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J L Scheraga, J J Wasenko and R L Davis

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LETTER

MR of Intracranial Extension of Nasopharyngeal Teratoma

An infant girl presented at 3 days of age with cyanosis and obstructive apnea. Physical examination revealed a cleft soft palate, a nasopharyngeal mass, and slight bulging of the left temporal area with possible diastasis of the left temporosquamosal suture. Computed tomography (CT) and magnetic resonance (MR) demonstrated a large, partially cystic mass with calcification in the left parapharyngeal space extending into the left middle cranial fossa (Fig 1).

Biopsy of the nasopharyngeal mass revealed an immature teratoma. A second tissue sample from the intracranial portion of the tumor revealed ganglioglioma in the neuroepithelial component of the immature teratoma.

Teratomas account for 9% of head and neck neoplasms in children and usually occur in the nasopharynx or oropharynx (1). Teratomas with both intracranial and extracranial components are very rare (2-5). Some previous reports of teratomas with both intracranial and extracranial components showed similar MR signal characteristics as in our case (2, 5). Although in our case the radiologic appearance was nonspecific, MR clearly showed the tumor to be extraaxial, eliminating primary central nervous system tumors from the differential diagnosis. Teratoma should be a primary diagnostic consideration in an infant presenting with a nasopharyngeal mass with intracranial extension.

Janet L. Scheraga
John J. Wasenko

Department of Radiology

Richard L. Davis
Department of Pathology

State University of New York Health Science Center
Syracuse

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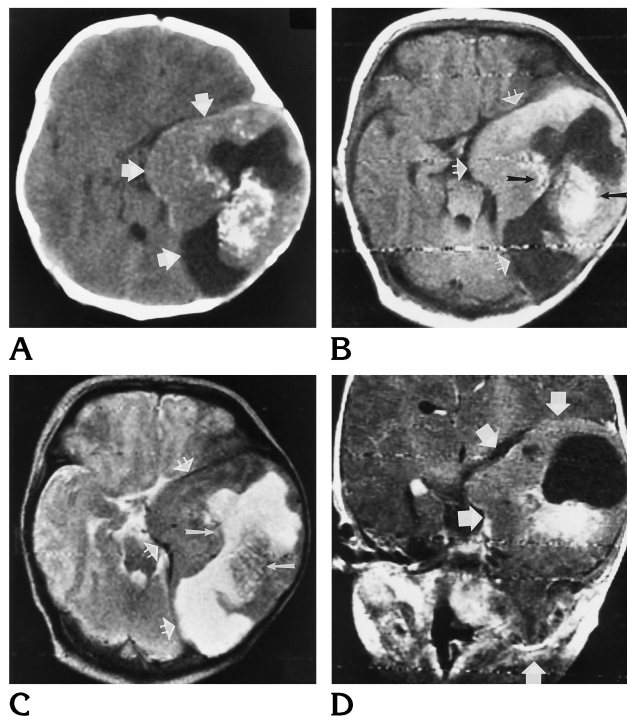


Fig 1. A, Noncontrast CT shows a large partially calcified, partially cystic mass (arrows) in the left middle cranial fossa.

B and C, Axial T1-weighted spin-echo (600/19/2 [repetition time/echo time/excitations]) and axial T2-weighted fast spin-echo (4200/90/1) MR images show a mass of mixed signal intensity in the left middle cranial fossa (arrowheads). The calcifications are hyperintense and hypointense on T1- and T2-weighted images, respectively (arrows). The solid component was slightly hypointense to brain on T2-weighted images, reflecting the hypercellularity of the lesion.

D, Enhanced coronal T1-weighted spin-echo MR image (550/19/2) does not show enhancement. The nasopharyngeal and intracranial extradural components of the mass (arrows) are well demonstrated. Note the superior displacement of the left temporal lobe.