Lenticulostriate artery aneurysm in infancy

Case illustration

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This 2-month-old boy, the product of a full-term normal pregnancy and delivery, presented with lethargy and vomiting on the morning of admission. Initial evaluation revealed a somnolent, pallorous infant with a bulging fontanelle and a hemoglobin level of 7 g/dl. Computerized tomography (CT) scanning of the head demonstrated an intracerebral hemorrhage with intraventricular extension and hydrocephalus (Fig. 1 left). Ventriculostomy was performed and magnetic resonance (MR) imaging demonstrated a spherical structure adjacent to the sylvian fissure (Fig. 1 right). Cerebral angiographic studies revealed a lenticulostriate artery aneurysm, although the junction of the lesion with the parent vessel could not be demonstrated (Fig. 2). A frontotemporal approach through the hematoma cavity revealed a spherical dilation of a lenticulostriate artery. The aneurysm was excised along with the feeding artery, and histopathological analysis revealed absence of the elastic lamina of the aneurysm wall without inflammatory changes or evidence of an infectious source. After a complicated hospital course, the infant was discharged. At 2-month follow-up review the child had diminished fine motor skills in the right upper and lower extremities and demonstrated a left-sided gaze preference.

Intracerebral aneurysms of infancy are rare anomalies but have been reported on the major branches of the circle of Willis. The occurrence of lenticulostriate artery aneurysms in an infant without an underlying vasculopathy has not been described. These lesions are usually found in adult patients with hypertensive encephalopathy or connective tissue disorders as well as in children and adults with moyamoya disease.

References


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