Peritoneal Dialysis Peritonitis Caused by *Bacteroides thetaiotaomicron*

Editor:

Bacteroides thetaiotaomicron, a gram-negative anaerobic bacillus, belongs to the genus *Bacteroides*, one of the most common of the human commensal anaerobes. Most of the time, *B. thetaiotaomicron* is part of the normal flora of the gastrointestinal tract, oral cavity, vagina, and respiratory tract. Human infections caused by *B. thetaiotaomicron* are rarely reported (1–5). Here, we present the first case of peritoneal dialysis (PD) peritonitis caused by this organism.

A 86-year-old man visited the emergency department because of abdominal pain and fever for 2 days. He had been started on PD using a Tenckhoff catheter 1 year before this presentation. His body temperature was 38.4°C, and his blood pressure was 77/54 mmHg.

Physical examination was unremarkable except for lower-quadrant tenderness with rebounding pain. Laboratory investigations showed a white blood cell count of 14 500/mm³ (88.7% neutrophils) and 175 mg/L C-reactive protein (normal reference: <6 mg/L). Examination of the cloudy peritoneal effluent showed a white blood cell count of 3217/mm³ with 91% neutrophils. Empirical treatment with cefpirome, gentamicin,

and vancomycin was administered intravenously after specimens of blood and peritoneal effluent had been collected for culture.

Six days later, bacterial culture of the peritoneal effluent yielded gram-negative bacteria, which were further confirmed as *B. thetaiotaomicron*. Antibiotic susceptibility tests revealed that the organism was sensitive to chloramphenicol and metronidazole, but resistant to clindamycin and penicillin. The antibiotics were therefore changed to metronidazole for 10 days, and the patient recovered completely without complications.

To our knowledge, human infection caused by *B. thetaiotaomicron* is extremely rare. Based on limited case reports, this unusual pathogen had been found to be associated with meningitis, bacteremia, and wound infection (1–5). Here, we document the first case of PD peritonitis caused by *B. thetaiotaomicron*, which was confirmed by compatible symptoms and signs, and positive bacterial culture from peritoneal effluent.

The portal of entry for this infection with *B. thetaiotaomicron* remains unclear. However, given that the organism resides in and dominates the human intestinal tract, the most probable mechanism is bacterial translocation from the gastrointestinal tract to the peritoneum.

To summarize, we report a case of PD peritonitis caused by *B. thetaiotaomicron*. This case expands the spectrum of infection caused by *B. thetaiotaomicron* and raises the possibility of *B. thetaiotaomicron* as a potential cause of PD peritonitis.

DISCLOSURES

The authors have no financial conflicts of interest to declare.

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