corrected with intravenous saline infusion (Reddy and Mooradian, 2009). The plasma sodium level can be raised rapidly by 1–2 mEq/litre/h (no more than 8–10 mEq/litre/24 h) until the neurological symptoms stop (Palmer et al, 2003).

Infusion of 3% hypertonic saline is the best way to raise the sodium concentration to treat acute and symptomatic hyponatraemia. In patients prone to develop volume overload, hypertonic saline infusion is often combined with furosemide to prevent rapid expansion of extracellular fluid (Adrogué and Madias, 2000).

In this case correction was started with intravenous normal saline infusion and then, following poor clinical and laboratory response, with intravenous hypertonic saline (3%). With this approach the patient's neurological state completely recovered. **BJHM**

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LEARNING POINTS

- Severe desmopressin-induced hyponatraemia may develop after a few days of treatment.
- During desmopressin therapy it is essential to monitor the patient's daily fluid intake.
- In cases of severe hyponatraemia aggressive therapy is indicated to prevent neurological disability.

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A huge cavity in the right upper abdomen

A 71-year-old woman with uncontrolled diabetes presented with a 1-week history of fever and abdominal pain. She also reported poor appetite, nausea and dysuria. Physical examination revealed knocking tenderness over her right flank. Laboratory analysis revealed anaemia, leukocytosis and elevated C-reactive protein level. Abdominal radiograph revealed a huge cavity in the right upper abdomen (*Figure 1a*), with computed tomography showing complete duplication of the right collecting system and emphysematous pyelonephritis (*Figure 1b*). Her clinical condition recovered after percutaneous nephrostomy tube drainage and antibiotic treatment. The pus culture finally yielded *Propionibacterium acnes*.

Emphysematous pyelonephritis is a severe necrotizing infection caused by gas-forming organisms within the renal parenchyma. Complete ureteral duplication may result in one ureter normally opening into the bladder and the other being ectopic. Ectopic insertion usually causes reflux, obstruction and infection. Treatments include adequate drainage and antibiotic treatment. Minimal invasive surgery, such as laparoscopic heminephrectomy, is recommended for recurrent infection. **BJHM**

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Figure 1. a. Abdominal radiograph revealed a huge cavity over the right upper abdomen. **b.** Abdominal computed tomography revealed complete ureteral duplication (arrows) and emphysematous pyelonephritis.