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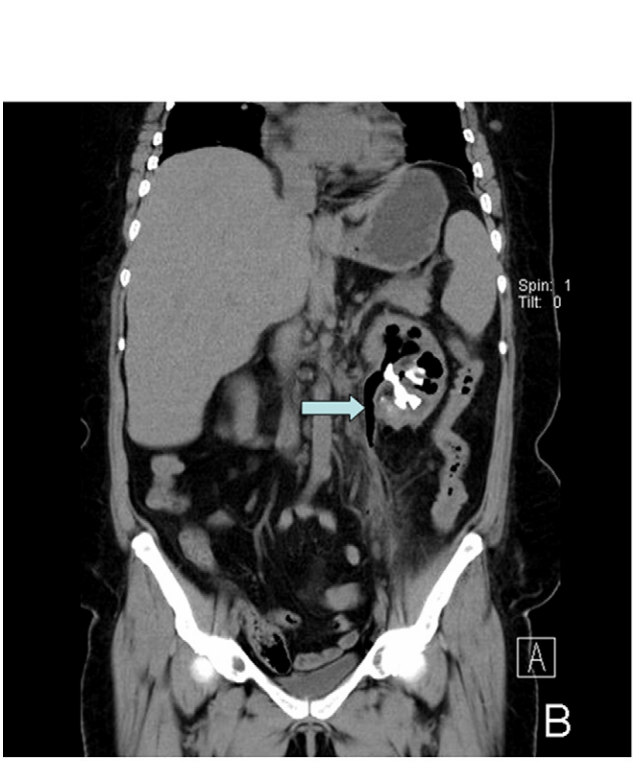
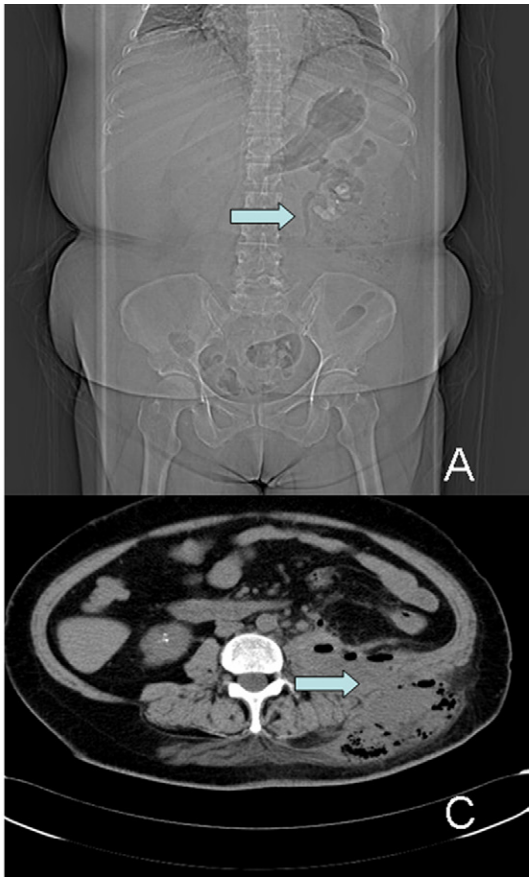
MEDICAL IMAGERY

Pneumoureter





A 56-year-old female with no significant medical history presented to the emergency room with general malaise, fever (temperature: 38 °C) and left flank pain. On admission, she had a pale conjunctiva, a white blood cell count of 17 890/mm^3 and anemia (hemoglobin: 8.3 g/dl). Physical examination showed a blood pressure of 101/76 mmHg and a pulse of 86 beats/min, and chest exam revealed clear breath sounds. Laboratory tests showed pyuria in urinalysis; serum creatinine 2.4 mg/dl, sugar 248 mg/dl, potassium 4.7 mmol/l; arterial blood gas pH 7.30; PCO_2 24.8 mmHg; PO_2 114.6 mmHg; bicarbonate 15.4mEq/l. Plain X-ray of her abdomen revealed the proximal ureter occupied by air (panel A). Computed tomography showed a left staghorn stone with air-filled renal pelvis and ureter (panel B). The infectious process extended through the periureteral tissue to the left psoas muscle and was communicating to the subcutaneous region (panel C). She was admitted for intravenous antibiotics after receiving emergency left pigtail nephrostomy drainage, which aspirated frank pus. The pus culture yielded *Proteus mirabilis* and *Escherichia coli*. Urine culture yielded *P. mirabilis* and *M. morganii*. However, the blood culture was negative. She was eventually discharged in good condition.

Emphysematous pyelonephritis (EPN) is a severe, chronic renal infection typically resulting in diffuse renal destruc-

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tion. Most cases result in a nonfunctioning, enlarged kidney associated with obstructive uropathy secondary to nephrolithiasis. *E. coli* and *Proteus* spp. are the most common causative organisms. To our knowledge, this is the first report of pneumoureter caused by EPN.

Conflict of interest: No conflict of interest to declare.

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