

Evidence Discussion (HD-33)

Acoustic Neuroma and Other Cerebellopontine Angle Tumors

- MRI brain is the preferred initial imaging modality for evaluation of persistent vertigo, vertigo associated with an abnormal neurologic exam, vertigo due to a suspected central cause, pulsatile or asymmetric tinnitus, and/or hearing loss.^{1,2}
- CT head is not recommended for the initial evaluation of suspected acoustic neuroma due to inferior soft tissue resolution when compared to MRI Brain.¹ In addition, MRI brain provides better visualization of the cerebellum, posterior fossa and cranial nerves.¹
- MRI brain, in this clinical scenario, is performed using specialized internal auditory canal (IAC) protocols, which include thin-section sequences to evaluate for vascular loops and small vestibular schwannomas.³
- MRI brain can diagnose lesions in the cerebellopontine angle including schwannoma, meningioma, and other posterior fossa tumors.³
- 3D-Fast imaging employing steady state acquisition (3D-FIESTA) demonstrates significantly higher spatial resolution with superior imaging contrast between cranial nerves and CSF with a shorter acquisition time than conventional MRI scan.⁸
- Follow up imaging is recommended 6 months after diagnosis to evaluate for rapid growth, then annually for 5 years.^{4,6,7} After 5 years, tumor growth that has remained stable is unlikely but may still occur, therefore, lifelong surveillance is advised with longer imaging intervals.⁷
- Follow up imaging after surgical resection and/or stereotactic radiosurgery to assess residual tumor and treatment response is performed at 6-12 months with additional follow up annually for 5 years and every 2 years thereafter.^{4,5}

References

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