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# A FAST-GROWING MYXOMA OF THE LEFT ATRIUM

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## ABSTRACT

*Introduction:* Myxoma of the left atrium is a less typical cause of mitral obstruction. If this develops, a flash pulmonary oedema can be the first manifestation.

*Case description:* We present a case report of a 50-year-old woman who was admitted to our internal department because of dyspnoea. The patient overcame a stroke three years before the index hospitalisation with a negative transthoracic echocardiography. By anamnesis and physical examination, an exacerbation of COPD was assumed, and the patient was treated accordingly. As the patient showed numerous risk factors for heart failure with preserved ejection fraction, transthoracic echocardiography was performed. A large polypoid mass was found in the left atrium, which caused severe mitral obstruction. Subsequent transoesophageal echocardiography confirmed this finding. The patient underwent urgent cardiac surgery, and the tumour was successfully resected. A histological examination revealed a cardiac myxoma. After the cardiac surgery the patient felt well, and no recurrence of the tumour occurred.

*Conclusions:* We provide a case report of a fast-growing myxoma that was incidentally found in a patient with dyspnoea. We highlight the fast growth rate of the tumour and the potential for misdiagnosed signs of pulmonary oedema caused by mitral obstruction.

## KEYWORDS

Mitral stenosis, heart tumour, pulmonary oedema, cardiac surgery, cardiac mass

## LEARNING POINTS

- Myxomas are the most common primary tumours of the heart, which can manifest a variety of symptoms such as fever, weight loss, thromboembolism, or mitral obstruction.
- The symptoms of acute exacerbation of COPD and cardiogenic pulmonary oedema can overlap and can be difficult to differentiate by anamnesis and physical examination alone.
- Transthoracic echocardiography has a high sensitivity for cardiac masses and is the examination of choice when these are suspected.

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## INTRODUCTION

Myxoma is the most common primary tumour of the heart, most frequently affecting the left atrium. Symptoms vary from systemic thromboembolism and signs of mitral obstruction to less apparent symptoms such as weight loss[1]. We provide a well-documented case report of a fast-growing myxoma of the left atrium causing mitral obstruction.

## CASE DESCRIPTION

A 50-year-old woman with obesity, arterial hypertension, and chronic obstructive pulmonary disease (COPD) was admitted to our department because of dyspnoea. She overcame a stroke three years before the index hospitalisation. A transthoracic echocardiography (TTE) was done at that time without any significant pathological finding. On admission, the patient had dyspnoea at rest, the saturation of oxygen was decreased and wheezing sounds could be heard on both sides of the chest. An exacerbation of COPD was assumed, and the patient was treated accordingly by empiric antibiotics, corticosteroids, and bronchodilators. After the treatment, the dyspnoea ceased. She underwent a spirometry test, which found a severe obstructive ventilatory defect. We proceeded with a TTE as the patient had several risk factors for heart failure with preserved ejection fraction.

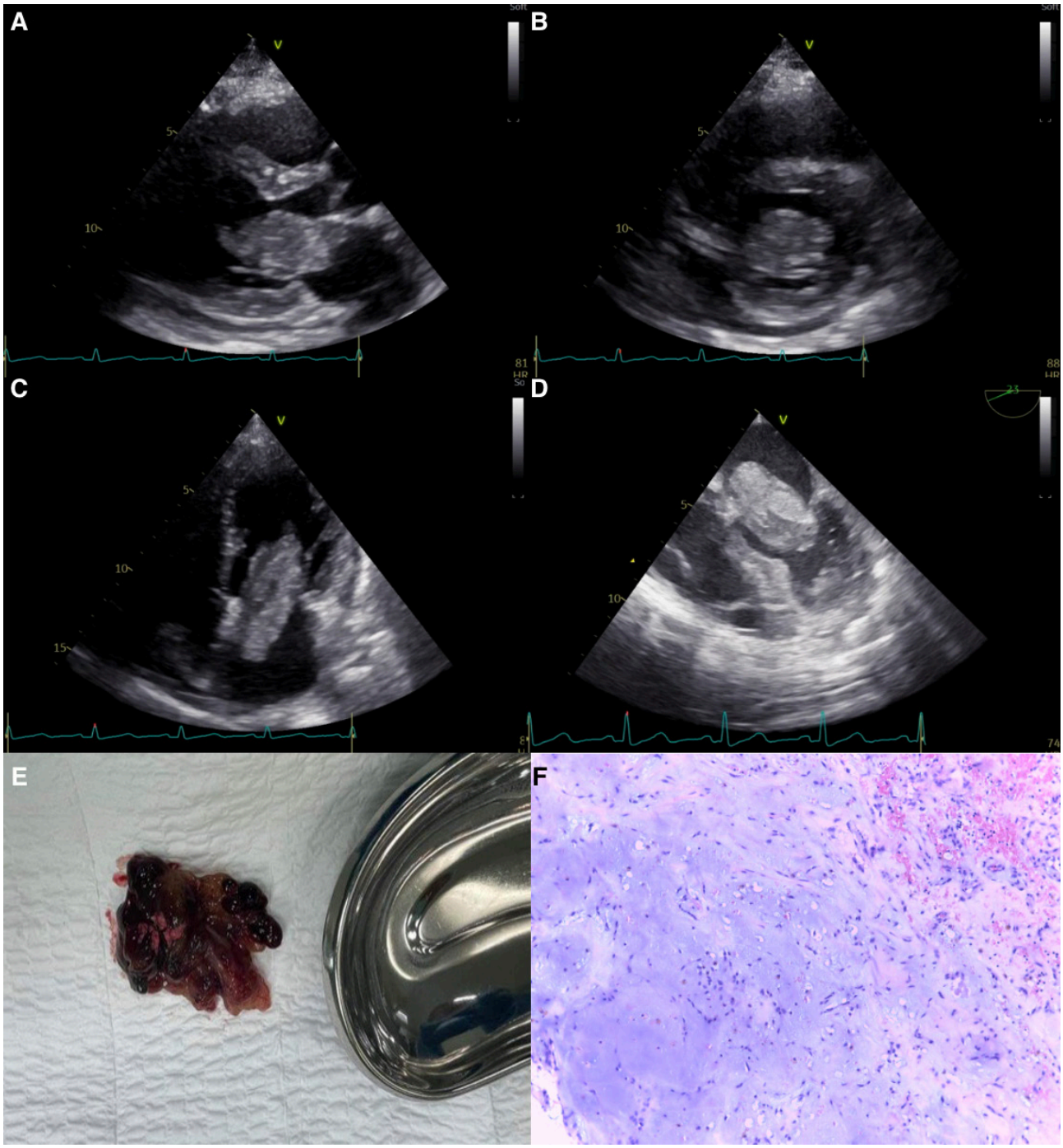


*Figure 1. Figure showing the echocardiographic, surgical, and histological findings: A) transthoracic echocardiography parasternal long-axis view; B) transthoracic echocardiography parasternal short-axis view; C) transthoracic echocardiography apical four-chamber view; D) transoesophageal echocardiography mid-oesophageal four-chamber view; E) the tumour after resection; F) haematoxylin and eosin-stained histology of the tumour.*

The TTE uncovered a large polypoid tumour (6 × 4 × 2 cm) of the left atrium, causing severe mitral obstruction *(Fig. 1A-C)*. A transoesophageal echocardiography confirmed the finding *(Fig. 1D)*. The patient underwent urgent cardiac surgery with median sternotomy, and the tumour was removed *(Fig. 1E)*. The following hospitalisation was uneventful, and the patient was discharged after a few days. The histological examination diagnosed a cardiac myxoma *(Fig. 1F)*. There were no signs of tumour recurrence during subsequent out-patient visits, and the patient was well.

## DISCUSSION

The growth rate of cardiac myxomas needs to be better established. Several case reports provide data that show that the myxoma growth rate could be underrated[2,3]. We approximate the growth rate in our patient at 0.16 cm per month. Urgent cardiac surgery was performed on our patient with a satisfactory outcome, preventing further deterioration of mitral obstruction and subsequent adverse sequelae. The finding of the myxoma was incidental, as a COPD exacerbation caused the main symptoms, although a recent case report described a left atrial myxoma masquerading as cough syndrome, and cardiac asthma has similar auscultation findings to COPD exacerbation[4].

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