Clinical picture

Carotid artery compression from pituitary apoplexy

Description of Image
A 54-year-old previously healthy man presented after a fall from a ladder with progressive vision loss and headache. Physical examination revealed poor visual acuity in both eyes with the ability to only differentiate between light and dark and partial third, fourth and sixth nerve palsies of the right eye. Magnetic resonance imaging of the brain was performed and revealed a 4.7 × 3 × 3 cm pituitary adenoma (Figure 1A). He underwent transsphenoidal resection of this mass and was confirmed to have pituitary tumor apoplexy after resection. Post-operatively his visual acuity improved to 20/20 in the right eye and 20/60 in the left eye; he had bitemporal hemianopsia and was left with a right partial third nerve palsy.

While not clinically evident, the tumor was found to be compressing the paraclinoid segments of both internal carotid arteries and resulted in 70%–80% stenosis bilaterally (Figure 1B). Mechanical compression of intracranial arteries by an expanding sellar mass has been rarely reported and can result in cerebral ischemia.¹ ² Noninvasive vascular imaging should be considered for such large sellar tumors to assess the risk for cerebrovascular complications.

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References

Figure 1. FLAIR sequence of MRI brain (A) that demonstrates a large pituitary adenoma (arrow). There is evidence of stenosis of the bilateral paraclinoid segments of the internal carotid arteries as seen on MRA brain (B).