Giant left ventricular metastasis of uterine leiomyosarcoma mimicking acute coronary syndrome

Akut koroner sendromu taklit eden uterin leiomyosarkomun dev sol ventrikül metastazı

Uterine leiomyosarcoma (UL) is an uncommon soft tissue neoplasm that frequently metastasizes to the lung, bone and brain. This may be the first report of metastasis of UL to the myocardium. A 56-year-old female patient was admitted with exertional angina and dyspnea of 3 days duration. Her medical history included hypertension and metastatic UL, which had been diagnosed and managed by a debulking operation and radiotherapy 7 years previously. Physical examination revealed a Levine grade 4 pansystolic murmur at the apex, and a mass formation measuring approximately 3x3 cm in the right lower abdominal quadrant. Her medications included perindopril, metoprolol and anastrazol. The electrocardiogram showed newly-developed symmetric T wave inversions on inferior and lateral leads (Figure A). Level of Troponin I was 0.4 ng/mL (upper limit <0.06) on admission. The patient was hospitalized with a diagnosis of acute coronary syndrome. Coronary angiography revealed no obstructive coronary lesion (Figure B and C). Transthoracic echocardiography showed severe mitral regurgitation and a mass lesion measuring 6x7 cm compressing the posterolateral wall of the left ventricle (Figure D and E, Video 1–2*). Multisliced computed tomography showed a large, non-calcified cystic lesion constituting left ventricular metastasis of UL (Figure F and G). Endomyocardial biopsy from this lesion is very troublesome and may cause fatal complications. After diagnosis of cardiac leiomyosarcoma, invasion was undertaken and the patient referred to an oncologist. While primary tumors of the heart are very rare, secondary involvement of the heart in extracardiac tumors is 20 to 40 times more common. UL is a rare malignancy. Frequent sites of metastasis include the lung, bone and brain. Metastases of UL to the heart is extremely rare. CT presentation of leiomyosarcoma includes large, non-calcified cystic lesions. Although these are not specific, when present with a primary UL, they should suggest consideration of metastasis in the patient. There are reports in the literature of intracardiac and pericardial invasion by UL. However, to our knowledge, this case is the first presentation of UL metastasis to the myocardium.

**Figures—** (A) ECG showing symmetric T wave inversions on inferior and lateral leads that was considered ischemic heart disease. Angiographic views: (B) LAO view shows no obstructive lesion on the right coronary artery (C) RAO cranial view shows no obstructive lesion on the LAD or Cx arteries. (D) Transthoracic echocardiography, parasternal long-axis view showing the mass lesion of diameter 6.4 cm compressing the posterolateral wall of the left ventricle. (E) Transthoracic echocardiography, apical 4-chamber view, showing the mass lesion compressing the lateral wall of the left ventricle and eccentric mitral regurgitation. (F) CT showing the large, non-calcified, cystic lesion metastasis on the posterolateral wall of the left ventricle. (G) CT showing the large, non-calcified, cystic lesion metastasis on the inferior wall of the left ventricle. *Supplementary video files associated with this presentation can be found in the online version of the journal.