Basilar Artery Thrombosis on Brain MRI

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Keywords

basilar artery, MRI, neuroimaging, thrombosis

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Figure 1. Brain magnetic resonance imaging (MRI) shows thrombosis in basilar artery (white arrows) on axial (left side) and coronal (right side) T2 images.

Basilar artery thrombosis is a rare cause of ischemic stroke which can cause devastating and fatal outcomes. Prodromal symptoms may include loss of vision, diplopia, dysarthria, vertigo, hemiparesis, paresthesias, imbalance, and convulsive-like movements, which may precede basilar artery thrombosis by several days or even months. Loss of the flow void on T2 brain magnetic resonance imaging (MRI) sequences is an early sign of basilar artery thrombosis.^{1,2}

A 42-year-old man with hypertension and a history of coronary artery bypass surgery was admitted to our hospital with vomiting, vertigo, disequilibrium, and drowsiness, beginning 1 week before admission. On initial examination, he was drowsy with limited speech, just uttering single words. He had gaze-evoked nystagmus, weakness in all limbs, and ataxia on

finger-nose-finger and heel-knee-shin movements on both sides. Plantar reflexes were upgoing bilaterally. Two days after admission, he went into a deep coma with loss of brain stem reflexes. On the third day, he died after a cardiac arrest. Brain MRI shows hyperintensities in the pons and both cerebellar hemispheres as well as a thrombosis in the basilar artery (white arrows) on axial (left) and coronal (right) T2 images (Figure 1). Brain MRI is not only a good diagnostic tool for assessment of the territory and size of infarction but also can be useful for the evaluation of blood vessels, even in the absence of dedicated angiographic sequences.

Authors' Note

Mahdi Safdarian contributed to critical revision of the manuscript for important intellectual content. Mohammad Rohani contributed to study concept and design, interpretation, and primary drafting.

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