Thrombus in transit through a patent foramen ovale

An obese 57-year-old woman presented to the emergency department with shortness of breath and palpitation that had been present for 1 day. On physical examination, the patient was noted to have rapid atrial fibrillation with a heart rate of about 178 bpm; her blood pressure was 120/60 mm Hg. Trans-thoracic echocardiography revealed a mobile echogenic mass in the atria. Doppler ultrasound showed deep venous thromboses in the lower extremities bilaterally. Transoesophageal echocardiography, figure 1, showed a large snake-like thrombus in transit from the right atrium into the left atrium through a patent foramen ovale (PFO).

The patient underwent a mini sternotomy, thrombus extraction and PFO closure, and subsequent inferior vena cava filter placement was done the following day. Figure 2 shows a thrombus (15×1.2×0.5 cm) with a band of constriction at the level where it traversed the defect.

Thrombus in transit is a rare but clinically well recognised entity with a high overall mortality rate encountered in patients with deep venous thrombosis and PFO. Transthoracic echocardiography, or in some cases transoesophageal echocardiography, is the key investigation in such cases. Management of paradoxical embolus in transit includes initial systemic anticoagulation, with subsequent thrombectomy and surgical or percutaneous closure of PFO; thrombolysis may also be an alternative.

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REFERENCES