LEFT ATRIAL MYXOMA : THREE CASE REPORTS

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SUMMARY

The left atrial myxoma is important not only because of its relative frequency and diagnostic difficulty but because it can be successfully removed by surgery. However, if untreated, it invariably leads to death. We report three cases seen at the Cardiology Department, General Hospital, Kuala Lumpur in 1985.

INTRODUCTION

The object of this report is to demonstrate the variability of the clinical presentation and to appreciate the appropriate investigations to arrive at a correct diagnosis.

CASE HISTORY

Case 1

Case 1, a 33-year-old Chinese housewife, was detected to have a heart murmur after delivery of her first child on 5 February 1985. She was relatively well except for dyspnoea on moderate exertion for about a year's duration. Auscultation revealed a soft ejection systolic mumur at the left sternal edge which was initially thought to be "functional" in nature. The haematological findings were normal; chest X-ray and ECG were unremarkable.

An M-mode echocardiogram showed abnormal, wavy, interrupted echoes posterior to the anterior leaflet of the mitral valve in ventricular diastole. The E-F slope was also reduced (Fig. 1).

A mobile, globular mass measuring 4 x 4 cm was seen in the left atrium on two-dimensional echocardiography (2-D Echo). It appeared to be attached to the inter-atrial septum and protruded into the left ventricle in diastole. Cardiac catheterization showed normal pressures and O_2 saturation.

A mobile spherical filling defect in the left atrium was seen on angiocardiogram.

Surgery was performed on 18 March 1985. A single globular tumour measuring 5 cm diameter attached to the inter-atrial septum was removed. This was confirmed to be an atrial myxoma on histological examination. Her post-operative recovery was uneventful – no murmurs were heard and the echocardiographic findings had reverted to normal (Fig. 2).

Case 2

Case 2, a 16-year-old Malay female, presented with a history of palpitation and dizziness with impending syncope. She also complained of a progressive deterioration in effort tolerance over

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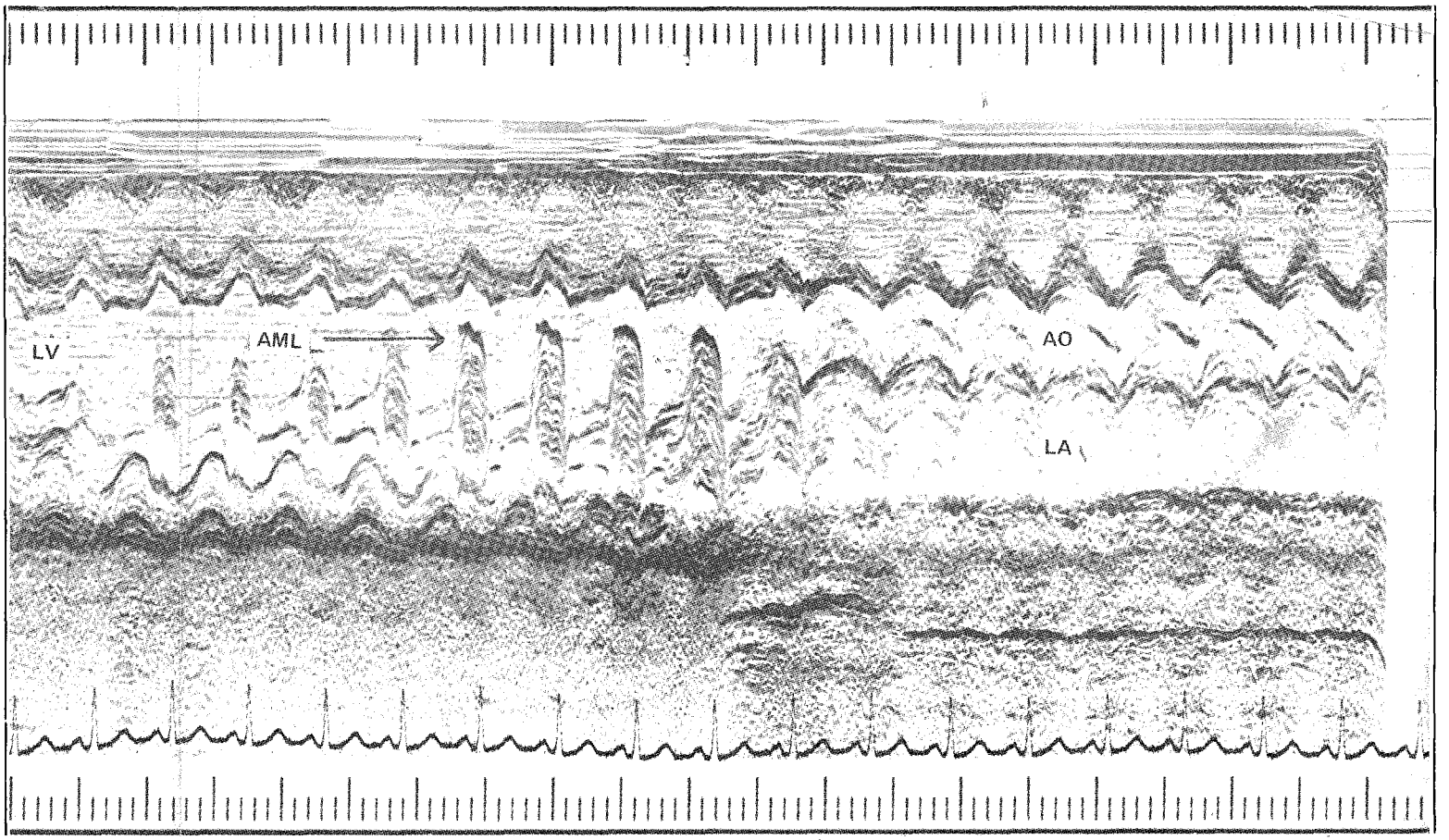

Fig. 1 M. Mode Echocardiogram (Case 1). Note the wavy echoes posterior to the anterior leaflet of the mitral valve during ventricular diastole (AML = Anterior leaflet of the mitral valve, RV = Right ventricle, LV = Left ventricle, LA = Left atrium, AO = Aorta.)

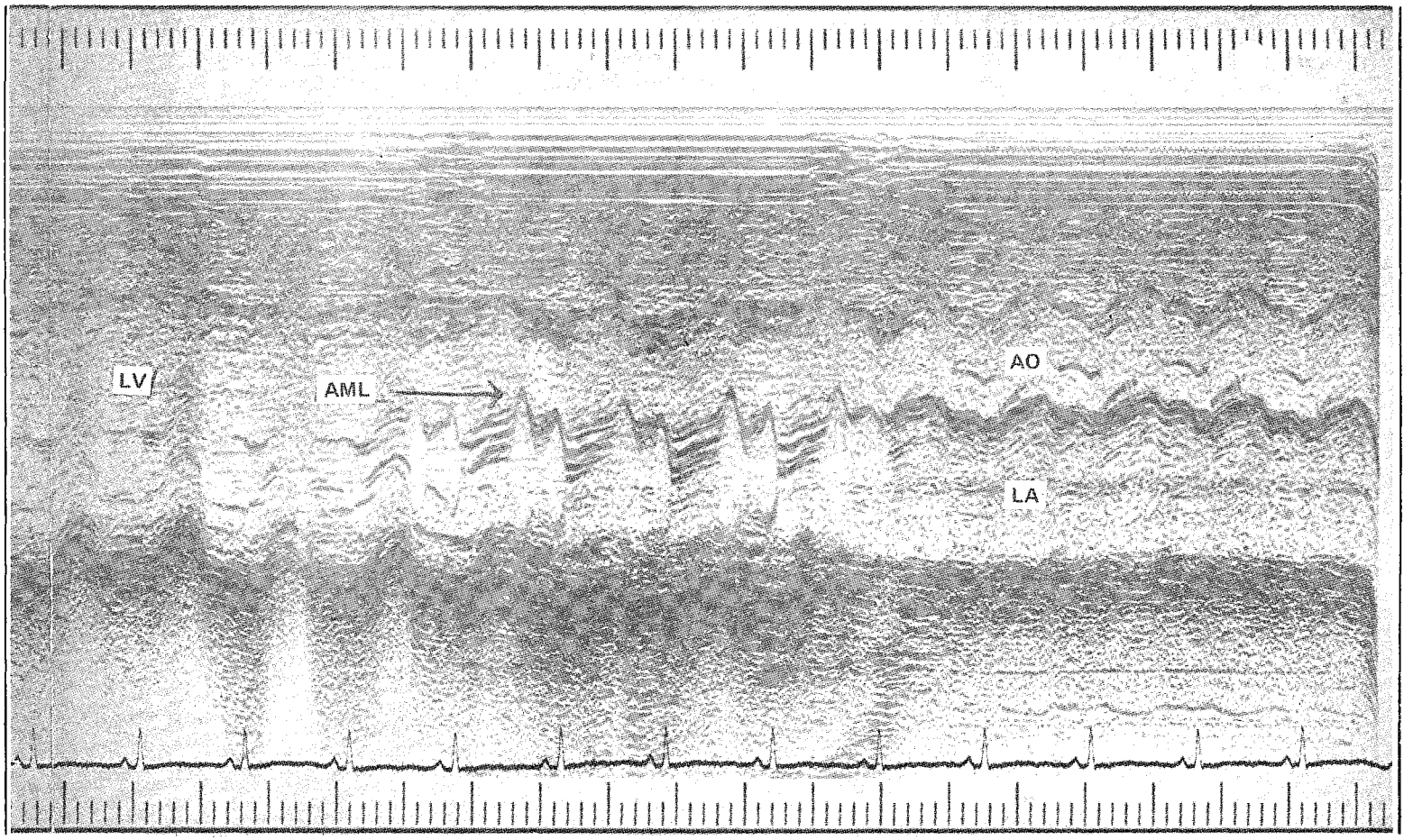

Fig. 2 M. Mode Echocardiogram of the same patient after surgery. (Note that it has reverted to normal.)

the past one year. The physical findings were consistent with that of a mild mitral regurgitation. The routine blood examination was normal.

The chest radiograph showed a prominent left atrial appendage but the heart size was normal and the lung fields were clear. The ECG was normal. The echocardiographic findings were similar to that of Case 1. A large tumour almost filling the whole of the left atrium was removed on 3 October 1985. In addition, another small mass with a separate attachment to the atrial wall near the mitral valve was also excised *in toto*. Both these tumour masses were confirmed to be myxomata on histology. She was discharged well on 15 October 1985.

Case 3

Case 3, a 13-year-old Malay male, was asymptomatic and was found to have a heart murmur on a routine school medical check-up in August 1985. There was a late systolic murmur at the mitral area but no click was heard. The chest radiograph was normal; ECG showed ventricular bigeminy with a right bundle branch block pattern. The echocardiographic findings were again characteristic of a left atrial myxoma. Unfortunately, the patient defaulted further follow-up as he was reluctant on surgical treatment.

DISCUSSION

Myxoma, a rare benign intracavitary tumour of the heart, is the most significant of all cardiac tumours.

Although the exact incidence is not known, it has been said that an active cardiology service can expect to encounter one or two of these tumours a year. 75% of these tumours arise on the left side of the inter-atrial septum. Most of them are single and pedunculated. They occur most frequently in the third and sixth decades of life with a female preponderance. Goodwin[1] was the first to point out that myxomas present clinically in three ways: by obstruction to the flow of blood; by embolization; and by constitutional effects.

Blood studies may reveal a high ESR, anaemia and abnormal serum proteins. Radiological and ECG findings are non-specific but may suggest mitral valve disease.

The tumour can be seen and recognised by the use of M-mode or 2-D echocardiography. Cardiac catheterization and angiocardiography are most useful in documenting the location and the degree of A-V valvular obstruction if facilities are readily available.

Once the diagnosis of myxoma has been made, operation should be done as soon as possible. With a dual approach (bi-atrial), and the use of extracorporeal circulation, the tumour is excised under direct vision together with a cuff of normal inter-atrial septum around it. The atrial septal defect so created is then closed either directly or with a dacron patch.[2] The immediate and long-term results following surgery has been good.

The recurrance rate is very low but indefinite long term follow-up is advisable[3] with repeated clinical and echocardiographic assessment.

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