Left atrial myxomas — A case report

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SUMMARY

A 49-year-old woman presented with symptoms of congestive cardiac failure. Cardiac auscultation revealed a crunching sound difficult to characterise in addition to a pansystolic murmur maximally audible in the 4th left intercostal space. The auscultatory findings varied from day to day but were unaffected by posture or exercise.

A clinical impression of left atrial myxoma was confirmed by two dimensional echocardiography which revealed a well circumscribed mass almost completely filling the left atrium with a pedicle attached to the interatrial septum. The patient’s cardiac failure improved with conservative management using frusemide and digoxin. The patient, however, refused cardiac surgery which is the definitive management of this disease.

INTRODUCTION

Left atrial myxomas are the most common primary intra cardiac tumours.¹ The first clinical diagnosis was made in 1951 by angiocardiography. Prior to this, diagnosis had been made only at autopsy.² Clinical diagnosis is extremely valuable as total cure may be achieved by surgery, whereas if left untreated it is inexorably progressive and usually fatal.³ Left atrial myxomas are not considered rare.⁴ Nevertheless, this is the first case to our knowledge to be reported from Black Africa.

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CASE REPORT

Mrs A W, a 49-year-old Nigerian trader presented with a two-month history of a cough productive of small quantities of white frothy sputum. She had noticed an associated limitation of her exercise tolerance by dyspnoea on moderate exertion, with occasional orthopnoea and paroxysmal nocturnal dyspnoea. She has neither palpitations nor chest pain.

One month prior to presentation, she noticed abdominal and bilateral leg swelling without significant diurnal or postural variation. There was a history of weight loss and recurrent fever which did not respond to anti-malarial therapy.

She also experienced recurrent sensations of cold in her extremities, but had not noticed any trophic skin changes or exacerbation of symptoms in cold weather.

She denied any history of abdominal pain, arthralgia, recurrent dizzy spells, syncopal attacks, motor weakness or haematuria.

Physical examination revealed bilateral pitting leg oedema. She was neither pale, febrile nor cyanosed and had normal digits. All her peripheral pulses were of normal volume, regular and synchronous. Her blood pressure was 130/90 mmHg. She had an elevated jugular venous pressure with a normal wave form and her apex beat, which was located in the fifth left intercostal space along the mid clavicular line, was of normal character. A right ventricular impulse was not palpable. There was an audible third heart sound and both the first heart sound and the pulmonary component of the second heart sound were accentuated. Other auscultatory findings included a pansystolic murmur maximally audible in the 4th interspace at the left sternal edge and a crunching sound which was difficult to characterise but simulated a pericardial friction rub.

The latter was of equal intensity all over the precordium. A puzzling variation in the auscultatory findings from day-to-day was noted, but there was no variation with either posture or respiration. She had a tender, soft, smooth, hepatomegaly detected by ballotting, in the presence of massive ascites. There were no deficits in either the central or peripheral nervous systems.

A diagnosis of biventricular cardiac failure was made. The possible differential diagnosis of the underlying cardiac pathology included a ventricular septal defect, active rheumatic heart disease and a right sided endomyocardial fibrosis.

Her urinalysis was normal. She had a haemoglobin of 13.5, with a total white blood cell count of 4000/cumm and an erythrocyte sedimentation rate of 128 mm/hr. Her serum electrolyte and protein profiles were within normal limits. Her chest X-ray revealed cardiomegaly with a left ventricular preponderance, and a double density shadow in the heart suggesting left atrial enlargement and pulmonary vascular congestion. Electrocardiography revealed sinus tachycardia with a right axis deviation and incomplete right bundle branch block.

Two dimensional echocardiography revealed a well-circumscribed mass almost completely filling the left atrium with a pedicle attached to the interatrial septum, which exhibited a continuous to and fro motion through the mitral valve into the left ventricle, synchronous without cardiac contraction. M-model echocardiography revealed multiple echoes posterior to the anterior mitral valve leaflet in the left atrium, posterior to the aortic root, occupying the latter two-thirds of diastole. An echo free triangle was visualised in early diastole. There was also a reduction in the diastolic slope of the anterior mitral valve leaflet. A diagnosis of left atrial myxoma was made and the patient referred for surgery. The patient refused cardiac surgery and she is, therefore, being managed medically on low dose diuretics, digoxim and potassium supplements.

DISCUSSION

Myxomas are the most common intra cavitory tumours of the adult heart, accounting for 50% of cardiac tumours. 75% occur in the left atrium, although cases affecting the right atrium, left ventricles and mitral valve have been documented.1,4-5 As typified by this patient, it usually presents in adulthood with a female preponderance. The sex ratio is approximately 3:1.6

The majority of left atrial myxomas arise from the area of the fossa ovalis. They are usually light yellow or brown, gelatinous, pedunculated, round tumours consisting of endothelial-like cells associated with
thin walled capillary vessels with a large amount of amorphous mucopolysaccharide-containing matrix.\textsuperscript{1} Pathologically it is benign tumour, but due to the haemodynamic implications of an intracardiac tumour, it is considered clinically malignant.\textsuperscript{5,7}

The patient presented two months after the onset of her symptoms. Other workers have noted the duration of symptoms preceding diagnosis to vary from two months to three years.\textsuperscript{4}

Dyspnoea featured prominently in the patient's history and this symptom has also been documented in the majority of patients with left atrial myxomas.\textsuperscript{6} Significantly she did not give a history of syncopal episodes, which share a common patho-physiological mechanism with the occurrence of sudden death in these patients.\textsuperscript{4}

The only constitutional features noted were fever, weight loss and raised erythrocyte sedimentation rate. The other constitutional features associated with left atrial myxomas, which include a haemolytic anaemia and an abnormal serum protein pattern were not present in this patient.\textsuperscript{8, 9} The genesis of constitutional features in left atrial myxomas have been attributed to haemorrhage and degeneration within the tumours and possibly to multiple emboli to the muscles.\textsuperscript{6, 8, 10, 11}

Significantly no embolic events occurred in this patient. In left atrial myxomas embolisation may occur to the brain, lungs, kidneys, bone, pulmonary and systemic vessels,\textsuperscript{1,8} Raynaud's phenomenon, also a recognised feature of left atrial myxomas,\textsuperscript{10} was suspected in this patient, but could not be substantiated clinically. All the auscultatory findings in this patient have been previously documented in several cases.\textsuperscript{1, 4, 12} The crunching to and fro sound likened to a pericardial friction rub has also been described and is attributed to the tumour rubbing against the endocardial surface of the heart.\textsuperscript{13-16}

The dynamic variations of the auscultatory findings in this patient is another well recognised feature of left atrial myxomas.\textsuperscript{4} She did not, however, exhibit the expected alterations with exercise and posture.\textsuperscript{12}

The radiological findings in this case suggested the possibility of a mitral valve disease, thus encouraging misdiagnosis. Similar findings have been documented in previous reports.\textsuperscript{4} Ultrasonography revealed the classical echocardiographic features of a left atrial myxoma thus permitting differentiation from other possible cardiac tumours. The latter usually do not present with a relatively echo free triangular space behind the anterior mitral valve leaflet, following initial opening of the mitral valves.\textsuperscript{17, 18}

Classically, arrhythmias and conduction defects are common, possibly due to the lack of significant chamber enlargement or myocardial invasion. When they do occur, they are usually non-specific, atrial fibrillation and flutter being the most characteristic. Interestingly, this is the first case to our knowledge, identifying the occurrence of a right bundle branch block in association with a left atrial myxoma. Angiography was not done in this patient, as it is by no means innocuous in the severely ill patient, being an invasive procedure with the attendant risks. There is also the possibility of haemodynamic deterioration and peripheral embolisation.\textsuperscript{18} Surgery is the treatment of choice, involving full excision of the tumour, pedicle and entire base to avoid recurrence.\textsuperscript{19}

The clinical diagnosis of a left atrial myxoma rests heavily on clinical suspicion. In the tropics, it should be considered amongst the differential diagnosis of rheumatic heart disease, infective endocarditis, mitral stenosis, intractable cardiac failure and connective tissue disease.

REFERENCES

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An unusual foreign body in the oesophagus

H YAGI

SUMMARY

Unusual swallowed foreign bodies are uncommon in normal individuals. They may be encountered in the mentally deranged or the subnormal.

A case of an unusual foreign body, two safety pins hooked together, in the upper oesophagus of a 27-year-old lady who looked apparently normal at the time of admission to hospital is reported.

Case report: A 27-year-old lady presented with history of discomfort in the throat and difficulty in swallowing for two weeks. She denied having swallowed anything unusual.

At the time of admission, she looked mentally normal, with normal behaviour. She had no signs of dehydration. There was tenderness on movement of the trachea. Indirect pharyngoscopy showed minimal pooling in the piriform fossae. Plan X-ray of the neck showed a foreign body in the upper oesophagus: two safety pins hooked together (Fig I and II).