



Unusual Cases in Neurosonology

Sun U. Kwon

Department of Neurology, Asan Medical Center, University of Ulsan College of Medicine

Case 1

A 67-year-old man presented with recurrent visual disturbance in his left eye and claudication in his left arm. Two months ago, he was underwent the stent-graft in aortic arch and left common carotid–subclavian artery bypass surgery due to focal aortic aneurysm with ulcer and intramural hematoma in just proximal to origin of the left vertebral artery. On admission, CT angiography in the thoracic aorta and its branches revealed no steno-occlusive lesion around the stent and bypass site. However, carotid and vertebral duplex sonography showed minimal flow pattern through the left proximal common carotid artery to internal carotid artery and reversed flow pattern in cervical segment of the left vertebral artery.

Case 2

A 42 year-old woman presented with intermittent dull headache in the left occipital area for several months. When the patient was 15 year-old, she had experienced an episode of transient dysarthria, facial palsy, and left hemiparesis. Magnetic resonance imaging revealed a chronic infarction in right basal ganglia and corona radiata, total occlusion of right common carotid artery (CCA), and occlusion of left CCA receiving collateral flow from the vertebral artery. Carotid duplex sonography showed that the right CCA had no flow signals and the wall of left CCA was diffuse thickening.

Case 3

A 62-year-old man was admitted to our hospital for coronary artery bypass graft surgery (CABG). Brain magnetic resonance imaging (MRI) and angiography (MRA) for preoperative evaluation revealed acute cortical infarction in the territory of the right middle cerebral artery (MCA), which was considered to represent artery-to-artery embolism from an occlusive lesion at the right common carotid artery (CCA). He underwent duplex carotid sonography. B-mode scans showed a large, isoechoic and homogenous thrombus with mobile, echogenic segment through the right CCA without any antegrade flow. Follow-up sonography showed disappearance of mobile segment. These findings are suggestive that this is an acute cardioembolic thrombus.