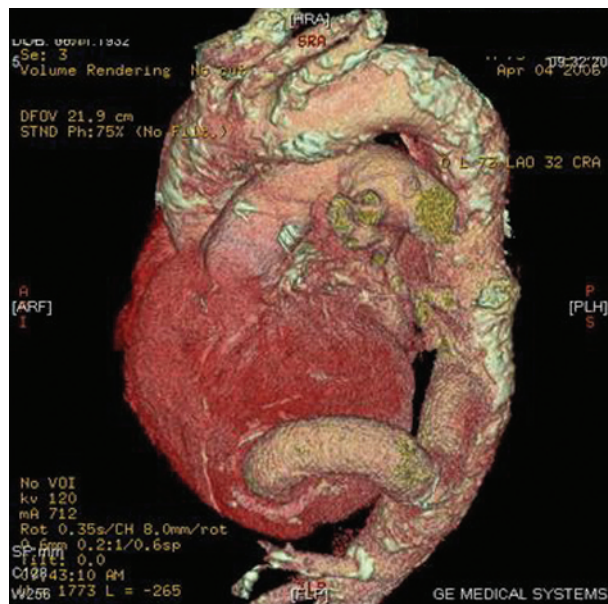


- 7 Zahn EM, Wilson N, Cutright W, *et al.* Development and testing of the helix septal occluder, a new expanded polytetrafluoroethylene atrial septal defect occlusion system. *Circulation* 2001;**104**:711-16.
- 8 Sideris EB, Sideris SE, Fowlkes JP, *et al.* Transvenous atrial septal-defect occlusion in piglets with a buttoned double-disk device. *Circulation* 1990;**81**:312-18.
- 9 Jux C, Bertram H, Wohlsein P, *et al.* Experimental ASD closure using autologous cell-seeded interventional closure devices. *Cardiovasc Res* 2002;**53**:181-91.
- 10 Hausdorf G. StarFlex ASD closure: deployment, techniques, equipment. *J Interv Cardiol* 2001;**14**:69-76.
- 11 Waight DJ, Koenig PR, Cao QL, *et al.* Transcatheter closure of secundum atrial septal defects using the Amplatzer septal occluder: clinical experience and technical considerations. *Curr Interv Cardiol Rep* 2000;**2**:70-7.
- 12 Masura J, Gavora P, Formanek A, *et al.* Transcatheter closure of secundum atrial septal defects using the new self-centering Amplatzer septal occluder: initial human experience. *Cathet Cardiovasc Diagn* 1997;**42**:388-93.
- 13 Sigler M, Paul T, Grabitz RG. Biocompatibility screening in cardiovascular implants. *Z Kardiol* 2005;**94**:383-91.
- 14 Prewitz KC, Gaither NS, Farb A, *et al.* Transient ischemic attacks after long-term clamshell occluder implantation for closure of atrial septal defect. *Am Heart J* 1992;**124**:1394-7.
- 15 Bridges ND, Hellenbrand W, Latson L, *et al.* Transcatheter closure of patent foramen ovale after presumed paradoxical embolism. *Circulation* 1992;**86**:1902-8.
- 16 Prieto LR, Foreman CK, Cheatham JP, *et al.* Intermediate-term outcome of transcatheter secundum atrial septal defect closure using the Bard clamshell septal umbrella. *Am J Cardiol* 1996;**78**:1310-12.
- 17 Spanos HG. Aspirin fails to inhibit platelet aggregation in sheep. *Thromb Res* 1993;**72**:175-82.
- 18 Shi Q, Rafii S, Wu MH, *et al.* Evidence for circulating bone marrow-derived endothelial cells. *Blood* 1998;**92**:362-7.
- 19 Rafii S, Meeus S, Dias S, *et al.* Contribution of marrow-derived progenitors to vascular and cardiac regeneration. *Semin Cell Dev Biol* 2002;**13**:61-7.
- 20 Krumdorf U, Ostermayer S, Billinger K, *et al.* Incidence and clinical course of thrombus formation on atrial septal defect and patent foramen ovale closure devices in 1000 consecutive patients. *J Am Coll Cardiol* 2004;**43**:302-9.
- 21 Sherman JM, Hagler DJ, Cetta F. Thrombosis after septal closure device placement: a review of the current literature. *Catheter Cardiovasc Interv* 2004;**63**:486-9.
- 22 Acar P, Aggoun Y, Abdel-Massih T. Images in cardiology: thrombus after transcatheter closure of ASD with an Amplatzer septal occluder assessed by three dimensional echocardiographic reconstruction. *Heart* 2002;**88**:52.
- 23 Willcoxson FE, Thomson JD, Gibbs JL. Successful treatment of left atrial disk thrombus on an Amplatzer atrial septal defect occluder with abciximab and heparin. *Heart* 2004;**90**:e30.
- 24 Chessa M, Carminati M, Butera G, *et al.* Early and late complications associated with transcatheter occlusion of secundum atrial septal defect. *J Am Coll Cardiol* 2002;**39**:1061-5.
- 25 Sigler M, Handt S, Seghaye MC, *et al.* Evaluation of in vivo biocompatibility of different devices for interventional closure of the patent ductus arteriosus in an animal model. *Heart* 2000;**83**:570-3.
- 26 Malik N, Gunn J, Holt CM, *et al.* Intravascular stents: a new technique for tissue processing for histology, immunohistochemistry, and transmission electron microscopy. *Heart* 1998;**80**:509-16.

IMAGES IN CARDIOLOGY

Multidetector computed tomography image of apical left ventricular descending aorta conduit



Three-dimensional reconstruction; anterior view showing the correct position of the conduit and the extensive calcification of the aortic wall.

A 74-year-old male patient previously operated on for coronary artery bypass grafting was admitted to our institute because of recurrent episodes of pulmonary oedema. A coronary angiogram showed a patent internal mammary graft to the left anterior descending artery and a severe stenosis of a venous bypass to the right coronary artery. A concomitant severe aortic stenosis was diagnosed. Because of extensive aortic wall calcification, the standard approach of valve replacement was considered to be of prohibitively high risk. In view of haemodynamic instability, it was decided to implant a valve conduit from the left ventricular apex to the descending thoracic aorta. Postoperative multidetector computed tomography (MDCT) showed an extensive degree of aortic wall calcification and the correct position of the conduit. The patient had an excellent outcome and was discharged home on the 10th day after surgery, following percutaneous transluminal coronary angioplasty (PTCA) of the right coronary graft.

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