

Serbest Dolařan Sol Atriyal Top Trombus

FREE FLOATING LEFT ATRIAL BALL THROMBUS

Mehmet Ali Özatic, Alper Uzun, *Omaç Tüfekçiođlu, Ferit Çiçekçiođlu, Erol ½ener, Ođuz Tađdemir

Türkiye Yüksek İhtisas Hospital, Cardiovascular Surgery Department

* Türkiye Yüksek İhtisas Hospital, Cardiology Department

Özet

Bu yazıda serbest dolařan sol atriyal top trombusü olan orta yařlı bir kadın olguyu sunduk. Olgu, operasyondan yaklařık bir ay önce polikliniđimize nefes darlıđı ve yorgunluk řikayeti ile bařvurmuřtu. Yapılan transtorasik ekokardiyografisinde mitral darlıđı ve sol atriyum duvarına yapřık trombus (1.5x1.1 cm) tespit edildi. Ritmi atriyal fibrilasyon idi. Olgunun medikal tedavi ile takibine karar verildi. Bundan bir ay sonra semptomların şiddetlenmesi nedeniyle tekrar bařvurdu. Transtorasik ve transesophageal ekokardiyografisinde 2.65x2.88 cm boyutlarında serbest dolařan sol atriyal top trombus tespit edildi. Bunun üzerine olgu acil olarak opere edildi.

Anahtar kelimeler: Sol atrium, top trombus, mitral darlıđı

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Summary

Here we presented the case of a middle aged woman with a free floating left atrial ball thrombus. Patient was admitted to our outpatient clinic with complaints of dyspnea and fatigue about a month before her operation. In her transthoracic echocardiography there were mitral stenosis and thrombus which was attached to left atrial wall (1.5x1.1 cm). The rhythm was atrial fibrillation. The patient was decided to be followed by medical treatment. She was readmitted with sudden worsening of symptoms one month later. In the transthoracic and transesophageal echocardiography, free floating left atrial ball thrombus was detected in size of 2.65x2.88 cm. Then, the patient was operated urgently.

Keywords: Left atrium, ball thrombus, mitral stenosis

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Introduction

Free floating left atrial ball thrombus (FFLABT) appears to be a very unusual case. The term "Ball thrombus" was first applied to this entity by Wood in 1814 who described autopsy findings in a 15 year-old girl with rheumatic mitral stenosis and syncope [1]. Systemic embolization arising from left atrial thrombus is abundantly seen. Occasionally, thrombus larger than mitral valve area can be detached from left atrial wall and can not pass through mitral valve into systemic circulation causing FFLABT. Diagnosis of a FFLABT in the left atrium should lead to urgent surgery because of the high risk of obstructive and embolic complications [2,3]. Here we presented the case of a middle aged woman with FFLABT whom urgent surgical treatment was applied.

Case report

A 45 year-old woman was admitted to our outpatient clinic with complaints of effort dyspnea and fatigue in May 2001. In physical examination, there were louded first heart sound, diastolic murmur in mitral area and hepatomegaly. Rhythm was atrial fibrillation. In transthoracic echocardiography (TTE),

fibrocalcific mitral stenosis was determined, mitral valve area was 1.1 cm², transmitral maximum and mean gradient was 14 and 7 mmHg, respectively. Left atrial width was 4.9 cm. Pulmonary artery pressure was 50 mmHg. In TTE, there was thrombus which was attached to left atrial wall (1.5x1.1 cm) (Figure 1). In cardiac catheterization, mitral stenosis with 5 mmHg gradient was determined. Pulmonary artery pressure was 35 mmHg. She was decided to be followed by medical treatment with digitalis, β blockers, diuretic and antiagregant agents. But one month later, she was readmitted with worsening of her symptoms. The patient was orthopneic. In the physical examination, there were rales in the lungs bilaterally, pretibial edema and hepatomegaly. In the chest radiography, there was pulmonary congestion. In transesophageal echocardiography (TEE), a FFLABT(2.65x2.88 cm) was visualized (Figure 2). The patient underwent urgent cardiac operation. Mitral valve replacement with 29 no Carbomedics mechanic valve and left atrial thrombectomy were applied. There was no attachment of thrombus in left atrial cavity. Histopathologic examination of specimen was thrombus (Figure 3). She has been discharged on sixth postoperative day uneventfully.

Adres: Dr. Mehmet Ali Özatic, Türkiye Yüksek İhtisas Hastanesi, Kalp Damar Cerrahisi Kliniđi, Ankara
e-mail: maozatik@yahoo.com

Discussion

FFLABT appears to be very rare clinically which may cause bad prognosis but treated well when recognized. It is usually a complication of mitral stenosis. Symptomatic presentation is variable. It may be in obstructive or embolic form or both. In obstructive form, partial or total occlusion of mitral valve by FFLABT may cause pulmonary edema, syncope or sudden death. In embolic form, repeated collisions of FFLABT with atrial walls and mitral valve may result in fragmentations and embolizations of small or larger particles to systemic circulation that may cause visceral, lower extremity or myocardial ischemia, and cerebrovascular accident. Diagnosis of a FFLABT of the left atrium should lead to urgent surgery because of the high risk of obstructive and embolic complications [2,3]

Physical findings usually suggest mitral stenosis and, TTE and TEE are diagnostic tools [4]. Transesophageal echocardiography is an useful tool for assessing the safest position for individuals with FFLABT. In the supine and right lateral decubitus positions, the thrombi recoil from and sometimes become entrapped within the mitral valve. In sitting and left lateral decubitus positions, the thrombi appear to be nearly fixed and does not contact with the mitral valve [5]. Murmur can increase or disappear according to position of thrombus in the left atrium [6]. In our case, FFLABT was sitting on

mitral valve orifice at the end of diastole and hurled into left atrial cavity by closure movement of mitral valve leaflets.

Sudden worsening of symptoms are probably due to closure of already stenosed mitral valve orifice by FFLABT that is avoiding passage of the blood from left atrium into left ventricle. Patients should undergo surgical treatment urgently.

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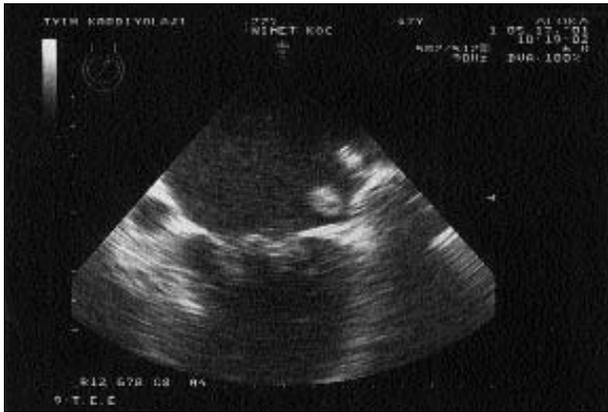


Figure 1. Transthoracic echocardiography of FFLABT in patient's first admission.

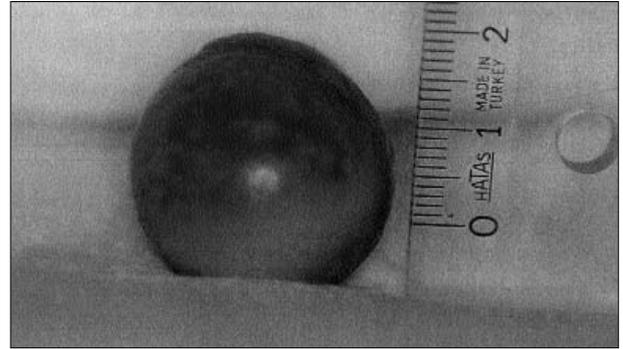


Figure 3. FFLABT after surgical removal from left atrium.

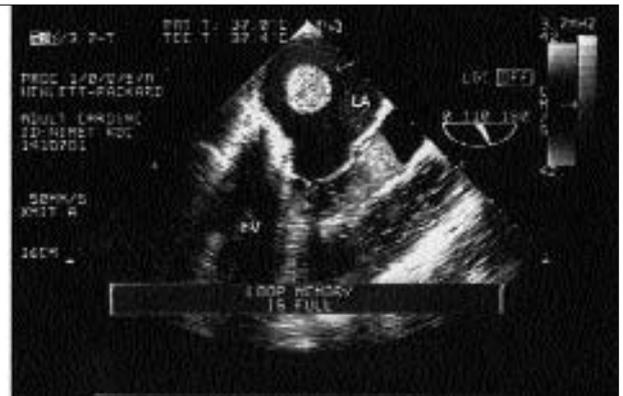
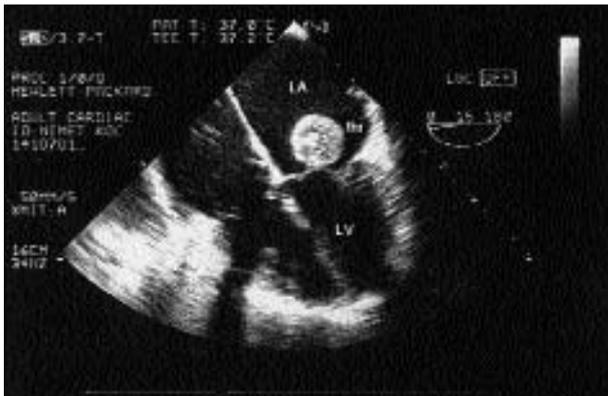


Figure 2. Transesophageal echocardiography of FFLABT in patient's second admission.