

**Figure 1. Coronary angiography images: (a) systolic compression, (b) diastolic normalization of the LAD and first diagonal branch**  
LAD - left anterior descending coronary artery

arrows). In addition, TIMI 2 flow with systolic compression has been shown in LAD (Video 1). Troponin I levels increased significantly and the transthoracic echocardiography showed wall motion abnormalities in anterior, apical and septal segments of left ventricle.

Myocardial bridges consist of muscle fiber bundles lining an epicardial coronary artery for a variable distance. They are found in 10% of all coronary angiography procedures. The vessel wall underneath the muscular bridge is usually thin and free from degenerative atherosclerotic changes. A coronary stenosis caused by a short muscular bridge is considered critical when greater than 75%. Bridging of the epicardial coronary arteries has been described only in association with the left ventricular myocardium and most commonly with the LAD. Especially myocardial bridges in both LAD and diagonal branches are very rare. In our case, the patient has myocardial bridges in both LAD and its diagonal branch. Although myocardial bridges are usually associated with a benign prognosis, being in many cases asymptomatic and only found by chance, their presence has also been considered a cause of angina, malignant arrhythmia, myocardial infarction and sudden death. Therefore when patients has not any atherosclerotic risk factors and applied with acute coronary syndromes, percutaneous intervention may be prefer as reperfusion strategy as we did. We evaluated that the reasons of the myocardial infarction were the insufficient blood flow through the bridging arteries and the micro-thromboembolism from narrowing vessel segments. Other mechanisms such as neurohumoral or metabolic, may be played role in this case. Further studies need in this subject.

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**Video 1.** Coronary angiography shows TIMI 2 flow in LAD coronary artery

LAD - left anterior descending coronary artery

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## Tako-tsubo-like cardiomyopathy induced by pheochromocytoma crisis

*Feokromasitoma krizinin tetiklediği Tako-tsubo benzeri kardiyomiyopati*

Pheochromocytomas are rare catecholamine producing neuroendocrine tumors typically located in the adrenal medulla or along the sympathetic ganglia. It can secrete excessive catecholamine and causes clinical problems. Takotsubo cardiomyopathy, also known as transient left ventricular (LV) apical ballooning syndrome, is an acute cardiac syndrome characterized by transient LV regional wall motion abnormalities, chest pain or dyspnea, ST-segment elevation at electrocardiography (ECG) and minor elevations of cardiac enzyme levels. A 64-year-old man was admitted to hospital because of severe non radiating central chest pain and palpitation. He had labile blood pressure for 6 months, 12 kg weight loss for one year. He was referred to endocrinology clinic with these complaints 1 month ago and pheochromocytoma was diagnosed. On presentation, the patient's high blood pressure values measured in the emergency department, laboratory, angiography, 210/130 mmHg, respectively. Dual heart sounds with no cardiac murmur, clear lung fields. ECG showed ST-segment elevation in leads II and aVF, V3-V6 (Fig. 1A, B). The patient underwent emergent cardiac catheterization for presumed acute myocardial infarction (MI). Coronary angiography showed patent epicardial coronary arteries with only minor atherosclerotic manifestations (Fig. 2A). LV angiography demonstrated the characteristic morphology of apical ballooning with hyperkinesis of the basal segments and hypokinesis of the mid-apical segments (Fig. 2B, 1C-F). Two week later, the patient underwent a laparoscopic surgery and excision of the right adrenal mass, with gross and microscopic pathology confirming pheochromocytoma (Fig. 2D-F).

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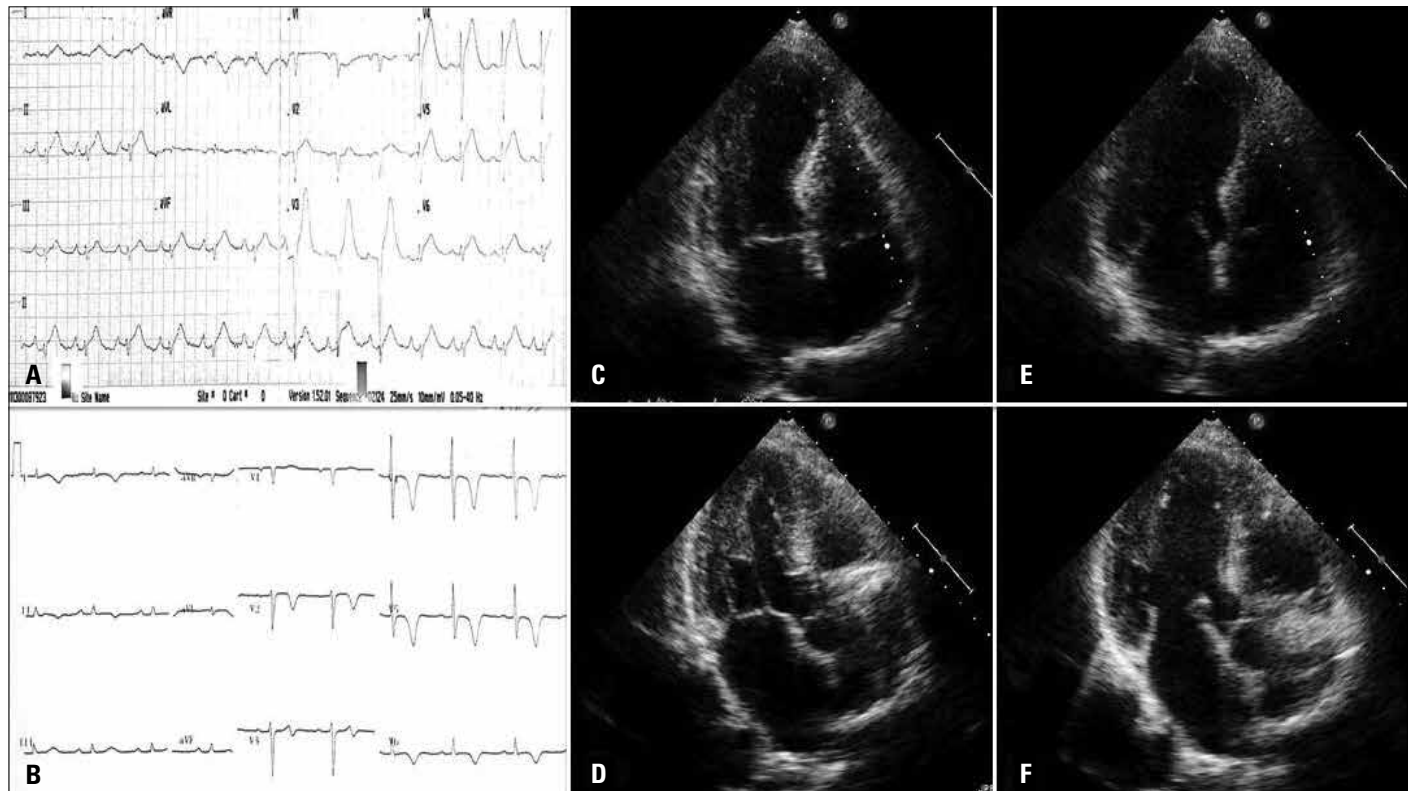
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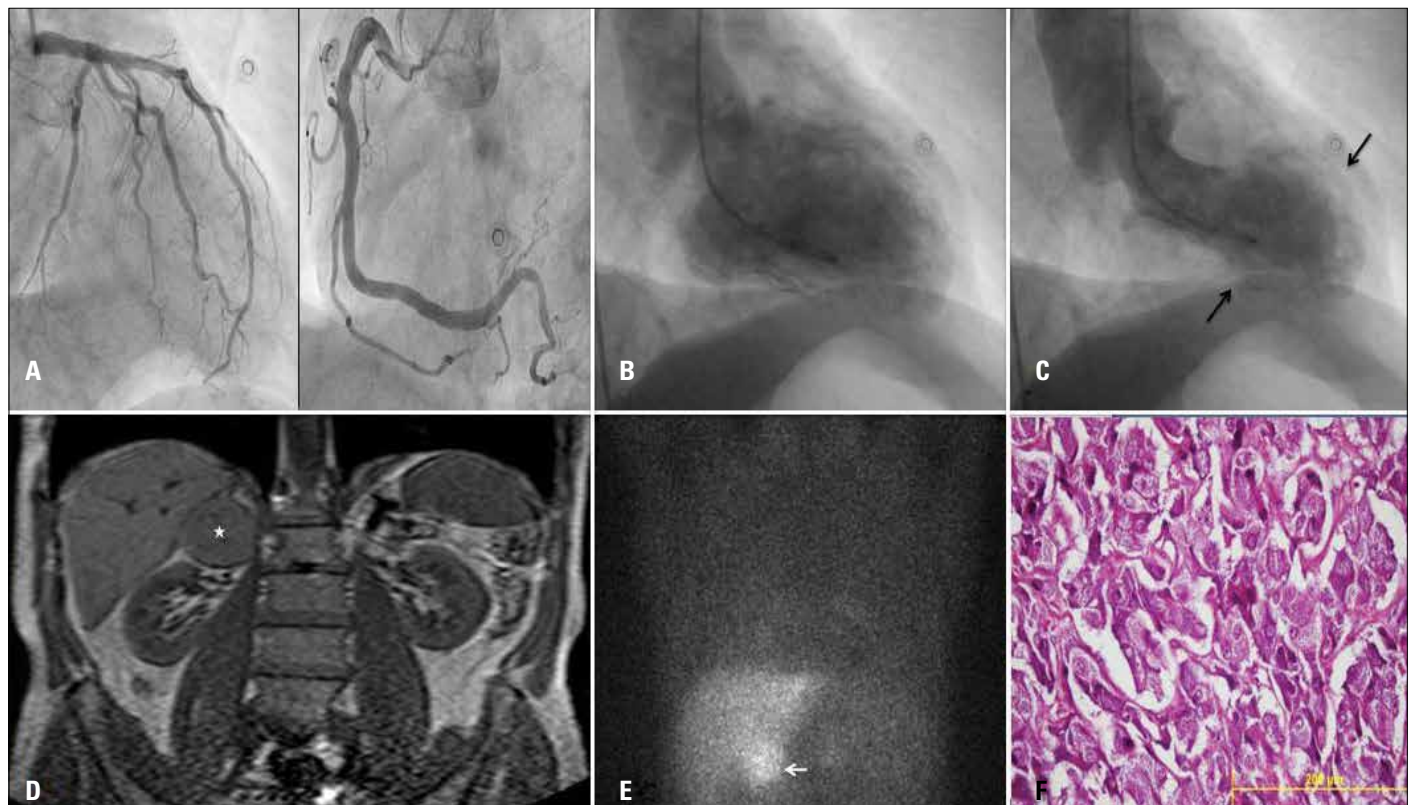
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**Figure 1. A) The first ECG in the emergency department, B) Patient's ECG after coronary angiography and antihypertensive treatment, C) Patient's echocardiography appearance in systole before coronary angiography and antihypertensive treatment, D) Patient's echocardiography appearance in systole after coronary angiography and antihypertensive treatment, E) Patient's echocardiography appearance in diastole F) Patient's echocardiography appearance in systole**  
ECG - electrocardiogram



**Figure 2. A) Patient's coronary angiographic appearances, B) Ventriculography in diastole, C) Ventriculography in systole with apical ballooning (arrows), D) \*The mass image in magnetic resonance in right surrenal gland, E)\*The mass image in scintigraphy (arrow), F) Pheochromocytoma in pathologic specimen after the surgery**