Device embolisation after transcatheter paravalvular leak closure

Ignacio Cruz-Gonzalez*, MD, PhD; Jose A. Perez-Rivera, MD, PhD; Antonio Arribas-Jimenez, MD, PhD; Javier Rodríguez-Collado, MD; Pedro L. Sanchez, MD, PhD

Department of Cardiology, Institute of Biomedical Research of Salamanca (IBSAL), University Hospital of Salamanca, Salamanca, Spain

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An Amplatzer Vascular Plug III 14×5 mm (St. Jude Medical, St. Paul, MN, USA) device was deployed in a 65-year-old man with severe mitral paravalvular regurgitation. The distal disc of the device was deployed inside the paravalvular leak tunnel between the left ventricle and left atrium to prevent interference with the monodisc prosthesis (Appendix Figure 1). At three-month transoesophageal echocardiography (TEE) mild mitral regurgitation was observed, the atrial disc of the device seemed not to be totally apposed to the leak and it was protruding into the left atrium (Figure 1, Moving image 1). At six-month TEE a moderate regurgitation was observed because both discs of the device had moved into the left atrium (Figure 1, Moving image 2).

Due to the risk of embolisation the patient was brought to the catheterisation laboratory seven days after the TEE and the device

had already embolised to the left iliac artery (Appendix Figure 1). It was snared from the tip and was removed successfully.

Late embolisation is an extremely rare complication. Spontaneous late embolisation has not been described before. Routine echocardiographic follow-up can detect this potential complication.

Conflict of interest statement

I. Cruz-Gonzalez is a proctor for St. Jude Medical. The other authors have no conflicts of interest to declare.

Online data supplement

Moving image 1. Three-month TEE. Moving image 2. Six-month TEE.

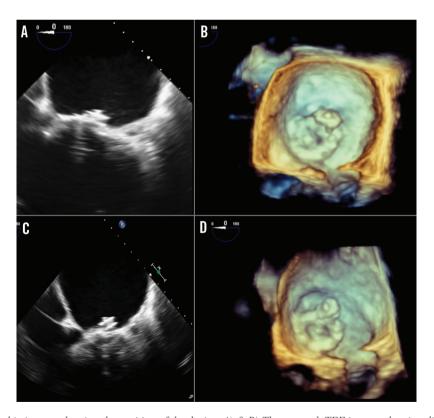
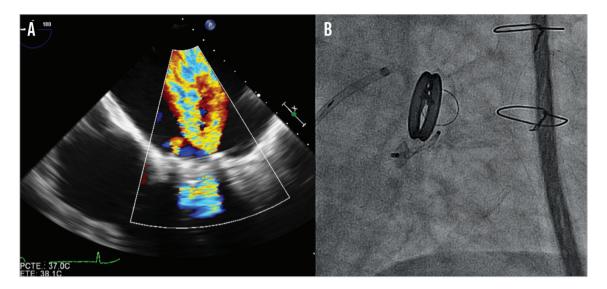


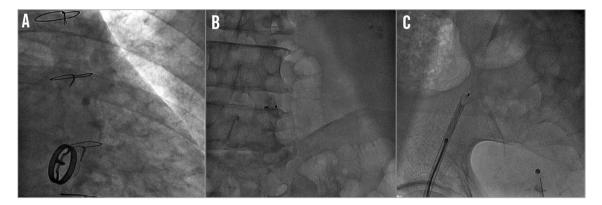
Figure 1. Echocardiographic images showing the position of the device. A) & B) Three-month TEE images showing displacement of the atrial disc of the device. C) & D) Six-month images showing both discs of the device moved into the left atrium.

^{*}Corresponding author: Department of Cardiology, University Hospital of Salamanca, Paseo San Vicente 58-182, 37007, Salamanca, Spain. E-mail: cruzgonzalez.ignacio@gmail.com

Appendix



Appendix Figure 1. Echocardiographic and angiographic images of the initial procedure. A) Severe mitral paravalvular regurgitation. B) Device deployment.



Appendix Figure 2. Embolisation and recapture of the device. A) No device on the paravalvular leak. B) Device in the descending aorta. C) Recapture of the device.