

Large Left Ventricular Myxoma Presenting Coronary Neovascularization

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KORONER NEOVASKÜLARİZASYON GÖSTEREN DEV SOL VENTRİKÜL MİKSOMASI

ÖZET

Sol ventrikül miksomalari nadir olarak görülürler ve sistemik emboli, akim obstrüksiyonu, valvüler regürjitasyon, aritmi ve ani ölümlere neden olabilirler. İki boyutlu ekokardiyografi ile tanı konulabilir. Sol sirkumflex ve sağ koroner arterden tümörün neovaskularizasyonu miksomal hastalarda gözlenmiştir. Burada ise, serebral emboliye bağlı serebrovasküler olay geçiren bir olguda sol anterior inen koroner arter neovaskularizasyonu gösteren dev sol ventrikül miksoması rapor edildi.

Anahtar kelimeler: ekokardiyografi, koroner neovaskularizasyon, sol ventrikül miksoması

Left ventricular myxomas are a rare disorder, accounting for approximately 2.5-4 percent of reported myxomas (1). They are frequently seen in the younger age groups, and can cause systemic emboli, obstruction of flow, valvular regurgitation, arrhythmia and sudden death (1,2). Diagnosis can be made by both transthoracic and transesophageal echocardiography and by magnetic resonance imaging (MRI) (3,4). Tumor neovascularization from branches of the left circumflex or right coronary artery was observed in patients with left atrium, right atrium and right ventricular myxoma (5). This report firstly presents a large left ventricular myxoma presenting left anterior descending coronary artery neovascularization in a case underwent cerebrovascular accident due to cerebral emboli.

CASE REPORT

A 25-year-old man patient who was admitted for cerebrovascular accident was consulted by Cardiology Department to evaluate if cardiac emboli origin was present. The

patient had no cardiac or neurologic complaints before he was hospitalized in Neurology Clinic due to left hemiparesis. Of the risk factors for atherosclerotic heart disease, he had a cigarette smoking history only. The physical examination revealed that the patient had no pathologic findings other than left hemiparesis. His electrocardiogram and chest radiogram was normal. It was found that serum creatine kinase level were elevated (290 U/L). We performed transthoracic echocardiography to determine if cardiac emboli origin caused cerebrovascular accident was present. Transthoracic echocardiography: Septoapical and apical wall of the left ventricle are hypokinetic; there was an ecogenic mass adjacent to those walls, narrowing the left ventricular cavity, drawing the borderline, with the size of 56x24 mm, with a smooth surface and with about the same density to the soft tissue (Figure 1). Other cardiac chambers and both great vessels were of normal size and clear. All cardiac valves were normal. Selective coronary angiography: There was coronary neovascularization pooling of contrast medium related to left ventricular mass in the distal of left anterior descending coronary artery (Figure 2). Left circumflex coronary artery and right coronary artery were found normal.

Left ventricular mass was removed at surgery. At histopathology, the mass consisted of a large left ventricular myxoma (Figure 3).

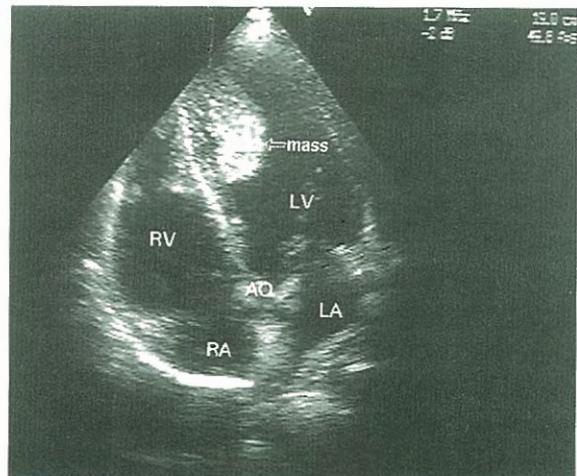


Figure 1. Two-dimensional echocardiography, apical four chamber view showing a large mass in the left ventricular cavity. LV: left ventricle, RV: right ventricle, LA: left atrium, RA: right atrium, AO: aorta.

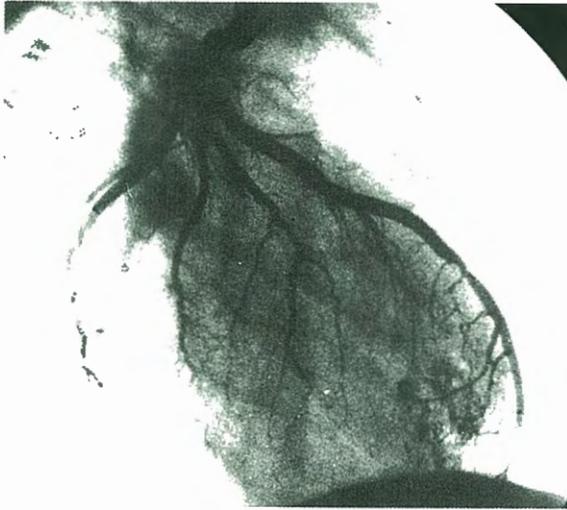


Figure 2. Selective left coronary angiogram in right oblique projection. There is coronary neovascularization pooling of contrast medium in the distal segment of left anterior descending coronary artery.

DISCUSSION

Myxomas can occur in any cardiac chamber, but only 2.5-4% are found in the left ventricle (1). The patient frequently applied by peripheral emboli (mostly cerebral) findings (1,3). Onset of the neurologic deficit due to cerebral emboli may be gradual or sudden (like our case). Children have a higher incidence of ventricular myxoma than do adults and a higher incidence in females characterizes most series (1). Our case was younger age but male.

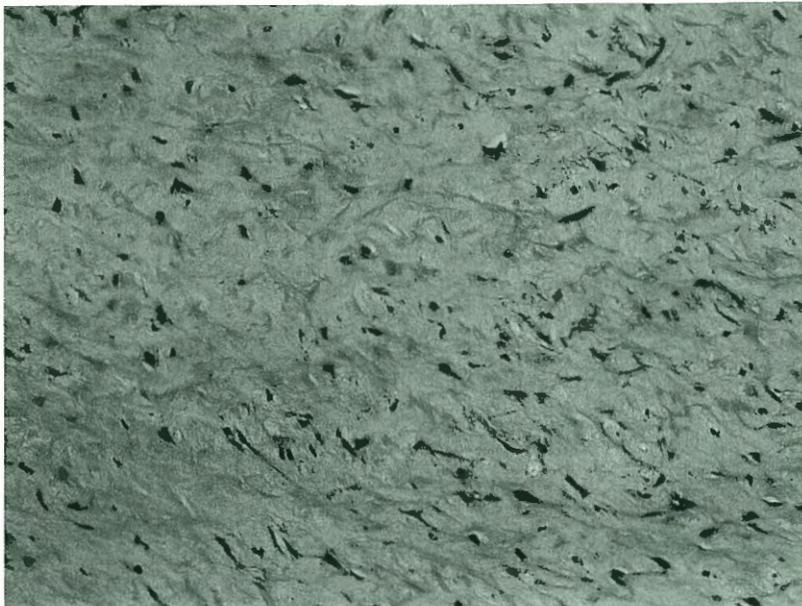


Figure 3. Wave, spindle, uniform cells in loosely myxoid stroma (HEX200).

Two-dimensional echocardiography can be used to make the diagnosis (1,3). Left ventricular myxoma must be differentiated from left ventricular thrombus (6). Transesophageal echocardiography and MRI can help the differential diagnosis (3,4). In our case, transthoracic echocardiographic imaging quality was good. So, we thought to be unnecessary to use other techniques like transesophageal echocardiography and MRI. Transesophageal echocardiography also is a semiinvasive method. Magnetic resonance imaging is a expensive method and absent in most medical centre. Although we suspected myxoma rather than thrombus according to echocardiographic finding, we could not have decided either whether the cardiac mass is myxoma or thrombus. Definitive diagnosis was made in histopathologic examination.

Cranial computed tomography was normal in first 24 hours. It was said that cranial computed tomography may be normal and serum creatine kinase level may be elevated in first 24-48 hours in patients with cerebrovascular accident (7).

We initially thought that cardiac mass may be a thrombus due to non-Q-wave myocardial infarction. Because serum creatine kinase level was elevated and dyssynergic left ventricular segments were present. So, we performed selective coronary angiography. Coronary angiography may demonstrate coronary neovascularization in the tumor from branches of coronary arteries; both left and right atrial myxomas and a right ventricular myxoma have been demonstrated in this manner (6,8,9), but our report presents the first case of a left ventricular myxoma. In our case, serum creatine kinase level may be elevated due to cerebrovascular accident. The left ventricular dyssynergy detected by echocardiography was improved due to after surgical therapy. So, we thought that left ventricular dyssynergy may be seen by indirect effect of mass (myxoma) adjacent to septoapical and apical walls.

Myxoma was removed at surgery. Left hemiparesis was gradually

improved by physical rehabilitation. He was discharged and suggested to come clinical and echocardiographic controls.

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