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An 'uninvited guest' from the past: echinococcosis of the pericardium

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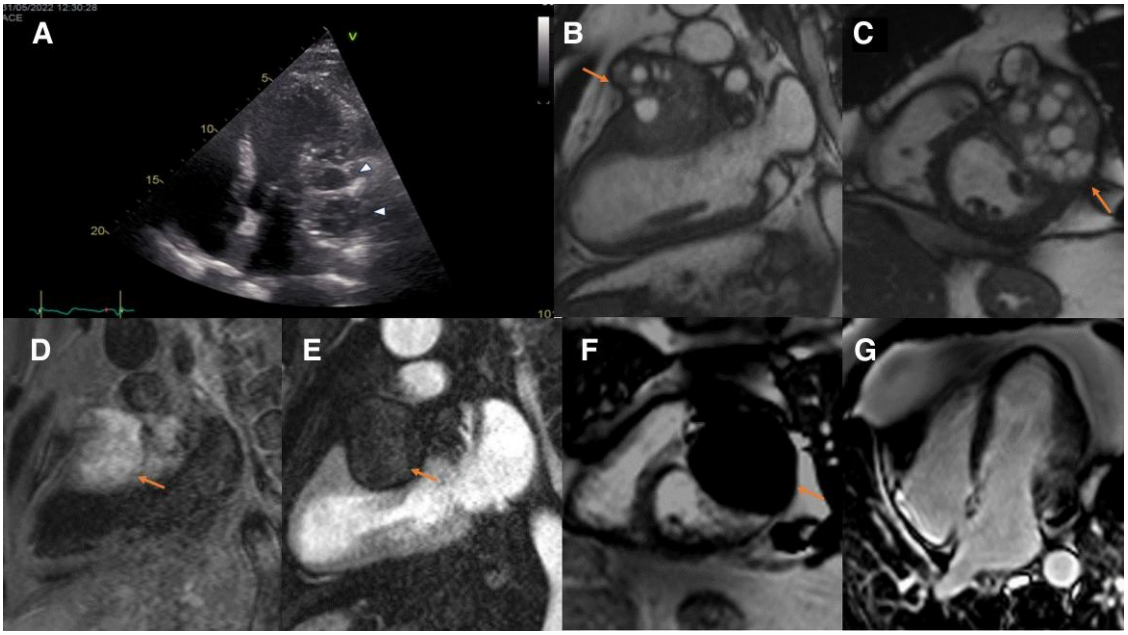

A 66-year-old Caucasian male presented to the cardiology emergency department complaining of substernal heaviness on exertion since 1 week. His past medical history was notable only for arterial hypertension and dyslipidemia and free from any cardiovascular event or any other systemic disease. The patient also mentioned that a simple cyst was incidentally found by ultrasonography in the right lobe of liver since he was 2-years-old but no other work up nor intervention was done thereafter.

The physical examination was normal, and a mild eosinophilia was only detected in the initial laboratory testing. The electrocardiogram revealed sinus rhythm with the presence of T wave inversion in the leads I, II, aVL and V5-V6 (see Supplementary material online, *S1*). Transthoracic two-dimensional echocardiography showed a dilated left ventricular with preserved ejection fraction and a large cystic mass lesion located in the pericardium adjacent to the left ventricle anterolaterally (*Panel A*). Further examination with cardiac magnetic resonance (CMR) imaging demonstrated an asymmetrical calcified cystic lesion (7.7 cm × 4.8 cm × 5.6 cm) adjacent to the antero-lateral aspect of left ventricle, with multiple 'daughter' cysts demonstrating a 'honeycomb' appearance (balanced steady state free precession, bSSFP 2-chamber and short axis, *Panel B* and *C*). T2-STIR imaging demonstrated high signal intensity of the mass suggesting water content (*Panel D*). Both early (*Panel E*) and late gadolinium enhancement imaging (*Panel F* and *G*) were negative for contrast uptake by the mass.

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The diagnosis of cardiac echinococcosis was verified with serological blood test with ELISA. Under the light of these findings, the patient was treated with 1 month of albendazole treatment and surgical removal of the pericardial echinococcus cyst was planned after discussion with the heart team.

Echinococcosis consists one of the most common parasitic infections. Although the involvement of heart and pericardium is rare, it is considered as a life-threating condition due to the high-risk of cyst rapture. Imaging modalities such as echocardiography, computer tomography and CMR combined with serology test findings have a crucial role for the diagnosis of the disease. Surgical resection of the cyst combined with anthelmintic treatment are considered the optimal approach to mitigate risk and optimize outcomes for those patients.

Supplementary material

Supplementary material is available at *European Heart Journal – Case Reports* online.

Consent: The authors confirm that written consent for submission and publication of this cardiovascular flashlight including images and associated text has been obtained from the patient in line with COPE guidance.

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