Spontaneous left atrial thrombus during patent foramen ovale closure

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A 52-year-old male smoker suffered a left-sided stroke. Bubble contrast echocardiography demonstrated an aneurysmal atrial septum and patent foramen ovale (PFO). The patient was referred for percutaneous closure of his PFO to reduce his risk of further stroke. Despite dual antiplatelet therapy and pre-procedural heparin, he developed a spontaneous thrombus during balloon sizing of the defect identified by transoesophageal echocardiography. The balloon was immediately withdrawn to the right side and removed. Periprocedural echocardiography using either transoesophageal or intracardiac echo is essential to monitor for this potential procedural complication of percutaneous PFO closure.

KEYWORDS
Patent foramen ovale; Transoesophageal echocardiography; Stroke; Atrial septal aneurysm; Thrombus

A 52-year-old male smoker suffered a left-sided stroke. Bubble contrast echocardiography demonstrated an aneurysmal atrial septum and patent foramen ovale (PFO). The patient was referred for percutaneous closure of his PFO to reduce his risk of further stroke.

The patient received pre-procedural dual antiplatelet therapy.

Transoesophageal echocardiography showed an aneurysmal atrial septum and flap-like PFO, good left ventricular function with no intracardiac thrombus, and no significant valvular lesion. After access and immediate heparinization (5000 units), the PFO was balloon-sized with a 24 mm AGA sizing balloon. Immediately after inflation, a strand-like thrombus was seen attached to the balloon on the left atrial side (Figure 1, see Supplementary data online, movie). The balloon was withdrawn across the interatrial septum to the venous side and removed (see Supplementary data online, Figure). The procedure was abandoned and the patient was fully anticoagulated with warfarin and aspirin. There were no new neurological findings. The patient is well to follow up, but has declined further intervention.

The association between PFO and stroke and the benefits of closure in patients with no other cardiovascular risk factors is known.1

This case illustrates the importance of the use of imaging techniques such as TOE during PFO closure and the potential serious risk of thrombus formation during the procedure.

Supplementary data
Supplementary data are available at European Journal of Echocardiography online.

Reference

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