From Treatment to Diagnosis: A Huge Left Ventricular Thrombus in A Patient with Heart Failure

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A 60-year-old man with a history of non-ST elevation myocardial infarction and coronary bypass graft operation 2 years ago had been referred to the clinic due to dyspnoea and reduction in exercise capacity. He complained of weight loss of 8 kg in two months time. His physical examination was consistent with oedema in the lower extremities, hepatic enlargement and fine crackles in the lower fields of both lungs.

His electrocardiogram showed sinus rhythm with poor R wave progression in the precordial leads. Enlargement of left atrium and left anterior fascicular block were evident. His complete blood test and biochemical tests were normal. The erythrocyte sedimentation rate was 15 mm per hour. Examination of the serum tumour markers showed elevations in the levels of alpha-fetoprotein (1.5-fold increase) and CA-125 (20-fold increase). A previous echocardiography performed three years ago revealed moderately decreased systolic function. The present echocardiographic examination, performed in our clinic, showed an increased size of left ventricle (62 mm end-diastolic and 50 mm end-systolic dimensions). The apical and anterior walls were akinetic and the septal region was hypokinetic. In the left ventricle a huge mass originating from the apex and reaching the left ventricular outflow tract without causing obstruction was clearly visible. The echogenicity of the mass was increased and differential diagnosis of tumour and thrombus was considered (Figure 1a-1b). A coronary angiogram showed patent bypass grafts.

In order to have a definitive diagnosis and treatment; we advised the patient to have an operation for possible removal of the mass. However; he refused from operation and was followed-up on medical therapy with heparin and then oral anticoagulation with warfarin. The control echocardiogram showed complete disappearance of the thrombus at 3rd the month (Figure 2a-b) of treatment. The course was benign and no embolic events were noted at the 3rd month of follow-up.

Figure 1a-b. The mass in the left ventricular cavity. a: Apical view; b: Parasternal long axis view

Figure 2. The echocardiogram obtained at the 3rd month of follow-up a: Apical view; b: Parasternal long axis view.