

Global aphasia in a case of bilateral frontal lobe infarcts involving both caudate nuclei

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DESCRIPTION

We report a 50-year-old man with history of systemic hypertension, nicotine addiction and a folk singer by profession was brought to the hospital with history of abrupt onset of speech arrest at the peak of a high note during his stage performance. His co-performer friend noticed that he was unable to restart his song performance despite back stage prompting. He appeared clueless and unresponsive with expressionless face all of a sudden. His

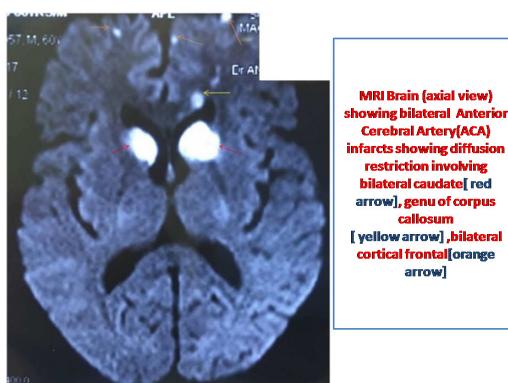


Figure 1 The diffusion-weighted imaging and apparent diffusion coefficient sequences of MRI brain axial view shows bilateral caudate, bihemispherical (left-right) cortical frontal, genu of corpus callosum diffusion restriction. MRI, magnetic resonance imaging.

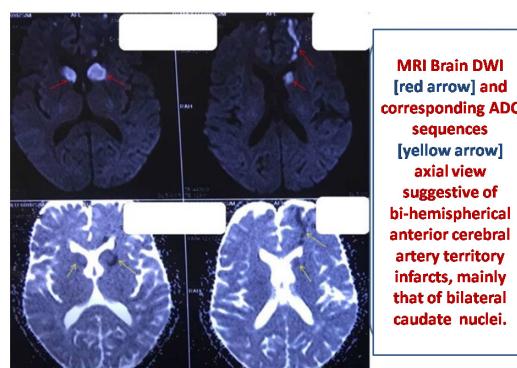


Figure 2 The diffusion-weighted imaging (DWI) and apparent diffusion coefficient (ADC) sequences of MRI brain axial view shows bilateral caudate, bihemispherical (left-right) cortical frontal, genu of corpus callosum diffusion restriction. ADC, apparent diffusion coefficient; DWI, diffusion weighted imaging; MRI, magnetic resonance imaging.



Figure 3 Magnetic resonance angiography (MRA) shows bilateral anterior cerebral arteries (A1) thrombosis.

relatives were certain that there was a dramatic change in patient's personality (from an extrovert to an introvert). The patient seemed disinterested in his surroundings. He seemed to have a 'vacant stare'. On examination, his blood pressure was 170/100 mm Hg. He was conscious, alert, but unresponsive to simple verbal commands. There was no speech output. Fundus examination showed grade 1 hypertensive retinopathy, no papilloedema. Motor functions were preserved. MRI of brain with magnetic resonance angiography (MRA) was done in view of strong possibility of cerebrovascular accident. The diffusion-weighted imaging and apparent diffusion coefficient sequences of MRI brain showed bilateral caudate, bihemispherical (left→right) cortical frontal, genu of corpus callosum diffusion restriction (figures 1 and 2). The MRA showed bilateral anterior cerebral arteries (ACA) thrombosis (figure 3). MRA indicates bilateral A1 occlusion, and infarction areas are corresponding to the territory of A1 perforating arteries. Other ACA territories are spared possibly because of collateral blood supply.

At 6-month follow-up, the patient seemed to have had very minimal improvement in his cognitive

Learning points

- Affection of bilateral caudate nuclei can manifest in different ways involving multiple cognitive domains.
- Global aphasia is a rare manifestation of bilateral caudate infarcts.



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symptoms despite good compliance to antiplatelet and antihypertensive medications.

Global aphasia is a non-fluent aphasia, which impairs both expressive and receptive language skills. It leads to severe impairment of production, comprehension and repetition of language.¹

Caudate lesions (unilateral or bilateral) can rarely manifest as global aphasia.^{2,3}

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