Pseudomonas-Like Species IIK-1 Peritonitis in Peritoneal Dialysis

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Dear Sir,

Further to the report of a Working Party of the British Society for Antimicrobial Chemotherapy on the organisms causing peritonitis in continuous ambulatory peritoneal dialysis (CAPD) [1], we would like to present a case of bacterial peritonitis never previously reported.

The pseudomonas-like species IIK-1 (*Pseudomonas paucimobilis*) is found primarily in nature or in the hospital environment in aquatic surroundings such as respirators, ventilators, nebulizers, water pools or tap water. Although it has been recovered from various human specimens, its virulence and ability to cause infectious disease is questionable [2].

Case Report

A 38-year-old woman with chronic renal failure secondary to unknown nephropathy began hemodialysis in 1974. She was converted to CAPD with the Y-connector with Amuchina [3] in April 1984, because vascular access construction was impossible.

In August 1984 she had a documented episode of peritonitis (*Staphylococcus aureus*). In April 1987 she was admitted to this center with cloudy dialysis fluid, abdominal discomfort and nausea, with no fever or symptoms of systemic illness. On microscopic examination, the peritoneal fluid sent to culture contained 4,000 leukocytes/ml. Intraperitoneal antibiotics were then started (loading dose: cephalotin 1 g/bag, tobramycine 1.7 mg/kg body weight/ bag; maintenance dose, respectively 250 and 8 mg/l) with a dwell time of 4–6 h. Outflow bacterial cultures were positive for *P. paucimobilis* with good in vitro drug sensitivity for cephalosporins and aminoglycosides.

No catheter skin exit infection was observed. On day 3 of therapy, the outflow cell count decreased to 10/ml. On day 7 the dialysate again became cloudy and the patient developed vomiting and fever. The Tenckhoff double-dacron cuff catheter was removed on the same day and a new catheter was implanted in the fossa iliaca dx. The culture of the intraperitoneal segment of the catheter was positive for *P. paucimobilis*, showing that the catheter itself was the source of the microorganism.

On day 12 of the therapy, the outflow fluid became limpid with a cell count below 50/ml, and the patient had fully recovered. Although her peritonitis was mild, removal of the catheter was necessary for biological and clinical recovery. It was evidently the growth of bacteria trapped in fibrin clots or slime attached to the inside of the catheter which led to asymptomatic peritonitis, despite the sensitivity of *P. paucimobilis* to intraperitoneally instilled antibiotics.

References

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