Dear Editor,

Cerebral ischemia is a common cause of transient hemiparesis. In rare cases, transient left hemiparesis occurs after convulsion or is induced by subarachnoid hemorrhage.[1] We report an extremely rare case of transient left hemiparesis due to aortic dissection.

A 75-year-old woman suddenly lost consciousness while singing in a karaoke box. The people who had accompanied her called an ambulance. She soon obtained consciousness spontaneously. When emergency medical technicians checked her, she had hemiparesis with right conjugated deviation. She was transported to our hospital by ambulance and arrived approximately 2 h after the event. She had a medical history of hypertension and cerebral infarction without sequelae, which was treated by an antiplatelet drug. On arrival, she was managed by a neurosurgeon. Her consciousness was clear. Her blood pressure was 164/100 mmHg. Her heart rate was 76 beats/min, and regular. Percutaneous saturation was 98% under room air. Both physiological and neurological studies were negative. Head computed tomography (CT) of the head showed no abnormalities, and she was discharged on foot without any neurological complications.

This is the second case of transient left hemiparesis due to aortic dissection in the English literature. The first case involved a 59-year-old man with left-sided weakness of sudden onset.[2] CT of the head showed no abnormalities, and the patient’s neurological symptoms disappeared suddenly. It was initially considered to represent a transient ischemic attack; however, the final diagnosis was Stanford type A aortic dissection. The cause of the hemiparesis in the present case was the complete occlusion of the internal carotid artery, and the transience might have been due to supplementary blood supply from the other left internal carotid and basilar arteries through Willis arterial circle. The risk factors for painless acute myocardial infarction were aging, female sex, and diabetes mellitus, which are thought to increase the threshold of pain, while aging and syncope are thought to be risk factors for painless aortic dissection, which occurred in our case.[3,4]

The most representative atypical sign of aortic dissection was left hemiparesis based on a decrease in the blood supply of the right carotid artery, which first branches off from the aortic arch.[5,6] Accordingly, physicians should evaluate aorta when treating patients with left hemiparesis, even chest or back pain is not involved.

Transient Left Hemiparesis Due to Aortic Dissection

An emergency operation was performed to replace the ascending aorta. Her postoperative course was uneventful and she was discharged on foot without any neurological complications.
Letters to Editor

Research Quality and Ethics Statement
The authors of this manuscript declare that this scientific work complies with reporting quality, formatting, and reproducibility guidelines set forth by the EQUATOR Network. The authors also attest that this clinical investigation was determined to require the Institutional Review Board/Ethics Committee review, and the corresponding protocol/approval number is (298). We also certify that we have not plagiarized the contents in this submission and have done a Plagiarism Check.

Acknowledgment
This manuscript received financial support from the Ministry of Education, Culture, Sports, Science and Technology (MEXT)-Supported Program for the Strategic Research Foundation at Private Universities, 2015-2019 concerning (The constitution of a total research system for comprehensive disaster and medical management, corresponding to wide-scale disasters).

Financial support and sponsorship
Nil.

Conflicts of interest
There are no conflicts of interest.

Figure 1: Diffusion-weighted imaging on arrival. Head magnetic resonance diffusion-weighted imaging showed no fresh ischemic lesions

Figure 2: Magnetic resonance angiography on arrival. Magnetic resonance angiography did not detect the right internal carotid artery, suggesting its occlusion

Figure 3: Enhanced thoracic computed tomography on arrival. Computed tomography reveals Stanford type A aortic dissection (arrow)

Ken-Ichi Muramatsu, Hiroki Nagasawa, Ikuto Takeuchi, Youichi Yanagawa
Department of Acute Critical Care Medicine, Shizuoka Hospital, Juntendo University, Izunokuni, Shizuoka, Japan.
E-mail: yyanaga@juntendo.ac.jp

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How to cite this article: Muramatsu KI, Nagasawa H, Takeuchi I, Yanagawa Y. Transient left hemiparesis due to aortic dissection. J Emerg Trauma Shock 2020;13:99-100.

Submitted: 06-Nov-2019. Revised: 06-Nov-2019. Accepted: 18-Nov-2019. Published: 19-Mar-2020.
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