

PSEUDOATHETOSIS ASSOCIATED WITH LOSS OF PROPRIOCEPTION AFTER ACUTE ISCHEMIC STROKE

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Background & Significance

A profound loss of proprioception leads to the pseudoathetosis resulting from the failure of proper integration of cortical sensory function. However, pseudoathetosis has rarely reported in patients with acute ischemic stroke. We describe a patient who exhibited abrupt loss of proprioception and combined pseudoathetosis following acute cerebral infarct that involved in the postcentral gyrus.

Case

A 72-year-old female was brought to the emergency department 1 hour after she suddenly had the tingling sense and involuntary movements of the left arm. She had atrial fibrillation with dual anti-platelet medications. Neurological examination shows the loss of position sense and limb-kinetic movement in the distal part of the left arm. The most remarkable sign was a dystonic posturing and pseudoathetosis of the left arm and leg, which was only revealed when the patient outstretched her extremities with the eyes closed. Diffusion-weighted MRI showed acute infarcted lesion involving right parietal cortex. There was total occlusion of the right proximal internal carotid artery and inferior branch of the right middle cerebral artery in MR angiography. Nerve conduction studies were normal.

Conclusions or Comments

The proprioceptive sensory loss without overt damage to the motor system can lead to pseudoathetosis, which rarely occurs following acute ischemic stroke on the parietal cortex lesion. Postulated that the loss of proprioception causes alterations in the cortical sensory inputs to the striatum and, finally, variable mixtures of involuntary movements. However, why only a small proportion of patients with proprioceptive sensory loss develop involuntary movements is unknown.