Hemangioma of the cavernous sinus in a child

Figure Hemangioma of the cavernous sinus

Axial T1-weighted (A) and coronal T2-weighted (B) images show an expansile 3.5 × 2.6 cm tumor in the right cavernous sinus with T1 hypointense and marked T2 hyperintense signal. Coronal (C) and axial (D) contrast T1-weighted images acquired several minutes apart reveal characteristic early heterogeneous and late homogeneous enhancement.

An 11-year-old boy presented with diplopia and right cranial nerve VI paresis. MRI demonstrated a T2-hyperintense extra-axial mass in the cavernous sinus. Early heterogeneous enhancement progressed to late homogeneous enhancement. The carotid artery was not narrowed (figure). Slow growth prompted endoscopic transsphenoidal resection. Microscopy demonstrated a vascular tumor with bland endothelial cells and no mitoses.

Hemangiomas of the cavernous sinus rarely occur in children. Marked T2 hyperintensity and progressive nodular centripetal enhancement are common.¹ Preoperative diagnosis is important to avoid hemorrhage at surgery. They are often mistaken for more common meningiomas, which usually show T2-isointensity and carotid artery narrowing.

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