Right atrial myxoma in a patient presenting with syncope

Senkop ile ortaya çıkan sağ atriyal miksoma

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A 57-year-old man presented with syncope after effort which developed in the last 6 months. The physical examination, chest roentgenography and electrocardiography results were normal. Transthoracic and transesophagial ecocardiography showed right atrial mass prolapsing the tricuspit valve into the right ventricule during diastole. The other cardiac chambers appeared normal. Coronary angiography revealed normal coronary arteries. The operation and cardiopulmonary bypass was performed by cannulation into the aorta and retrograde femoral vein and superior vena caval canulation. Surgical exploration of the right atrium revealed 6.5x5.5x4.5 cm dull, purplish mass attached to the interatrial septum. The mass was attentively and successfully excised. Histologic examination of the mass confirmed the diagnosis of cardiac myxoma. The patient recovered without any complication. We emphasize a characteristic feature of syncopal attacks, and discuss the importance of prevention of intraoperative systemic and pulmonary tumor embolization resulting from venous cannulation for cardiopulmonary bypass in patients with right atrial myxomas.

Key words: Heart neoplasms/diagnosis/surgery; myxoma/surgery; syncope.

Elli yedi yaşında erkek hasta altı aydır eforla ortaya çıkan senkop yakınmasıyla başvurdu. Hastanın fizik muayenesi, göğüs röntgenografisi ve elektrokardiyografisi normal sınırlar içindeydi. Yapılan transtorasik ve transözofageal ekokardiyografide diyastolde triküspid kapaktan sağ ventriküle prolabe olan sağ atriyal kitle görüldü. Diğer kalp boşlukları normaldi. Koroner anjiyografide koroner arterler normal bulundu. Ameliyat ve kardiyopulmoner bypass, çıkan aort, superior vena kava ve femoral ven kanülasyonuyla yapıldı. Sağ atriyumun cerrahi eksplorasyonunda 6.5x5.5x4.5 cm boyutlarında interatriyal septuma bağlı mat, mor renkli kitle görüldü. Kitle dikkatli ve başarılı bir şekilde eksize edildi. Histolojik inceleme sonucunda kardiyak miksoma tanısı konuldu. Hasta komplikasyonsuz olarak iyileşti. Bu olgu sunumunda senkop ataklarının karakteristik özelliklerine dikkat çekildi ve sağ atriyal miksomalı hastaların kardiyopulmoner bypass için kanülasyonunda sistemik ve pulmoner tümör embolizasyonundan korunmanın önemi tartışıldı.

Anahtar sözcükler: Kalp tümörleri/tanı/cerrahi; miksoma/cerrahi; senkop.

Myxoma is the most common benign cardiac tumor. The etiology is uncertain, but the concept that they are organized trombi has been refuted. Myxomas occur in any chamber of the heart but have a special predilection for the left atrium, from which approximately 75% originate.[1] The next most frequent site is the right atrium, where 10-20% are found. Most of these are attached to the interatrial septum. The remaining 6% to 8% are equally distributed between the left and right ventricle. The patient may manifest one or more of the "classic triad'' of symptoms of hemodynamic obstruction, embolism and constitutional effects.

We present a case of right atrial myxoma in a patient who presented with syncope.

CASE REPORT

The patient was a 57-year-old man with no notable history who presented with syncope. The patient had a 6-month history of syncope while he was working. The physical examination, chest roentgenography and electrocardiography results were normal. Transthoracic and transesophagial ecocardiography showed a right atrial mass prolapsing the tricuspit valve into the right ventricule during diastole. The other cardiac chambers

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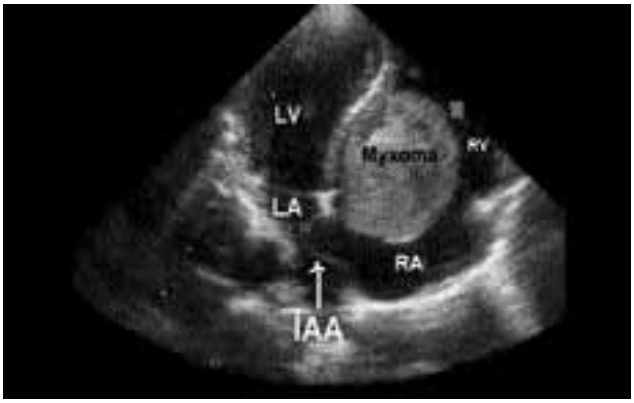

Fig. 1. Two-dimensional echocardiography showing a 48 mm right intra-atrial tumor.

Fig. 2. Macroscopic view of the operative speciment. It is round, firm, and encapsulated.

appeared normal (Fig. 1). Coronary angiography revealed normal coronary arteries. The patient was a lean man (52 kg weight with 172 cm height), hemoglobin level was 15.5 g/dl, total WBC count was 8900/mm^3, erytrocyte sedimentation rate was 30 mm/hour. His blood pressure and pulse rate were within normal limits.

During operation and cardiopulmonary bypass was initiated cannulation into the aorta and retrograde femoral vein and superior vena caval canulation. Tumor was not palpated from the outside of right atrium. Swan-Ganz catheter was not introduced. Surgical exploration of the right atrium revealed 6.5x5.5x4.5 cm dull, purplish mass attached to the interatrial septum (Fig. 2). The mass was excised totally in an attentive and successful manner. Histologic examination of the mass confirmed the diagnosis of cardiac myxoma (Fig. 3). The patient recovered without any complication.

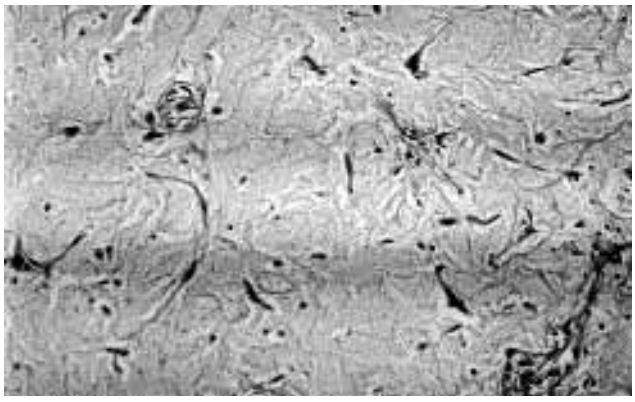

Fig. 3. Photomicrography of right atrial myxoma. Myxoma cells (stellate, round cells), blood vessels and inflammatory cells are identified (H-E x 200).

DISCUSSION

The classic triad of myxoma clinical presentation is intracardiac obstruction with congestive heart failure (67%), signs of embolization (29%), systemic or constitutional symptoms of fever (19%) and weight loss or fatigue (17%), and immunologic manifestations of myalgia, weakness, and arthralgia (5%), with almost all patients presenting with one or more of these symptoms.[2] Rarely syncope appears as the first symptom.[3,4] Syncope arises from a temporary occlusion of the tricuspid valve resulting from prolapse of the tumor into the right ventricle during diastole. This case emphasizes that cardiac investigation should be performed with transthoracic and/or transesophageal echocardiography in all syncope attacts.

Special attention had to be shown during caval or femoral vein cannulation, avoiding excessive manipulation of the heart during the surgery, and placing cross-clamp on main pulmonary artery. In our case, pulmonary embolism did not develop before and after the surgery. Patient's pulmonary pressure was normal after the surgery.

Surgical removal of the myxoma is the treatment of choice and is usually curative. The patient remained asymptomatic till postoperative eight months without any echocardiographic signs of recurrence.

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