Polysubstance abuse related subacute urinary retention and Hutch diverticulum of urinary bladder

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Abstract

The present case highlights the presentation and management of hyperkalemia and acute renal failure secondary to polysubstance abuse related subacute urinary retention due to α-adrenergic and μ-receptor activation in a patient with Hutch diverticulum.

Case Report

A 51-year-old male presented to the emergency room with complaints of fullness in his belly and worsening difficulty in voiding urine for one week. He was voiding small volumes of urine that was dark in color without any obvious blood. He had a strong urge to void, but did not report any abdominal pain. He denied any associated flank pain, fever, chills or episodes of emesis. There was no past medical or surgical history. The patient denied any allergies. He reported a long history of polysubstance abuse that included cocaine and inhaled heroin twice a week with the most recent use being on the day of his emergency room (ER) presentation. He denied tobacco or alcohol abuse. On examination, the patient was hypertensive with suprapubic fullness and minimal tenderness to palpation. There was no rebound tenderness or guarding. Initial screening ultrasound examination demonstrated a markedly enlarged and distended bladder. The electrolytes were markedly abnormal with serum potassium greater than 8 mMol/L in a non-hemolyzed sample and serum creatinine was 35.2 mg/dL. The patient had metabolic acidosis with anion gap 39. A urinary catheter was placed and two liters of dark urine was drained with intermittent clamping of the catheter to avoid any acute hemodynamic changes. The patient was admitted to intensive care unit for observation, and management of hyperkalemia and acute renal failure secondary to polysubstance abuse related subacute urinary retention due to α-adrenergic and μ-receptor activation. An urgent CT scan of the abdomen and pelvis revealed a markedly distended bladder with a complex well circumscribed cystic mass in the rectovesical pouch, which appeared separate from the bladder with a communicating tract. The renal ultrasound was repeated two days after the gradual decompression of the urinary bladder and voiding of 10 L of dark urine and it confirmed the diagnosis of right sided Hutch diverticulum based on the changing size of the cystic mass after a 10-minute walk and its visualized communication with the urinary bladder.

In the next two days, the patient was discharged in stable condition after the complete resolution of the electrolyte abnormalities and was scheduled for the cystoscopy as an outpatient to rule out any coexisting bladder neck outlet obstruction. Unfortunately, the patient was a no-show for a follow up appointment.

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