Witnessing a rare event: thrombus in transit after coronary angiography

Nadir bir olaya tanık olmak: Koroner anjiyografi sonrası trombüs transit

A 56-year-old man with no previous cardiac history was admitted to our clinic with complaint of dyspnea for 2 months. On auscultation, his heart sounds were arrhythmic, tachycardic, with a grade 2/6 systolic murmur in mesocardiac region. His electrocardiography displayed atrial fibrillation (AF), left axis deviation and ST-T wave changes in leads V5-6. Echocardiographic evaluation showed marked generalized biventricular hypokinesia, decreased left ventricular ejection fraction (30%). increased left heart dimensions, moderate mitral regurgitation and moderate pulmonary hypertension (45 mmHg). Patient underwent coronary angiography (CAG). The coronary arteries did not show any significant stenosis. He had complained about dyspnea and chest pain 20-hours after CAG. Repeated echocardiography revealed wormlike, elongated and highly mobile right-sided thrombi prolapsing into right ventricle (Fig. 1, Video 1. See corresponding video/movie images at www.anakarder.com). There were wormlike thrombi in hepatic veins and inferior vena cava (Fig. 2). We treated our patient with thrombolysis. There were no complications during or after streptokinase infusion. Last echocardiographic examination showed no thrombi in hepatic veins, inferior vena cava or right atrium (Fig. 3, Video 2. See corresponding video/movie images at www.anakarder.com). The patient was discharged at a compensated status with conventional heart failure therapy and warfarin.

Free-floating right-sided heart thrombi after CAG is a rare phenomenon, generally diagnosed when echocardiography is performed in patients with suspected or proven pulmonary thromboembolism. Patients who have right ventricular dysfunction, AF and long-lasting immobilization as demonstrated in our patient are prone to generation of right-sided cardiac thrombi. In such situation, repeated echocardiographic evaluation is a life-saving application.



Figure 1. Transthoracic echocardiographic image in apical five-chamber view: a worm-like elongated right-sided thrombi, prolapsing into the right ventricle is seen (black arrow)

Ao - aorta, LA - left atrium, LV - left ventricle, RA - right atrium, RV - right ventricle



Figure 2. Transthoracic echocardiographic image in subcostal view: Hepatic vein that contains worm-like elongated thrombus is seen (white arrow)

NC.

IVC - inferior vena cava



Figure 3. Transthoracic echocardiographic image in apical fourchamber view: Twenty-four hours after streptokinase treatment no signs of thrombi are seen

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