Amplatzer® septal occluder device early embolization to left ventricular outflow tract in asymptomatic patient

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A 71-year-old man with a history of paroxysmal atrial fibrillation experienced shortness of breath during preparation for catheter ablation. Thoracic computed tomography revealed an enlargement of the right ventricle and a large secundum atrial septal defect (ASD). During percutaneous closure of the ASD with an Amplatzer® septal occluder device (St. Jude Medical, St. Paul, MN, USA), transoesophageal echocardiography (TOE) confirmed the presence of a wide secundum-type ASD measuring ~23 mm (Panel A). The device was correctly positioned and deployed. TOE demonstrated appropriate capture of all the ASD rims, and absence of both significant residual shunt and encroachment on any cardiac structure (Panel B). The next day the patient appeared asymptomatic and in haemodynamically stable condition. Follow-up transthoracic echocardiography revealed embolization of the device in the left ventricular outflow tract (LVOT) (Panels C and D, arrow). The device was located beneath the aortic non-coronary cusp, lying on the anterior leaflet of the mitral valve. Orientation parallel to the flow of device disks avoided significant LVOT obstruction. The patient immediately underwent aortotomy with a small transverse incision above the right coronary ostia. The device then was easily removed through the aortic valve. Right atrial vertical atriotomy then revealed a large ASD superior to the oval fossa. The surgeon proceeded to repair by suture with a bovine pericardial patch. The patient also underwent a biatrial maze ablation procedure and ligation of a left atrial appendage because of the recurrence of paroxysmal atrial fibrillation post-catheter ablation.

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

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