Asymptomatic giant pseudoaneurysm in the ascending aorta after Bentall procedure

A 31-year-old female patient underwent Bentall procedure due to an aortic aneurysm and aortic regurgitation, with an uneventful postop-

Figure 1. A-D. Computed tomography images of chest with contrast before the second surgery.

Fig. 1A, 1B, and 1C indicate a large aortic false aneurysm (*) is right rear to the ascending aorta. Fig 1A and 1C show fistulous communication (arrow) with bidirectional flow into the pseudoaneurysm. Three-dimensional reconstruction demonstrates the site of the pseudoaneurysm (Fig 1D, arrow)

Figure 2. Computed tomography images of the chest with contrast at 3 months after the second surgery.

Fig. 2A and 2B show the aortic false aneurysm was moved, and the vascular conduit replacement was completed in the second surgery.

erative course. The transthoracic echocardiography and computed tomography demonstrated normal aortic valve function and a prosthetic vascular conduit at discharge and the 6-month follow-up. In the 1-year follow-up, 3-dimensional contrast-enhanced computed tomography (CT) of the thoracic aorta revealed a giant pseudoaneurysm, sized 3.4 x 3.5 x 5.4 cm, behind the ascending aorta originating from the distal portion of the vascular prosthesis conduit due to anatomic leakage between the aorta and prosthesis (Fig. 1). Cross-examine history, at the 7th postoperative month, the patient was admitted to the local hospital because of high fever (40.1⁰), dyspnea, chest pain, and fatigue but unfortunately was not given a CT to check the prosthetic vascular conduit. She underwent a secondary surgery for aneurysm removal and vascular conduit replacement. The patient recovered fully and was

discharged 1 week after surgery and remained stable without any sign; the prosthetic vascular conduit was normal by 3-dimensional contrast-enhanced computed tomography 3 months after discharge (Fig. 2).

Aortic pseudoaneurysm is a rare complication after aortic surgery and has fatal outcomes if not recognized. Most patients will display symptoms, such as chest pain, heart failure, and aortic regurgitation, while many of them may still be totally asymptomatic. Immediate surgery is necessary because of the high morbidity and mortality rates. Preoperative 3-dimensional contrast-enhanced computed tomography is of paramount for the evaluation of aortic pseudoaneurysm.

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