Periton Diyalizinin Nadir Bir Komplikasyonu: Mesane Delinmesi

An Unusual Complication of Peritoneal Dialysis: Bladder Perforation

Hasan Altun¹, Oktay Banlî¹, Ayşegül Öztemel¹, Osman Gül¹
¹Ankara Etlik İhtisas Hastanesi, Genel Cerrahi Bölümü, Ankara
²Ankara Etlik İhtisas Hastanesi, Nefroloji Bölümü, Ankara
³Ankara Etlik İhtisas Hastanesi, Üroloji Bölümü, Ankara

Introduction

Continuous ambulatory peritoneal dialysis (CAPD) is a method of therapy for patients with end-stage renal disease. A lot of techniques exist for the insertion of CAPD catheters. Catheter related complications causing significant morbidity limit its usefulness. Although open surgical methods were most commonly used before, percutaneous and laparoscopic techniques are going to be more popular. Percutaneous procedures have the advantages of having a lower cost and requiring a shorter time of hospitalisation (1). Blind techniques have the disadvantage of not seeing the peritoneal cavity. Complications occur mostly during catheter insertion. Bladder perforation during the peritoneal dialysis catheter insertion is a rare event.

Case Report

A 30-year-old woman with end-stage renal disease secondary to diabetes mellitus, was admitted to the Nephrology Department in our hospital for CAPD. The patient had a previous CAPD catheter insertion which was removed because of repeating peritonitis. She had been placed on maintenance hemodialysis meanwhile. It has been known that history of peritonitis, previous abdominal surgery and neurogenic uropathy increase the likelihood of bladder perforation. Open surgical methods may be more appropriate for patients that have risk factors mentioned above.

Keywords: peritoneal dialysis, bladder perforation, renal failure
The local anesthesia. Abdominal radiograph showed pelvic placement of the catheter in the midline. After 5 days of irrigation, peritoneal dialysis (PD) was started on the 21st day of catheter insertion. PD solution was spilled through perineum. A cystogram revealed no intraperitoneal leakage from the bladder. First, uterus perforation was thought. For determination of leakage site Tc-99m MAA scintigraphy was performed and it revealed accumulation in pelvis. After bladder catheterization, it was seen that PD solution was coming through urinary catheter. On cystoscopy, pigtail part of Tenckhoff catheter was seen in the bladder (Figure 1). One week after the removal of CAPD catheter, urinary catheter was also removed.

Discussion

A few cases that have bladder perforation have been reported in the literature (2-11). Risk factors for perforation are previous abdominal surgery, past history of peritonitis and neurogenic uropathy. In patients previously submitted to abdominal surgery, intra-abdominal adhesions increase the risk of viscous perforations because of adhesions that hold the bladder and bowels in a fixed position. Infusing of dialysis solution into peritoneal cavity before the procedure reduces the incidence of this complication (12).

Neurogenic uropathy may be seen frequently in long-standing diabetic patients. A distended atonic bladder with no sensation, urinary urgency and incomplete emptying is seen in these patients. Risk of inadvertent puncture of the bladder increases in these patients. Bladder catheterization may be useful for patients with suspected atonic bladder to decrease the likelihood of inadvertent bladder perforation.

Risk factor for this patient was past history of peritonitis that give rise to intraabdominal adhesion and hypotonic bladder. For patients that have risk factors mentioned above, open surgical methods may be more appropriate.

References