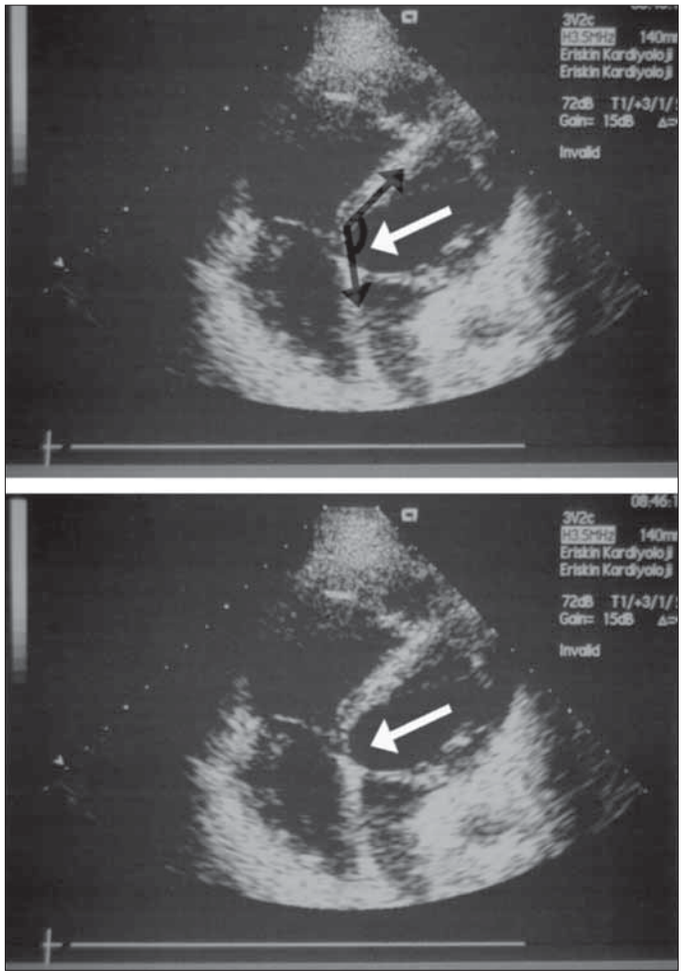

Figure 7. Postoperative echocardiography. White arrow: Angulation between the interatrial and interventricular septum

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Infected giant left atrial myxoma: an unusual phenomenon

Enfekte dev sol atriyal miksoma: Olağan dışı bir fenomen

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Introduction

Myxomas, as other primary cardiac tumors, occur rarely. The most common symptoms are typical of mitral stenosis or peripheral embolism. Cardiac myxomas may simulate infective endocarditis but are rarely actually infected. Infected myxoma leads to numerous diagnostic and therapeutic difficulties. We report a case of an infected cardiac myxoma that presented in a manner similar to bacterial endocarditis.

Case Report

A 47-year-old male was admitted to the hospital with a 2-month history of progressive weakness and fever. His medical history was negative for endocarditis risks. On admission, the patient had a fever of 38°C, blood pressure of 110/80 mmHg, and heart rate of 90 bpm. A grade II/IV systolic murmur was noted at the cardiac apex. Bilateral pulmonary rhonchi was heard and expiration was prolonged. No evident mucocutaneous signs of endocarditis, embolic episode or organomegaly were observed. Blood cell counts and serologic studies disclosed a mild inflammatory response with a white blood cell count of 11800/mm^3 and a C-reactive protein concentration of 25.82 mg/dl. Other laboratory findings were normal except for an elevated increase of the erythrocyte sedimentation rate (ESR) (46 mm/h) and a mild anemia (hemoglobin, 11.5 g/dL). Chest X-ray and electrocardiogram were normal. Blood cultures were positive for *Streptococcus viridans*. Transthoracic echocardiogram showed a mobile left atrial mass with small pedicle attached to the lower part of the interatrial septum, 56x44 mm in size, prolapsing into the left ventricle through the mitral valve. The mean gradient across the mitral valve was 12 mm Hg. Mild regurgitation was also observed (Fig. 1, 2). After antimicrobial therapy with combination of ampicillin and gentamycin for two weeks, a stable patient was operated and a giant tumor fixed to the lower part of the atrial septum was excised. Histological examination of the material showed myxoma cells and microabscess formation (Fig. 3, 4). Postoperatively, antibiotic therapy was continued for

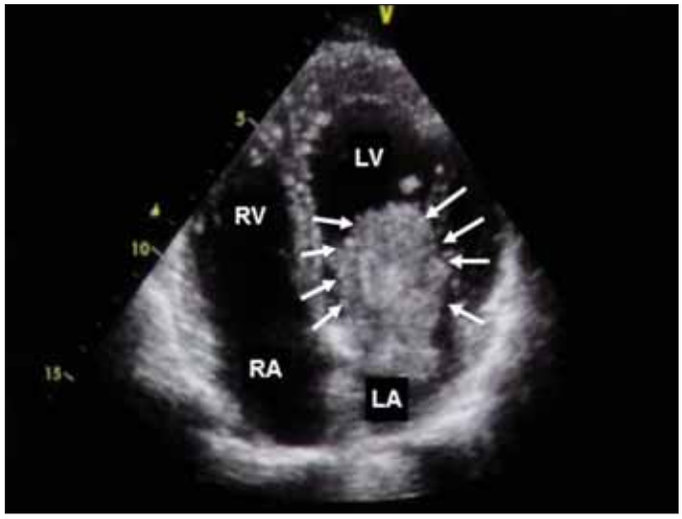

Figure 1. Apical 4-chamber echocardiographic view showing enlarged left atrium with large myxoma and mobile structure falling into left ventricle during diastole (see arrows)

LV- left ventricle, LA-left atrium, RV- right ventricle, RA- right atrium

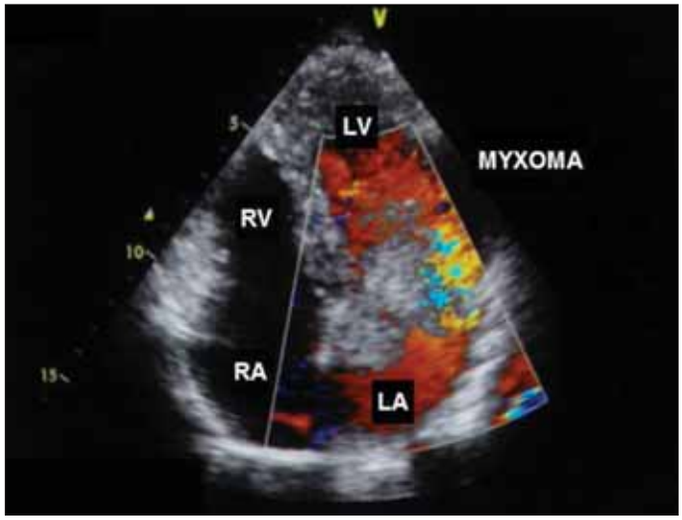

Figure 2. Color flow Doppler echocardiographic imaging of the partial obstruction to left ventricular diastolic filling due to the atrial myxoma

LV - left ventricle, LA - left atrium, RV - right ventricle, RA - right atrium

four weeks, the patient was discharged in good condition and was followed up for several months with no clinical evidence of recurrence.

Discussion

Myxomas are the most common benign cardiac tumors, accounting for 30% of all primary cardiac tumors. They occur most commonly in the left atrium (75%), but can arise in the right atrium (23%) or the ventricles (2%) (1). Cardiac myxomas usually arise from fossa ovalis of the interatrial septum and protrude into the atrium. They may intermittently cause obstruction to left ventricular filling, especially when they are large in size and in the left atrium.

Patients with myxoma present with a triad of embolization, intracardiac obstruction and constitutional signs (e.g., arthralgias, rash, fever, weight loss and fatigue) (2, 3). Cardiac myxomas may simulate infective endocarditis but are rarely actually infected. Constitutional symptoms due to release of vasoactive products from the tumor or an

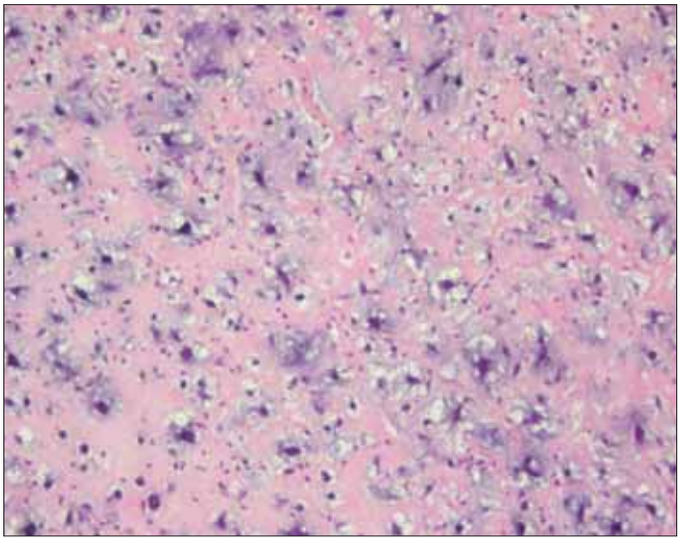

Figure 3. The pathological section shows spindle and satellite cells within a myxoid background, which forms tumor tissue, H&Ex10

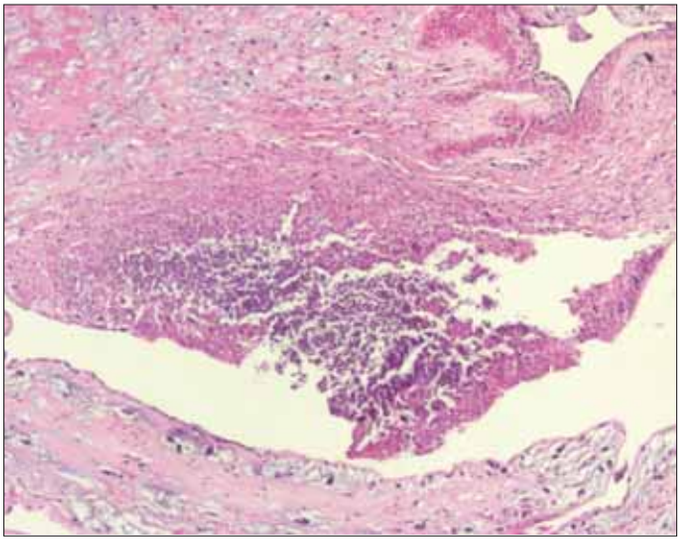

Figure 4. Pathology section view of a focus of acute inflammation forming an abscess in the endocardium H&Ex5

autoimmune response invoked by tumor products or production of cytokine interleukin-6 (IL-6) by cardiac myxomas can appear, so that fever does not prove that the myxoma is infected (4). About 40 cases of infected myxoma have been described so far (5).

The gross appearance of cardiac myxoma is variable (6). Myxomas are generally polypoid, often pedunculated, frequently arising from narrow stalk, and are rarely sessile. They are usually round or ovoid in shape with a smooth or gently lobulated surface. The mobility of the tumor depends on its consistency, which varies in part depending on the extent of attachment and the length of its stalk. Adding to their embolic potential, they frequently have organized thrombi on their surface. Myxomas usually have heterogeneous echogenicity and occasional calcifications.

Given a typical presentation, echocardiography is virtually diagnostic of myxoma (7). The most important clue to the diagnosis is their location in the left atrium and origin from the mid-portion of the atrial septum (7). TTE is usually sufficient to make the diagnosis, but if the results are suboptimal, transesophageal echocardiography should be

employed (2). It may provide additional important information detecting the precise site of insertion and morphologic features of atrial and ventricular myxomas. It is also more sensitive for identifying small (1-3 mm in diameter) and multiple myxomas, but cannot visualize or diagnose active infection, which requires isolation of the offending organism.

The rarity of infected cardiac myxomas leads to numerous diagnostic and therapeutic difficulties. The differential diagnosis of infected myxoma mainly includes uninfected myxoma, as well as mural endocarditis and infected intracardiac thrombus. Criteria have been proposed to aid in the diagnosis of infected myxoma (8). In our patient, blood cultures are positive for streptococci and the diagnosis of infected left atrial myxoma was confirmed histologically by the presence of microabscess.

Therapeutically, surgical resection of the tumor and maintaining the standard antibiotic regimen for endocarditis, appear to have prevented fatal embolic complications and infection recurrence. In our patient, after the antimicrobial therapy for two weeks, surgical excision of the mass was performed, and antibiotic regimen was maintained for two weeks postoperatively.

Conclusion

Our case represents an exceptional form of atrial myxoma. Since the clinical presentation of infected myxoma may be similar to that of uninfected myxoma, blood cultures should be done whenever a patient with myxoma presents fever, and echocardiography should be performed in patients with fever of unknown origin when the initial techniques are not conclusive (9).

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A case of fatal endocarditis due to *Suttonella Indologenes*

Suttonella Indologenes'e bağlı bir fatal endokardit vakası

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Introduction

Endocarditis is an uncommon late complication of prosthetic heart valves that affects 1-2% of cases (1). We are presenting *Suttonella indologenes* (ancient name: Kingella indologenes) endocarditis complicated with splenic infarction and lethal intracranial hemorrhage in a patient with aortic valve replacement.

Case Report

A 35-year-old male patient was admitted to our emergency department with the chief complaints of chills, fever, tiredness and abdominal pain for three weeks. His past medical history was remarkable for aortic valve replacement surgery performed for rheumatic aortic valve disease 19 years ago. He was on anticoagulant treatment with warfarin. Abnormal findings on physical examination were axillary body temperature was 37.6°C and hepatosplenomegaly, and tenderness on the left upper and lower quadrants. The remarkable laboratory results were as follows: erythrocyte sedimentation rate was 120 mm/hour; high sensitive C-reactive protein was 27.6mg/dl (>0.744mg/dl); rheumatoid factor was 38.9IU/ml (>20IU/ml); hemoglobin was 6.2g/dl; hematocrit was 29.8%; white blood cell count was 10690/ml with 81.9% neutrophils. A transthoracic echocardiogram (TTE) showed normally functioning bileaflet mechanical aortic valve with a mean gradient of 12 mmHg. No vegetation was demonstrated on any of the heart valves with TTE. His left ventricular ejection fraction was also normal. After drawing blood cultures, prophylactic antibiotic treatment with sulbactam-ampicillin, gentamycin and rifampycin was instituted for presumptive diagnosis of infective endocarditis. A transesophageal echocardiogram revealed a vegetation in size of 0.9x0.4cm on metallic aortic valve (Fig. 1). Hepatomegaly was detected on abdominal ultrasonography (USG). Since abdominal USG could not clarify the etiology of abdominal pain, an abdominal computed tomography (CT) was performed. Hepatosplenomegaly and a splenic infarct (Fig. 2) were detected on CT. *Suttonella indologenes*, a gram-negative coccobacillus that was sensitive to ampicillin, cephalosporines, ciprofloxacin and resistant to imipenem and meropenem was isolated from all of the blood culture specimens. On the same day, diplopia was developed suddenly. Examination of the patient revealed normal sensory and motor functions with normoactive reflexes without any pathologic reflexes. Cranial CT revealed a hyperdense lesion with dimensions of 7x8mm at the left frontal lobe at the level of vertex (Fig. 3a). The presumptive diagnosis was cranial abscess or mycotic aneurysm. Six hours later, the patient suddenly lost consciousness with hemiplegia of the right side of the body. Pupillary light reflexes were negative with hypoactive deep tendon