CORRESPONDENCE

Appendiceal Incarceration by Peritoneal Dialysis Catheter

Editor:

A 60-year-old woman with chronic renal failure secondary to anti-neutrophil cytoplasmic antibodies (ANCA)-positive glomerulonephritis presented to our emergency department with 24 hours of right iliac fossa abdominal pain. She had been on peritoneal dialysis (PD) intermittently for 2 years prior, via a coiled Tenckhoff catheter placed using a percutaneous Seldinger technique. However, her renal function and fluid retention had worsened despite switching from continuous ambulatory PD to automated PD. Hemodialysis via permacath had been commenced 3 weeks prior to admission, with the Tenckhoff catheter left in-situ at the patient's request.

On admission, our patient had localized guarding in the right iliac fossa, but was systemically well. White cell count was normal, with C-reactive protein mildly raised. Computed tomography (CT) demonstrated the coiled Tenckhoff catheter in the region of the appendix with mild surrounding stranding and adjacent fluid (Figure 1). Intravenous antibiotics were commenced.

The following day, laparoscopy was performed, demonstrating the catheter coiled tightly around the cecal pole, constricting the base of the appendix (Figure 2). The appendix was swollen and erythematous, with surrounding suppurative fluid, but no necrosis or perforation. The catheter was removed laparoscopically, as was the appendix.

Our patient recovered well, being discharged day 2 post-operatively. She had a brachiocephalic fistula created and continues to this day on hemodialysis.

DISCUSSION

In this case, the dialysis catheter became entangled around and entrapped the base of the appendix. Visceral entrapment is a rare complication of PD catheters. One previous case of appendiceal entrapment was reported in a 4-year-old boy; in that case, necrotic appendicitis ensued with a delayed diagnosis (1). Catheters may become entangled around fallopian tube fimbriae (1), typically presenting with catheter obstruction and malfunction. In addition, visceral injury by fistulation of dialysis catheters has been reported into pelvic viscera (vagina [2] and rectum [3], respectively).

In our case, prompt intervention prevented fistulation or necrosis. Laparoscopy allows both excellent visualisation of the entire peritoneal cavity for diagnostic purposes, as well as therapeutic manoeuvres. Whilst primary peritonitis remains

Figure 1 — Computed tomography with catheter coiled around base of appendix (arrow).

Figure 2 — Laparoscopic view confirming catheter entangled around base of indurated appendix.

the most common cause of pain and unwellness in patients undergoing PD, we should keep a healthy level of suspicion for surgical diagnoses, as prompt diagnosis and surgery will prevent adverse outcomes.

DISCLOSURES

The authors have no financial conflicts of interest to disclose.

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