Bronchogenic cyst compressing the superior vena cava and the left atrium


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The patient was a 42-year-old male, who visited the hospital after he became aware of exertional dyspnoea. There were no abnormal physical findings. Transthoracic echocardiography indicated the presence of an 84 × 75 mm mass with homogeneous echogenicity, which was adjacent to the left atrium (Panel A: apical four-chamber view, Supplementary data online, Video S1; Panel B: parasternal short-axis view, Supplementary data online, Video S2). Transoesophageal echocardiography showed a round mass compressing the left atrium and the superior vena cava. No blood flow was detected within the mass (Panel C: midoesophageal bicaval view 90°; Supplementary data online, Video S3; Panel D: midoesophageal aortic valve short-axis view 45°; Supplementary data online, Video S4). Contrast-enhanced chest computed tomography showed that it was an 88 × 87 × 92 mm cyst without contrast enhancement that exhibited marginal calcification and compressed the left atrium (Panels E and F). T2-weighted magnetic resonance imaging showed a high-signal intensity (Panel G: T2-weighted image), and T1-weighted image showed a slight high-signal intensity (Panel H: T1-weighted image). These findings suggested that the mass might be a bronchogenic cyst. Cyst drainage was performed surgically, and the cyst was found behind the right atrium and the superior vena cava (Panel I). Approximately 400 mL of opaque and odourless serous fluid was collected by cyst paracentesis (Panel J). Based on the pathological findings, the patient was diagnosed as having a bronchogenic cyst. The patient is doing well without clinical evidence of recurrence at the 3-year follow-up.

Supplementary data are available at European Heart Journal – Cardiovascular Imaging online.

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