

Acute coronary embolism after mitral valve replacement in a patient presenting with non-ST-segment elevation myocardial infarction

ST-segment yükselmesiz miyokard infarktüsü ile başvuran mitral kapak replasmanı yapılan bir hastada akut koroner emboli

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A 39-year-old man was admitted to our emergency department with heavy chest pain continued for an hour. He had history of mitral valve replacement one year earlier. On physical examination his systolic and diastolic blood pressures were 100 and 60 mmHg respectively, heart rate was 100 bpm, and an apical pansystolic murmur of grade 2/6 was heard with auscultation. Sinus tachycardia and ischemic ST-T changes were noticed on his electrocardiogram (ECG). Laboratory tests revealed creatine kinase-MB level of 83 U/L (normal range: 0-24) and troponin-T level of 1.43 ng/ml (normal range: 0.000-<0.001). Anti-ischemic, anti-platelet, and anti-coagulant therapies were started. Transthoracic and transesophageal echocardiographies showed no vegetation and/or thrombus attached to mechanical mitral prosthesis. During follow-up period, we learned that, the patient had transient ischemic attack 6 months ago despite warfarin use. Insufficient anti-coagulation was also detected because INR level of patient was 1.63. After clinical stabilization, the patient was transferred to catheterization laboratory and selective coronary angiography was performed. Cardiac catheterization revealed that distal portion of the right

coronary artery just before acute marginal branch was narrowed by a thrombus consistent with significant stenosis (Fig. 1) without any atherosclerotic involvement in any other territory. Then tirofiban infusion was started and the patient was discharged for medical follow-up. Most common cause of acute myocardial infarction is atherosclerosis. However some rare conditions such as coronary artery embolism might be the reason. Although coronary artery embolisms have been most frequently showed in the LAD coronary artery other territories might be contributed. There are controversies for the treatment of coronary embolism. Medical and percutaneous techniques can be performed. In medical approach thrombolytic therapy (streptokinase, urokinase, and t-PA) and glycoprotein IIb/IIIa receptor antagonists have been used. For more effective treatment percutaneous transluminal coronary angioplasty, stent placement, and catheter-aspiration embolectomy have been used in selective cases. In conclusion, coronary artery embolism should be considered in the patients with acute myocardial infarction as a rare etiology especially when there is an associated risk factor such as mechanical prosthesis.

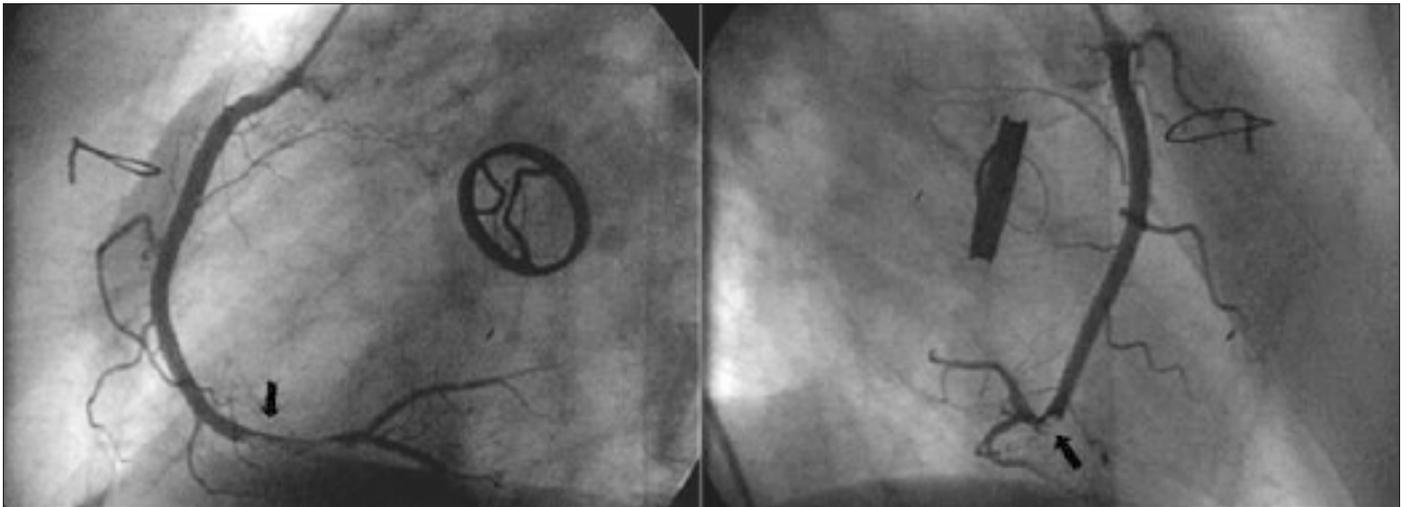


Figure 1. Selective angiography views of right coronary artery showing embolus just before acute marginal branch (arrows)