the origin of the left subclavian artery and the left superior pulmonary vein was not demonstrated on the view of suprasternal position. Because of the controversies between the electrocardiogram and diagnosis of the patient cardiac catheterization was performed. Cineangiocardiograms showed a mild narrowing of the descending aorta below the origin of left subclavian artery with a gradient of 22 mmHg and the levogram phase of a right ventricle arteriographic injection confirmed that a single anomalous vein draining the left upper lobe entered the innominate vein (Fig. 1, Video 1. See corresponding video/movie images at www.anakarder.com). Magnetic resonance angiography was performed for confirming and clarifying the findings of cardiac catheterization (Fig. 2 ).

Partial anomalous pulmonary venous return can rarely occur with coarctation of the aorta. All reported cases in the literature had multiple pulmonary venous return anomalies unlike the presented case. In this case, only left upper pulmonary vein draining the left upper lobe and entering the innominate vein was demonstrated.

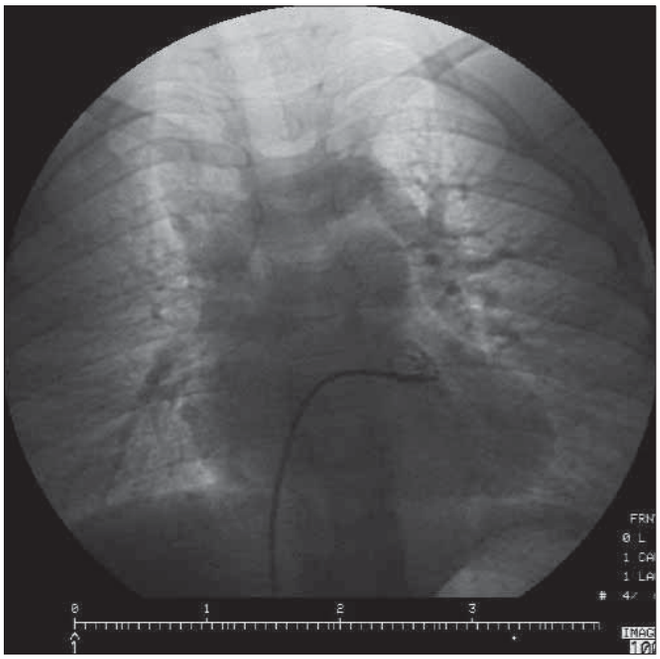

**Figure 1. Levogram from a right ventricle angiogram demonstrates drainage of left upper lobe by the anomalous pulmonary vein into the vertical vein, which drains into the innominate vein. The other pulmonary veins drain normally into the left atrium**

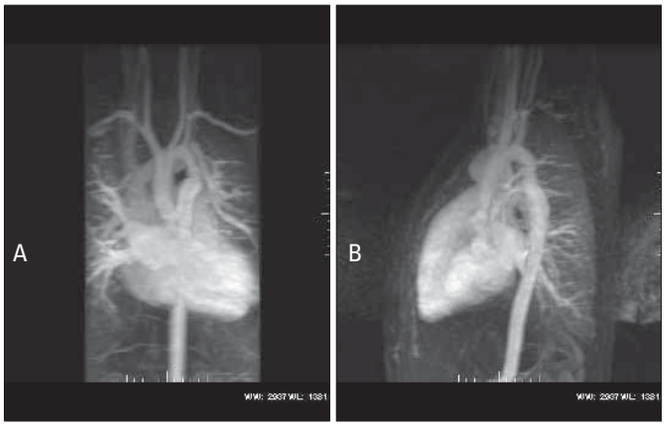


**Figure 2. Contrast enhanced magnetic resonance angiography images reformatted in the coronal (A) and oblique sagittal planes (B) show an aortic coarctation distal to the left subclavian artery origin. Note also the abnormal drainage of the left superior pulmonary veins to the innominate vein**

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# Takotsubo cardiomyopathy mimicking acute high lateral myocardial infarction

## *Akut yüksek lateral miyokard infarktüsünü taklit eden Takotsubo kardiyomiyopatisi*

A 47-year-old-woman was admitted to emergency department because of severe chest pain of an one hour in duration. The patient had no coronary

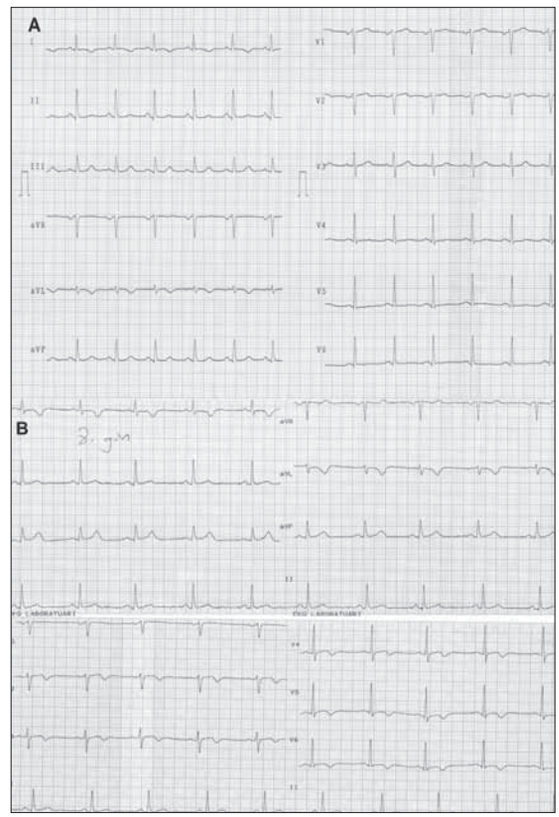


**Figure 1. Electrocardiogram on presentation (A) displays significant for ~ 1mm ST elevation in I and aVL leads, mimicking acute high lateral myocardial infarction. Electrocardiogram on the eight day (B) showed inverted T waves in precordial leads and I-aVL**

risk factors. As a remarkable fact, her son had died that day. On admission, physical examination revealed no pathological findings. Electrocardiogram (ECG) showed 1 mm ST elevation in leads I and aVL. There was not ST elevation in precordial leads (Fig. 1A). Transthoracic echocardiography (TTE), revealed apical akinesia, midventricular hypokinesia and basal hyperkinesia of the left ventricle with ejection fraction of 35%. Coronary angiography revealed normal coronary arteries. However, ventriculography (Video 1. See corresponding video/movie images at www.anakarder.com) showed apical and midventricular ballooning with basal hyperkinesia. Chest pain disappeared spontaneously. Cardiac enzyme and troponin levels were elevated and reached to maximal degrees on the 2nd day. Although there was no abnormality in pecordial leads on the 1st day, electrocardiogram showed inverted T waves in precordial leads, I and aVL on the 8th day (Fig.1B). Transthoracic echocardiography, performed on the 7th day, revealed normal left ventricular systolic functions. With these findings, we diagnosed the Takotsubo cardiomyopathy (TC) and discharged her from hospital in excellent condition. Takotsubo cardiomyopathy is characterized by the finding of transient left ventricular wall motion abnormalities accompanied by chest pain, dynamic reversible ST-T segment abnormalities, and mild elevation of cardiac enzymes usually present with a recent history of emotional or physical stress. Although ST elevation or T wave inversion in the anterior leads have been the most commonly recorded electrocardiographic findings ECG can be normal or can show nonspecific changes.

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# Pulmonary stenosis due to metastatic malignant melanoma

## *Metastatik malin melanomun neden olduğu pulmoner darlık*

A 60-year-old male with a history of resected malignant melanoma of neck region and three courses of chemotherapy was presented with exertional dyspnea and near syncope. On cardiovascular examination his heart rate was 90/min and the blood pressure was 90/60 mmHg. Cardiac auscultation revealed a grade 2/6 systolic ejection murmur along the left sternal border. Two-dimensional (2-D) echocardiography showed a 7x3 cm mobile mass in the right ventricle extending into right ventricular outflow tract (Video 1. See video/movie images at www.anakarder.com). Right ventricle was dilated and the mass was found in a narrow pulmonary outflow tract (Fig. 1). A 50 mmHg peak systolic gradient was demonstrated with continuous wave Doppler. At surgery, 7x4 cm mass filling the right ventricular outflow tract was found and removed (Fig. 2). Histopathologic examination of the mass confirmed the diagnosis of malignant melanoma. He was transferred to oncology department with planning of systemic immuno-chemotherapy. However, two months after the surgery, he was hospitalized again due to deep vein thrombosis and pulmonary embolism. Repeated 2-D echocardiography demonstrated complete resolution of right ventricle mass.

Although malign melanoma generally metastasizes to lungs, brain, liver, on post-mortem examination cardiac structures are involved in about half of cases. Despite frequent involvement of the heart, however, less than 5% are diagnosed with such ante mortem due to nonspecific symptoms and clinical signs. Therefore, patients with known malignant melanoma who have cardiac symptoms should always be evaluated with cardiac imaging techniques such as echocardiography to demonstrate the possible cardiac metastasis.

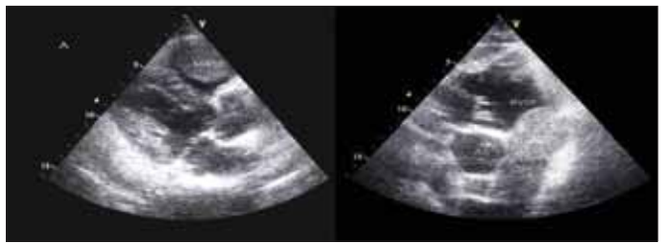

**Figure 1. Two-dimensional echocardiogram, parasternal long-axis view showing the mass in the right ventricular outflow tract (panel A) and parasternal short-axis view showing the right ventricular mass, obstructing the outflow tract and impinging onto the pulmonary valve (panel B)**
Ao - aorta, RVOT - right ventricular outflow tract

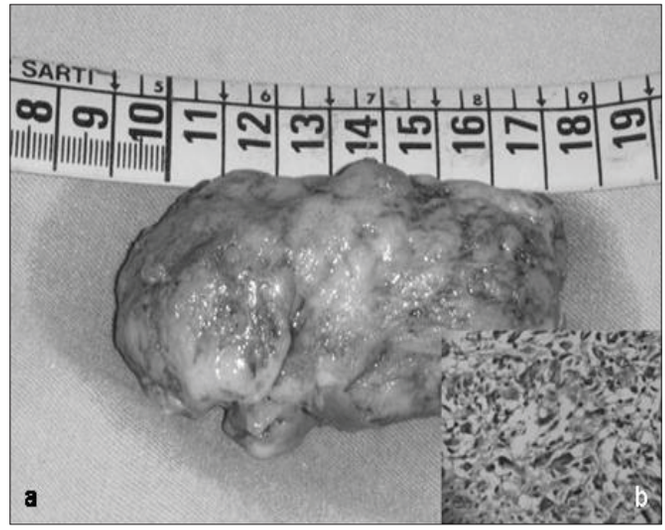


**Figure 2. A) Gross appearance of removed mass. B) The histopathologic examination of the tumor revealed melanoma cells with spindle cytoplasms. Nuclei are large and hyperchromatic, rare binuclear forms are noted (Hematoxylin-eosin, original x10)**

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