A giant tumor thrombi filling right ventricle in a thrombocytopenic patient with renal cell carcinoma

Renal hücreli kansere eşlik eden trombositopenili bir olguda sağ ventrikülü dolduran dev trombüs

Renal cell carcinoma (RCC) is known to be a cause of pulmonary embolism. While the involvement of renal veins and the inferior vena cava by tumor thrombus is a relatively common finding (21-35% and 4-10% respectively), the frequency of tumor thrombus extension into the right side of the heart is rare (0.5-2%). We report a case of giant tumor thrombi filling right ventricle in RCC patient with a history of thrombocytopenia. Sixty four year old male with a known history of thrombocytopenia and RCC was admitted to emergency department with acute onset of dyspnea and retrosternal chest pain. The physical examination revealed a blood pressure of 130/75 mmHg, respiratory rate of 40/min and heart rate of 120 bpm respectively. Heart and respiratory auscultation findings were normal. ECG at admission showed sinus tachycardia without any ischemic finding. Laboratory findings were normal except thrombocytopenia (platelet count: 27000 mm^3). Cardiac biomarkers including troponin I and creatine kinase-MB fraction revealed no pathologic elevations. Transthoracic echocardiography revealed giant thrombus filling all right ventricle limiting blood flow (Fig. 1, 2, Video 1, 2). Thorax computed tomography showed giant thrombus filling all right ventricle without any pulmonary artery involvement, and pericardial effusion of 1.98 cm size (Fig. 3).

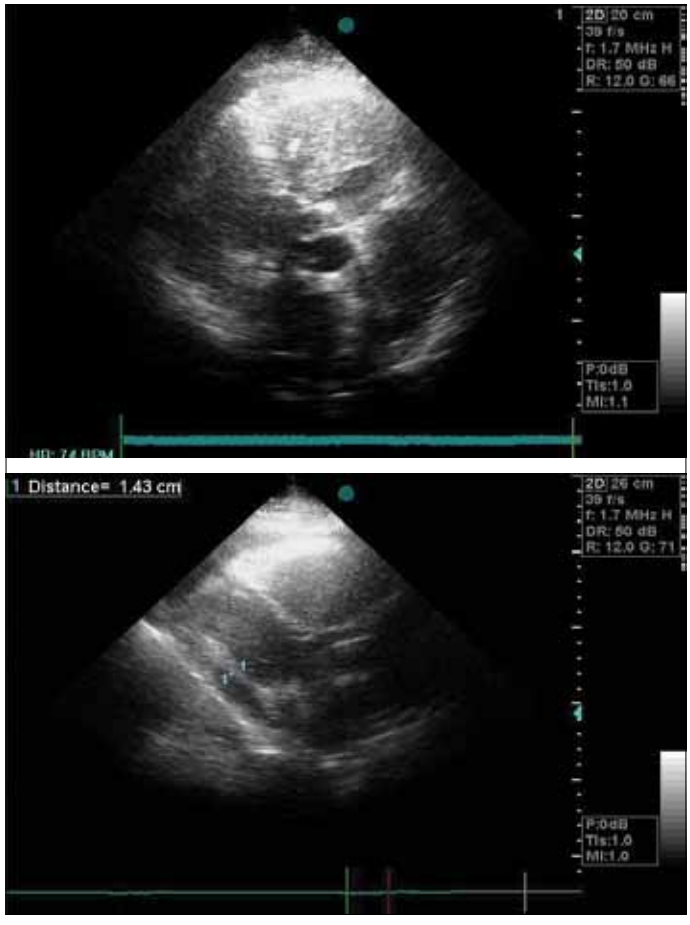

Figure 1, 2. Transthoracic echocardiography view of a giant thrombus filling all right ventricle limiting blood flow

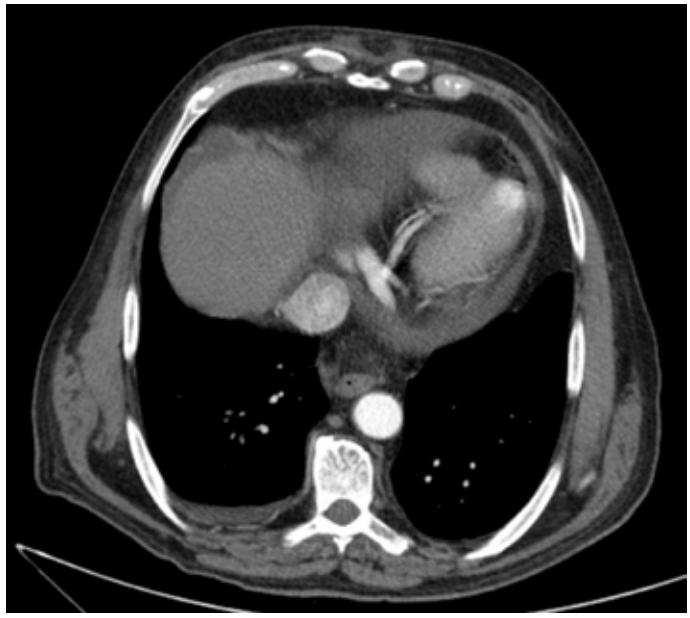

Figure 3. Thorax computed tomography showed giant thrombus filling all right ventricle without any pulmonary artery involvement, and pericardial effusion of 1.98 cm size

Supplement oxygen 3lt/min and enoxaparine 60 mg were administered to patient. Since the patient did not have findings of cardiac tamponade and he had thrombocytopenia, pericardiocenthesis was not performed. The early diagnosis and specific surgical approaches including cardiopulmonary bypass are the most effective treatment modalities in RCC patients with thrombus above the level of hepatic veins.

Video 1-2: Transthoracic echocardiography movie images of a giant thrombus filling entire right ventricle limiting blood flow

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Two-and three-dimensional echocardiographic views of a prominent Chiari network prolapsing into right ventricle

Sağ ventriküle prolabe olan belirgin Chiari ağının iki ve üç boyutlu ekokardiyografik görünümü

A 20-year-old male patient with no medical history was admitted to our cardiology clinic for atypical chest pain. Physical examination was