

SHORT REPORT

Tuberculous Aneurysm of the Abdominal Aorta. A Case Report

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Introduction

The aorta can be infected either by septic embolism or by direct extension from a neighboring focus resulting in aortitis, fistulae or a mycotic aneurysm. We report a rare case of *Mycobacterium Tuberculosis* mycotic aneurysm of the abdominal aorta.

Case Report

A 47-year-old man was admitted to our hospital with a 5 month history of high fever and back pain. On admission, his temperature was 39 °C and physical examination revealed no other abnormalities. The WBC count was 13.500/mm³ (80% neutrophils) and the ESR was 110 mm/hr. The hematocrit and platelet count were normal. The biochemistry profile was unremarkable. The chest X-ray revealed a nodular infiltrate in the apical area of the left upper lobe. A tuberculin skin test with PPD was positive (22 mm). Computed tomographic (CT) scanning of the spine revealed paravertebral inflammatory infiltration extending from the level of L3 to L5. Magnetic resonance (MR) angiography revealed an infrarenal aneurysm of the abdominal aorta (4.0 × 8.0 cm in size) down to the level of iliac bifurcation (Fig. 1). Sputum and urine specimens were collected for cultures. A test for the human immunodeficiency virus (HIV) was negative. Treatment with isoniazid (300 mg/d po)

pyrazinamide (1500 mg/d po) ethambutol (1200 mg/d po) and rifampin (600 mg/d po) was initiated.

Ten days later, the patient underwent elective laparotomy, resection of the aneurysm and *in situ* prosthetic repair with a PTFE (polytetrafluoroethylene) aortoiliac graft.¹ A rifampin impregnated Dacron

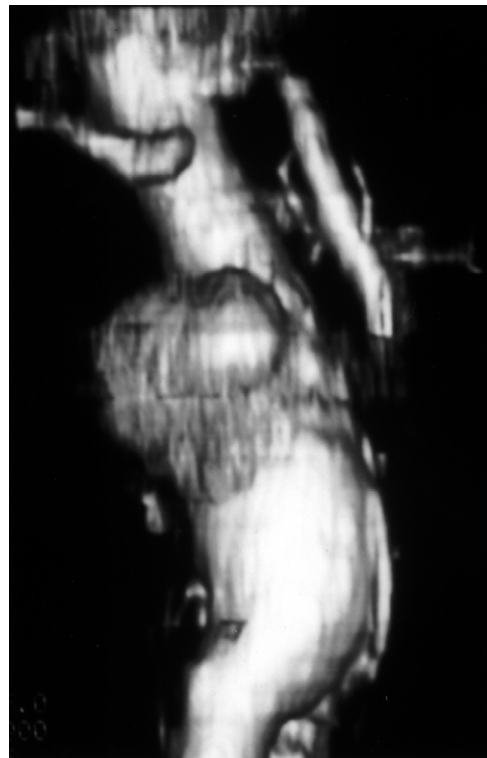


Fig. 1. Magnetic resonance (MR) angiography shows an infrarenal aneurysm of the abdominal aorta.

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graft was not available. The postoperative course was uneventful. Histologic examination of the resected aortic wall showed necrotizing granulomas with rare giant cells and chronic inflammatory infiltration. Sputum and urine cultures were positive for *Mycobacterium tuberculosis* while the presence of the organism was confirmed by polymerase chain reaction (PCR) in the sputum.

Antituberculous chemotherapy continued for a period of 12 months and the patient has been in good health 3 years after the surgery.

Discussion

From the first description²⁻⁴ by Weigert in 1882 up to the present, 45 cases of tuberculous aortitis have been reported, and only 18 of them had a mycotic aneurysm of the abdominal aorta (including our case). The aorta can be infected either by septic embolism (invading the intima or vasa vasorum), or by direct extension from a neighboring infected focus such as tuberculous lymphadenitis, spondylitis or a paravertebral abscess⁵ presenting either as aortitis, fistulae or mycotic aneurysm. Complications of a mycotic aneurysm include free perforation, which leads to massive bleeding with a high mortality up to 50%, or rupture

into adjacent structures and fistula formation. The standard therapy for mycotic aneurysm of the abdominal aorta has been surgery, involving *in situ* graft placement or extra-anatomic bypass surgery followed by effective anti-tuberculous medication. In our case the anastomotic sites were free of disease so we performed an *in situ* graft, followed by anti-tuberculous medication.

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