

Incidental finding of an intrapericardial echogenic mass in a non-ST elevation myocardial infarction: harmless or not?

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Intrapericardial echogenous masses are occasionally detected incidentally during routine echocardiographic exam. Ectatic coronaries are rare, usually involve one vessel and are segmental in distribution.¹

A 43-year-old man was admitted with sudden typical chest pain and diagnosed as having a non-ST elevation myocardial infarction. The patient was stable on admission; heart rate 80 b.p.m., blood pressure 120/70 mmHg, and O₂ saturations 98% on room air. Past medical history was positive for diabetes, dyslipidaemia, hypertension, and smoking. Blood screening showed normal values except raised troponin level. Electrocardiogram demonstrated sinus rhythm with normal axis; no ST segment changes, but T wave inversion in lateral leads was visible; chest X-ray indicated no pathological variables.

Transthoracic echocardiography revealed a heterogenous, 2 × 2.1 cm, circular in cross section echogenous mass in the atrioventricular groove, situated within the pericardial sac (Figure 1A and B). We performed X plane cross sectional views in order to help identify the content of the mass. Left ventricular systolic function was mildly decreased—basal inferolateral segment and basal inferior wall were akinetic; mid-anteroseptal, mid-inferolateral, basal anterolateral, mid-inferior and basal inferoseptal segments were severely hypokinetic. Coronary angiography revealed severe coronary artery ectasia involving all three vessels (Figure 2). In this context, identification of the heterogenous circular echogenous mass was relatively straight forward depicting a partially thrombus filled circumflex artery in the atrioventricular groove cross cut. The patient underwent successful coronary artery bypass grafting with uncomplicated postoperative recovery. In accordance with ESC guidelines, he was discharged on long-term warfarin therapy considering ongoing risk of coronary artery thromboembolism secondary to ectatic native coronary arteries.²

Severely ectatic coronaries, especially involving the complete coronary system are relatively uncommon, but might be missed on

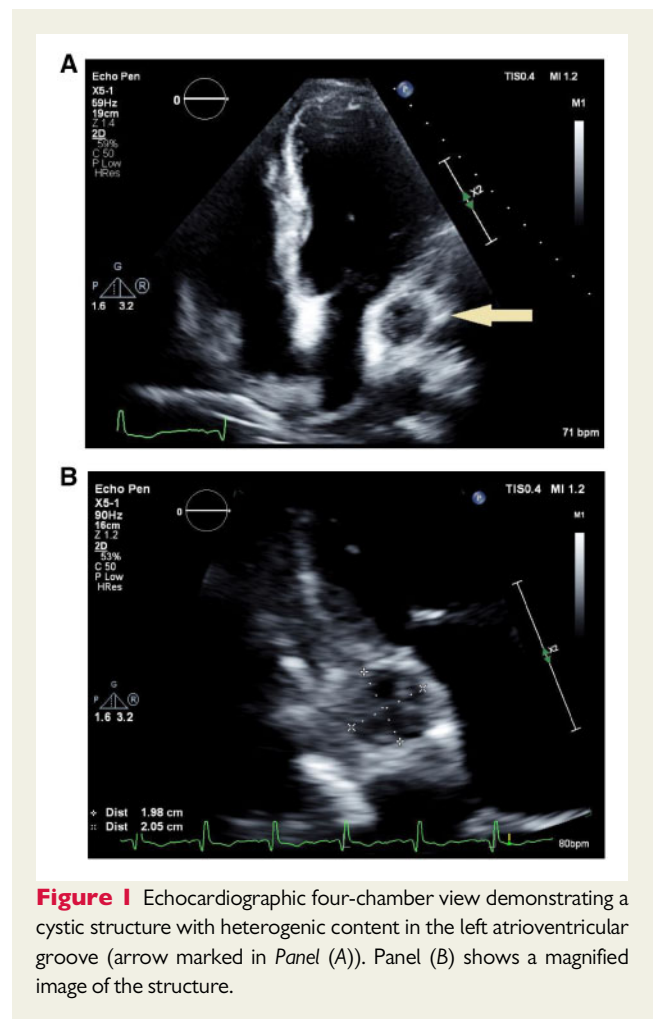


Figure 1 Echocardiographic four-chamber view demonstrating a cystic structure with heterogenic content in the left atrioventricular groove (arrow marked in Panel (A)). Panel (B) shows a magnified image of the structure.

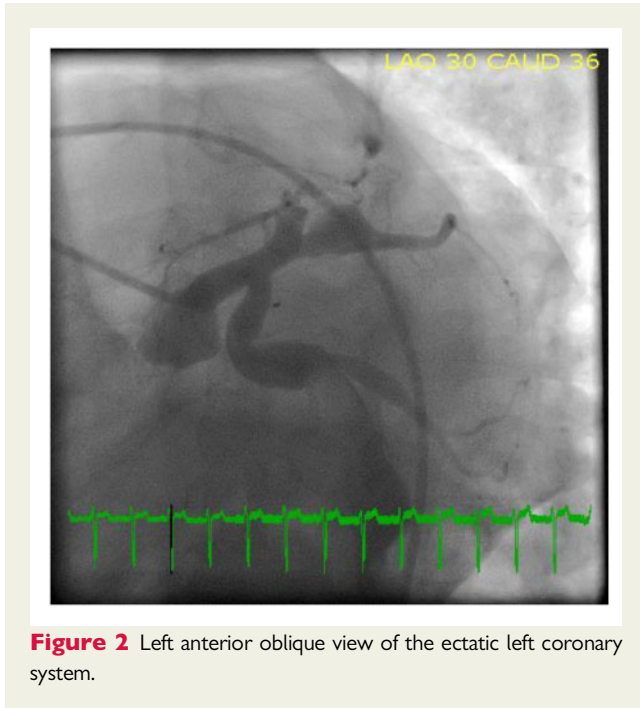
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routine echocardiography categorizing them as harmless extracardiac cysts. Even in asymptomatic patients, ectatic segments predispose patients to distal coronary ischaemia due to thromboembolism secondary to low flow within the arteries.³ Furthermore, even without atherosclerotic disease, ectatic coronaries may sustain spasm, intimal damage, and development of extensive thrombosis. Therefore, anticoagulation with warfarin is indicated indefinitely combined with antiplatelet therapy, even after bypass surgery.²

Consent: The author/s confirm that written consent for submission and publication of this case report including image(s) and associated text has been obtained from the patient in line with COPE guidance.

Conflict of interest: none declared.

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