

Figure 1. Posteroanterior chest X-ray. Three pacing/sensing electrodes can be seen, along with the defibrillation electrode surrounding both ventricles.

with complex heart diseases and alternative approaches: *a*) implantation of 1 to 3 subcutaneous electrodes as the high-energy electrode or the transvenous defibrillation electrode itself in a subcutaneous position⁴; *b*) transatrial approach with implantation of the defibrillation electrode directly through the right atrium⁵; and *c*) implantation of the defibrillation electrode in the pericardial sac.^{4,5}

Given the small number of patients and the limited follow-up, it is hard to predict the complications associated with these procedures in the medium term. Stephenson et al⁴ proposed annual monitoring of the defibrillation thresholds, which can become fundamentally elevated with subcutaneous electro-

des. Cannon et al⁵ recommend performing an annual echocardiography when there are electrodes in the pericardial sac to detect the possibility of progressive strangulation of the myocardium. This technique is considered preferable in patients with larger body surface areas,⁴ as was the case in our patient.

Due to the increase in the population with congenital heart disease reaching adulthood, we will need to use this and other approaches increasingly often.

Susana González-Enrriquez,* Felipe Rodríguez-Entem, Juan J. Olalla, and Francisco Gutiérrez

Servicio de Cardiología y Servicio de Cirugía Cardiovascular, Hospital Universitario Marqués de Valdecilla, Santander, Cantabria, Spain

* Corresponding author:

E-mail address: sugonzalez@humv.es (S. González-Enrriquez).

Available online 28 January 2011

REFERENCES

1. Warnes CA. Transposition of the great arteries. *Circulation*. 2006;114:2699–709.
2. Kammeraad J, Van Deurzen C, Sreeram N, Blink-Boelkens M, Ottenkamp J, Helbing W, et al. Predictors of sudden cardiac death after Mustard or Senning repair for transposition of the great arteries. *J Am Coll Cardiol*. 2004;44:1095–102.
3. Frutos M, Arana E, Pedrote A, Rodríguez-Puras MJ. Implante de desfibrilador en un paciente con D-transposición de grandes arterias y corrección fisiológica de Mustard. *Rev Esp Cardiol*. 2009;62:1193–4.
4. Stephenson E, Batra A, Knilans T, Gow R, Gradaus R, Balaji S, et al. A multicenter experience with novel implantable cardioverter defibrillator configurations in the pediatric and congenital heart disease population. *J Cardiovasc Electrophysiol*. 2006;17:41–6.
5. Cannon B, Friedman R, Fenrich A, Fraser C, McKenzie E, Kertesz N. Innovative techniques for placement of implantable cardioverter-defibrillator leads in patients with limited venous access to the heart. *PACE*. 2006;29:181–7.

doi:10.1016/j.rec.2010.08.006

Migration and Percutaneous Implantation of a Second Aortic Prosthesis

Migración e implante de segunda prótesis aórtica percutánea

To the Editor,

We present the case of an 82-year-old woman with severe aortic stenosis who was admitted to the hospital due to heart failure with New York Heart Association class III. Given the high surgical risk (EuroSCORE, 24%) and the associated comorbidity, surgical replacement was ruled out and the decision was made to perform transcatheter aortic prosthesis implantation.

The procedure was carried out by femoral approach and involved the implantation of a 26-mm CoreValve prosthesis according to the standard technique.¹ Moderate-to-severe aortic insufficiency was observed due to the low implantation of the

prosthesis (Fig. 1A), and the attempt was made to relocate it by traction using a snare catheter (Fig. 1B).

After a few minutes of continuous traction, the prosthesis migrated toward the ascending aorta, where it remained fixed. Several angiographic images were obtained, and we confirmed that the prosthesis did not move and that the supraaortic vessels were patent (Fig. 1C).

A second prosthesis was implanted with no complications (Fig. 1D), the gradient disappeared and the residual aortic insufficiency was mild.

The echocardiographic follow-up confirmed the proper function of the prosthesis and its stability (Fig. 1E). Nine months after the procedure, the patient was diagnosed with a bone tumor with pulmonary metastases, a chest computed tomography revealed the position of both prostheses (Fig. 1F), which had not changed since their implantation.

Malposition and migration of aortic prostheses are complications that have been reported previously;^{2–4} attempting to retrieve it or move it to the descending aorta have been proposed as the most safe

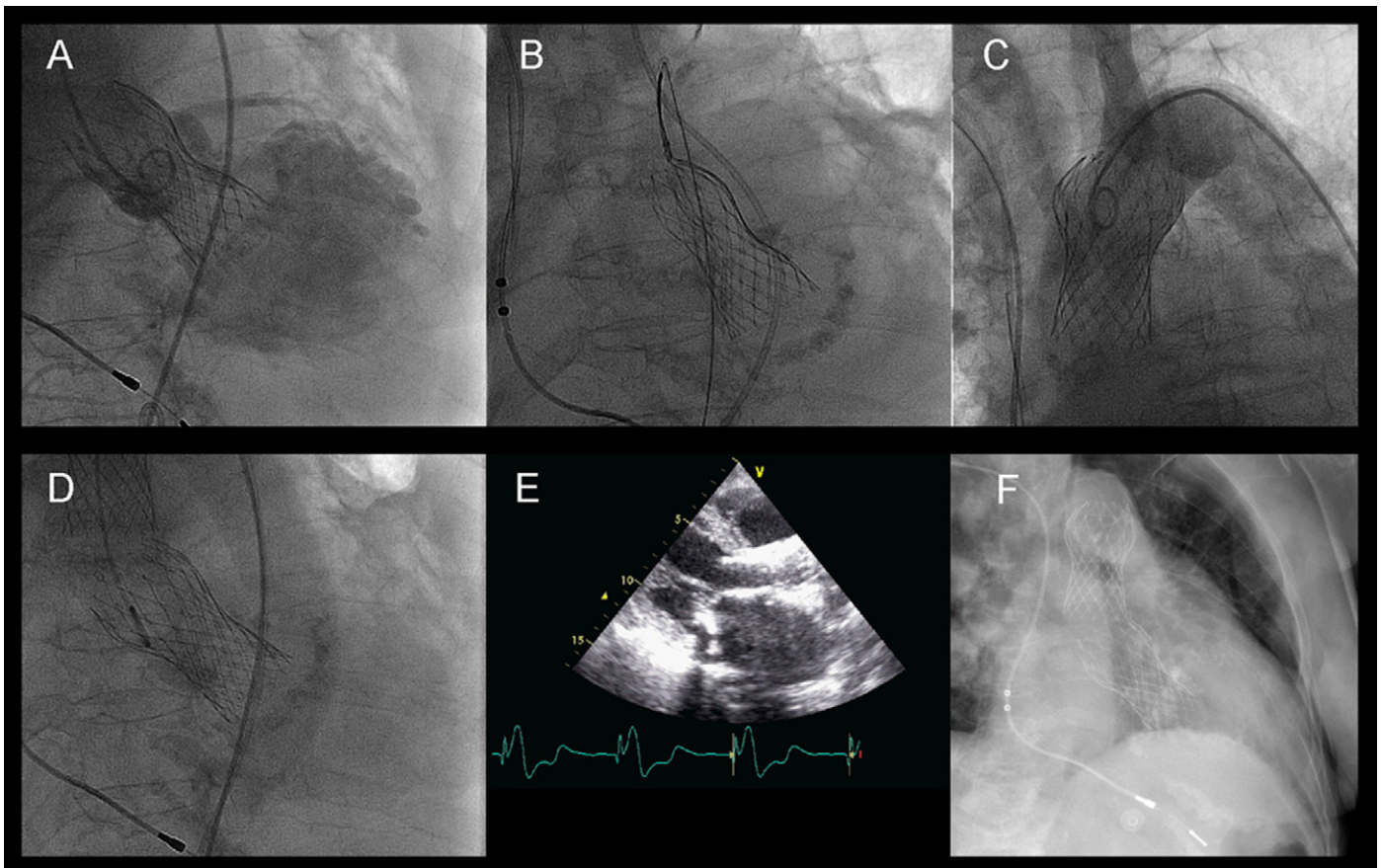


Figure 1. A: angiographic image showing moderate-to severe aortic insufficiency due to low implantation of the prosthesis. B: traction using a snare catheter. C: relocation of the prosthesis in ascending aorta; the patency of the supraaortic vessels can be observed. D: implantation of the second prosthesis. E: echocardiographic follow-up showing the situation of both prostheses. F: computed tomographic image showing the situation of both prostheses.

alternatives. However, in the case presented here, we show that it is safe to leave a prosthesis in the ascending aorta if it is stable and does not compromise the flow in the supraaortic vessels.

Ignacio Cruz-González,^{a,*} Javier Martín-Moreiras^a, and José María Hernández-García^b

^aServicio de Cardiología, Hospital Universitario de Salamanca, Salamanca, Spain

^bServicio de Cardiología, Hospital Clínico Universitario Virgen de la Victoria, Málaga, Spain

* Corresponding author:

E-mail address: cruzgonzalez.ignacio@gmail.com (I. Cruz-González).

Available online 28 January 2011

REFERENCES

1. Avanzas P, Muñoz-García AJ, Segura J, Pan M, Alonso-Briales JH, Lozano I, et al. Implante percutáneo de la prótesis valvular aórtica autoexpandible CoreValve[®] en pacientes con estenosis aórtica severa: experiencia inicial en España. *Rev Esp Cardiol.* 2010;63:141-8.
2. Al Ali AM, Altwegg L, Horlick EM, Feindel C, Thompson CR, Cheung A, et al. Prevention and management of transcatheter balloon expandable aortic valve malposition. *Catheter Cardiovasc Interv.* 2008;72:575-80.
3. Ussia GP, Mulè M, Tamburino C. The valve-in-valve technique: transcatheter treatment of aortic bioprosthesis malposition. *Catheter Cardiovasc Interv.* 2009;73:713-6.
4. Gerckens U, Latsios G, Mueller R, Buellesfeld L, John D, Yuecel S, et al. Procedural and mid-term results in patients with aortic stenosis treated with implantation of 2 (in-series) CoreValve prostheses in 1 procedure. *JACC Cardiovasc Interv.* 2010;3:244-50.

doi:10.1016/j.rec.2010.08.007

Intra-Hisian Block During Transcatheter Aortic Valve Implantation With the CoreValve Prosthesis

Bloqueo intrahisiano durante el implante de la prótesis aórtica percutánea CoreValve

To the Editor,

Percutaneous aortic valve implantation is an alternative to surgery in the treatment of severe symptomatic aortic stenosis in

patients at high surgical risk.^{1,2} The series published with the percutaneous implantation of the CoreValve[®] (Medtronic CV, Luxembourg) aortic valve prosthesis show a high success rate. However, a high incidence of conduction disorders has been described, with frequent occurrence of left bundle branch block and complete atrioventricular (AV) block in 20%-35% of cases.^{3,4}

We report the case of an 83-year old patient diagnosed with severe symptomatic aortic stenosis who was rejected for surgery due to the high surgical risk involved. He was implanted with a CoreValve[®] percutaneous aortic valve prosthesis. An electrophysiological study was performed on the patient immediately before