CLINICAL PRACTICE

Clinical Images

Urinothorax: A Rare Case of Pleural Effusion

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A 71-year-old male presented with two weeks of nausea, vomiting, abdominal pain, and difficulty urinating. He denied shortness of breath or chest pain. Vital signs were normal. Laboratory tests were notable for a potassium of 7 mmol/l, BUN 176 mg/dl, and creatinine 17.6 mg/dl. A CT scan of his abdomen demonstrated a profoundly distended bladder with bilateral hydronephrosis and left calyceal rupture (Fig. 1). A chest x-ray revealed a large left-sided pleural effusion (Fig. 2). A Foley catheter was placed and drained 3.7 liters of urine, after which the patient's laboratory tests rapidly normalized. Urinothorax was suspected, and follow-up imaging was arranged. On repeat CT 6 weeks later, the effusion had resolved.

Urinothorax, or urine in the pleural space, is a rarely reported complication of bilateral urinary obstruction or trauma to the urinary tract. There are fewer than 100 reported cases in the literature, although it may be underdiagnosed because of low clinical suspicion.[1] Patients typically have only minor respiratory symptoms and are often diagnosed clinically, with an effusion that improves after the obstruction or urinary tract injury has resolved.[1] If performed, thoracentesis reveals a transudative fluid that smells of urine with a low pH (<7.3) and a fluid/serum creatinine ratio >1.

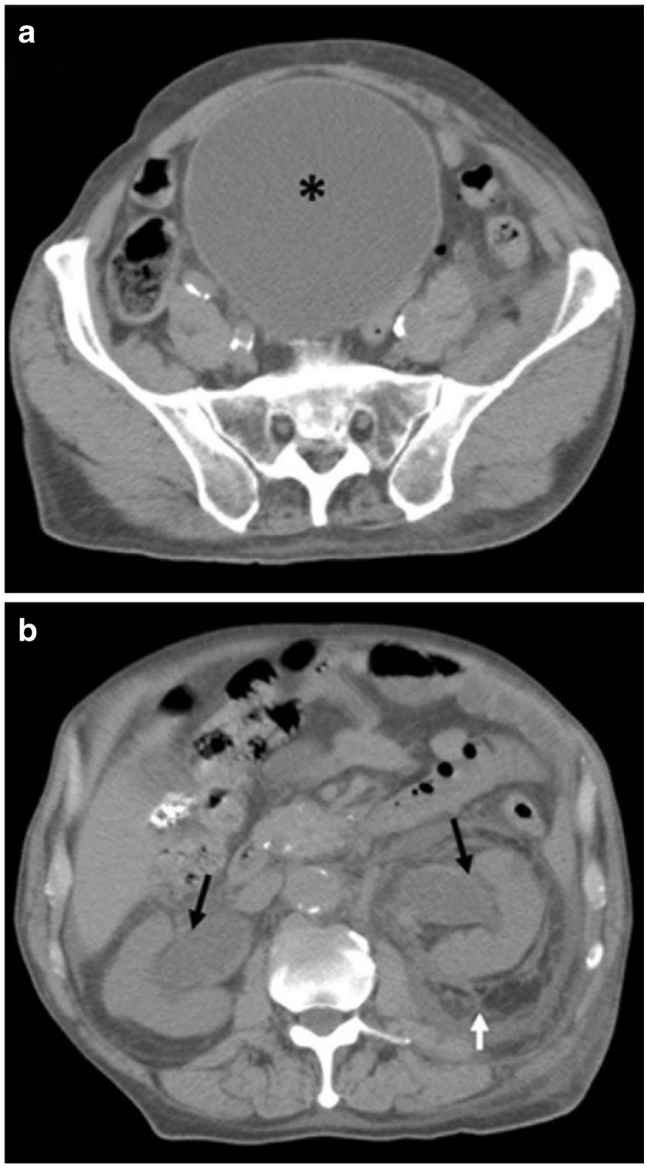

Figure 1 Markedly distended bladder (*asterisk*, panel a), bilateral hydronephrosis (*black arrows*, panel b), and fat stranding consistent with left calyceal rupture (*white arrow*, panel b)

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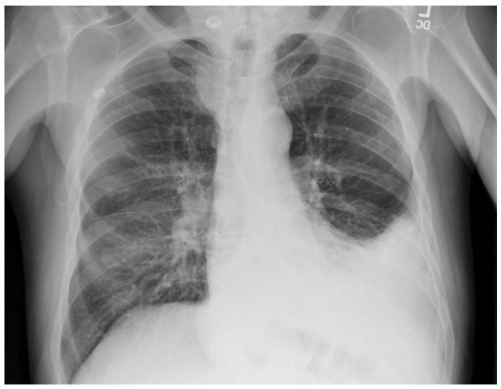

Figure 2 Large left-sided pleural effusion

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Compliance with ethical standards:

Conflict of Interest: *The authors declare that they do not have a conflict of interest.*

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