Teaching *NeuroImages*: Abnormal cervical and cerebral vasculature in 22q11 deletion syndrome

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Figure Head and neck magnetic resonance angiography

(A) Cerebral vasculature demonstrates left anterior cerebral artery and middle cerebral artery branches supplied by right internal carotid artery via anterior communicating artery (arrow) and dominant left posterior communicating artery (arrowhead). (B) Cervical vasculature shows left vertebral artery with a beaded appearance (arrows). No left internal carotid artery is present (arrowhead).

A 12-day-old girl with a postnatal microarray diagnosis of 22q11.2 deletion syndrome was transferred for surgical repair of truncus arteriosus. Neurologic examination at the time of transfer was unremarkable. Brain MRI on day of life 9 demonstrated an absent left internal carotid flow void. Magnetic resonance angiography of the head (figure, A) and neck (figure, B) was subsequently obtained prior to cardiac repair. Patients with 22q11 deletion syndromes may have abnormal cervical vessel development.¹ Children with congenital heart disease have an elevated stroke risk, particularly for periprocedural stroke.² Understanding variant cerebrovascular anatomy in these cases may aid in surgical planning to mitigate stroke risk.

AUTHOR CONTRIBUTIONS

Divakar S. Mithal: manuscript preparation, image preparation, literature review.
Jonathan E. Kurz: manuscript preparation and critical review, literature review.

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DISCLOSURE

The authors report no disclosures relevant to the manuscript. Go to Neurology.org for full disclosures.

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