

with increased health care costs.^[2] Gram-positive cocci (GPC) account for over half of the PD episodes with *Staphylococcus* species being the most commonly encountered.^[1] Streptococci are generally rare causes of continuous ambulatory PD (CAPD) peritonitis.^[3] We describe a case of PD-related peritonitis caused by *Streptococcus gordonii*.

A 70-year-old female with end-stage renal disease secondary to chronic pyelonephritis had been on CAPD for 12 years. She was admitted to our unit with a 2-day history of abdominal pain, nausea, fever, and cloudy dialysate.

The patient had no recent history of invasive dental procedures, but she had poor dental hygiene. On examination, she was afebrile and diffuse abdominal tenderness was noted. The catheter exit site was clean and there were no signs of tunnel infection. The white blood cell (WBC) count in the peritoneal fluid was 5,160/mm³ (90% neutrophils). A Gram-stain of the centrifuged dialysis effluent revealed only numerous leucocytes; no microorganisms were seen. She was diagnosed to have CAPD peritonitis and empirical treatment with intraperitoneal vancomycin and amikacin was initiated according to our protocol. Culture of the dialysis effluent yielded a pure growth of *S. gordonii*. The isolate was sensitive to penicillin, ampicillin, cefuroxime, cefotaxime, ceftriaxone, ceftazidime, cefepime, linezolid, daptomycin, and vancomycin, but resistant to erythromycin. After 5 days of antimicrobial therapy, the peritoneal fluid WBC count decreased to normal limits and cultures were negative. The patient was discharged in stable condition 1 week after her admission and antibiotic treatment was continued for a total of 2 weeks.

Streptococcus viridans are commensal species that normally reside the oral cavity and show relatively weak or no pathogenicity. However, they have the potential to invade sterile body sites and cause life-threatening infections. Streptococci of the *viridans* group account for the majority of streptococcal PD-related peritonitis.^[3] *S. gordonii* is associated with endocarditis, arthritis, extensive multiple subcutaneous abscesses, and spontaneous peritonitis. Another case of PD-related peritonitis caused by *S. gordonii* has been previously described.^[4]

In our patient, the exact source of *S. gordonii* could not be ascertained. We presume that the infection was caused by direct inoculation of bacteria through the peritoneal catheter into the peritoneal fluid during PD

Peritonitis due to *Streptococcus gordonii* in a patient treated with continuous ambulatory peritoneal dialysis

Sir,

Peritonitis is a serious complication of peritoneal dialysis (PD).^[1] It is the main cause of technique failure, peritoneal catheter loss and transfer to hemodialysis

exchange. The oral cavity is the most probable source of the infection. In a recent study, the investigators found that contamination during exchange constituted the most common cause of *viridans* streptococcal PD-related peritonitis.^[3] Figueiredo *et al.* comparing peritonitis episodes in patients using and not using a mask during PD exchanges showed that peritonitis due to *S. viridans* was detected only in the group without masks.^[5] This finding demonstrated that the oral cavity is the most likely source of *S. viridans*.

In conclusion, although rarely encountered, *S. gordonii* should be kept in mind as a cause of CAPD peritonitis that can be treated successfully with early recognition and appropriate antibiotic therapy.

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Conflicts of interest

There are no conflicts of interest.

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