Thrombus trapped in patent foramen ovale

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A 63-year-old man was hospitalized with 2 days of increasing dyspnoea and presyncope. He had developed confusion, dysarthria, and a left-sided facial droop that morning. Three weeks previously the patient had suffered a urinary tract infection and had taken prolonged bed rest. His only background was hypertension. Clinical assessment revealed tachycardia, sinus tachycardia, and a mild left-sided motor deficit. Laboratory testing revealed elevated high-sensitivity troponin (5122 ng/L), positive D dimer and elevated urea (20 mmol/L), and creatinine (420 μmol/L). Transthoracic echocardiography (TOE) illustrated a mobile mass crossing the interatrial septum and present in both atria and ventricles. Doppler ultrasound revealed a right lower limb deep vein thrombosis (DVT). Brain magnetic resonance imaging demonstrated multiple small strokes. Thrombophilia screening was negative.

He was diagnosed with a thrombus straddling a patent foramen ovale (PFO) causing coronary, pulmonary, renal, and cerebral embolism. The patient was heparinized and surgical thrombectomy was arranged for the subsequent day. However, preoperative TOE showed the thrombus was no longer present. The patient was transitioned to warfarin therapy. His dyspnoea, neurological signs, and renal function gradually improved. He remains well 1 month after discharge and is due for percutaneous PFO closure as soon as possible.

Both PFO and DVT are relatively common. Thrombus entrapped in a PFO is an uncommon finding with potentially devastating consequences. Usually pulmonary embolism elevates right heart pressures facilitating thrombus entering a PFO where it becomes entrapped and propagates. Ideal treatment is unknown due to its low incidence; however, anticoagulation and surgical thrombectomy are the mainstay. Thrombolysis can be attempted if in extremis.

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