Syncope and Seizure: Atypical Presentations of Aortic Dissection

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Case Report

A 60-year-old female with hypertension, dyslipidemia, and diabetes on medical management with a 20-pack-year smoking history attended a general internal medicine clinic for multiple syncopal episodes and intermittent chest pain. One witnessed episode was characterised by nystagmus and a post-ictal state concerning for seizure. Examination revealed an aortic regurgitation murmur, and a transthoracic echocardiogram (TTE) (Figure 1) ordered to investigate for cardiac causes of syncope revealed mild-to-moderate aortic regurgitation, marked ascending aortic dilatation and a linear structure, also seen in CT angiogram (Figure 2) suggestive of a dissection flap in the ascending aorta. She was transferred to

Figure 1. Trans-thoracic echocardiogram demonstrating marked ascending aorta aneurysm and a linear structure (labeled A) suggestive of a dissection flap.

Figure 2. Contrast-enhanced CT of the aorta identifying ascending aortic aneurysm and a linear structure (blue arrow) suggestive of a dissection flap.
Aortic dissection (AD) is a life-threatening condition that commonly presents with severe chest pain and hypotension, but 5–10% of cases experience syncope.¹ Aortic dissections are classified by the Stanford system with type A aneurysms involving the ascending aorta and type B aneurysms involving the descending aorta.² Eighty percent of patients with AD presenting with syncope have concurrent cardiac tamponade, unlike ours, and loss of consciousness can indicate stroke or proximal dissections limiting cerebral blood flow.² A literature review revealed only 4 other cases of proximal AD with seizure-like activity.³⁴ Risk factors for AD include older age, male sex, hypertension, connective tissue disorders, and aortic aneurysm.¹ Women with AD are older and present more frequently with congestive heart failure, coma or altered mental status.¹ TTE offers a rapid, non-invasive first-line assessment of the aortic root and proximal ascending aorta but cannot exclude a diagnosis of AD.¹ Contrast-enhanced CT of the aorta can determine the presence of AD and can create complete 3D datasets of the entire aorta (Figure 3).¹ The management of type A AD is surgical repair, while the management of type B AD is medical optimisation of blood pressure and analgesia.¹²

References


