

Suprasellar osteolipoma

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Section: Neuroradiology

Case Type: Clinical Cases

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Patient: 55 years, female

Clinical History:

A 55 years old woman presented to our ENT-department with pulsatile tinnitus which had been going on for many months. Otoscopy was normal as were the hearing tests. Her medical history was unremarkable

Imaging Findings:

The otorhinolaryngologist asked for a CT-angiography to rule out vascular malformations or temporal bone abnormalities. We performed a high resolution CT-scan after intravenous administration of iodinated contrast material. We didn't found any abnormality within the temporal bone or tympanic cavity. A vascular malformation wasn't detected. But there was a heterogeneous mass lesion within the suprasellar cistern abutting the pituitary stalk and the tuber cinereum of the hypothalamus. The lesion was made up of two different types of tissue, namely a fatty (mean -75 HU) and an osseous component. Based upon the location and the attenuating characteristics the diagnosis of a suprasellar osteolipoma was made. We concluded that it was a coincidental finding and no explanation for the pulsatile tinnitus.

Discussion:

Osteolipomas originate from the mesodermal embryonal layer, they arise from remnants of the meninx primitiva or from the mesenchym of the craniopharyngeal duct. Their arrangement of central adipose and peripheral osseous tissues distinguishes them from other intracranial lipomas at other locations. They typically arise between the pituitary stalk and the mammillary bodies abutting the tuber cinereum of the hypothalamus and project into the suprasellar or interpeduncular cisterns. These lesions are almost always incidental findings on CT or MRI scans done for other reasons. Nevertheless Bognar et al published a case in 2002 of a hypothalamic osteolipoma with associated endocrinological disturbances. These lesions usually do not need to be removed.

Differential Diagnosis List: Suprasellar osteolipoma

Final Diagnosis: Suprasellar osteolipoma

References:

Sinson G, Gennarelli TA, Wells GB. Suprasellar osteolipoma : a case report. Surg Neurol 1998 ;50(5) :457-60. (PMID: [9842872](#))

Kikuchi K, Kowada M, Watanabe K. Computed tomography of an intracranial lipoma confined in the suprasellar cistern. Computed med imaging graph 1994;18(3):187-92. (PMID: [8025885](#))

Bognar L, Balint K, Bardocz Z. Symptomatic osteolipoma of the tuber cinereum. Case report. J Neurosurg

2002;96(2):361-3. (PMID: [11838812](#))

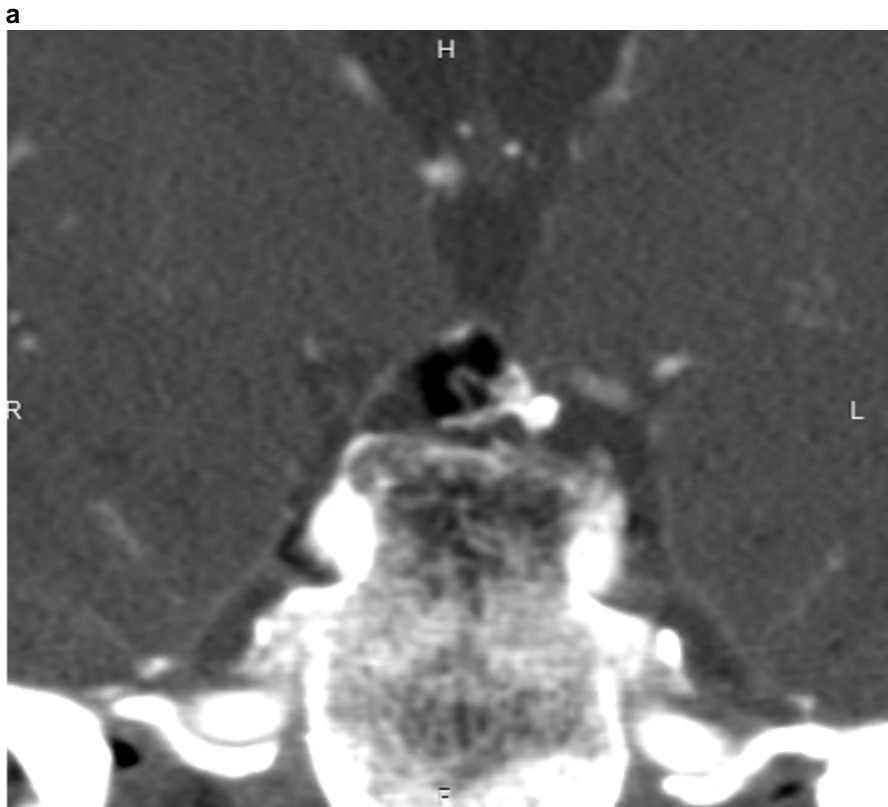
Mackenzie IR, Girvin JP, Lee D. Symptomatic osteolipoma of the tuber cinereum. Clin Neuropathol 1996;15(1):60-2. (PMID: [8998859](#))

Figure 1



Description: sagittal mpr contrast-enhanced MDCT showing a suprasellar lesion with adipose and osseous components abutting the pituitary stalk and the tuber cinereum. **Origin:**

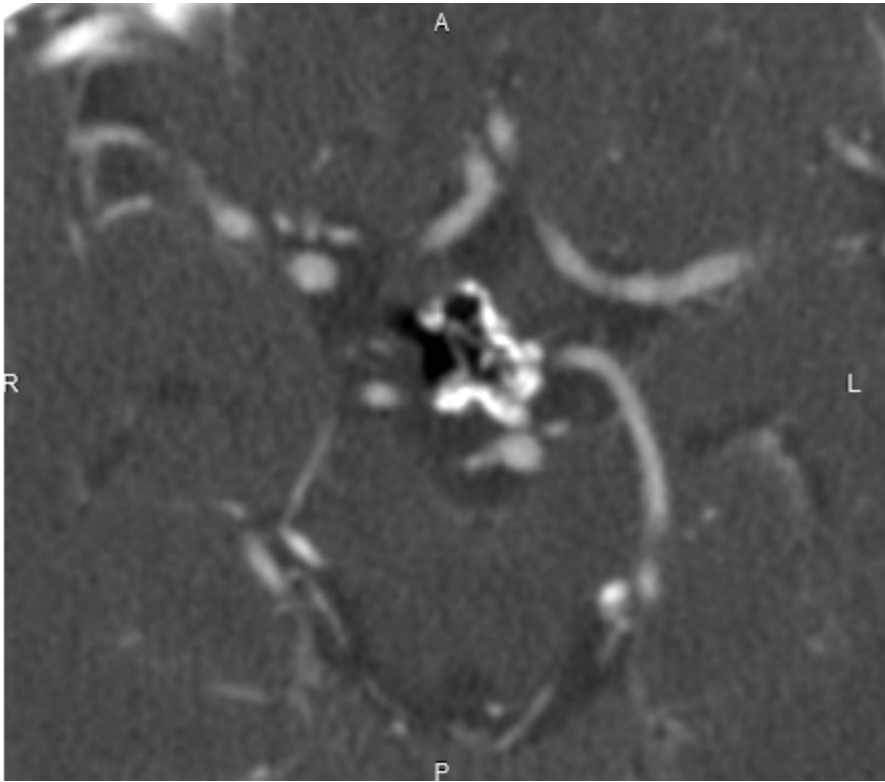
Figure 2



Description: coronal mpr contrast-enhanced MDCT showing a suprasellar lesion abutting the tuber cinereum of the hypothalamus. **Origin:**

Figure 3

a



Description: axial mpr contrast-enhanced MDCT showing a suprasellar lesion with central adipose and peripheral osseous tissue. **Origin:**