



ORAL PRESENTATION

Vertebral artery occlusion with distal ischaemia of posterior inferior cerebellar artery territory: two clinical cases and imaging correlations

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Abstract

Introduction: Stroke is the commonest etiology of neurological focal deficits and ischaemic events are the most frequent stroke cause. The vertebrobasilar territory represents approximately 20% of all ischemic strokes. Vertebral artery (VA) occlusion results in ischaemia of the posterior inferior cerebellar artery (PICA) territory, which causes lateral medulla and cerebellum damage. In elderly patients, local atherothrombosis is the most common etiology.

Case Report: A 71-year-old female patient and a 77-year-old male patient with previous history of hypertension, presented at the emergency department with a history of sudden onset of headache, nausea, vomiting, dizziness and unsteadiness of stance and gait. The neurological examination disclosed the presence of dysmetria, right dysdiadochokinesia and ataxic gait. Cranial Computed Tomography (CT) showed a cortico-subcortical paramedian hypodensity in the pos-

teroinferior region of the right cerebellar hemisphere, in both cases. Cervical and transcranial ultrasonography revealed characteristic spectral waves of right vertebral artery occlusion, with retrograde flow through V4, in both patients. CT angiography confirmed an occlusion of the V2-V4 segment of the right VA. Antiplatelet therapy was started in both patients and vascular risk factors controlled. A rehabilitation program was started during hospitalization and continued after discharge.

Conclusion: Vertebral artery atherothrombosis usually results in a slow and progressive manifestation of symptoms. In these cases, there was a sudden onset of neurological deficits. However, the symptoms reflected ischaemia of distal PICA territory, instead of a full syndrome after a sudden occlusion. The left VA likely provided sufficient retrograde flow through the V4 segment of the right VA to preserve medullary supply.

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