## Relapse of a pseudoaneurysm of the ascending aorta after coronary artery bypass grafting

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A 55-year-old male with stable angina pectoris, diabetes mellitus and hypertension underwent coronary artery bypass grafting (CABG) with left internal mammary artery (LIMA) to the left anterior descending artery and saphenous vein grafts (SVG) to the obtuse marginal branch (OMB) and right coronary artery. The early postoperative course was uneventful. Three months later, the patient was readmitted due to fever and blood cultures were positive for Pseudomonas aeruginosa. A cardiac and ascending aorta CT-scan revealed recurrence of the pseudoaneurysm of the ascending aorta  $39 \times 19 \times 30$  mm (Fig. 2) with a vegetation, near the Amplatzer occluder (both SVG were non-patent). The patient underwent a repeat median sternotomy using cardiopulmonary bypass with deep hypothermia 24°C. Cardiac arrest was instituted with antegrade and retrograde cold blood cardioplegia and the ascending aorta was excised (Fig. 3) and was replaced with aortic homograft tissue. The postoperative course was uneventful. At 3 month follow-up the patient was asymptomatic and the CT-scan showed no recurrent aneurysm (Fig. 4).

Two months later the patient was admitted with fever and a chest computed tomography (CT) showed a pseudoaneurysm of the ascending aorta (Fig. 1A) near the proximal anastomosis of the SVG to the OMB graft. The patient was treated empirically with intravenous antibiotics (Rifampicin, Linezolid and Gentamicin) and the pseudoaneurysm was closed with an Amplatzer septal occluder™ (St. Jude Medical Inc., St. Paul, Minnesota, USA). Repeat CT-scan showed exclusion of the pseudoaneurysm (Fig. 1B) and the patient was discharged 14 days later without any signs of infection.

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Figure 1



Figure 2



Figure 3



**Figure 4** 



**Figure 1:** (A) CT-scan showing the pseudoaneurysm of the ascending aorta (arrow). (B) Control CT-scan after closure of the pseudoaneurysm with the occluder (arrow).

Figure 2: Volume rendered 3D reconstruction of CT-scan (A) and axial section of CT-scan (B) demonstrating the pseudoaneurysm of the ascending aorta (arrow), nearby the occluder.

**Figure 3:** Intraoperative photograph (view into the ascending aorta) showing the pseudoaneurysm of the ascending aorta (lower arrow) with the vegetation on the edge (upper arrow).

**Figure 4: Volume rendered 3D reconstruction of cardiac and ascending aorta CT-scan at the 3 month follow-up.** 

