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Giant aortic aspergilloma in a patient with previous aortic graft implantation

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A 54-year-old man with previous mechanical aortic valve and ascending aorta replacement due to aortic stenosis and ascending aortic aneurysm was admitted to our cardiothoracic surgical tertiary centre with increasing dyspnoea and acute onset of right arm ischaemia. At admission, his vital parameters were stable, and the patient was not febrile. His white blood cell count was 11.2×10^9/L [normal range (NR) 4.5–11×10^9/L], C-reactive protein was 151 mg/L (NR <10 mg/L), haemoglobin was 110 g/L (NR 135–175 g/L), and international normalized ratio 2.0 (NR 1–1.5).

Upper body computed tomography angiography showed a large, mobile 60 × 15 mm soft tissue mass within ascending aorta arising from the proximal anastomosis (*Figure 1*) and segmental embolism of the right brachial artery. Transthoracic echocardiography (TTE) showed mild aortic paravalvular leak. Patient had no history of intravenous drug abuse or immunosuppression, but an infective endocarditis was suspected. Intravenous heparin was started with progressive improvement of right arm ischaemia and redo surgery was planned for the following day. Intraoperative transoesophageal echocardiography confirmed mild aortic paravalvular leak and detected the intra-aortic thrombus arising from proximal anastomosis.

After median redo-sternotomy and initiation of cardiopulmonary bypass with deep hypothermia, the vascular graft was opened, and a large thrombus mass was found originating from the proximal anastomosis (*Figure 2*). A dehiscence of the mechanical aortic valve prosthesis was noticed at the non-coronary commissure. Infected vascular graft and previous prosthetic valve were excised, and a biological composite conduit was implanted (i.e. Bental procedure).

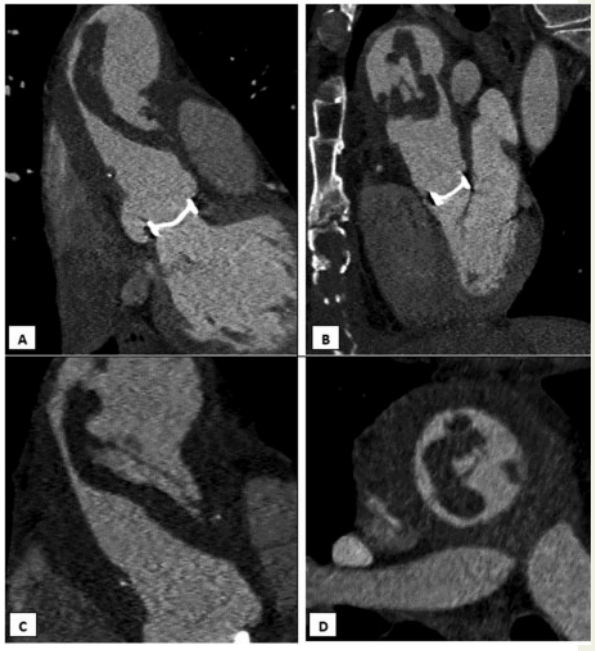

Figure 1 Intraoperative view showing the ascending aortic graft (blue arrow) filled with a large thrombus mass (aspergilloma) originating from the proximal anastomosis (yellow arrow).

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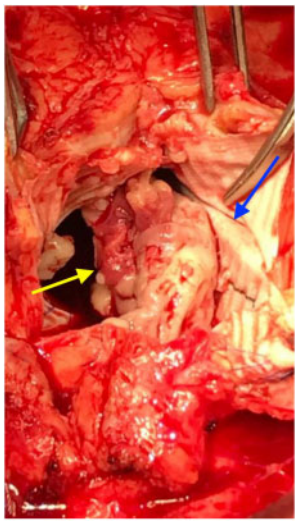

Figure 2 Intraoperative view showing the ascending aortic graft (blue arrow) filled with a large thrombus mass (aspergilloma) originating from the proximal anastomosis (yellow arrow).

Tissues samples and excised prosthetic material were positive for *Aspergillus fumigatus* and the patient was treated with Amphotericin B and Voriconazole for 5 weeks. Preoperative and postoperative blood cultures were negative. Postoperatively, the patient experienced respiratory failure requiring tracheostomy and needed prolonged hospital stay (2 months). At discharge, TTE was satisfactory.

Consent: The authors confirm that written consent for submission and publication of this case report including images and associated text has been obtained from the patient in line with COPE guidance.

Conflict of interest: none declared.

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