An isolated supramitral ring detected in an adult patient

Erişkin bir hastada saptanan izole supramitral halka

Supramitral ring is a very rare disorder and usually associated with other cardiac defects ranging from simple lesions such as ventricular septal defect to complex defects such as univentricular heart. We present here an otherwise healthy adult patient with incidentally diagnosed obstructing supramitral ring.

Twenty-three years old male patient having mild exercise-induced shortness of breath was referred to our clinic because of a cardiac murmur. Indeed, we detected a diastolic murmur best heard at the apex but first heart sound was not loud. A supramitral ring dividing the left atrium was found during transthoracic echocardiographic examination (Philips I33 machine, S5-1 probe) (Fig. 1). A further diagnostic test with 3D transesophageal echocardiographic (X7-2 probe) examination showed that supramitral ring was actually a membrane completely covering supramitral area with a small stenosing orifice with diastolic 22 mmHg peak gradient (Fig. 1, 2). The patient was referred for surgery. During surgery, the membrane was successfully excised without any residual gradient (Fig. 3). The patient was discharged uneventfully at postoperative day 8.

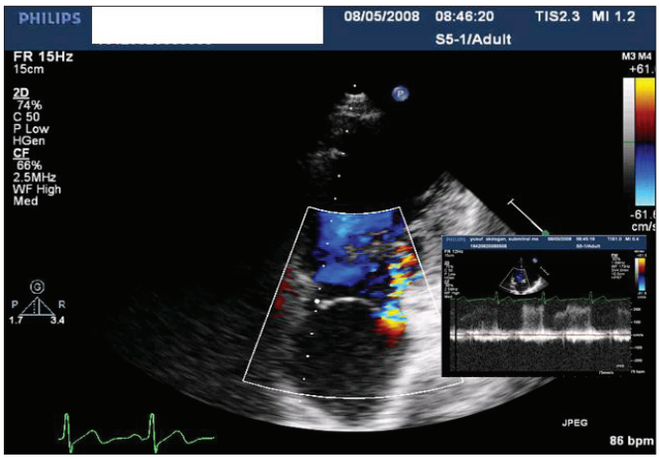

Figure 1. Transthoracic apical 4- chamber view of the supramitral membrane

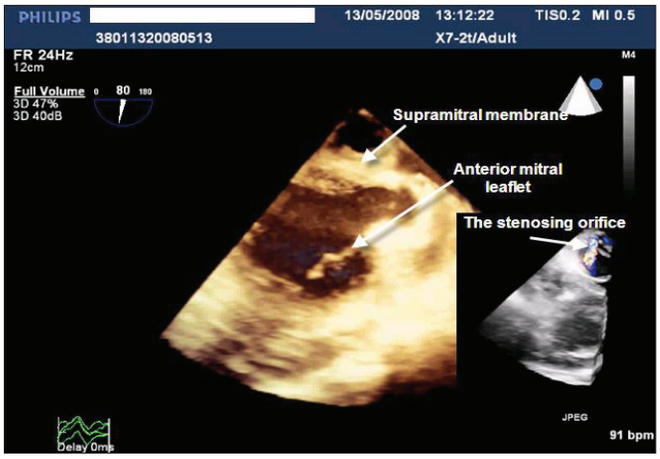

Figure 2. 3D transesophageal view of both the supramitral membrane and stenosing orifice

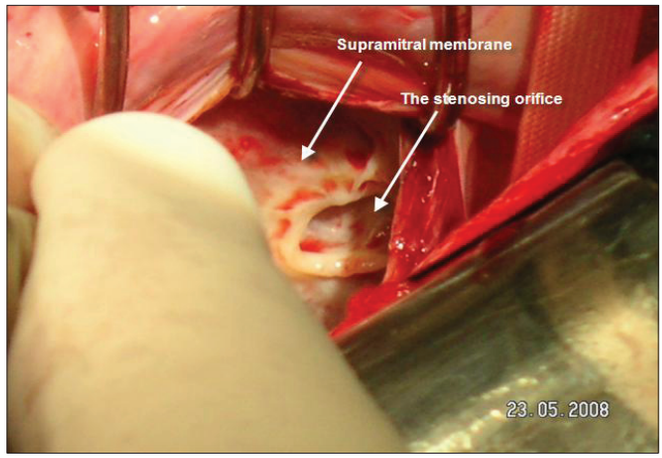

Figure 3. Intraoperative view of stenosing orifice

An isolated supramitral ring in an adult patient is a very rare disorder which has not been reported previously. The differential diagnosis should include a more common disorder - cor triatriatum sinistrum. We thought that close vicinity of the membrane to mitral valve and the presence of left atrial appendage opening above the membrane provided satisfactory evidence for the supramitral ring.

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A case of ventricular septal aneurysm producing right ventricular outflow obstruction

Sağ ventrikül çıkış yolunda darlığa neden olan bir ventrikül septal anevrizma olgusu

A 6-year-old boy was referred to our pediatric cardiology clinic for investigation of his heart murmur. He had no complaints. On physical examination, the patient appeared well and nondysmorphic. Examination revealed a grade 3/6 pansystolic murmur. Laboratory findings were within normal limits and chest radiography showed normal cardio-thoracic ratio. The electrocardiogram showed normal sinus rhythm. Transthoracic echocardiography in the apical four-chamber, parasternal short axis and subcostal views revealed a membranous ventricular septal defect, but shunt from left ventricle to right ventricle was restricted by a large aneurysm of the membranous interventricular septum which was mobile and also obstructing right ventricle outflow tract (Video 1. See corresponding video/movie images at www.anakarder.com). Only minimal left-to-right shunt was detected with Doppler echocardiography from the aneurysm. Because the patient was asymptomatic and subpulmonic gradient was 46 mmHg, we decided on conservative treatment and follow-up.

Ventricular septal aneurysm is an important mechanism of closure and results in more favorable prognosis in perimembranous ventricular septal

defect. On the other hand, aneurysm formation has the potential complications of thromboembolism, arrhythmia, endocarditis, right ventricular outflow tract obstruction. Echocardiographic evaluation is important in diagnosis of ventricular septal aneurysm and its complications.

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Primary stenting of the anomalous left main coronary artery originating from right coronary sinus: multislice computerized tomography angiography imaging

Sağ koroner sinüsten çıkan sol ana koroner artere primer stentleme girişimi: Çok kesitli bilgisayarlı tomografi anjiyografi görüntülemesi

A 50-year-old man presenting with acute myocardial infarction (AMI) was urgently transferred to the catheterization laboratory. We were unable to cannulate the left main coronary artery (LMCA). Aortography demonstrated that the LMCA was originating from the right coronary sinus and was totally occluded (Fig. 1A. Video 1. See corresponding video/movie images at www.anakarder.com). During intervention, JR-4 catheter did not provide sufficient backup, so we changed it with the hockey stick guiding catheter. Crossing total occlusion, the lesion was predilated, afterwards a 3.5x20 mm "bare metal stent" was implanted into the LMCA. Subsequent angiography demonstrated TIMI III flow and good myocardial contrast blush (Fig. 1B, Video 2. See corresponding video/movie images at www.anakarder.com). The patient was followed up in the coronary care unit for 48 hours and discharged 5 days later. At the sixth-month control, coronary multislice computerized tomography (MSCT) angiography demonstrated that the LMCA was coursing in the dorsal wall of the aorta and subsequently, between aorta and left atrium (retroaortic course) (Fig. 2A-B). This congenital anomaly is subclassified into four types based on the relationship of the LMCA to the great vessels: septal, anterior free wall, retroaortic and interarterial courses. The first three are considered benign, while the last one causes symptoms, which vary from angina to syncope or sudden cardiac death. Coronary MSCT angiography revealed also restenosis of the implanted stent. Conventional coronary angiography confirmed restenosis and coronary artery bypass surgery was performed successfully.

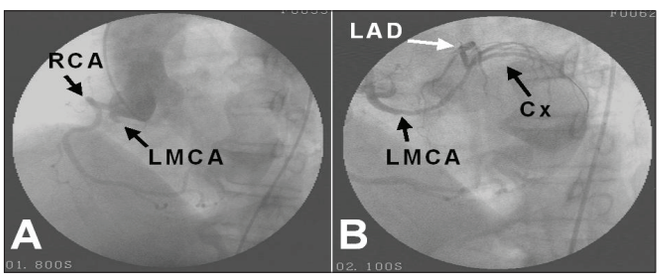

Figure 1. A) Aortogram in the LAO projection before primary percutaneous intervention. (B) Selective left coronary angiogram in the LAO projection after stenting
Cx -circumflex coronary artery, LAO - left anterior oblique, LMCA - left main coronary artery, RCA - right coronary artery

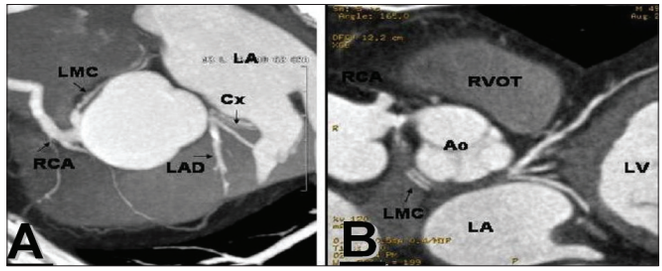

Figure 2. Coronary MSCT angiographical images of the stented LMCA
LMCA - left main coronary artery, MSCT - multislice computerized tomography

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Coincidentally determined floating right ventricular thrombus in a patient with coronary artery disease

Koroner arter hastalığı olan bir hastada tesadüfen tespit edilmiş olan yüzen sağ ventriküler trombus

A 65-year-old male patient presented to our hospital with complaints of unstable angina pectoris. The coronary angiography revealed 60% stenosis of the left main coronary artery, 80% stenosis of the left anterior descending artery (LAD) and a total occlusion of the right coronary artery (RCA). Transthoracic echocardiography before the surgery disclosed a floating right ventricular mass attached to the subvalvular apparatus of the tricuspid valve, moving in and out through the pulmonary valve in each systole and diastole (Video 1. See corresponding video/movie images at www.anakarder.com).

The patient was accepted for surgery urgently. Initial access to the thrombus was tried to be gained via an incision through right atrial wall. However, exploration through tricuspid valve failed to detect any thrombus inside the right atrium and ventricle. The mass lesion was thought to be embolized to the pulmonary artery during the surgical intervention. Coronary artery bypass grafting was performed on the LAD, RCA and the obtuse marginal branch. After the release of cross-clamp, main pulmonary artery was opened and embolectomy was performed using Fogarty