Vascular Territories of MCA Branches by Computerized Tomography

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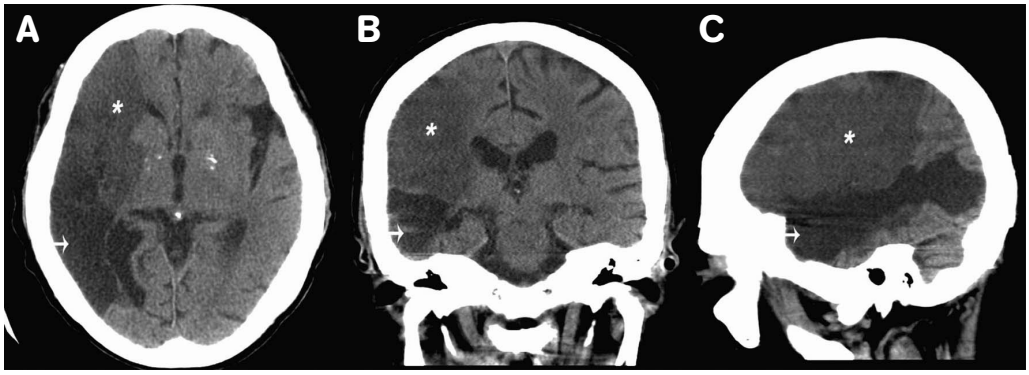

Figure. Panels A (axial), B (coronal), and C (saggital) of brain CT showed encephalomalacia in the vascular area of inferior division (black, arrow) and hypodensity and gyral effacement in the vascular area of mainly superior division (dark gray, star) of the right MCA.

An 81-year-old woman developed acute disorientation with bizarre behavior ten years ago and recovered gradually over a few weeks 1. She received warfarin thereafter for prevention of recurrent cardioembolic strokes, resulting from atrial fibrillation. This time, she had acute onset of left hemiplegia. Neurological examination revealed forced eye deviation to the right, left hemianopia, left central-type facial palsy, and paralysis of the left limbs. Brain computerized tomography (CT) showed encephalomalacia in the vascular area of the inferior branch or the right middle cerebral artery (MCA), as a result of previous stroke. There was also an area with hypodensity and gyral effacement in the rest of the right MCA territory, indicating acute cerebral infarction. Although there are many kinds of atlas demonstrating the blood supply area for MCA, the vascular territory for two main branches of MCA, inferior and superior branches, is seldom described in neuroimaging. Here, the CT study in axial (Panel A), coronal (B), and sagittal (C) views demonstrated the vascular territories of the inferior branch (black, arrow) and superior branch (dark gray, star) of the right MCA (also see supplement) 2. These images could be used as an atlas for MCA in clinical practice and education.

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