Mono-bacterial peritonitis caused by *Bacteroides thetaiotaomicron* in a patient on peritoneal dialysis

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To the Editor:

Peritonitis is one of the primary complications of peritoneal dialysis (PD) and is probably the most common cause of technique failure.[1] Cases of peritonitis caused by enteric bacteria are uncommon. Infections produced by anaerobic microorganisms, such as *Bacteroides spp*., generally indicate a subjacent abdominal pathology and involve a poor prognosis.[1-4] Here we describe the case of a 46-year-old male with a case of peritonitis caused by *Bacteroides thetaiotaomicron* produced two month after starting continuous ambulatory PD. The patient presented renal failure secondary to medullary cystic kidney disease, had not suffered any previous cases of peritonitis, and had a normal bowel regularity. The patient was under treatment with amlodipine, simvastatin, and darbepoetin. He sought emergency care due to abdominal pain, turbid peritoneal dialysate, and fever with one day evolution. A physical examination revealed diffuse abdominal pain, no signs of peritoneal irritation, and no local infection in the catheter outflow orifice. Blood and urine analyses produced no relevant results, and chest and abdominal x-rays were normal. An analysis of the dialysate fluid revealed 10 100 leukocytes/mm^3 with 3535 neutrophils, and samples were taken for culture. Empirical antibiotic therapy was administered with intraperitoneal amikacin and vancomycin, and the patient was discharged. Two days later, the patient's clinical situation worsened, and he was admitted to the hospital. The dialysate fluid culture was positive for a single pathogen: *Bacteroides thetaiotaomicron*. Oral metronidazole was added to the treatment regimen, in accordance with the antibiogram. An abdominal computerised tomography (CT) showed no abdominal pathologies. The patient improved progressively, and after 5 days of antibiotic treatment, the dialysate fluid culture was negative. The patient was maintained on PD during the entire process, and transfer to haemodialysis was not necessary.

Peritonitis in patients on PD is generally caused by gram-positive bacteria. Enteric bacteria, especially anaerobic pathogens, are less common and tend to be associated with abdominal pathologies such as diverticulitis, cholecystitis, intestinal ischaemia, appendicitis, or colon cancer.[1-4] In these cases, a CT can reveal the underlying pathology, although some patients require an exploratory laparotomy.[1-3] Bacterial overgrowth due to treatments that supress the secretion of gastric acid has been proposed as a risk factor for enteric peritonitis, although this is still a subject of debate.[4,5] In our patient, the fluid cultures were positive only for *Bacteroides thetaiotaomicron*, an anaerobic, gram-positive, non-sporulated bacillus, which is a normal component of human gastrointestinal flora. In addition, the patient was not receiving any type of gastric acid secretion inhibitor. In the absence of a visceral lesion, transmural migration or altered peritoneal defences could explain how these bacteria are able to pass through the peritoneum.[2-4]

The treatment of these infections is based on aggressive antibiotic therapy. The clinical progression is potentially fatal,[1-3] and generally requires removal of the dialysis catheter[2,3] and transfer of the patient to haemodialysis.

In our case, we were able to obviate surgical exploration and maintain the patient on PD without the need for catheter removal. The patient made a full recovery.

Conflict of interest

The authors declare that there is no conflict of interest associated with this manuscript.

1. Li PK, Szeto CC, Piraino B, Bernardini J, Figueiredo AE, Gupta A, et al. Peritoneal dialysis-related infections recommendations: 2010 update. Perit Dial Int 2010;30:393-423.
2. Kern EO, Newman LN, Cacho CP, Schulak JA, Weiss MF. Abdominal catastrophe revisited: the risk and outcome of enteric peritoneal contamination. Perit Dial Int 2002;22:323-34.
3. Harwell CM, Newman LN, Cacho CP, Mulligan DC, Schulak JA, Friedlander MA. Abdominal catastrophe: visceral injury as a cause of peritonitis in patients treated by peritoneal dialysis. Perit Dial Int 1997;17:586-94.
4. Nessim SJ, Tomlinson G, Bargman JM, Jassal SV. Gastric acid suppression and the risk of enteric peritonitis in peritoneal dialysis patients. Perit Dial Int 2008;28:246-51.
5. Caravaca F, Ruiz-Calero R, Dominguez C. Risk factors for developing peritonitis caused by micro-organisms of enteral origin in peritoneal dialysis patients. Perit Dial Int 1998;18:41-5.

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Kidney post-transplantectomy ruptured iliac pseudoaneurysm: emergency endovascular repair

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To the Editor:

The most common complications following late kidney transplantectomy are intra- and postoperative haemorrhages and surgical wound infections. Lesions produced in the iliac vessels have also been described.[1]