CAPD-Related Peritonitis Caused by *Morganella morganii*

Editor:

Morganella morganii belongs to the family of Enterobacteriaceae. Despite its wide distribution, it has been considered a rare cause of human infections. However, there is emerging evidence suggesting that *M. morganii* may become an important opportunistic pathogen in urinary tract, skin, and soft tissue infections and also in meningitis and bacteremia. We noted an interesting recent publication in *Peritoneal Dialysis International* by Atalay *et al.* describing a peritonitis caused by *M. morganii* and *Providencia rettgeri* (1). Here, we describe a woman on continuous ambulatory peritoneal dialysis (CAPD) who experienced a monobacterial peritonitis attributable to *M. morganii*.

A 62-year-old ethnic Taiwanese woman had been well maintained on CAPD for at least 6 months because of end-stage renal disease that was assumed to be a result of hypertension and an overzealous use of analgesics.

Two months before presentation, she had experienced 1 episode of peritonitis caused by *Prevotella* species, which was adequately eradicated by intravenous cefmetazole, as evidenced by white cell counts of less than 100/mm³ in effluent after treatment.

At her current admission, she presented with fatigue, abdominal pain, fever, and turbid effluent. The physical examination revealed a painful abdomen with rebounding tenderness. The exit of the peritoneal dialysis catheter looked clean, without apparent sign of tunnel infection. Peritoneal effluent contained white cells 185/mm³, with 98% polymorphonuclear leukocytes. Gram stain of the effluent failed to show any micro-organisms. Computed tomography imaging of the abdomen revealed no significant intra-abdominal lesions.

We diagnosed CAPD-related peritonitis and gave empiric antibiotic therapy (intravenous cefmetazole 2000 mg once daily) after peritoneal fluid and blood cultures had been taken. Cultures of the peritoneal fluid subsequently yielded *M. morganii* on 2 occasions. The antibiotic regimen was then replaced with intraperitoneal ceftazidime 500 mg, 4 times daily. The woman's abdominal pain, nausea, and vomiting steadily subsided. Peritoneal effluent cell counts returned to 5/mm³ by day 10. She was discharged and did not relapse.

M. morganii has recently become an important opportunistic pathogen (2–6), being frequently encountered in the intensive care unit, partly because of its preponderance in immunocompromised individuals and also because of various invasive procedures (7). As first reported by Atalay *et al.* (1), *M. morganii* caused peritonitis in a polymicrobial fashion (with *Providencia rettgeri*). However, in the present patient, it was isolated as a single pathogen in CAPD-related peritonitis. To our knowledge, this case is probably the first of CAPD-related peritonitis attributable to *M. morganii* in a monobacterial setting. Another unique feature is that *M. morganii* was able to cause severe infection in an immunocompetent patient such as ours. Fortunately, the microbe was sensitive to amikacin, ceftazidime, cefepime, quinolone, imipenem, and piperacillin–tazobactam, as has been reported in the literature (8). Our patient recovered completely after the use of ceftazidime.

In conclusion, *M. morganii* is a rare cause of CAPD-related peritonitis, and our patient may be the second case of *M. morganii* peritonitis and the first of monobacterial infection with that organism.

DISCLOSURES

The authors have no financial conflicts of interest to declare.

M.T. Tsai¹
J.T. Yeh¹
W.C. Yang^{1,2}
T.H. Wu^{1,2*}

Division of Nephrology¹
Department of Medicine
Taipei Veterans General Hospital and
National Yang-Ming University School of Medicine²
Taipei, Taiwan

*email: thwu@vghtpe.gov.tw

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