Recurrence massive aneurysm of the ascending aorta after aortic root replacement with inclusion cylinder technique

Evangelos Leontiadis *, Samir Sarikouch, Andreas Bairaktaris, Reiner Körfer

Clinic for Thoracic and Cardiovascular Surgery, Heart and Diabetes Center NRW, Georgstrasse II, Bad Oeynhausen, Germany

Keywords: Great vessels; Thoracic aorta aneurysm; Magnet resonance imaging

A 68-year-old patient was reoperated 15 years after aortic valve replacement with the inclusions cylinder technique due to a massive aneurysm of the native ascending aorta (Figs. 1 and 2). The composite valve graft conduit was excised and a new one anastomosed end-to-end to the aorta proximal to the innominate artery.

Fig. 1. (a and b) Aortogram showing the composite aortic valve graft conduit (CVG) inserted as a cylinder within the dilated aortic root and ascending aorta (white arrows, CVG with Björk-Shiley mechanical valve; black arrows, native ascending aorta aneurysm). During the first procedure (inclusions cylinder technique) the composite aortic valve graft was inserted as a cylinder within the dilated aortic root, the coronary ostia were reimplanted into the Dacron graft and the native ascending aorta wrapped around the CVG. Reoperation consisted of the classical Bentall procedure. To maximize safety, the femoral artery was cannulated for initiation of cardiopulmonary bypass.

Fig. 2. (c and d) Cardiac magnetic resonance imaging (c: parasagittal and d: transversal projection of MRI) revealed that the distal aortic anastomosis was insufficient with subsequent retrograde bleeding into the space between the allograft and the native aortic walls. MRI detected a maximum diameter of 11 cm.

* Corresponding author. Tel.: +49 302109566129; fax: +49 302104314126.
E-mail address: evanleon@yahoo.com (E. Leontiadis).