

Short reports

Long asymptomatic period of atrial myxomas

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Atrial myxomas are thought to be slow growing tumours,^{1,2} but there is little published information about the period over which they may be present before causing symptoms that lead to their eventual diagnosis. We review three case reports that provide evidence that atrial myxomas may be present for many years before definitive diagnosis is made. Attention is drawn to the need for echocardiographic screening of patients with systemic emboli and careful histological examination of embolic material.

Case histories

CASE 1

In 1964 a 28-year-old man had developed a right femoral arterial occlusion after being thrown into a swimming pool, although he had sustained no trauma to his legs. He was treated by embolectomy. A heart murmur was noted at that time but it was not considered significant. He remained well until 1975 when he developed an influenza-like illness and became progressively anaemic. The cardiac murmur was again noted, and he was finally treated with antibiotics for suspected infective endocarditis, although blood cultures were negative. He failed to improve and was referred to the Brompton Hospital where a late crescendo systolic murmur was heard.

Haemoglobin was 8 g% and ESR 139 mm in one hour. Echocardiogram showed multiple echoes behind the anterior cusp of the mitral valve and a mass in the left atrium during ventricular systole and in the left ventricle during diastole. Pulmonary angiography showed a left atrial filling defect. At operation a pedunculated myxoma was found in the left atrium.

CASE 2

In 1954 a 48-year-old woman had developed dyspnoea during her first pregnancy and mitral stenosis was diagnosed. After parturition her symptoms progressed, and a closed mitral valvotomy was performed. At operation a mass was palpated in the left atrium but this was not excised because exploration was regarded as hazardous without cardiopulmonary bypass. After recovery from the initial operation she was readmitted for left atrial exploration but declined further operation. She remained well for many years but 16 years after her first operation she was admitted to the

Brompton Hospital with symptoms of increasing dyspnoea.

She had a loud first heart sound, grade 2/4 pansystolic murmur, and a grade 1/4 mid-diastolic murmur at the apex simulating mixed mitral valve disease. A pulmonary angiogram showed a left atrial mass. At operation a large myxoma was excised from the left atrium; the mitral cusps were noted to be thin and pliable.

CASE 3

A 24-year-old man developed dyspnoea on exertion and bronchospasm at the age of 17 years. These symptoms increased in severity over the next few years and asthma was diagnosed. He was treated with corticosteroids but did not improve and was finally referred to the Brompton Hospital, where a venous pressure raised by 20 cm with a dominant "a" wave and a grade 2/4 inspiratory mid-diastolic murmur, suggesting tricuspid stenosis, were found. Lung function tests showed no airways obstruction. Skin testing was negative. Right atrial angiography showed a filling defect in the right atrium. At operation a right atrial myxoma was excised.

Discussion

The natural history of atrial myxomas has not been documented, although they have been thought to be slow growing neoplasms.^{1,2} Our three cases indicate that myxomas can be slow growing and may be present for many years before definitive diagnosis is made.

As first pointed out by Goodwin,³ myxomas present clinically in three ways: (1) by embolisation, (2) by obstruction to blood flow through the atrioventricular valves, or (3) by producing symptoms of a non-specific illness.

Case 1 presented with femoral artery occlusion. Histological examination of the embolic material at that time might have led to the diagnosis of left atrial myxoma, but this investigation was omitted. After embolectomy he remained completely well for 11 years until he presented with a non-specific systemic illness. The diagnosis was finally made by echocardiography which is advisable in patients presenting with symptoms of thromboembolism, particularly in the absence of organic valve disease.

In case 2 the early symptom of dyspnoea may have

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been produced by the myxoma causing left ventricular inflow obstruction, since at reoperation 16 years later the mitral valve leaflets were found to be thin and pliable, a factor against significant mitral stenosis. However, the subsequent clinical improvement in her symptoms after valvotomy remains unexplained. After the initial symptoms the tumour remained quiescent for 16 years before producing further symptoms of mitral valve obstruction on which the diagnosis was made.

In case 3 there was no evidence for an allergic basis to the bronchospasm, and his symptoms may have resulted from obstruction of the tricuspid valve orifice, or alternatively from recurrent small pulmonary emboli. Removal of the tumour resulted in complete

resolution of symptoms.

These patients provide examples of the three most frequent modes in which myxomas present, and in addition indicate for the first time that myxomas may be slow growing and harboured for many years, only sporadically causing symptoms.

References

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- 2 Hudson RE. *Cardiovascular Pathology*. London: Edward Arnold, 1965:1565-85.
- 3 Goodwin JF. Diagnosis of left atrial myxoma. *Lancet* 1963; **1**:464-7.