

Calcium Embolus to the Brain



Micah D. Yost, DO, and Eelco F. Wijdicks, MD, PhD

A 76-year-old man presented upon waking with dysarthria and left hemiplegia. Head computed tomography (CT) (Figure 1) and CT angiography (Figure 2) showed a large dense focal calcification at the M2 branch point of the right *middle cerebral artery*, comparable in size to the calcified pineal gland and choroid plexus. Computed tomography perfusion showed a large established infarction.

Comparison of echocardiograms from before and after the stroke showed a highly mobile mitral annular calcification, which was now noticeably smaller in size suggestive of partial embolization.

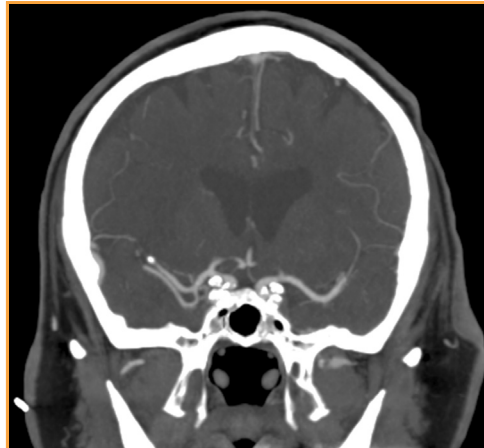


FIGURE 2. Coronal head CT angiography showing a right M2 branch calcification.

From the Department of Neurology, Mayo Clinic, Rochester, MN.



FIGURE 1. Axial head computed tomography showing a right M2 branch point calcification.

Calcified emboli have been seen on up to 3% of CT scans ordered for stroke, with small calcific emboli often being asymptomatic. These are important to diagnose because up to half of patients experience a subsequent stroke. Successful endovascular intervention has been reported in acute stroke with no evidence of a large territorial infarction on CT or CT perfusion. However, it may only be possible when the obstruction can be traversed, thus removal of a stone this size is potentially technically difficult. Results with tissue plasminogen activator to this point have been mixed.

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Correspondence: Address to Eelco F. Wijdicks, MD, PhD, Department of Neurology, Mayo Clinic, 200 First St SW, Rochester, MN 55905 (Wijde@mayo.edu).