Dialysate Leakage Secondary to Omphalitis in a Peritoneal Dialysis Patient

Dialysate leaks can be a major problem in patients receiving peritoneal dialysis (PD) therapy. The leak usually comes from the exit site (1). Leakage from the umbilicus is rare, having first been reported in 2006 (2). We now report a continuous ambulatory PD (CAPD) patient with dialysate leakage from the umbilicus occurring in association with omphalitis.

A 58-year-old woman had been on CAPD since 2002 for end-stage renal disease secondary to chronic nephritis. In December 2011, this patient presented with a 1-week history of colorless, transparent fluid flowing from her umbilicus. This colorless fluid had a glucose content of 56.9 mmol/L at a time when the woman's plasma glucose was 5.4 mmol/L, a finding that confirmed a dialysate leak. The leak varied in relation to posture and abdominal pressure.

On physical exam, body temperature was normal. There was slight abdominal distention. The umbilicus was moist, with a visible leak of transparent fluid. The surrounding skin was slightly erythematous. A 2×2-cm mass was palpable deep to the umbilicus. It was soft and immobile, and no tenderness was present. Blood work was unremarkable. Color Doppler ultrasonography showed a hypoechoic area under the umbilicus and a small amount of associated abdominal transudate (Figure 1).

The patient was treated with antibiotics and debridement, but a small amount of leakage persisted. She was then transferred to our center. No peritonitis was evident, but PD was discontinued, and she was temporarily switched to hemodialysis. Two weeks later, the patient resumed PD, initially intermittently, and when no leakage occurred, CAPD was resumed. No recurrence of the leak has since appeared.

In the case reported by Chiu *et al.* (2), repeated omphalitis episodes led to peritonitis, and surgical

Figure 1 — Ultrasonography shows a hypoechoic area under the umbilicus and a small amount of associated abdominal transudate.

removal of the patient's umbilicus was required. In our case, no peritonitis occurred, and the omphalitis responded to antibiotic treatment.

DISCLOSURES

The authors have no financial conflicts of interest to declare.

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