An unexpected pre-operative diagnosis

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This is a case report of a patient presenting with breathlessness who was thought to have suspected systemic lupus erythematosus, but was actually diagnosed with an atrial myxoma. It shows how cardiac pathology can be easily misdiagnosed as suspected pulmonary pathology and serves as a reminder to clinicians when investigating a patient with breathlessness. It also raises the question as to which patients should undergo routine pre-operative echocardiography before thoracic surgery.

Keywords

Atrial myxoma • Pre-operative echocardiography • Thoracic surgery

We present a case of a 43-year-old female who was scheduled for an elective video-assisted thoracoscopic lung biopsy for suspected systemic lupus erythematosus. She gave a history of increasing shortness of breath over several months. Examination, chest X-ray, and computed tomography were unremarkable except for a resting sinus tachycardia confirmed on the electrocardiogram. However, a transthoracic echocardiogram was performed due to the positional nature of the breathlessness. This investigation revealed a large tumour in the left atrium obstructing the diastolic transmitral flows and producing flow pattern similar to those seen in mitral stenosis. During the same day the surgery was rescheduled as removal of a left atrial tumour and was uneventful. The histology confirmed a myxoma. During the post-operative follow-up at 6 months, she remains well.

Figures 1 and 2 show intraoperative transoesophageal echocardiographs, 2D and colour flow Doppler four-chamber view illustrating the mitral flow obstruction by a large left atrial mass attached to the interatrial septum (see Supplementary data, Movie).

This case is an illustration of an intracardiac mass, producing mitral stenosis pathophysiology, which was interpreted as

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primary pulmonary pathology. It also raises the question which patients scheduled for thoracic surgery should undergo routine echocardiography? Transthoracic echocardiography is readily available in all hospitals undertaking major surgery. It is a cheap non-invasive investigation that gives important information on right and left heart function, regional wall motion abnormalities indicating coronary artery disease, valvular function, and the presence or absence of pulmonary hypertension. It will also on occasion, as in this case, identify cardiac pathology masquerading as pulmonary pathology.

**Supplementary data**

Supplementary data are available at *European Journal of Echocardiography* online.