SHORT CASES IN CARDIOLOGY

Bronchogenic cyst mimicking an intracardiac mass: diagnosis by magnetic resonance imaging and treatment by needle aspiration

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A 31 year old man was admitted because of dyspnoea during exercise and paroxysmal atrial fibrillation. A grade 2/6 early diastolic murmur was heard along the lower left sternal border. The chest x ray showed a large left atrium. Cross sectional echocardiography (fig 1) in several projections, supplemented by trans-oesophageal echocardiography, however, showed no signs of mitral valve disease. Instead a round structure was seen projecting into the left atrium. Magnetic resonance imaging (MRI) (fig 2) showed a large (5 × 7 × 9 cm) mass with a smooth margin. The mass was compressing the left atrium, the oesophagus, and the large vessels. It had an intermediate signal intensity on T1 weighted spin-echo images and a high signal intensity on T2 weighted spin-echo images. These MRI findings and the site are specific for the diagnosis of bronchogenic cyst.

Others have reported on the diagnostic importance of MRI in patients with suspected atrial tumours.^{1,2} The location of the cyst and the compression of the left atrium explained the diastolic rumble, the arrhythmia, and the suspicion of a large left atrium on the chest x ray. Many different symptoms such as cough and dysphagia have been reported, but there are no other reported cases of bronchogenic cysts with cardiac symptoms mimicking mitral stenosis.

Because bronchogenic cysts are benign, needle aspiration is often sufficient.^{3,4} Most bronchogenic cysts remain empty after aspiration, although there is a report of a cyst recurring.⁵ In our patient needle aspiration of the cyst was

Figure 1 Cross sectional echocardiography (parasternal long-axis view) showing a round structure (C, cyst) in the left atrium (LA). LV, left ventricle; Ao, aorta.

performed through a bronchoscope with a rigid tube. Serous fluid (100 ml) was aspirated and his symptoms disappeared. This patient has now remained free of symptoms for three years and repeated MRI scans have shown no recurrence of the cyst.

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Figure 2 Coronal T1-weighted spin-echo MRI image. (A) Cyst (C) located between the right pulmonary artery (PA) and left atrium (LA). (B) The same image after needle aspiration of the cyst. AO, aorta; VCS, superior vena cava; PV, pulmonary vein.