A case of primitive trigeminal artery infarction

White arrow points to the primitive trigeminal artery (A-D). MRI, fluid-attenuated inversion recovery sequence, demonstrating the left ventral pontine infarction (A). Magnetic resonance angiography demonstrates proximal hypoplastic-stenotic vertebrobasilar system (B). Selective left internal carotid artery angiogram: lateral (C) and anteroposterior view (D) (same viewing angle as in B). Triangular arrowhead points to the left internal carotid artery (B-D).

Within minutes following an altercation with police, a 55-year-old man noted onset of speech difficulty and right-sided weakness without headache or neck pain. Dysarthria and right hemiparesis (grade 4/5) without ocular disturbance was found. Left ventral hemipontine infarction was documented from the ipsilateral tortuous primitive trigeminal artery (figure). Cerebral angiogram failed to reveal underlying arterial dissection.

Persistent anastomosis from a cavernous portion of internal cerebral artery to rostral basilar artery is unusual, with an estimated incidence of 0.2%.¹ Although the artery has been implicated as a conduit of a carotid artery to posterior cerebral artery distribution embolic stroke,² our case illustrates that localized occlusive process may also occur.

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