<u>Title:</u> Severe Bilateral Vertebral Arterial Disease Masquerading as Vertigo

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Abstract:

Vertebral artery stenosis (VAS), manifesting as vertebrobasilar insufficiency (VBI), results from the narrowing of the vertebral artery's lumen due to diverse vascular pathological processes, leading to various clinical presentations. We present the case of a 71-year-old male who experienced vertigo for almost two years and was ultimately diagnosed with severe bilateral vertebral artery stenosis. Despite initial management for vertigo, the patient's symptoms persisted, prompting referral to a cardiologist. Several assessments were performed, including an MRI of the brain which ruled out acute intracerebral hemorrhage or infarction. After some visits to the cardiologist's office, the patient was referred to a neurologist who conducted an magnetic resonance angiography (MRA) of the neck which showed occlusion of the left vertebral artery at the origin and a patent right vertebral artery. Due to worsening symptoms of vertigo and the results of the MRA, the patient underwent invasive angiography which confirmed the occlusion of the left vertebral artery and also revealed severe stenosis of the right vertebral artery. This case report discusses an unusual presentation of vertebral artery stenosis with vertigo as the primary symptom, emphasizing the importance of recognizing seemingly minor symptoms as manifestations of underlying vascular pathology that requires careful evaluation. Furthermore, this case emphasizes the limitation of relying solely on non-invasive imaging for diagnosis as, in this instance, non-invasive imaging failed to detect the severe stenosis of the right vertebral artery, which was revealed by invasive angiography. Finally, this case report underscores the significance of collaboration across several disciplines, such as cardiology, neurology, and radiology, as well as endovascular medicine in diagnosing and managing atypical manifestations of complex conditions.