CASE REPORT

Aortic Graft Infection With Mycoplasma (Ureaplasma urealyticum)


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Introduction

Mycoplasma hominis and Ureaplasma urealyticum are common inhabitants of the human genital tract. Extragenital infections including surgical wound infections and mycoplasmemia have been reported. We report a case of an abdominal aortic graft infection with mycoplasma (U. urealyticum).

Case Report

A 64-year-old man had an emergency operation for a ruptured infrarenal aortic aneurysm (aortobiiliac Dacron graft). Postoperatively bilateral trash foot was noted and the left femoral pulse was also absent. A right to left femorofemoral PTFE cross over graft was therefore performed. Ensuing renal failure was treated successfully with haemodialysis for 1 month. He also underwent a bilateral transmetatarsal amputation and two months postoperatively he became febrile. Chest X-ray was normal, urine and blood cultures were negative. His white blood cell count was 13.4, ESR 130 and C-reactive protein 1932 (normal range 0–94). He was given intravenous cefuroxime, metronidazole and flucloxacilin to no effect. Abdominal computed tomography (CT) scan showed fluid around the aortic graft, which was drained under ultrasound control. No organisms were cultured from this fluid nor from multiple blood cultures. The only organism cultured from the graft was U. urealyticum. Treatment with erythromycin was instituted and he made a slow but uneventful recovery. At 6 months follow-up he remains well.

Discussion

The incidence of infection after implantation of a synthetic vascular graft is low. Although rare, aortic graft infection is associated with mortality rates ranging from 25%–75% and amputation rates of approximately 30%.

Staphylococcus aureus is found in one-third to one-half of cases; other organisms include Serratia, Proteus, Escherichia Coli, Pseudomonas, Klebsiella, Enterobacter, Bacteroides, alpha-haemolytic Streptococcus, Citrobacter, Enterococcus, and Candida. Mycoplasma has not been reported before (Medline 1980–1994). With conventional laboratory technique, the frequency of negative culture from grossly infected grafts varies considerably. M. hominis and U. urealyticum are members of the Mycoplasma genus and are common organisms found in the respiratory and genital tract of healthy young adults. The organism is an important agent in disease of the urogenital tract in women. There are sporadic reports of Mycoplasma causing serious extra-genital infection including wound infection after kidney transplantation and cardiovascular surgery. Laboratory diagnosis of Mycoplasma requires a high index of suspicion. The organisms are not readily seen on Gram-stained smears of wound drainage and grow poorly and slowly on the usual laboratory media.

In surgical infections the source of Mycoplasma is probably the genito-urinary tract following catheter-
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Because the organism lacks a cell wall, beta-lactam antibiotics are ineffective. Tetracycline is the drug of choice although there are reports of resistant strains. U. urealyticum is susceptible to erythromycin but M. hominis is resistant to it. Quinolone antibiotics, such as ciprofloxacin, are also active against M. hominis, although clinical experience is limited.

References


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