

com). Thrombus aspiration with thrombus aspiration catheter was applied to the proximal and distal thrombosis. Proximal thrombus was treated adequately by aspiration catheter without stent implantation. Distal embolus persisted despite the aspiration catheter application (Fig. 3, Video 2. See corresponding video/movie images at www.anakarder.com). After 48 hours tirofiban infusion, control coronary angiography was performed (Fig. 4, Video 3. See corresponding video/movie images at www.anakarder.com). Control echocardiography revealed an LVEF of 50% and left ventricular apical hypokinesis with minimal pericardial

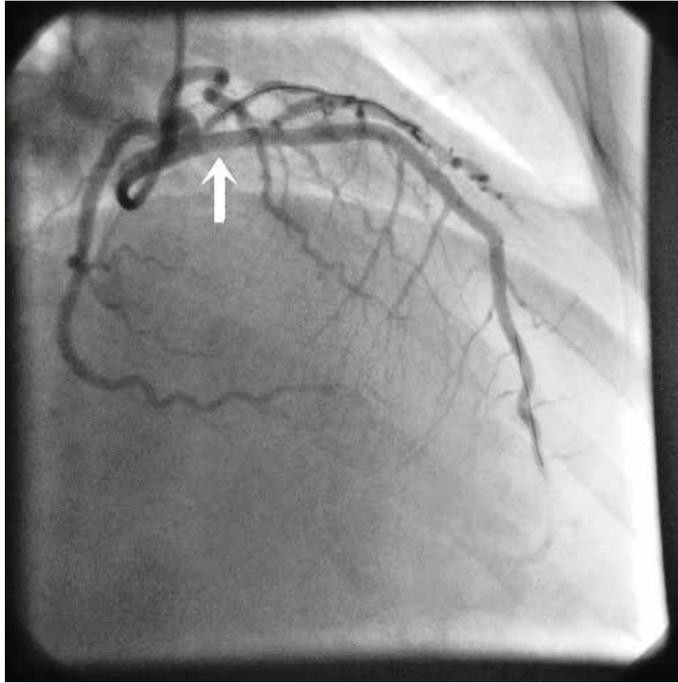


Figure 3. Proximal thrombosis (arrow) is treated adequately by aspiration catheter without stent implantation. Despite aspiration, distal thrombosis persisted



Figure 4. Control coronary angiography after tirofiban infusion

effusion. Patient was discharged without pain in the 5th day of hospitalization. Patient was symptom-free in the first month follow-up visit.

Diagnosis of myocardial infarction secondary to blunt chest trauma may be challenging. Both pericarditis and myocardial ischemia may be presented in same patient suffering blunt chest trauma. Shear force leading to intimal rupture is the possible trigger of the thrombus formation causing coronary accident. Frequently used treatment options in these cases are percutaneous coronary intervention and coronary bypass surgery. To the best of our knowledge, this is the first case with acute myocardial infarction secondary to blunt chest trauma, treated with thrombus aspiration.

Video 1. Coronary angiography showing intraluminal thrombosis in proximal region of left anterior descending coronary artery which was already embolized distal of the artery

Video 2. Proximal thrombosis is treated adequately by aspiration catheter without stent implantation. Despite aspiration, distal thrombosis persisted

Video 3. Control coronary angiography after tirofiban infusion

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A closer sight to the transapical cardiac resynchronization therapy

Transapikal kardiyak resenkronizasyon tedavisine daha yakın bir bakış

A 55-years-old Caucasian male with dilated cardiomyopathy and depressed left ventricle ejection fraction (LVEF) (about 37%) was implanted with a bicameral pacemaker (PM) because of a second degree atrio-ventricular block complicating a myocardial infarction. A 6 months follow-up transthoracic echocardiography (TTE) showed a left intra-ventricular dyssynchrony (Fig.1A), with a standard deviation of 14% and a delay of activation between septum and lateral wall >120 msec; these findings were hypothesized as a cause of the worsening of the clinical status (NYHA III), of a marked reduction of the LVEF (30%) and of a severe mitral regurgitation (Fig. 1B, C, Video 1, 2. See corresponding video/movie images at www.anakarder.com). A new resynchronization therapy was identified to be done and PM upgrade was performed: due to the failure of coronary sinus lead implantation, the pacing electrode was implanted using a transapical approach (by a left minithoracotomy and transthoracic two-stage Seldinger-type puncture and dilatation of the apex) and it was placed on the interventricular septum (Fig.1D-F). This technique was preferred to epicardial implantation in order to

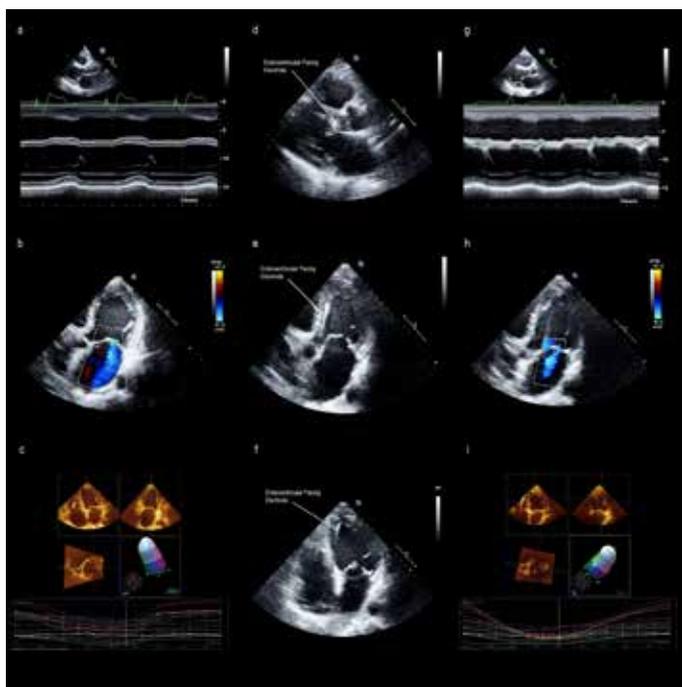


Figure 1. Transthoracic echocardiography Vignette: Pre-CRT: a) Long-axis parasternal view, M-mode, left intraventricular dyssynchrony with a wide QRS complex; b) Apical five- chamber view, left intraventricular dyssynchrony causing severe mitral regurgitation; c) 3D QLAB, assessment of the left ventricular function and dyssynchrony; Study of left endoventricular pacing electrode: d) Long- axis parasternal view, the endoventricular electrode is placed on the interventricular septum; e) Apical five- chamber view; f) Apical- four chamber view; Post-CRT: g) Long -axis parasternal view, M-mode, synchrony of the left ventricle with a narrow QRS complex; h) Apical five -chamber view, mild mitral regurgitation; c) 3D QLAB, assessment of the left ventricular function and synchrony

CRT - cardiac resynchronization therapy, QLAB - 3D quantification laboratory

avoid a more invasive surgical approach (general anaesthesia and single-lung ventilation).

The post-operative TTE showed a good left ventricle resynchronization (Fig. 1G) with a standard deviation of 4.5%, a delay of activation between septum and lateral wall of about 100 msec and with a significant improvement of the clinical status (NYHA IIa), and of the LVEF (about 50%) and with a residual mild mitral regurgitation (Fig. 1H-I, Video 3, 4. See corresponding video/movie images at www.anakarder.com). At discharge the patient was indefinitely medicated with beta-blockers, angiotensin converting enzyme inhibitors, diuretic and antiplatelet drugs. The patient was followed-up for 6 months, without complications and with unchanged TTE results.

Video 1. Apical five chamber view, left intraventricular dyssynchrony causing severe mitral regurgitation

Video 2. 3D QLAB, assessment of the left ventricle function and dyssynchrony

Video 3. Apical five- chamber view, improvement of the left ventricle ejection fraction and a residual mild mitral regurgitation

Video 4. 3D QLAB, assessment of the left ventricular function and synchrony

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Melting heart: dilated phase of hypertrophic cardiomyopathy



Eriyen kalp: Hipertrofik kardiyomiyopatinin dilate fazı

A 27-year-old male patient was admitted with complaints of exertional dyspnea and limited exercise capacity (New York Heart Association class III). At the age of 10 years, he had been admitted to hospital for the first time, and was diagnosed as having hypertrophic cardiomyopathy (HCM) with midventricular obstruction (Fig. 1). Due to syncope episodes and increased septal thickness (39 mm), implantable cardioverter defibrillator (ICD) implantation was performed at the age of 19 years. His medication includes metoprolol 50 mg bid and aspirin 100 mg. On the present admission, examination revealed blood pressure of 110/60 mmHg, pulse of 88 bpm, fine crackles in the bilateral lower lobes and jugular venous distension. Electrocardiogram (ECG) revealed sinus rhythm and prominent intraventricular conduction delay (QRS: 160 msn) which was normal except strain pattern at the age of 10 years (Fig. 2A). Echocardiography showed left ventricular (LV) end-diastolic diameter of 62 mm, LV ejection fraction of 24%, no midventricular gradient and septal thickness of 12 mm (Fig. 2B,

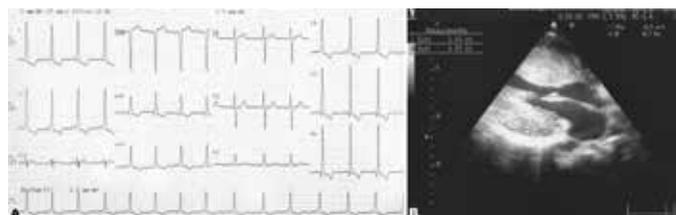


Figure 1. A) ECG at the age of 10 years showing sinus rhythm and LV strain pattern with normal QRS duration. (B) Echocardiography at the age of 19 years revealed LV end-diastolic diameter of 27 mm and septal thickness of 39 mm

ECG - electrocardiogram, LV - left ventricle



Figure 2. (A) ECG on the admission showing sinus rhythm with prominent intraventricular conduction delay (QRS-160 ms) (B) Echocardiography on the admission revealed LV end-diastolic diameter of 62 mm and septal thickness of 12 mm

ECG - electrocardiogram, LV - left ventricle