A novel approach for a novel combination: a trans-septal biopsy of left atrial mass in recurrent phyllodes tumour

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A 69-year-old female with a previous hemisternectomy for recurrent phyllodes tumour was referred for echocardiography because of progressive dyspnoea, orthopnea, and a diastolic mitral rumble on auscultation. Transthoracic echocardiography revealed a large left atrial mass. Although a diagnosis of myxoma was likely, there was concern that this was a cardiac metastasis. A tissue diagnosis was mandatory before further thoracic surgery could be considered. This was obtained via a trans-septal puncture using transoesophageal echocardiographic guidance. Histology confirmed a diagnosis of myxoma, and our patient underwent successful surgery. This case highlights the importance of obtaining accurate tissue diagnosis and of excluding metastatic disease in patients with a cardiac mass and a history of tumour, prior to deciding whether surgical excision is warranted.

KEYWORDS
Myxoma; Phyllodes tumour; Trans-septal biopsy; Trans-oesophageal echocardiography

Case report
A 69-year-old female presented with progressive dyspnoea, orthopnea, and fatigue. She had a loud S1 and diastolic mitral rumble on auscultation. There was a discharging sinus over her lower sternum at the site of previous right hemisternectomy and prolene mesh repair for recurrent phyllodes tumour. A transthoracic echocardiogram revealed a large left atrial mass (4.2 x 2.7 cm) (Figure 1 and see Supplementary data, movies 1 and 2). Although a diagnosis of myxoma was likely, there was concern that this was a cardiac metastasis. A tissue diagnosis was therefore essential before further thoracic surgery could be considered.

A biopsy was performed via a trans-septal puncture with transoesophageal echocardiographic guidance. Histology confirmed the diagnosis of myxoma and given the potentially curative procedure, the increased risk of surgery was accepted. The myxoma was excised via a left hemisternal incision, avoiding the site of previous surgery. A 5-mm defect was identified in the inter-atrial septum, probably representing the site of trans-septal puncture during the biopsy and this was closed. Our patient underwent an uncomplicated post-operative recovery. One year later she remains well with no recurrence on echocardiography.

Comment
Primary cardiac tumours are rare with an incidence of 0.02% in patients at autopsy.1 The majority of tumours are benign. Atrial myxomas are the most common primary cardiac tumours, accounting for between 30 and 50% of all primary cardiac tumours, with ~75% occurring in the left atrium.
atrium. Although histologically benign, myxomas can have potentially fatal consequences secondary to embolization or intracardiac obstruction.

Phyllodes tumour, or cystosarcoma phyllodes, is a rare, locally aggressive and recurrent tumour that accounts for ~1% of breast tumours. While metastases are uncommon, cardiac involvement can occur.

We believe that this is the first reported case of myxoma in a patient with recurrent phyllodes tumour. Cardiac metastases are significantly more common than primary cardiac tumours. This case highlights the importance of obtaining accurate tissue diagnosis and of excluding metastatic disease in patients with a cardiac mass and a history of tumour, prior to deciding whether surgical excision is warranted.

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

References