Tectal Plate Lipoma

Case Studies [1] | September 16, 2014
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Case History: 37-year-old female with headaches.

Case History: We report the case of a rare lipoma in the quadrigeminal cistern in a 37-year-old female presenting with headache. She was referred to our diagnostic center by a local physician. Neurological and systemic examination were normal.

Blood analysis was within normal limits and EEG did not show abnormal discharges. Cranial NECT revealed a mass (10 x 7 mm in size) in the quadrigeminal plate cistern which had very sharply demarcated homogeneous low fatty density indicative of a lipoma (Figure 1).

Figure 1. Axial, coronal and sagittal NECT image shows a small well-defined ovoid hypodense lesion having fat attenuation (-74 to 96 HU) at quadrigeminal plate cistern.

Diagnosis: Quadrigeminal plate cistern lipoma/tectal plate lipoma

Discussion

- Intracranial lipomas are rare, slow-growing, benign congenital lesions accounting for 0.1-0.5 percent of all primary brain tumors and are usually detected as incidental findings.¹
- Lipoma in the quadrigeminal region has previously been reported as lipoma in the quadrigeminal cistern, the quadrigeminal plate, the ambient cistern, the superior vermis or the superior medullary velum¹
- Lipomas of the quadrigeminal plate/ambient cistern produce symptoms in 20 percent of patients.³ We reported a patient with incidental lipoma of the quadrigeminal region.
- Diagnosis of quadrigeminal cistern lipoma is always certain on imaging, and therefore histopathological confirmation is never practically required.
- The differential diagnoses of lipomas in the quadrigeminal cistern include: arachnoid cysts, tectal plate cyst, tectal masses (gliomas), supracerebellar abscess, dermoid and epidermoid cysts, ruptured P4 segment aneurysm of the posterior cerebral artery and, rarely, pineal region mass.⁴ ⁵ The lipoma can be differentiated with other negative attenuation value lesions (epidermoid or dermoid tumors) that two tumors will demonstrate heterogeneous attenuation values.⁶
- Treatment of intracranial lipomas very rarely requires a direct surgical approach, because these tumors rarely reach a size sufficient to cause a mass effect or intracranial hypertension.¹

Learning Points

- Quadrigeminal plate cistern lipoma is rare.
- They are usually asymptomatic, but may cause significant symptoms of mass effect.
- Diagnosis of quadrigeminal cistern lipoma is practically always definitive on imaging, and therefore
References

Source URL: http://www.diagnosticimaging.com/tectal-plate-lipoma

Links: