A threatened paradoxical embolism

A 25 year old man with no medical history underwent splenectomy because of a post-traumatic haemorrhagic syndrome. Three weeks later he was admitted to hospital because of severe pulmonary embolism with haemodynamic instability. Transthoracic echocardiography detected a large thrombus in the right atrium. Phlebography identified a massive thrombosis in the left iliac artery. Open-heart surgery with full cardiopulmonary bypass was performed to remove the embolus from the inter-atrial septum as well as from the pulmonary artery. This embolectomy was guided by transoesophageal echocardiography which demonstrated direct evidence of an impending paradoxical embolism. A thrombus (black star in A) was seen trapped across the interatrial septum (IAS) and passing through a patent foramen ovale (PFO). Severe bowing of the IAS into the left atrium (LA) throughout the cardiac cycle indicated an increase in right atrial pressure. (RA, right atrium; A, aorta). A 10 cm thrombus was dislodged from the PFO (B). It is noteworthy that systemic embolism had not occurred. The patient remained well during three months of follow up.

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