Triple intracardiac thrombus

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DESCRIPTION
A 58-year-old woman with new onset atrial fibrillation with rapid ventricular response (heart rate (HR) 161 bpm) and acute decompensated heart failure of unknown aetiology was admitted to our emergency department. Anticoagulation with unfractionated heparin was started immediately and transoesophageal echocardiography (TOE) to rule out left atrium and left atrial appendage (LAA) thrombus before early electrical cardioversion was performed.1,2 TOE showed a thrombus ‘in transit’ in an atrial septal defect (ASD) with left to right shunt (figure 1A,B, videos 1 and 2), and a large thrombus in the LAA (figure 1C, video 3). Additional transthoracic echocardiography showed

Figure 1 Transoesophageal echocardiography (TOE) colour doppler mode (A) and three-dimensional mode (B) of the interatrial septum showing a thrombus ‘in transit’ in an atrial septal defect with left to right shunt. TOE three-dimensional mode depicting a large thrombus in the left atrial appendage (C) and transthoracic echocardiography showing a thrombus in the apex of the left ventricle (D, arrow). HR, heart rate.

Video 1 Transoesophageal echocardiography colour doppler mode of the interatrial septum showing a thrombus ‘in transit’ in an atrial septal defect with left to right shunt

Video 2 Transoesophageal echocardiography three-dimensional mode of the interatrial septum showing a thrombus ‘in transit’ in an atrial septal defect

Video 3 Transoesophageal echocardiography three-dimensional mode depicting a large thrombus in the left atrial appendage

Video 4 Transthoracic echocardiography showing a thrombus in the apex of the left ventricle

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In atrial fibrillation of unknown duration without established anticoagulation left atrium and left atrial appendage (LAA) thrombus must be excluded by transoesophageal echocardiography before early cardioversion.

If left atrium or LAA thrombus is found in atrial fibrillation, immediate cardioversion in haemodynamically stable situations should not be done but anticoagulation therapy with repeated imaging is indicated.

The optimal anticoagulation therapy in multilocular intracardiac thrombus is not known, empirical anticoagulation with unfractionated heparin and apixaban showed complete resolution of multilocular intracardiac thrombus in our case.

REFERENCES