Subcortical Infarction Causes Pure Motor Isolated Finger Palsy

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Key words: precentral knob, pure motor isolated finger palsy, subcortical infarction

(DOI: 10.2169/internalmedicine.52.0265)

A 73-year-old man complained of sudden clumsiness affecting his right hand that had lasted for two days. His blood pressure was 182/119 mmHg. A neurological examination revealed mild weakness of his right ring and small fingers. No other neurological impairment was found. The patient’s blood glucose level was 458 mg/dL. Brain magnetic resonance imaging (Picture A, B: diffusion-weighted images, Picture C-F: fluid-attenuated inversion recovery images) demonstrated a small subacute infarction in the subcortical region of the left frontal lobe (arrow) near the precentral knob, which corresponded to the motor hand area (arrowhead) (1). Intravenous ozagrel sodium and treatment for hypertension and diabetes mellitus improved the patient’s clinical features. Pure motor isolated finger palsy (PMIFP) mimicking peripheral neuropathy is known to be caused by cortical infarction in the precentral knob (2). Subcortical infarctions can also cause PMIFP when they involve the efferent pathway originating from the precentral knob.

The authors state that they have no Conflict of Interest (COI).

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Received for publication February 1, 2013; Accepted for publication February 13, 2013
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