CHEST

A 38-Year-Old Woman With Global Aphasia and Migraine

Jialei Yang, MD; Xiaoyong Huang, MD; Shimin Yin, MM; Lei Wang, MD; and Mingyang Zhou, MD

CASE PRESENTATION: A 38-year-old right-handed woman presented to the hospital with subtle right facial palsy and global aphasia of 4 days' duration. She found that she had aphasia when she suddenly woke up at midnight and reported a headache lasting for several hours. She had no fever, vomiting, seizures, or limb paralysis. She had had migraines with an occasional visual aura for > 10 years. She was not taking any medication and was a nondrinker and nonsmoker. She had no other significant medical background and family history.

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Physical Examination Findings

The patient was conscious and oriented. She had a temperature of 36.5°C, respiration of 19 breaths/min, BP reading of 105/77 mm Hg, and pulse rate of 78 beats/min. Other than the abnormal neurologic signs already mentioned, findings on general examination were unremarkable.

Diagnostic Studies

Laboratory results revealed an erythrocyte sedimentation rate of 39 mm/h (normal, 0-20 mm/h), a C-reactive protein level of 10.9 mg/L (normal, 0-10 mg/L), and a hypersensitive C-reactive protein level of 6.79 mg/L (normal, 0-3 mg/L). Other laboratory workup revealed neither coagulation disorders nor polycythemia. The lactate concentrations were normal at rest and after moderate exercise. Tumor markers and antineutrophil cytoplasmic antibody and antinuclear antibody levels were normal. The arterial blood gas analysis included the following: pH, 7.43 (normal, 7.35-7.45), $Paco_2$, 29.0 mm Hg (normal, 35-45 mm Hg), Pao_2, 80.7 mm Hg (normal, 83-108 mm Hg), and pulse oximetric oxygen saturation of 97.7% on room air.

An initial brain CT scan was negative for cerebral bleeding. Brain MRI showed an increased T1/T2 and diffusion weighted imaging/apparent diffusion coefficient signal in the left cerebral hemisphere (Fig 1). Carotid duplex ultrasonography, CT angiography, and digital subtraction angiography demonstrated no significant findings. The chest radiograph was normal. Twenty-four-hour Holter electrocardiography showed no arrhythmia. Peripheral Doppler scanning was negative for deep vein thrombosis. Transcranial Doppler ultrasonography showed that the left middle cerebral artery demonstrated microbubble signals with bubble-containing saline injection, even without a Valsalva maneuver (Fig 2).

AFFILIATIONS: From the Department of Neurology (Drs Yang, Yin, and Wang), New Era Stroke Care and Research Institute, the General Hospital of the PLA Rocket Force; the Department of Interventional Radiology (Dr Huang), and the Department of Cardiac Surgery (Dr Zhou), Beijing Anzhen Hospital, the Capital Medical University, Beijing Institute of Heart, Lung and Blood Vessel Diseases, Beijing, China.

CORRESPONDENCE TO: Jialei Yang, MD, Department of Neurology, New Era Stroke Care and Research Institute, the General Hospital of the PLA Rocket Force, 16 Xinjiekouwai Ave, Beijing 100088, China; e-mail: yjlflower1117@163.com

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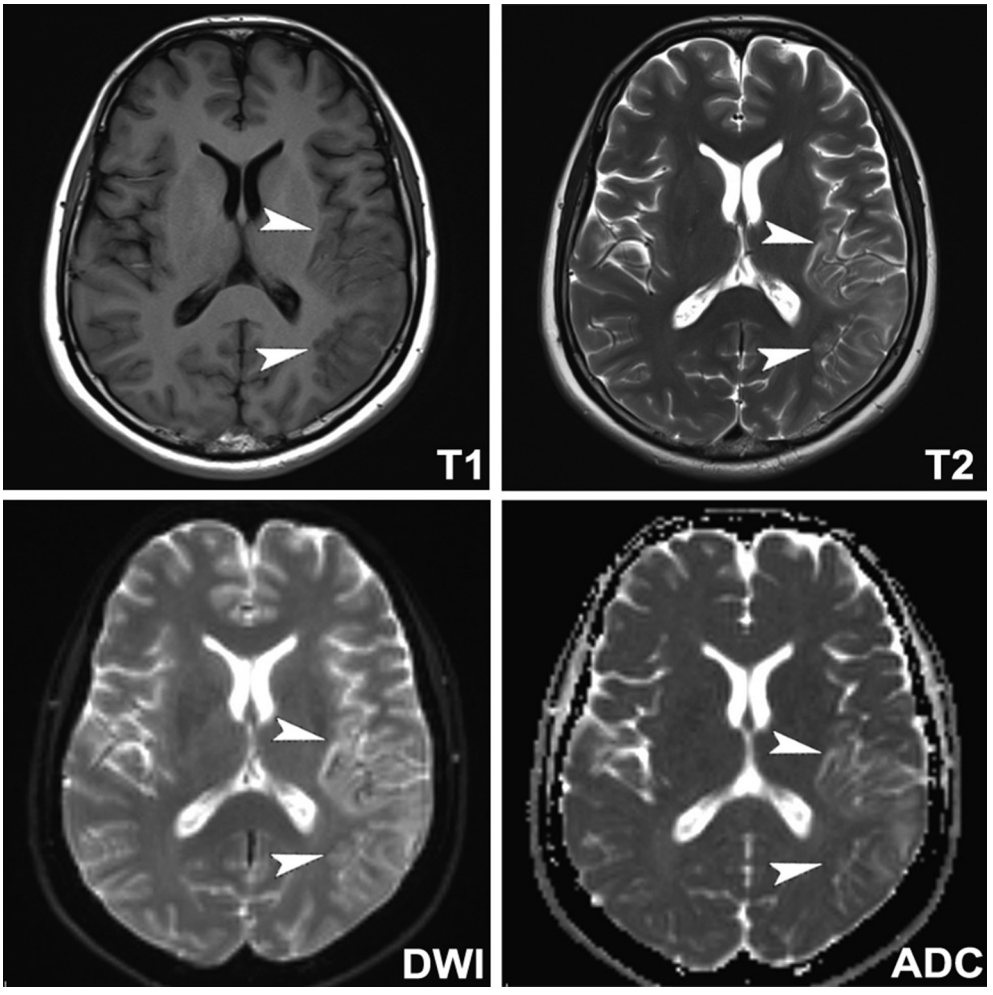

Figure 1 – *MRI of brain showed increased T1/T2 and diffusion weighted imaging/apparent diffusion coefficient signal in the left cerebral hemisphere (arrowheads). ADC = apparent diffusion coefficient; DWI = diffusion weighted imaging.*

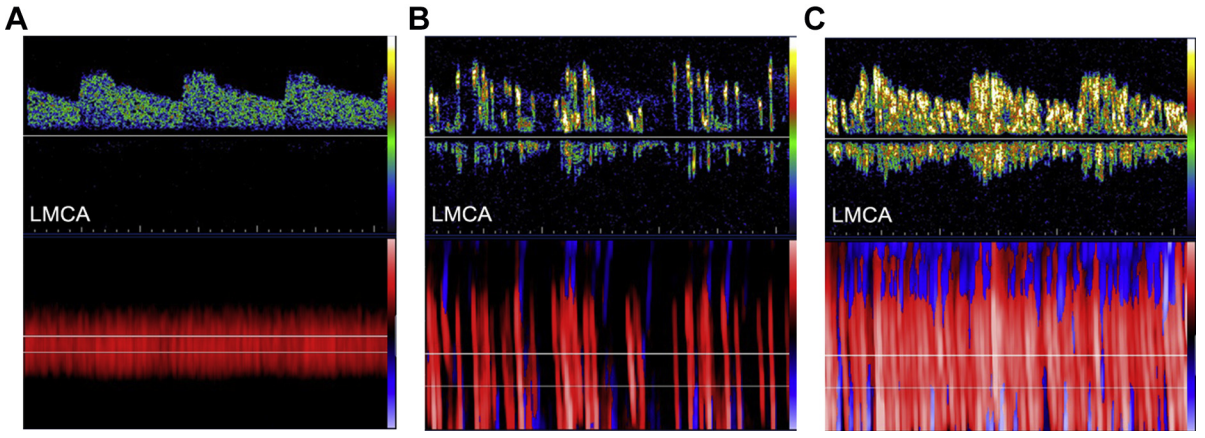

Figure 2 – *Contrast transcranial Doppler ultrasonography in left middle cerebral artery showed (A) blood flow signal without agitated saline injection, (B) several microbubble signals in normal respiration, and (C) considerable microbubble signals with Valsalva maneuver. LMCA = left middle cerebral artery.*

What is the diagnosis?