An unusual complication of neurogenic bladder

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A 52-year-old woman presented with a 4-day history of fever, right flank pain, and urinary leakage around her urethral catheter. For the past 10 years, she has required a permanent urethral catheter for a neurogenic bladder caused by traumatic cauda equina syndrome. Both the right and left ureters were dilated due to vesicoureteral reflux. The urethral catheter was regularly changed by a visiting nurse, most recently 6 days before admission.

Laboratory tests revealed acute renal failure (serum creatinine 243 μmol/L vs 88 μmol/L a year earlier) and an elevated serum level of C-reactive protein (91 mg/L). The urine sample showed white cells and β-lactam-resistant Enterobacter cloacae and methicillin-resistant Staphylococcus aureus. A computed tomographic scan (figure 1) showed the urethral catheter in the right ureter with an inflated balloon in the right renal pelvis (black arrow) and a dilated calyx, as well as left ureteral dilatation and hydronephrosis, unchanged from previous radiographic examinations.

The urethral catheter was removed and then correctly inserted, and the patient received a 14-day course of appropriate antibiotics. Fever and acute phase reactants abated, and renal function returned to its usual level.

Figure 1
Computed tomographic scan
Computed tomographic scan showed the urethral catheter in the right ureter (white arrow) with an inflated balloon in the right renal pelvis (black arrow) and a dilated calyx, as well as left ureteral dilatation and hydronephrosis, unchanged from the previous radiographic examination.
This case highlights the risk of unintentional ureteral catheterization that ureteral dilatation secondary to neurogenic bladder presents. To our knowledge, this iatrogenic complication has not previously been reported. It also serves as a reminder that it is important to pull the catheter gently until the inflated balloon is snug against the bladder neck to be certain that the catheter is correctly positioned [1].

Conflicts of interest: none

Reference