Clinical picture

Scrotum balloon: an unusual presentation of emphysematous pyelonephritis

A 40-year-old diabetic man presented to the emergency department with fever and abdomen pain for 2 days. On examination, the patient had a painless swollen scrotum with predominant left-sided subcutaneous emphysema extending from anterior abdominal wall. Urinalysis contained more than 100 red blood cells and 0–1 white blood cells per high-power field in spun urine sediment. An abdominal plain film showed air bubbles in renal parenchyma and perinephric space (Figure 1). A computed tomography (CT) demonstrated bilateral emphysematous pyelonephritis (EPN) with gas extending to left perinephric space, retroperitoneal space, abdominal wall and scrotum (Figure 2). The culture of blood and pus obtained from retroperitoneal abscess both yielded Escherichia coli. The patient died of septic shock during the hospital stay in spite of broad-spectrum antibiotics use and abscess decompression.

Scrotal swelling is a rare presentation of EPN. However, in patient who has subcutaneous emphysema in abdominal wall and scrotum accompanied with urinary tract infection or hematuria, EPN should be considered. Positive finding of abdominal plain film in EPN represents air bubbles in renal or

Figure 1. An abdominal plain film showed air bubbles in renal parenchyma and perinephric space.

Figure 2. A CT demonstrated bilateral EPN with gas extending to left perinephric space, retroperitoneal space, abdominal wall and scrotum.
perinephric area. Abdominal CT is the image of choice to determine the extent and therapeutic plan of EPN. Early identification and staging of such catastrophic disease are crucial for treatment plan.

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References