

to-point representation of each finger to neurons located in the motor cortex in a way that the radial finger area is located laterally and the ulnar finger area medially,⁵ recent authors advocate overlapping representation or group activation theories.⁶ Isolated weakness of a single finger secondary to a motor cortical lesion observed in our patient seems to agree more with the former theory. Unexpectedly, the MRI lesion was located slightly medial to the center of the hand knob (see the figure), which does not agree with a previous report that predominant weakness of radial-sided fingers is usually caused by laterally located infarcts whereas weakness of ulnar fingers is related to medial lesions in the precentral knob.⁷ Perhaps, there may be considerable individual variation of motor topography, which also was observed in the previous report.⁷

Regarding the pathogenesis of stroke, our patient had atrial fibrillation, mobile aortic atheroma, and normal MR angiogram findings except for the posterior cerebral artery occlusion. Moreover, two infarcts developed in succession in different vascular territories. Therefore, an embolism is a likely pathogenic mechanism. This seems to be consistent with the previous observation that paresis of the radial-sided fingers was more often associated with embolic mechanisms as compared with ulnar-sided finger weakness.⁷

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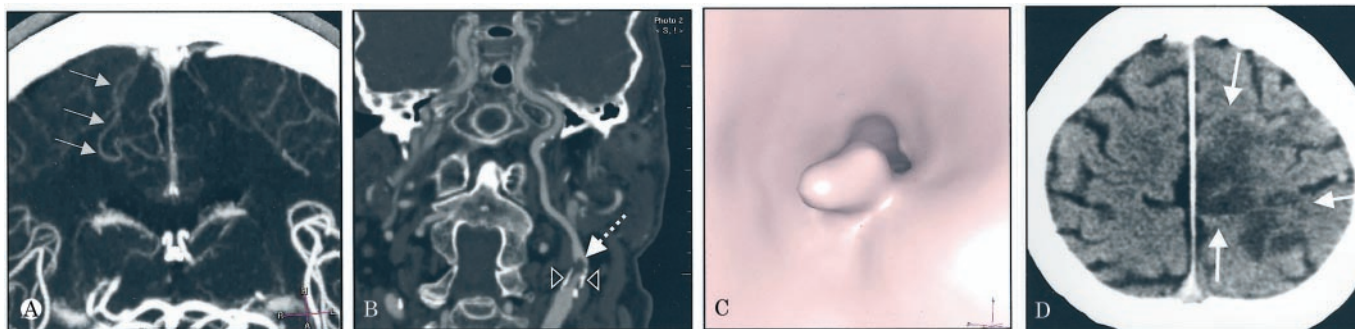


Figure. Cerebral multislice CT angiography (MS-CTA): normal peripheral anterior cerebral artery (ACA) branches on the right side (arrows), hypoperfusion of corresponding contralateral branches (A). Cervical MS-CTA: left internal carotid artery stenosis (B) with clarification (arrowheads) and intraluminal thrombus (dotted arrow); endoluminal view shows apex of the thrombus (C). (D) Noncontrast head CT: cortical ACA infarction affecting the paramedian front and the parietal lobe (arrows).

Intraluminal carotid thrombus

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A 61-year-old hypertensive man presented 1 hour after sudden onset of right-sided hemiparesis and hemineglect. Noncontrast head CT was unremarkable, but multislice CT angiography (MS-CTA) demonstrated left anterior cerebral artery (ACA) branch occlusion and ipsilateral internal carotid artery (ICA) stenosis with an intraluminal thrombus (figure, A through C). Consequently, systemic

thrombolysis with recombinant tissue plasminogen activator was initiated. The next day, head CT depicted a small cortical ACA infarction (figure, D).

Isolated ACA infarction is rare and is most commonly caused by artery-to-artery embolism from atherothrombotic ICA stenosis.^{1,2} MS-CTA is a new high-resolution imaging modality that allows a quick, concurrent, and minimally invasive visualization of cervical and cerebral vessels, including virtual endovascular views.

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