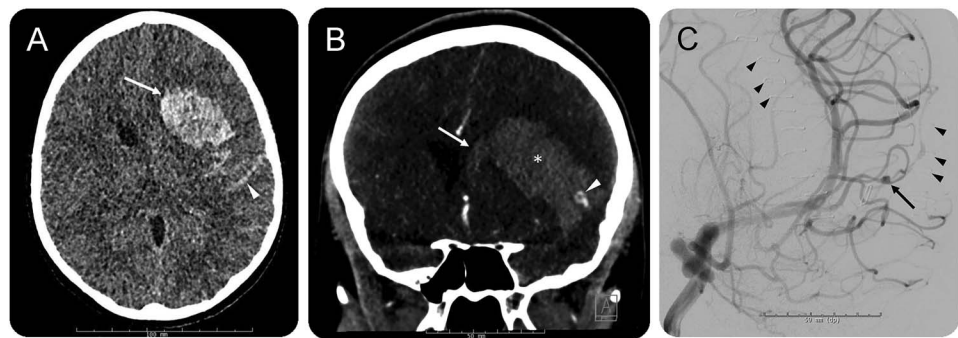


# Teaching NeuroImages: Multicompartmental intracranial hemorrhage in a pediatric patient

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**Figure** Neuroimaging



(A) Axial CT of the head at presentation. Deep, intraparenchymal hemorrhage (arrow) with subarachnoid extension (arrowhead). (B) Coronal CT angiography of the head demonstrating intraparenchymal hemorrhage (asterisk), intraventricular extension (arrow), and middle cerebral artery aneurysm (arrowhead). (C) Digital subtraction angiography after decompressive hemicraniectomy (arrowheads indicate staples), confirming 7-mm aneurysm (arrow).

A previously healthy 9-year-old girl presented with sudden-onset headache followed by confusion. In the emergency department, she was hypertensive, bradycardic, and no longer responsive to any stimuli. An emergent head CT scan demonstrated a left frontal intraparenchymal hematoma with intraventricular and subarachnoid extension as well as subfalcine herniation (figure). She underwent decompressive hemicraniectomy, and digital subtraction angiography confirmed a 7-mm left middle cerebral artery aneurysm (figure).

Intracranial hemorrhage in a pediatric patient that traverses multiple compartments (intraparenchymal, subarachnoid, and intraventricular) has a short differential that should include trauma, coagulopathy, vascular abnormalities (middle cerebral artery aneurysm, arteriovenous malformation, dural arteriovenous fistulas, and reversible cerebral vasoconstriction), venous thrombosis, and cocaine abuse.<sup>1-3</sup>

## AUTHOR CONTRIBUTIONS

Dr. James E. Siegler: conception of the idea of the manuscript, drafting of the original manuscript, preparation of images, and critical revisions to the

manuscript for important intellectual content. Dr. Rebecca N. Ichord: drafting of the manuscript and critical revisions to the manuscript for important intellectual content.

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## DISCLOSURE

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