Child Neurology: Stroke due to nontraumatic intracranial dissection in a child

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Figure MRI and catheter angiography

(A, B) Diffusion-weighted sequence of MRI of the brain shows acute infarction in the right middle cerebral artery (MCA) territory. (C, D) Catheter angiography showed irregularities of the right supraclinoid internal carotid artery, extending into the M1 segment of the right MCA. An intimal flap (arrow) indicates dissection.

A 9-year-old girl without prior trauma presented with weakness and headache. Examination showed profound left hemiplegia. MRI demonstrated a right middle cerebral artery (MCA) territory infarction. Magnetic resonance angiography showed proximal right MCA irregularity. Conventional angiography revealed an intracranial dissection (figure).

Intracranial dissections are frequently spontaneous (nontraumatic) and are associated with stroke in the young, comprising 60% of anterior circulation dissections in childhood.¹ Exclusion of intracranial dissections is challenging using magnetic resonance angiography; cerebral angiography must be consid-

ered.² Potential treatments include anticoagulation and antiplatelet therapies; Class III recommendations discourage anticoagulation because of the association of subarachnoid hemorrhage with intracranial dissection.²

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