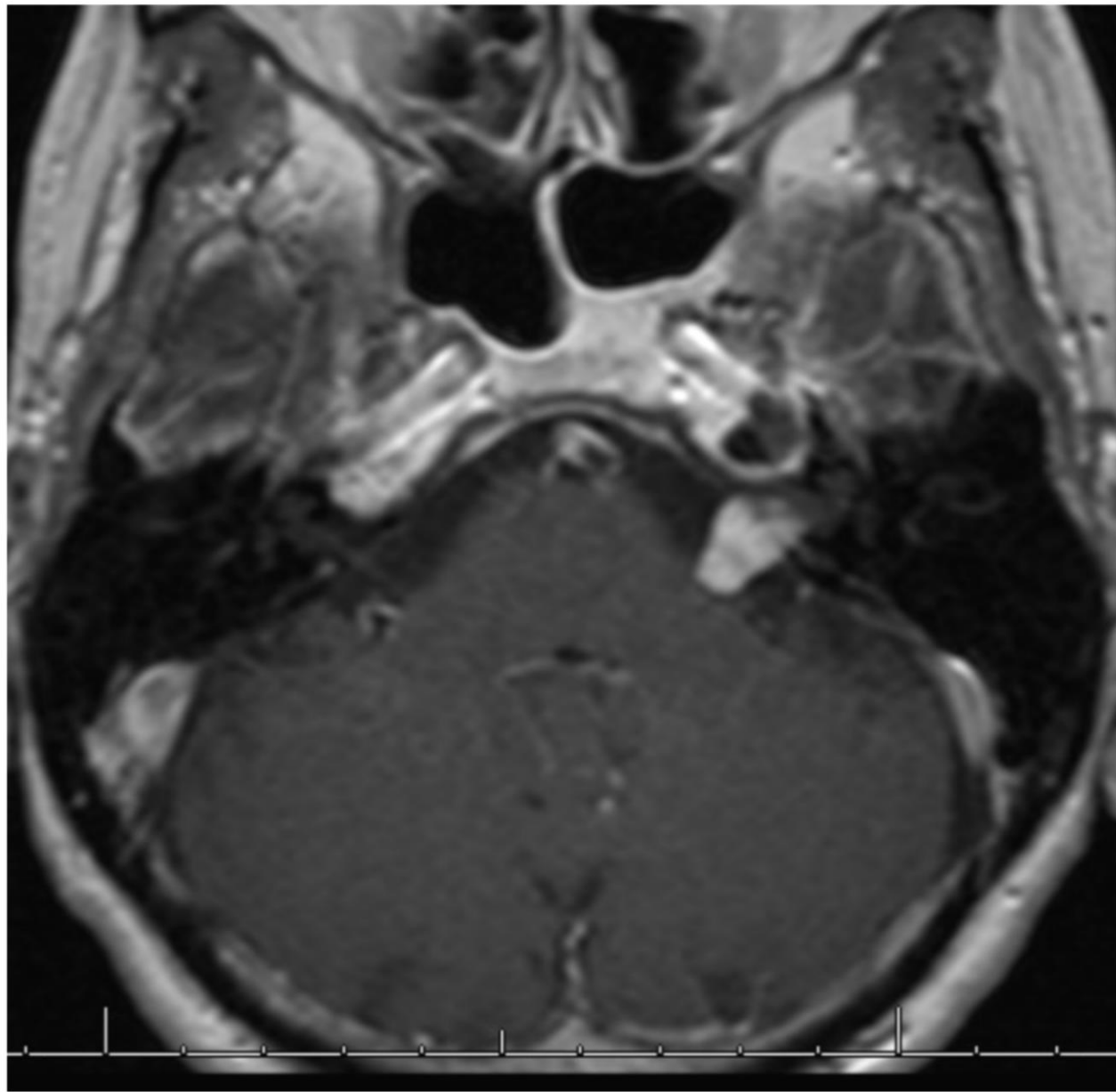


66 y/o female with unilateral hearing loss

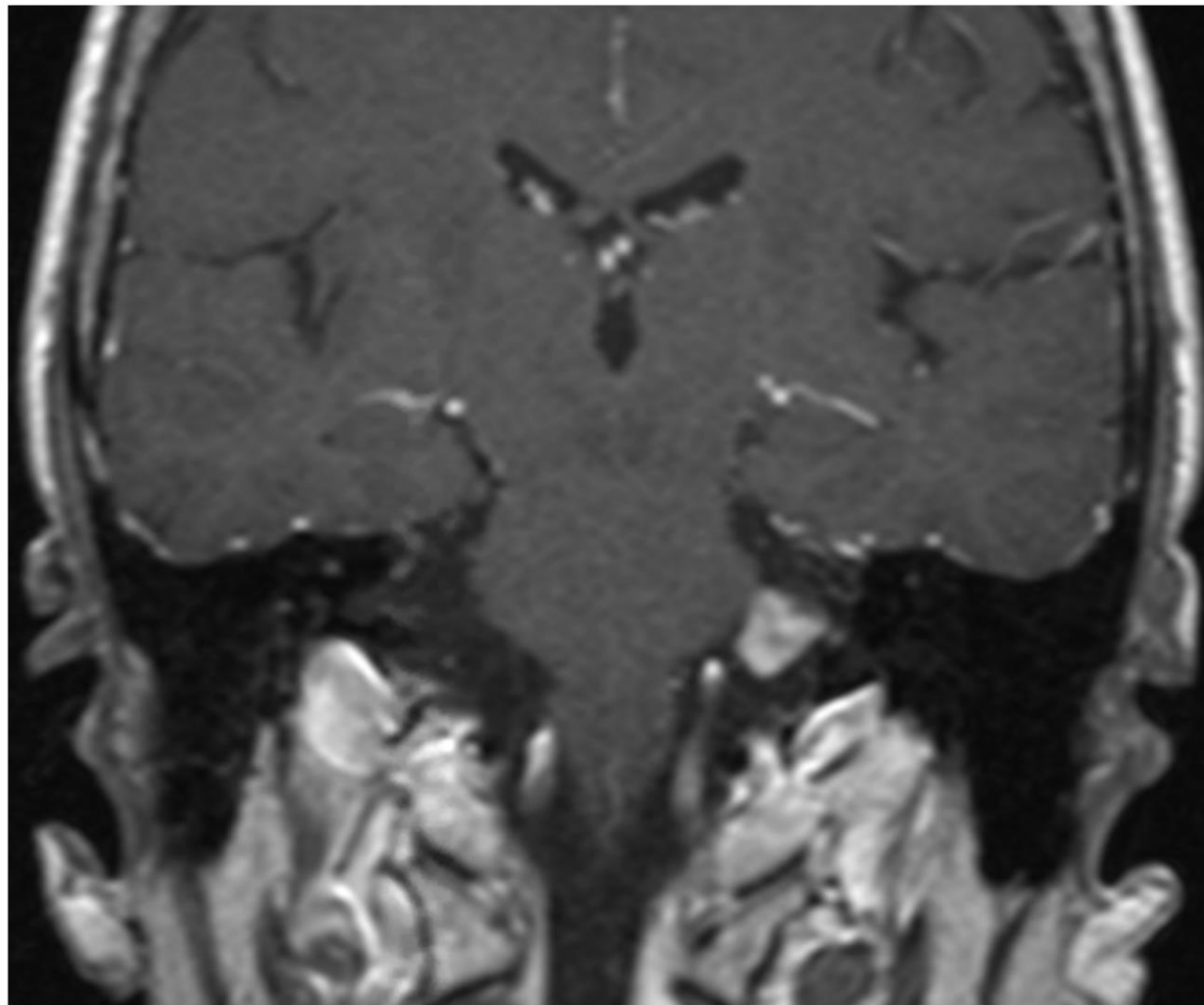
Edward Gillis, DO



Axial T1W



Axial T1-Gd



Coronal T1-Gd



?

A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. The leaf has a prominent central vein and several smaller veins branching off it. The leaf's edge is serrated.

Vestibular Schwannoma

Vestibular Schwannoma

Epidemiology

- Also known as acoustic neuroma, acoustic tumor
- 7-8% of all intracranial tumors
- 75-90% of cerebellopontine angle masses
- 95% sporadic
- Bilateral or multiple vestibular schwannomas are diagnostic of neurofibromatosis type 2
- Rare in children unless associated with NF2
- Peak at 40-60 years of age

Vestibular Schwannoma

Pathology

- Benign WHO grade 1 tumors
- Arise from the intracanalicular segment of the vestibular portion of the vestibulocochlear nerve – cranial nerve VIII
 - At the glial-Schwann cell junction
 - Usually arise from the inferior division of the vestibular nerve

Vestibular Schwannoma

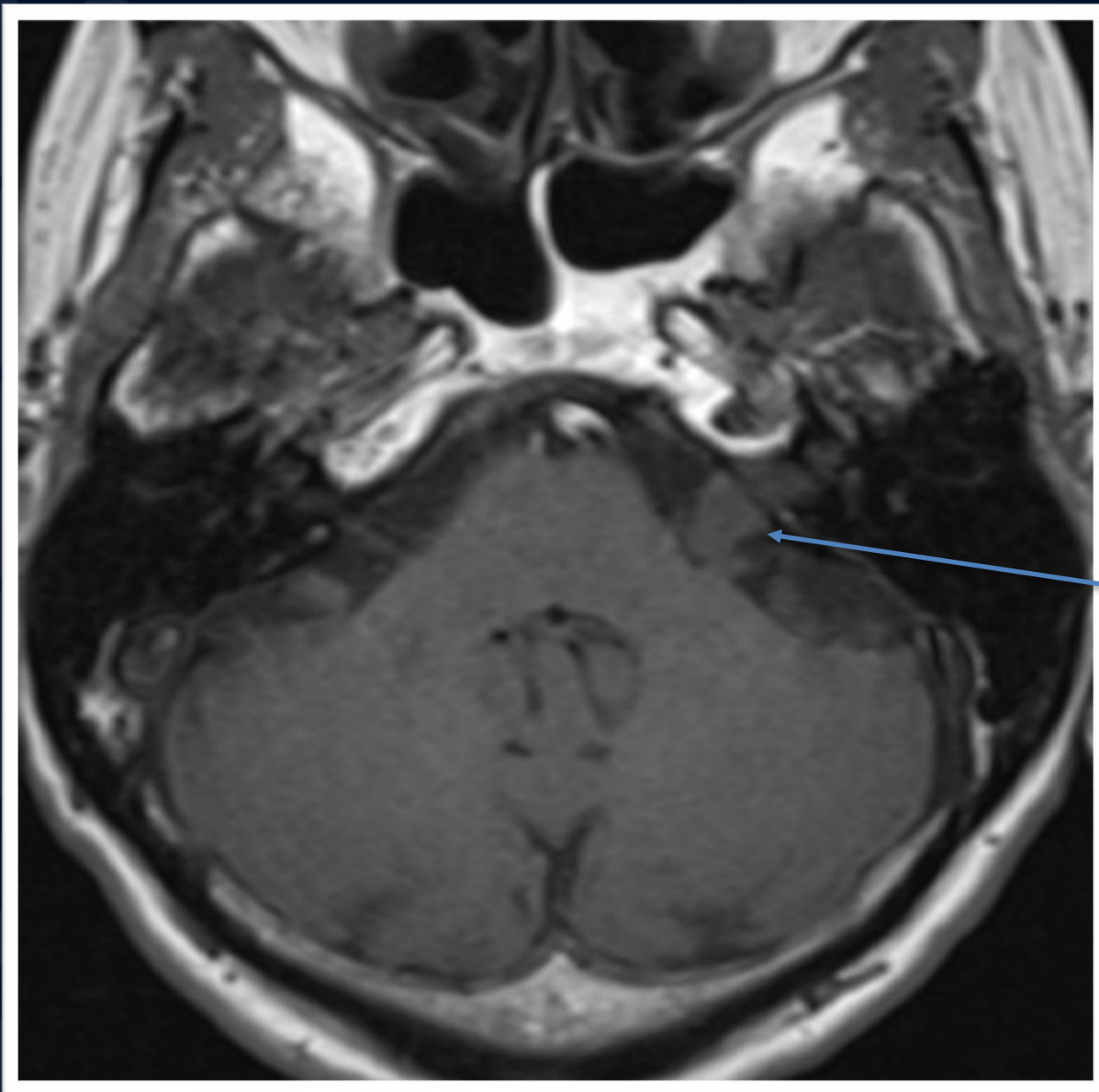
Clinical Presentation

- Slowly progressive unilateral sensorineural hearing loss or tinnitus
- Dysequilibrium
- Symptoms can go unnoticed
 - Delayed presentation
 - Present with symptoms related to mass effect

Vestibular Schwannoma

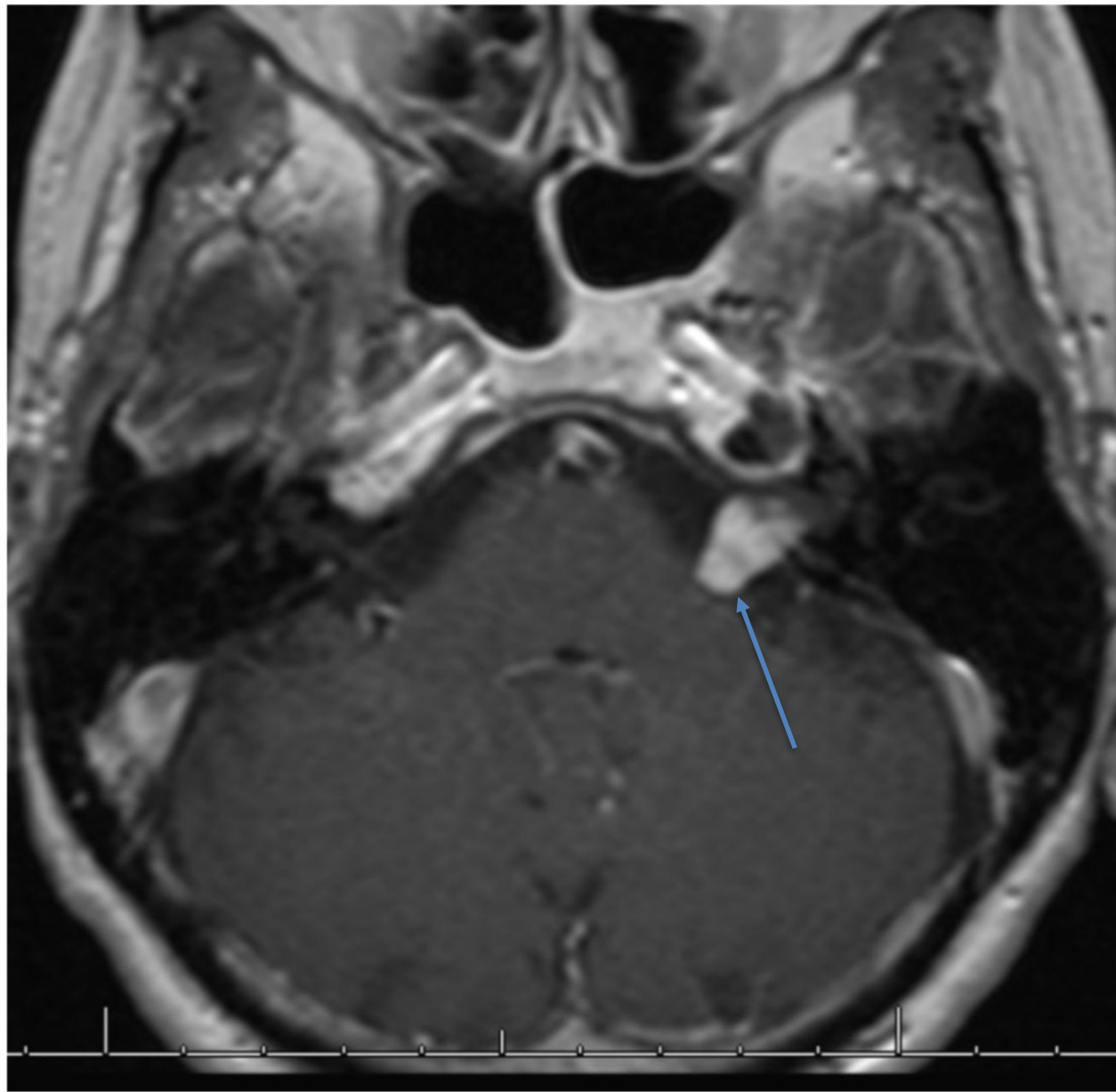
Radiologic Features

- T1W post contrast MR is gold standard
- Volumetric T2 (can detect ~ 98% of vestibular schwannoma)
- T1W Post contrast
 - Focal, enhancing mass at the CP angle
 - All enhance strongly
- FLAIR
 - Increased cochlear signal from increased perilymph protein



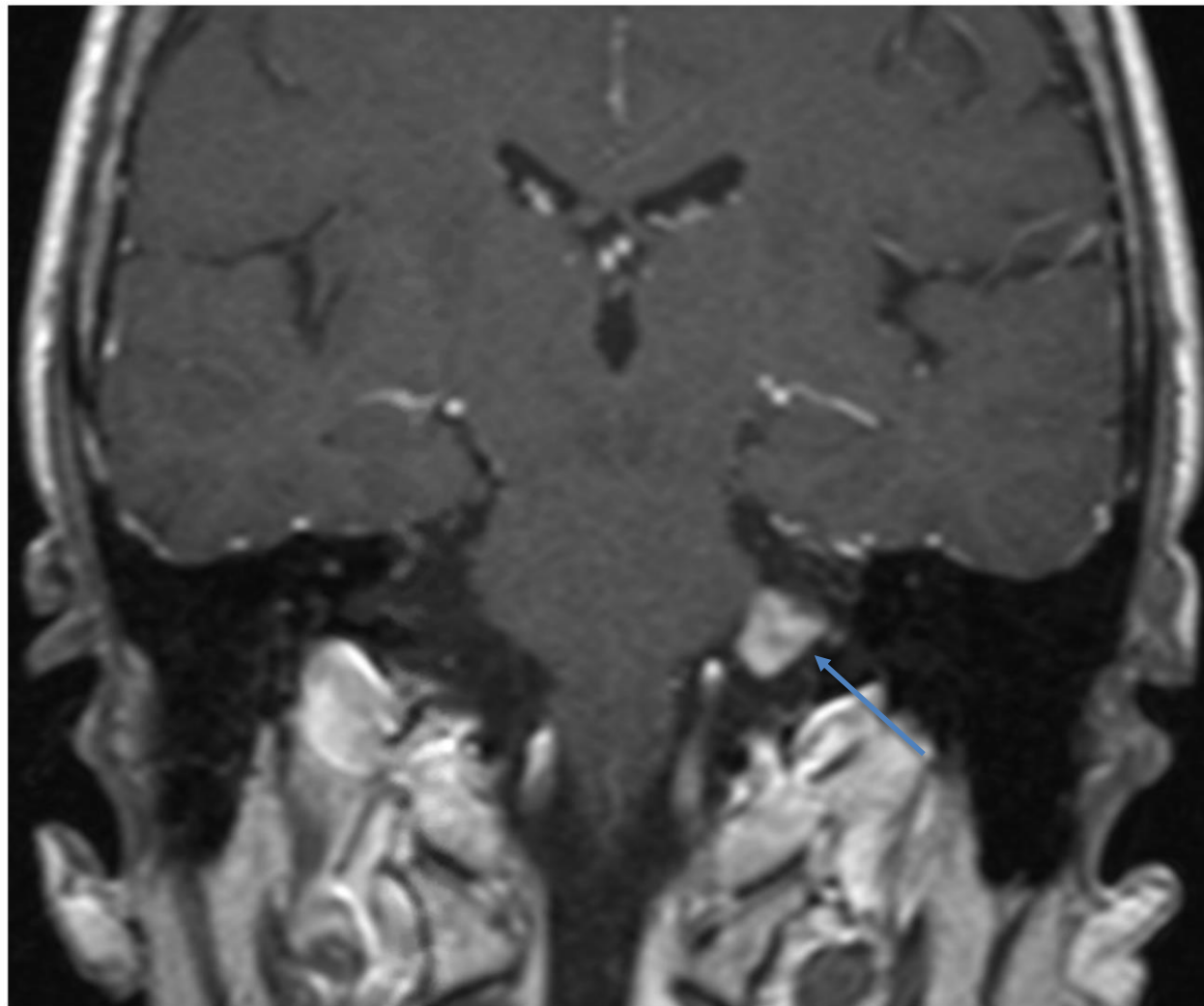
Axial
T1W

Mildly
hypointense to
brain
parenchyma.
Absence of CSF
in the IAC.



Axial T1-Gd

Avidly
enhancing CP
angle mass
(arrow).



Coronal T1-Gd

Avidly enhancing,
well circumscribed
mass at the left CP
angle

References

- Surgical Approaches to Vestibular Schwannomas: What the Radiologist Needs to Know. Portia S. Silk, John I. Lane, and Colin L. Driscoll. RadioGraphics 2009 29:7, 1955-1970