

CASE REPORT

Endovascular stent repair for a dissecting thoracoabdominal aneurysm is feasible in the setting of a district general hospital: a multidisciplinary approach

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A patient presented to a district general hospital with a type B dissection of the aorta. He was deemed too unwell for surgical intervention. An endovascular stent repair was successfully carried out. The case shows that such a procedure can be safely performed by a multidisciplinary team within a district general hospital.

A 42 year old man with Marfan's syndrome presented to us with a sudden onset of chest pain radiating to the back. Computed tomography (CT) confirmed an extensive type B dissection of the aorta extending from just distal to the left subclavian artery to the right iliac artery, with poor perfusion to the left kidney and an occluded right common iliac artery. The patient was unwell and mottled from the waist down with no lower limb pulses. There were bilateral pleural effusions. Creatine kinase concentration was 11 760 U/l and serum creatinine was 144 μ mol/l.

In view of his appalling prognosis, his case was discussed with local cardiothoracic surgeons. It was judged that surgery was not a survivable option in view of his end organ damage. In view of recent literature,¹ we elected to perform an endovascular repair using a Gore aortic stent. A cardiologist, radiologist, and vascular surgeon were involved and the procedure was performed under general anaesthesia.

A Terumo guidewire was passed from the brachial artery under fluoroscopic and transoesophageal echocardiographic guidance to the left femoral artery in the true lumen. The stent was deployed from the left femoral artery using this wire. It was sited to occlude the left subclavian artery. Lower limb pulses improved immediately postoperatively and transoesophageal echocardiography showed an improvement in the dissection but with further distal fenestrations and a partially thrombosed false lumen. The patient was ventilated on intensive care for 24 hours. Magnetic resonance imaging performed just before discharge 10 days later showed that the false lumen was occluded with thrombus and that there was good flow in a good calibre true lumen. Good flow was also observed in all major aortic branches and both common iliacs. At follow up consultation in the outpatient clinic two months later, the patient had no symptoms of lower limb paralysis nor left arm claudication. He had returned to work. Axial imaging one year later showed almost complete healing (figs 1 and 2).

DISCUSSION

Our case illustrates that endovascular stent repair of a dissecting thoracoabdominal aneurysm is logistically feasible in the setting of a district general hospital. The patient involved had been deemed not appropriate for surgery. Involving consultants from three disciplines led to a successful outcome for the patient.

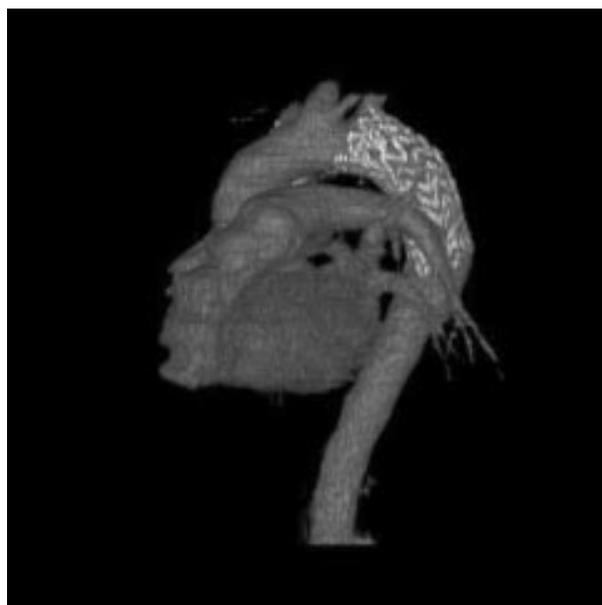


Figure 1 CT imaging showing ideal position of the aortic endovascular stent, occluding the origin of the left subclavian artery.

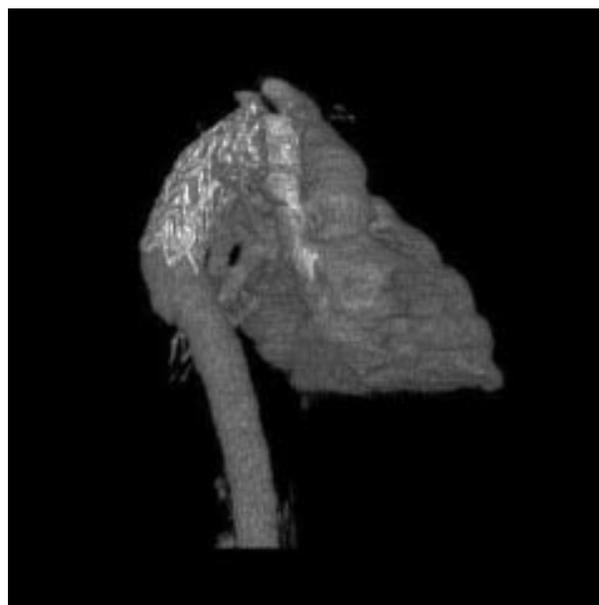


Figure 2 Image of patient heart viewed from opposite side to fig 1.

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