Recurrent atrial septal defect device mobile thrombus in a patient with heart failure presenting with embolic stroke and decompensation

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A 47-year-old man presented with acute stroke and decompensation. His medical history consisted of ischaemic cardiomyopathy diagnosed 3 years ago and secundum atrial septal defect that had been closed with an Amplatzer occluder device 2 years ago. He has a history of thrombus formation on both the left and right sides of the occluder device 2 months after the procedure which was successfully managed with combined administration of unfractionated heparin and tirofiban. Since that time, he was on warfarin.

His cerebral computed tomography and the following magnetic resonance imaging were compatible with acute–subacute infarction in the middle cerebral artery territory. Transthoracic echocardiography revealed an ejection fraction of 25%, spontaneous echo contrast in left heart chambers and a 3.6 × 1.8 cm in diameter of mobile thrombus located on the left atrial side of the Amplatzer occluder device (Figure 1 and Supplementary data online, Movie S1). On admission, his international normalized ratio was 2.5. The remaining laboratory examinations were within normal limits. We were not able to administer thrombolytic medications because of the subacute nature of the disease and haemorrhagic transformation. We lost the patient due to respiratory arrest followed by cardiac arrest despite entubation and resuscitation. The rate of thrombus formation on the septal occlusion device is around 1%; however, recurrent thrombus formation has not been reported previously.

Supplementary data are available at European Heart Journal – Cardiovascular Imaging online.