





Figure 2. A, B. Transesophageal (A) and transthoracic echocardiography (B) showing an intraventricular cystic mass (3.9 x 4.7 cm) completely covering to the outflow tract

admitted to our department with palpitation, syncope, and dyspnea of exertion from 5 days ago. ECG and monitoring showed intermittent VT with a heart rate of 170 bpm (Fig. 1). On the transthoracic echocardiography (TTE), a cystic mass was noted in the left ventricular cavity. The cystic mass was developing inside the left ventricle and mildly compressing the outflow tract. There was no subaortic gradient and regurgitation or stenosis for the mitral and aortic leaflets. Transesophageal echocardiography (TEE) confirmed TTE and hydatid cyst, and the localization was determined (Fig. 2A and B, Video 1-2). Serial cardiac enzymes were positive for myocardial damage. A diagnostic coronary angiography was performed, which revealed no significant atherosclerotic stenosis of the coronary arteries. Abdominal ultrasonography showed an extracardiac cyst in the liver. The CT showed cystic lesions



Figure 3. CT scans show a large, intracardiac cystic mass developing inside the left ventricle (arrow)

in the left ventricular cavity protruding into the left ventricular outflow tract and in the liver (Fig. 3). Finally, he underwent cardiac surgery under general anesthesia, and the large hydatid cyst was evacuated. There was no evidence of residual cyst in the intraoperative TEE. Our patient, interestingly and originally, presented with exertion syncope and ventricular tachycardia, with positive cardiac enzymes for myocardial damage, which, in this particular context, was mimicking acute coronary syndrome. However, the exercise-induced syncope and ventricular tachycardia was probably explained by obstruction of the left ventricular outflow tract, such as in obstructive cardiomyopathies. We could not determine the subaortic gradient by continuous wave Doppler, but the reason couldn't be measured perpendicular to flow.

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**Video 1-2.** Transesophageal and transthoracic echocardiography showing an intraventricular cystic mass completely covering to the outflow tract

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## 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  $3.4 \times 3.5 \times 5.4$  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 7<sup>th</sup> postoperative month, the patient was admitted to the local hospital because of high fever (40.1<sup>0</sup>), 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 contrastenhanced 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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