Asymptomatic submitral aneurysm: an uncommon complication of a common disease

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DESCRIPTION

A 60-year-old lady with type 2 diabetes was diagnosed with tuberculous pericardial effusion, and initiated on antitubercular therapy with isoniazid (300 mg oral), rifampicin (600 mg oral), pyrazinamide (1250 mg oral) and ethambutol (800 mg oral) along with prednisolone (60 mg oral). On follow-up, transthoracic echocardiography confirmed resolution of pericardial effusion. A submitral aneurysm measuring 2.2×1.8 cm was visualised just below the posterior mitral leaflet, and confirmed by transesophageal echocardiography. As the patient was asymptomatic and there was no evidence of mitral regurgitation, it was decided to keep her on regular follow-up (figure 1). Two years later she continues to be asymptomatic, with no echocardiographic evidence of disease progression.

Submitral aneurysms occur predominantly as congenital cardiac anomalies in indigenous Africans.¹ Three anatomical types have been described, characterised respectively by a single localised neck, multiple necks and involvement of the entire posterior mitral annulus.¹ Presence of a structurally weak membranous submitral curtain has been proposed as a precursor to development of these aneurysms.² Clinical presentations include cardiac failure consequent to associated mitral regurgitation, angina due to compression of the left coronary artery and thromboembolism.³ Symptomatic patients require surgical correction of the aneurysm with mitral valve replacement.⁴

Acquired submitral aneurysms have been previously reported in association with rheumatic

carditis and tuberculosis.¹ Our case lends further support to the role of tuberculosis in the pathogenesis of submitral aneurysms. Physicians should be aware of this unusual complication of tuberculosis as well as the possibility of underlying tuberculosis in non-African patients diagnosed with this anomaly.

Learning points

- ▶ Submitral aneurysm is a rare but recognised complication of tuberculosis.
- ▶ Although typically manifested by heart failure, angina or embolic episodes, submitral aneurysms can be asymptomatic.
- ▶ Submitral aneurysms are rare in individuals of non-African ethnicity; when detected, they should immediately raise a suspicion of underlying tuberculosis.

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Competing interests None.

Patient consent Obtained.

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Figure 1 Transthoracic echocardiography parasternal long axis (A) and 4-chamber view (B) showing the submitral aneurysm (arrow) in relation to the mitral valve. AN, submitral aneurysm; Ao, aorta; LA, left atrium; LV, left ventricle; RA, right atrium; RV, right ventricle.

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