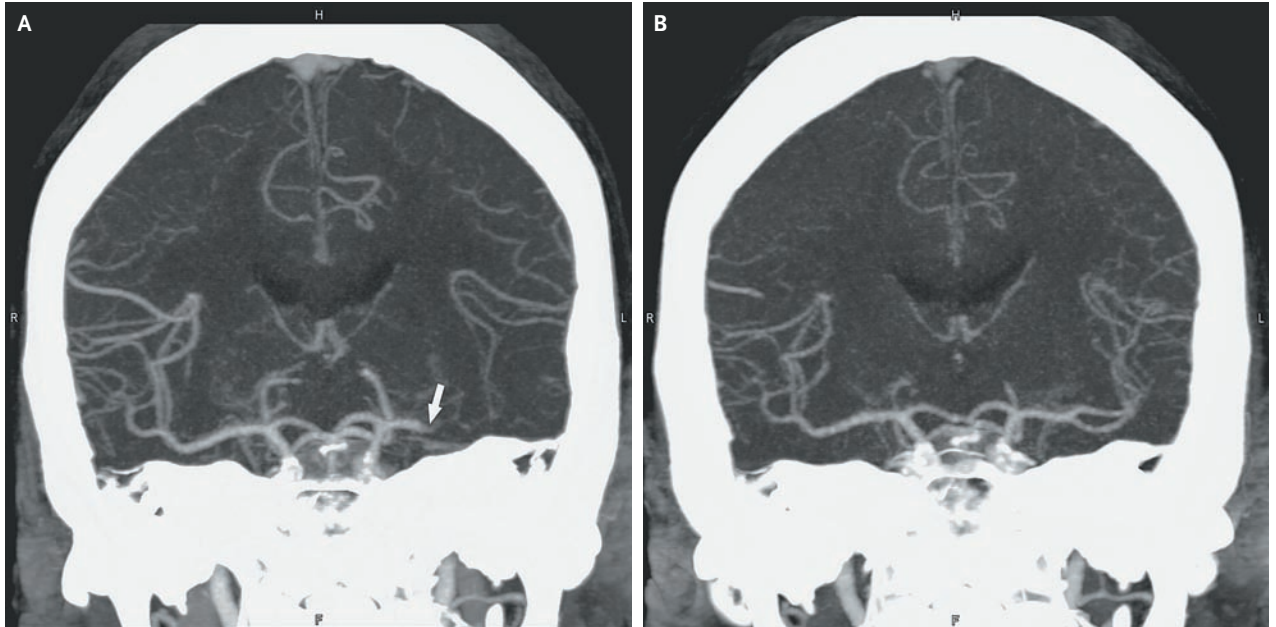


IMAGES IN CLINICAL MEDICINE

Occlusion and Reperfusion of the Middle Cerebral Artery



A 65-YEAR-OLD WOMAN WITH CHRONIC ATRIAL FIBRILLATION WAS ADMITTED for an elective exchange of an implanted defibrillator for idiopathic dilated cardiomyopathy. To facilitate this procedure, warfarin was withheld for 5 days. Before the procedure was performed, acute-onset right hemiparesis and expressive dysphasia developed. Urgent noncontrast computed tomography (CT) of the brain and CT angiography of the intracranial and extracranial arterial circulation confirmed an acute occlusion of the M2 segment of the middle cerebral artery, which was consistent with the presence of an embolus (Panel A, arrow). Ninety-five minutes after the onset of neurologic deficits, the patient was given a bolus dose and 1-hour infusion of tissue plasminogen activator. Repeat CT angiography, performed 25 hours after thrombolysis, showed reperfusion of the middle cerebral artery and cortical branches in the sylvian fissure on the left side (Panel B), which correlated with resolution of the neurologic deficits. Early administration of a thrombolytic agent is essential for optimal neurologic recovery. The patient has had no further neurologic symptoms, with no measurable deficit.

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