A 27 year old, Caucasian man was admitted to the hospital with sudden onset of sharp chest pain and breathlessness. He had left calf muscle swelling and redness two weeks before the recent presentation, which was treated by General Practitioner (GP) with antibiotics. He has no past medical history of note. He never smoked or taken regular medication.

On clinical examination, he had low grade temperature, tachycardic, tachypnoeic, and O₂ saturation was 96% on 15 L O₂. Chest examination was clear and there was no evidence for fluid retention or signs of inflammation.

The chest X-ray was normal. The 12 lead ECG showed sinus tachycardia with evidence of right ventricular (RV) strain and T wave inversion in V1-3. Arterial blood gases (ABG) demonstrated hypoxia with sO₂ 88.7%. The D-dimer was significantly raised; mild Troponin I rise as well as the inflammatory markers were found raised. The patient underwent CT pulmonary angiogram (CTPA) which showed large bilateral proximal pulmonary emboli and evidence of early right heart strain. Doppler Ultrasound of left leg veins revealed partially occluded left distal superficial femoral vein (SVF) by a thrombus.

A transthoracic echo was performed which showed normal left ventricular (LV) cavity size and good longitudinal and radial systolic function. Both atria were of normal size. The RV was mildly dilated but with good systolic function. All valves were normal in structure and function. A mass was identified in both atria which appeared migrating from right to left atrium (Fig 1).

A trans-oesophageal echocardiogram (2D and 3D) two days later confirmed the presence of a free mobile pedunculated mass seen in right atrial (RA) cavity (likely a clot) crossing through an anatomical patent foramen ovale (PFO) to left atrial (LA) cavity adjacent to the aortic wall (Fig 2-4). The PFO itself was sealed by the clot, and this was confirmed by using i.v saline bubbles (mixed with 2 cc of patient’s blood) with Valsalva manoeuvre.

The patient was treated with low molecular weight heparin (LMWH) and Warfarin. He made a remarkable recovery with reduction of the clot size which subsequently disappeared.

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