Entrapped Thrombus in a Patent Foramen Ovale with Dyslipidemia

Dislipidemisi olan Patent Foramen Ovaleli Bir Olguna Yerleşik Trombüs

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Abstract

Patent foramen ovale (PFO) is identified in approximately 27% of healthy individuals undergoing routine autopsy and in 25% of the general population on transesophageal echocardiography (TEE). PFO generally considered benign, but has been associated with stroke, migraine and diving decompression sickness1. A 49-year-old woman with a history of migraine was referred to our clinic for PFO. Transthoracic echocardiography showed a suspicion of a patent foramen ovale. For better delineation of the PFO, we performed transesophageal echocardiography, which showed an 8x9-mm mobile thrombus entrapped in patent foramen ovale and floating in the orifice of the PFO tunnel. (Fig. 1,2).

Figure 1: Transesophageal echocardiographic images obtained from bicaval view showing thrombus entrapped in patent foramen ovale.
Biochemical test results were normal other than dyslipidemia (triglycerid level 1050mg/dl, HDL 26 mg/dl). Dyslipidemic patients have increased protrombotic factors. However, Doggen et al. reported that elevated triglyceride levels were associated with a doubling risk of venous thrombosis in postmenopausal women whereas elevated HDL cholesterol levels were associated with a decreased risk. The authors explain their results with an interaction of triglycerides with different coagulant factors such as activated protein C (APC), factor VIIc, factor VIII, factor IX, and fibrinogen. Karasek et al. showed increased levels of PAI-1 and t-PA in patients with hypertriglyceridemia

Here, we suggest that the association of low HDL cholesterol level and hypertriglyceridemia with thrombosis might be explained in part by dyslipidemia leads to a procoagulant state due to increased coagulant factors and higher blood viscosity that causes thrombus formation.

References