Large left atrial thrombus mimicking atrial myxoma: successful treatment with anticoagulant therapy

Left atrial masses, namely thrombi or myxomas, are confidently diagnosed by means of two-dimensional echocardiography. By transthoracic echocardiography, diagnostic specificity is reported to be high, while sensitivity is relatively low. Transoesophageal echocardiography is the technique of choice with which to detect left atrial masses. We report a case of left atrial thrombus presenting with the echocardiographic and clinical features of an atrial myxoma, which was successfully treated with anticoagulant therapy.

In July 1992, a 82-year-old male patient was hospitalized as a result of a syncopal episode which occurred while he knelt to tie his shoes. He referred to a history of chronic obstructive pulmonary disease and systemic arterial hypertension. His physical examination showed neither pathological cardiac murmurs nor carotid or vertebral bruits; neurological examination was normal; blood pressure was 160/100 mmHg; ECG showed atrial fibrillation with a normal ventricular rate (78 beats min⁻¹) and signs of left ventricular hypertrophy; arterial gases were normal as was haematocrit, red blood cell count, serum creatinine, glucose level and urinalysis. Transthoracic echocardiography showed a mildly hypertrophied left ventricle with a normal systolic function and an enlarged (5 cm) left atrium; cardiac valves were normal. A rounded, mobile, and echogenic mass attached to the atrial septum was imaged in the left atrium (Fig. 1, upper panel). To better define the anatomical characteristics of the mass and its relationship with the cardiac structures, transoesophageal echocardiography was performed. A large (4 x 4 cm), rounded and homogeneous mass was detected in the left atrium attached to the interatrial septum via a stalk at the level of the fossa ovalis. The stalk allowed the mass to move slightly within the left atrium but not to prolapse into the left ventricle in diastole. The diagnosis of left atrial myxoma was made and surgery was advised. However, the patient refused to undergo an operation and was discharged on digoxin, captopril and warfarin therapy. He remained asymptomatic, and 2 months later transthoracic echocardiography was repeated. Surprisingly, the left atrial mass was no longer evident (Fig. 1, lower panel). Indeed, the persistence of the mass was shown by transoesophageal echocardiography but its size was reduced to a half. The patient died in October 1994 of progressive respiratory failure. At autopsy the left atrium was enlarged but no thrombus or other kind of mass was found. Shrestha et al. reported that the diagnostic specificity of the left atrial thrombus by two-dimensional transthoracic echocardiography is as high as 98.8%, while the sensitivity is only 58.8%. Because of its higher imaging resolution and easy visualization of the left atrial appendage, transoesophageal echocardiography has dramatically increased the diagnostic accuracy of left atrial thrombi. In our patient, the symptoms, possibly related to transient mitral valve obstruction, and the site of attachment of the mass, suggested the diagnosis of left atrial myxoma and induced the cardiac surgeon to advise operation. However, after warfarin therapy, there was a marked reduction in mass dimensions, suggesting the diagnosis of left atrial thrombus, and 2 years after the initial observation, no thrombus was found at autopsy. This clinical case suggests that: (1) in patients with atrial fibrillation, a differential diagnosis between left atrial thrombus and myxoma may be difficult; (2) a trial of anticoagulant therapy may be advised for differential diagnosis; (3) prolonged anticoagulation may dissolve large atrial thrombi.

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References


Lipomatous hypertrophy of the atrial septum: complementary diagnosis by transoesophageal echocardiography and nuclear magnetic resonance imaging

Lipomatous hypertrophy of the atrial septum (LHAS) appears as a focal increase of unencapsulated fat in this heart region. This condition was considered to have little clinical significance, but recently its relationship to different ECG abnormalities and atrial arrhythmias was recognized. Transthoracic echocardiographic (TTE) study of the atrial septum is sometimes difficult, whereas the transoesophageal (TEE) approach allows a more detailed examination of its anatomy. Magnetic resonance imaging (MRI) is a complementary