

Successful treatment with anticoagulant therapy of a thrombus trapped in a patent foramen ovale in a patient with acute pulmonary embolism

Akut pulmoner emboli hastasında foramen ovale açıklığına takılmış trombüsün antikoagülasyon ile başarılı tedavisi

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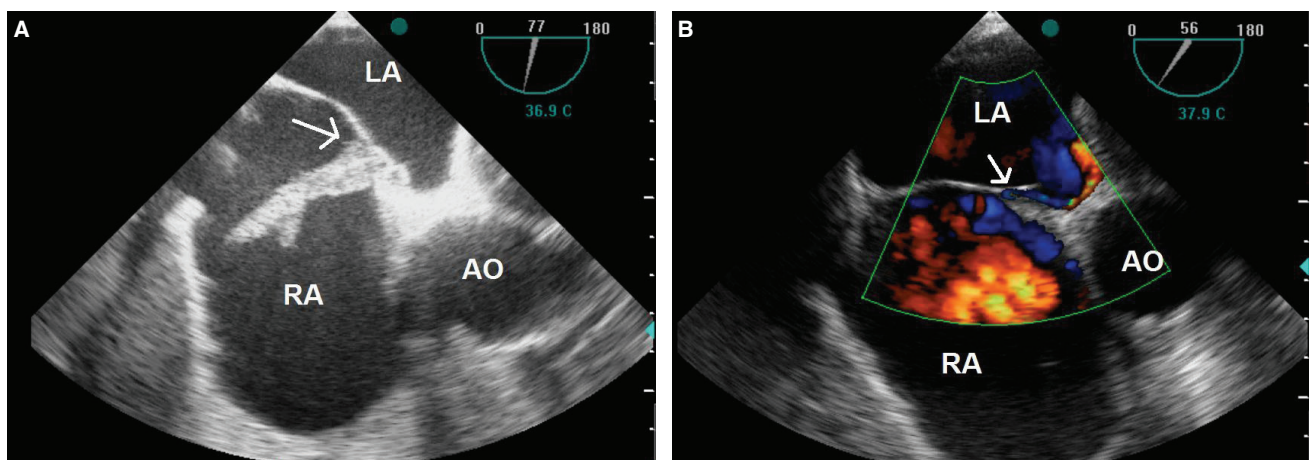
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A 70-year-old female patient was admitted to our emergency department with complaints of dyspnea, hemoptysis and back pain. Her history revealed hypertension and chronic obstructive pulmonary disease. At admission, her blood pressure was 120/80 mmHg and her heart rate

was 104 bpm. She was tachypneic and in respiratory distress. ECG revealed atrial fibrillation with a rapid ventricular rate. Hypoxia and hypocarbia (SO_2 : 86%, pCO_2 : 27 mmHg) were found on her arterial blood gas analysis. Her D-dimer was elevated to 16,716 mg/l. Computed tomography demonstrated filling defects in both pulmonary arteries and their lobar segments and an acute pulmonary embolism was diagnosed. Doppler ultrasonography ordered for the lower extremity showed subacute-chronic thrombus formation in both lower extremities. Transthoracic echocardiography (TTE) was performed to evaluate cardiac functions

and found left ventricular ejection fraction 60%, severe tricuspid regurgitation and a systolic pulmonary artery pressure of 65 mmHg. Other findings included a biatrial thrombus saddled at a patent foramen ovale (PFO) (Videos 1 and 2*). Accordingly, transesophageal echocardiography (TEE) showed a mobile thrombus trapped in the PFO (Figure A, Video 3*). Surgery was advised because of the risk of systemic embolization and recurrent pulmonary embolism. The patient refused and medical treatment was initiated. The patient was anticoagulated with heparin 800 units/hour to achieve activated partial thromboplastin time of 2 to 3 times the upper limit of normal (approximately 60 to 80 seconds), and with warfarin to maintain an INR of 2.0–3.0. In one week, the general status of the patient improved and she was discharged home with oral anticoagulation. On the 15th day after discharge, the patient returned for follow-up. On TTE, the thrombus was not visible. TEE was repeated (Video 4*) and showed absence of the biatrial thrombus, presence of a defect compatible with PFO and a smaller thrombus particle lodged in the PFO, allowing minimal passage through (Figure B).



Figures– (A) Trapped thrombus in the patent foramen ovale in short-axis of transesophageal echocardiographic view. Arrows indicates area of the patent foramen ovale. **(B)** Mid-esophageal four-chamber view shows absence of the biatrial thrombus with a defect compatible with a patent foramen ovale. Arrows indicates area of the patent foramen ovale. AO: Aorta; LA: Left atrium; RA: Right atrium. *Supplementary video files associated with this presentation can be found in the online version of the journal.