Received: 20 October 2016 | Accepted: 26 January 2017

DOI: 10.1002/jgf2.95

IMAGES IN CLINICAL MEDICINE

Journal of General and Family Medicine Open Access WILEY

Isolated hemicape-like sensory disturbance caused by a cortical infarction

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KEYWORDS: homunculus, postcentral gyrus, primary sensory cortex

An 80-year-old man with essential hypertension abruptly developed sensory disturbance in the region of the neck, shoulder, upper trunk, and brachium on the left side. Regarding subjective sensory disturbance of the hemicape-like distribution, combined sensation (topognosis, two-point discrimination, graphesthesia, stereognosis, and quality extinction test) was impaired, despite spared superficial sensation (touch sensation, pain sensation, and temperature sensation) as well as deep sensation (joint sensation and vibratory sense). There were no other neurologic abnormalities. Consequently, the patient was diagnosed as having isolated hemicape-like sensory disturbance on the left side. Complete blood cell count, blood chemistry, and blood coagulation test were within normal ranges. Chest roentgenogram, electrocardiogram, transthoracic echocardiography, carotid ultrasonography and cranial magnetic resonance angiography findings were all normal. Diffusion-weighted magnetic resonance imaging of the brain demonstrated a localized infarction in the postcentral gyrus on the right side which was superior medial to the precentral knob and other cortical area (Figure 1). Because embolic stroke of undetermined source[1] or artery-to-artery embolism was the most possible diagnoses, antiplatelet agent was initiated. Thereafter, the patient became asymptomatic within 14 days.

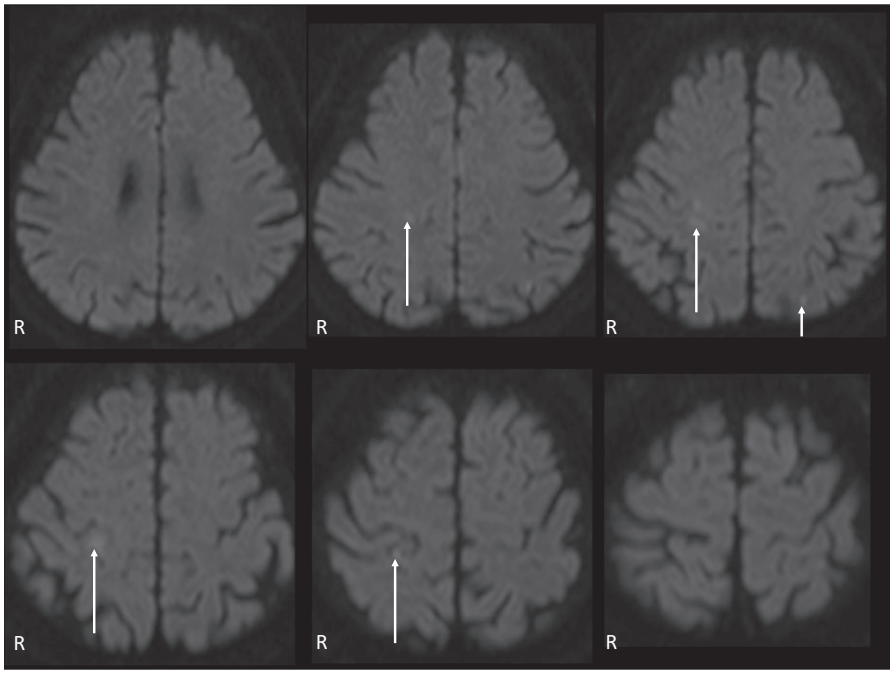

FIGURE 1 Diffusion-weighted magnetic resonance imaging of the brain demonstrated a localized infarction in the postcentral gyrus on the right side which was superior medial to the precentral knob (long arrows) and other cortical area (short arrow)

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In 1937, based on electrical stimulation of the brain surface during surgery, Penfield[2] reported that there was a broadly somatotopic representation of the different body parts in an arrangement in the primary sensory cortex. There was only one reported case of hemicape-like sensory disturbance due to a cortical infarction in the postcentral gyrus.[3] In our patient, the area corresponding to the neck, shoulder, upper trunk, and brachium might be involved in the primary sensory cortex. We emphasize that, in case of acute onset of isolated hemicape-like sensory disturbance, localized infarction in the contralateral postcentral gyrus should be suspected.

CONFLICT OF INTEREST

The authors have stated explicitly that there are no conflicts of interest in connection with this article.

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How to cite this article: Takahashi K, Aizawa Y, Ishihara M, Tsuda H. Isolated hemicape-like sensory disturbance caused by a cortical infarction. *J Gen Fam Med*. 2017;18:448–449. https://doi.org/10.1002/jgf2.95