



Worm-Like Thrombus in the Right Heart Treated with Low Dose Fibrinolytic Therapy in a Patient with Pulmonary Embolism

Sağ Kalpte Solucanvari Trombüsü Olan Pulmoner Embolili Bir Hastanın Düşük Doz Fibrinolitik ile Tedavisi

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A 71 years old female patient presented with shortness of breath, cough, pleuretic chest pain and hemoptysis. Blood pressure was 160/90 mm/Hg and heart rate was irregular with 125 beats per minute. She had marked respiratory distress with a respiratory rate of 28 per minute. Patient was coughing and had blood stained sputum. Oxygen saturation was decreased (86%) while taking oxygen with nasal cannula (6 Lt/min). Serum troponin T was elevated at borderline, 0.39 ng/mL (normal < 0.01). Echocardiography revealed a thin, mobile, worm-like thrombus (0.3x10 cm) in the right atrium moving into the right ventricle during diastole and in to the hepatic vein during systole (Figure 1) with increased pulmonary artery pressure and right ventricular strain. Findings were consistent with thrombus in transit so the patient was diagnosed with acute pulmonary embolism (PE). Prolonged low dose infusion (25 mg/6 hours) of tissue plasminogen activator was administrated to the patient. It showed the progressive decrease in the size of the thrombus at the 1st hour, and complete resolution was seen at the 6th hour of fibrinolytic infusion (Figure 2). 12th hour control confirmed there was no residual thrombi in the right heart. Thrombus was lysed, symptoms disappeared and hemodynamic parameters recovered after fibrinolytic treatment. No increase was observed in bleeding. An infarct consolidation at the base of the left lung and diaphragm elevation was obtained on chest X-ray (Figure 3) Control pulmonary CT angiography showed thrombus fragments only in distal pulmonary beds. This case showed prolonged low dose infusion fibrinolytic protocol might be efficient and safe in patients with pulmonary embolism and impending thrombus in right heart with hemorrhagic findings.

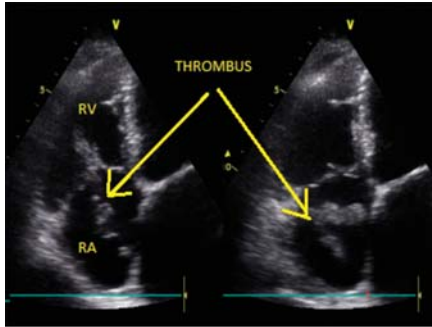


Figure 1. Transthoracic echocardiography before fibrinolytic therapy. Highly mobile worm like thrombus is seen in the right atrium. RV: Right ventricle, RA: Right atrium.



Figure 2. Transthoracic echocardiography after fibrinolytic therapy. Right heart chambers are clear. RV: Right ventricle, RA: Right atrium, LV: Left ventricle LA: Left atrium.

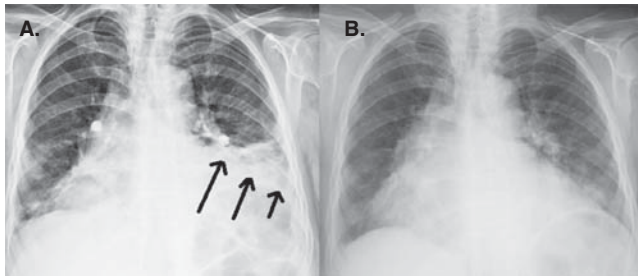


Figure 3. Chest x ray. (A) Left pulmonary infarct in the lower zone before fibrinolytic therapy (B) The patient's x-ray control after 3 months.

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