

An Aortic Pseudoaneurysm following Bentall Procedure

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Abstract

We describe a rare case of an ascending aortic pseudoaneurysm detected incidentally at coronary angiography in a 64-year-old man with a history of a Bentall procedure 8 years previously. The patient underwent reoperation, with longitudinal opening and cleaning of the aortic pseudoaneurysm and graft repair of the defect. This report highlights the insidious late onset of pseudoaneurysm and the importance of its detection and treatment.

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Key Words

Aortic pseudoaneurysm · Bentall procedure

Case Presentation

A 64-year-old male patient was admitted to our hospital with the diagnosis of acute coronary syndrome. Eight years before this presentation, he had undergone coronary bypass surgery with additional Bentall procedure for a dilated aortic root (5.6 cm) and severe aortic regurgitation, using a St. Jude Medical (St. Paul, Minnesota, USA) composite graft. Physical examination revealed blood pressure of 130/70 mm Hg, a regular pulse of 82 beats/minute and a systolic murmur of 2/6 with normal mechanical valve sounds in the aortic area. Transthoracic echocardiography showed a bileaflet prosthetic valve in the aortic position with a peak gradient of 20 mm Hg and mildly reduced left ventricular function with an estimated

ejection fraction of 45%. The ascending aorta was 58 mm across the pseudoaneurysm. At coronary angiography all bypass grafts [aorta-right coronary artery (RCA) and aorta-diagonal artery, saphenous vein grafts] except the left internal mammary artery-left anterior descending artery (LAD) were patent. Aortic root angiography showed an aortic pseudoaneurysm originating from the RCA-saphenous graft proximal anastomosis site in the proximal ascending aorta. A contrast-enhanced multidetector computed tomography revealed a 26 × 14 mm pseudoaneurysm in the front of the ascending aortic graft just above the right coronary anastomosis (Figure 1A–1D).

On the basis of these findings, the patient underwent reoperation, with longitudinal opening and repair of the aortic pseudoaneurysm. At operation an anastomosis dehiscence between the aortic graft and native aorta with a 5 cm defect was observed and the defect was repaired with an interposition Dacron graft. An aorta-LAD saphenous graft anastomosis was also performed. The postoperative clinical course was uneventful.

Conflict of Interest

The authors have no conflict of interest relevant to this publication.

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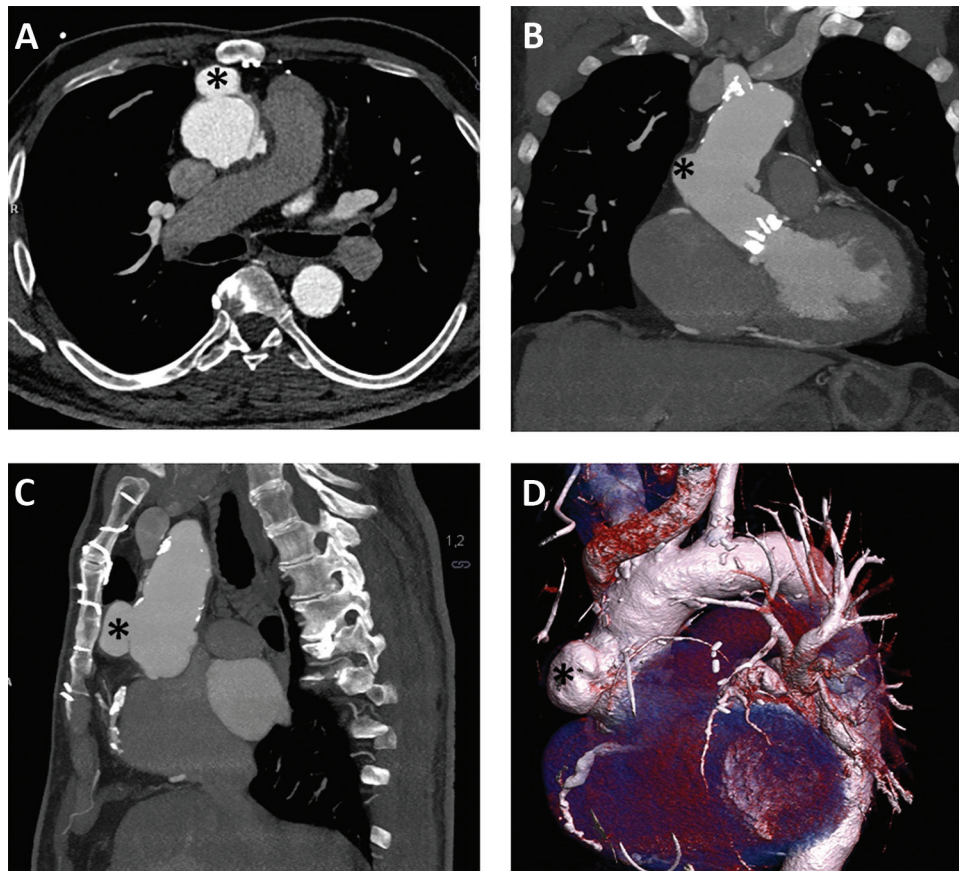


Figure 1. A multidetector computed tomography showing a pseudoaneurysm in the front of the ascending aortic graft just above the right coronary anastomosis. A. Axial section. B and C. Sagittal section. D. Three-dimensional volume rendered image of the pseudoaneurysm.

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