Clinical Image

Uncommon calcified suprasellar mass mimicking a craniopharyngioma

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A 59-year-old gentleman presented with a history of painless diminution of vision in both eyes for the past three years. Physical examination revealed a visual acuity of 6/60 in the right eye, 6/36 in the left eye and bitemporal hemianopia. Fundus examination showed bilateral temporal disc pallor.

Computerized tomography (CT) of the head showed a hypodense suprasellar lesion with peripheral linear calcifications resembling a craniopharyngioma [Figure 1A]. Magnetic resonance image (MRI) revealed a 3.1x2.6x2.1 cm suprasellar lesion appearing hypointense on T2-weighted image with heterogeneously hyperintense lamellations within it [Figure 1B]. The lesion was seen compressing the optic chiasma and the floor of the third ventricle, leading to dilatation of the lateral ventricles [Figure 1B]. The pituitary gland was seen entirely separate from the lesion. Considering the oddity of the MRI findings, a CT angiography was done which showed a giant partially thrombosed aneurysm involving the proximal A1 segment of the left anterior cerebral artery (ACA) [Figure 1C, patent aneurysm marked in red arrow, thrombosed and calcified part marked in yellow arrows]. The finding was confirmed on digital subtraction angiography (DSA) [Figure 1D, marked in blue arrow]. Pre-operative workup did not reveal any pituitary hormone deficiencies. He underwent left pterional craniotomy. The aneurysm was seen to arise from the A1 segment of the left ACA. The aneurysm was trapped; the thrombosed/calcified part was excised and optic chiasma was decompressed. Post-operatively, his vision did not improve but further progression has halted.

The differential diagnoses of a calcified suprasellar lesion in a 59-year-old male include craniopharyngioma, tuberculum sella meningioma and calcified aneurysm. Craniopharyngiomas are usually sellar-suprasellar in location (53-75%) rather than being purely suprasellar (20-41%) and are associated with one or more of pituitary hormone deficiencies in about 85% of the cases [1]. The appearance of a craniopharyngioma depends on the relative proportion of solid, cystic and calcified components. Overall, cystic components usually appear hyperintense on T2-weighted sequences. On the contrary, the index patient was harboring an entirely suprasellar lesion with no biochemical evidence of pituitary insufficiency. In addition, the lesion showed an internal flow void on T2-weighted sequences, a characteristic feature of an aneurysm with rapid blood flow [2]. Heterogenous hyperintense lamellations within the lesion were suggestive of clots. Thus, although an initial review of the patient's presenting symptoms and a first look at the CT scan might have pointed towards a diagnosis of craniopharyngioma, careful appraisal of the MRI made us entertain a possibility of a partially thrombosed aneurysm. Misdiagnosis and subsequent attempt at excision of the lesion could have led to disastrous consequences.
Figure 1. A) NCCT of head showing a hypodense suprasellar lesion with peripheral linear calcifications. B) T2W MRI showing a 3.1x2.6x2.1 cm hypointense suprasellar lesion harboring heterogeneously hyperintense lamellations within it. C) CT angiography showing a giant partially thrombosed aneurysm involving the proximal A1 segment of the left ACA (patent aneurysm marked in red arrow, thrombosed and calcified part marked in yellow arrows). D) DSA image showing an aneurysm arising from the proximal A1 segment of the left ACA (marked in blue arrow).

Conflict of interest
The authors declare no conflict of interest.

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References