***Gordona*: A Rare Cause of Peritoneal Dialysis Peritonitis**

Gordona species are aerobic gram-positive bacilli that have seldom been reported to cause infections in humans. This slow-growing organism tends to form a biofilm that is difficult to eradicate. It is usually found in soil and has previously been isolated from human skin and the sputa of respiratory patients (1,2). Most published case studies show that *Gordona* causes infection in patients who are

immunocompromised or have indwelling catheters. The organism has been reported to cause infections of skin, wounds, lungs, and cardiac valves, and also brain abscess (3–5).

To the best of our knowledge, *Gordona* has not been reported to cause peritoneal dialysis (PD) peritonitis. Here, we present a case of PD peritonitis secondary to *Gordona* that failed to respond to antibiotics, with subsequent removal of the PD catheter.

CASE REPORT

A 78-year-old woman was started on PD in June 2000. She initially received continuous ambulatory PD and was later changed to automated PD in 2006. She experienced 1 episode of culture-negative peritonitis in June 2008 and was successfully treated with intraperitoneal vancomycin and gentamycin according to our infection treatment protocol.

This woman presented with abdominal pain and cloudy PD effluent on 15 December 2009. The PD effluent had an elevated white cell count (7920/mm³) with 95% polymorphonuclear cells, and the provisional report was consistent with culture-negative peritonitis. The patient did not tolerate vancomycin and was managed with intravenous teicoplanin and intraperitoneal gentamicin. Despite treatment with antibiotics, she did not improve symptomatically, and the PD catheter was removed on 24 December 2009.

The PD catheter tip showed no bacterial growth; however, we subsequently received further reports from the microbiology reference laboratory (Health Protection Agency Centre for Infections, Colindale, London, UK) regarding the initial PD effluent culture. Using 16S rRNA (Svedberg ribosomal RNA) technique, the report identified *Gordona* species sensitive to teicoplanin as the causative organism. Despite treatment of the infection with antibiotics to which the organism was sensitive, the PD catheter had to be removed.

DISCUSSION AND CONCLUSIONS

Gordona species are difficult to identify using standard microbiology methods (6). Even when isolated in culture media, these organisms may be dismissed as *Nocardia* or *Rhodococcus*. Case reports involving *Gordona* are rising in number, likely because of the technique used to discriminate the organism from other gram-positive bacilli. The techniques of DNA sequencing and 16S rRNA analysis have made it possible to correctly identify the organism (7). Because identification requires specialized equipment, facilities, and

personnel, suspected cases should be sent to reference laboratories (8).

Gordona and similar organisms are commonly found in soil, and they are associated with prosthetic materials. They are commonly considered nosocomial agents and contaminants, but may lead to serious consequences such as, in our case, loss of the dialysis modality of choice.

This is the first reported case of *Gordona* causing PD peritonitis. A few publications have reported *Gordona* infections in other organs, but no antimicrobial drug has been unanimously recommended for treatment. Drug susceptibility for *Gordona* is similar to that for *Rhodococcus*, a species that *Gordona* are often incorrectly identified to be. Vancomycin is used in most PD peritonitis protocols; however, in a previous study in non-PD patients, 11% of *Gordona* species isolated were resistant to vancomycin. Hence, it is important to isolate the organism and to treat according to sensitivity results (9).

Our case highlights *Gordona* as a rare cause of PD peritonitis that is difficult to isolate using standard culture media. It also demonstrates the difficulty of eradicating the organism, even with antibiotics to which the organism is sensitive, without PD catheter removal.

DISCLOSURES

The authors have no financial conflicts of interest to declare. Informed consent was obtained from the index patient.

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