

“Fatal” gas in the kidney

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A 56-year-old diabetic woman with 3-day history of urinary tract infection taking oral antibiotics presented with a sudden consciousness disturbance. On examination, a febrile (38.8°C) patient with a blood pressure of 83/48 mmHg and a heart rate of 120/min was seen. Laboratory studies revealed a leukocyte count of $11.0 \times 10^9/l$ with band neutrophils of 22%. Urinalysis showed pyuria with 40–50 leukocytes per low-power field. *Escherichia coli* were found in both blood and urine cultures. The computed tomography scan disclosed massive gas collections within (arrowheads) and around (arrows) the enlarged right kidney (Fig. 1a, b), establishing the diagnosis of emphysematous pyelonephritis. Despite emergent radical nephrectomy with potent intravenous antibiotics, the patient expired due to septic shock 10 h postoperatively.

Emphysematous pyelonephritis, occurring with predisposing factors including diabetes and urinary tract obstruction, is potentially fatal. Early image interventions are warranted for those with toxic manifestations or prolonged fever of up to 10–14 days despite antibiotic treatment.

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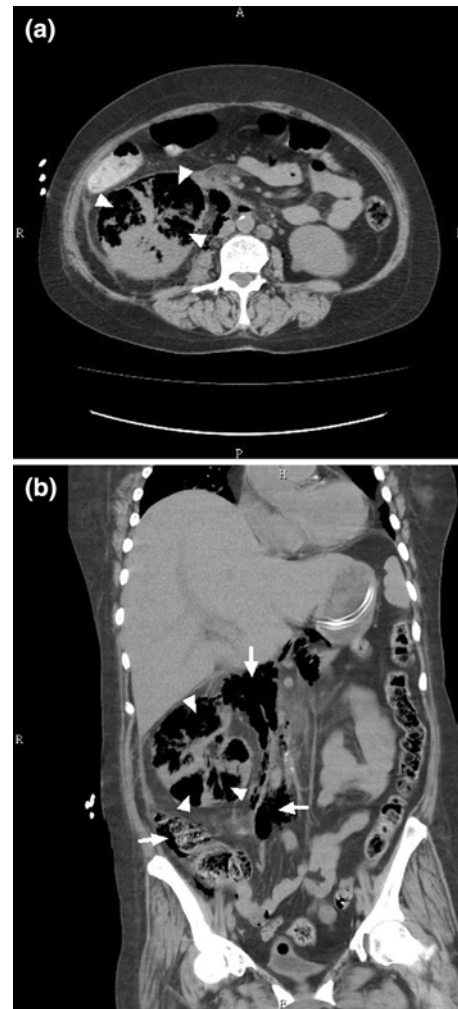


Fig. 1 Transverse view (a) and coronal view (b) from contrast-enhanced computed tomography of a 56-year-old woman showing massive gas within (arrowheads) and around (arrows) the enlarged right kidney