Artery of Percheron Infarction

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Key words: stroke, thalamus, artery of Percheron

(Intern Med 52: 2007-2008, 2013)

(DOI: 10.2169/internalmedicine.52.9500)

Picture.

A 77-year-old man presented to the emergency department with an acute onset of slurred speech, right side weakness and a change of consciousness. His neurological deficit gradually deteriorated over the course of one day. He had a medical history of hypertension and diabetes mellitus, but he did not have any risk factors for an embolism, such as atrial fibrillation. Magnetic resonance image (MRI) showed symmetrical high signal intensity of fast spin-echo T2-weighted and fluid-attenuated inversion recovery (FLAIR) images in the bilateral paramedian thalami. At the same level, trace diffusion-weighted images showed high signal intensity and restricted diffusion was confirmed on apparent diffusion coefficients (ADC) maps (Picture A, B, arrows). Therefore, a diagnosis of bilateral paramedian thalamic infarction was established. His clinical condition gradually improved during the hospital stay, and he was discharged with only residual memory impairment two weeks later.

The artery of Percheron is a solitary artery trunk that arises from one of the proximal segments of the posterior

cerebral artery that feeds the bilateral thalami and midbrain. Thus, an occlusion of the artery of Percheron can cause synchronous bilateral paramedian thalamic strokes with or without midbrain involvement (1, 2). In this case, the nuclei involved were likely the right anterior nucleus, the partial ventral anterior nucleus, the left anterior nucleus, the mediodorsal nucleus and the partial ventral anterior nucleus. The change in the patient's consciousness was likely due to the infarct of the left mediodorsal and the bilateral ventral anterior nuclei in the thalamus (3). However, we could not confirm the disappearance of these lesions since no repeat MRI was performed.

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

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Received for publication December 11, 2012; Accepted for publication May 14, 2013

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