Spontaneous rupture of intracranial dermoid cyst in a child

Figure 1 Dermoid cyst in prepontine and suprasellar region

Brain MRI at age 11 years. There is a T1 hyperintense lesion in the prepontine cistern and suprasellar region measuring 11 mm in the greatest dimension (arrow). The T1 hyperintensity, T2 hypointensity (not shown), and midline position are suggestive of an intracranial dermoid cyst.

Figure 2 Ruptured dermoid cyst

Brain MRI at age 15 years. There is a $14 \times 16 \times 11$ mm lobulated T1 hyperintense mass within the prepontine cistern extending into the suprasellar cistern (arrow). There are punctate foci of T1 hyperintensity (arrowheads) disseminated throughout the subarachnoid space suggestive of ruptured dermoid cyst. The patient was diagnosed with aseptic meningitis secondary to rupture of dermoid cyst. She was managed conservatively. At follow-up 2 years after rupture, there were no new symptoms and no change in cyst size.

A 17-year-old girl was diagnosed at age 3 with a suprasellar dermoid cyst following complaints of headaches. At 15, headache worsened, with nausea, vomiting, and confusion. Headache was sudden, severe, and pressure-like. Repeat brain MRI showed rupture of the dermoid cyst into the subarachnoid space (figures 1 and 2).

Rupture of dermoid cysts is rare and usually spontaneous, although trauma-related rupture may occur. The hypothesized mechanism of rupture is rapid enlargement of the cyst due to age-dependent hormonal changes.¹ The presenting clinical features of rupture can vary from none to headache, seizures, chemical meningitis, cerebral ischemia with motor, sensory, or visual deficits, and hydrocephalus.²

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