Peritonitis Due to Rhizobium Radiobacter in Continuous Ambulatory Peritoneal Dialysis Patients

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Rhizobium radiobacter (R. radiobacter) is an aerobic, motile, Gram-negative bacillus found primarily in the soil. It has only recently been recognized as an opportunistic pathogen in humans and rarely produces human disease. Most infections have developed in immunocompromised hosts or patients with intravascular devices. In this report we describe a case of serious peritonitis due to R. radiobacter continuous ambulatory peritoneal dialysis (CAPD) patients. In 1980, Plotkin reported the first case of human disease attributed to R. radiobacter in endocarditis patients. R. radiobacter is considered an opportunistic agent that most affects patients with immunocompromised conditions, such as malignant tumors, end stage renal disease, receiving a corticosteroid, and diabetes mellitus. In most cases the infection has been strongly associated with the presence of plastic foreign devices, such as central venous catheters, peritoneal dialysis catheters, and prosthetic cardiac valves. Generally, ticarcillin, cefoxitin, ceftriaxone, cefotaxime, gentamicin, and ciprofloxacin appear to be the most active antimicrobial agents against R. radiobacter. Antimicrobial therapy should be guided by susceptibility testing. To the best of our knowledge, only five cases of CAPD peritonitis caused by R. radiobacter have been reported in Korea. The final course of previous reported cases are similar. The peritonitis in all cases initially responded to intraperitoneal antibiotics but relapsed afterward, necessitating the eventual removal of the PD catheter in three cases. It may be wise in the cases of CAPD peritonitis caused by R. radiobacter to make the decision for removal of the PD catheter. In our case, the progression was good with no need to remove the PD catheter. Our patient improved with only intraperitoneal ceftazidime treatment. So, our case is very rare case report to describe good progression without removal the PD catheter in CAPD peritonitis patient.

Small Bowel Obstruction Caused by Richter’s Hernia and Oral Phosphate Binder in Peritoneal Dialysis Patient

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Introduction: Richter’s hernia occurs when the antimesenteric wall of the intestine protrudes through a defect in the abdominal wall. Even though umbilical hernia is a common complication of peritoneal dialysis, the development of Richter’s hernia is rare. Lanthanum carbonate is non-calcium, metal-containing phosphate binder used in hyperphosphatemia treatment. Precipitation of insoluble complexes takes place in the intestinal lumen to make complications such as diverticulitis, pseudo-obstruction and so on. We describe a case of small bowel obstruction caused by Richter’s hernia and oral phosphate binder in peritoneal dialysis patient.

Case Presentation: A 53-year-old deaf man under peritoneal dialysis was admitted for nausea, vomiting. He was prescribed lanthanum carbonate because of high phosphorus serum level (8.2 mg/dL) after admission. Partial small bowel obstruction was developed after 6 days. Abdomen-pelvis CT determined that Richter’s hernia into umbilicus and pharmacobezoar were causes of small bowel obstruction. He was treated successfully by an operation, strangulated small bowel resection and herniorrhaphy. He started hemodialysis instead of peritoneal dialysis and discharged.

Conclusion: Richter’s hernia is rare. However it should be considered to be a cause of small bowel obstruction in peritoneal dialysis. Much care is necessary in lanthanum carbonate administration not to make a serious complication.