Unilateral upper cervical cord infarction in Opalski’s syndrome caused by spontaneous vertebral artery dissection

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We report a case of a man with concurrent unilateral upper cervical cord infarction in Opalski’s syndrome due to spontaneous vertebral artery dissection.

KEYWORDS: cervical cord infarction, Opalski’s syndrome

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Case presentation

A 32-year-old man was admitted to the emergency department with sudden onset right hemiplegia, loss of pain sensation on his right face and left limbs and neck pain. He exhibited an absence of joint position sense and vibration sense in the right limbs, along with a positive Babinski sign on the right side. Initial laboratory results and an emergency head CT scan were normal. He experienced significant muscle strength recovery following intravenous tPA therapy but developed acute urinary retention the next day. Magnetic resonance imaging (MRI) performed on hospital day 2 revealed an ischemic infarct extending from right lateral-medullary to upper cervical spinal cord (Fig 1a–d), confirming Opalski’s syndrome. MR angiography revealed occlusion of the right vertebral artery with intramural hematoma on high-resolution MRI, suggesting arterial dissection (Fig 1e, f). The patient recovered quickly following dual antiplatelet therapy and atorvastatin, and the 3-month follow-up MRI was normal.

Discussion

Opalski syndrome is a rare variant of Wallenberg syndrome accompanied by ipsilateral hemiplegia. It typically affects the lateral medullary region and may extend into the upper cervical cord.1 The lesion causing ipsilateral hemiparesis was in the lateral lower medullary or unilateral upper cervical cord, involving the corticospinal tract below the decussation.2 This syndrome is commonly associated with vertebral artery occlusion/stenosis or dissection, which affects the medullary penetrating arteries.2,3

Fig 1. Spinal cord infarction in Opalski’s syndrome due to vertebral artery dissection. (a–d) Magnetic resonance imaging (MRI) showing an ischemic infarct extending from right lateral-medullary to upper cervical spinal cord. (e,f) Magnetic resonance angiography (MRA) showing complete occlusion in the V4 segment of the right vertebral artery with intramural hematoma on high-resolution MRI, indicating arterial dissection.

The occurrence of concomitant cervical cord infarction in Opalski’s syndrome is rare and it should be distinguished from acute myelitis, spinal cord demyelinating diseases and other spinal cord disorders. Although Opalski syndrome may coexist with upper cervical cord infarction, potential benefit of intravenous thrombolysis should be considered within the therapeutic time window.6

References


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