

A Rare Complication of a Rare Disease; Spontaneous Bladder Perforation in a Case of Emphysematous Cystitis

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Dear Editor,

Emphysematous cystitis (EC) is a rare variant of a urinary tract infection and it usually occurs in diabetes, neurogenic bladder and urinary stasis due to bladder outlet obstruction¹. This infection is commonly caused by *Escherichia coli* or other bacteria such as *Klebsiella*, *Proteus*, *Clostridium*, *Pseudomonas* etc.^{2,3}. Spontaneous bladder rupture is also a rarely seen situation and it was defined as: “if the bladder ruptures without external stimulation, it is spontaneous and deserves to be reported as such” by Sisk and Wear⁴ in 1929. Computed tomography (CT) is recommended for both the diagnosis and classification of this disease. EC, especially when diagnosed late, may cause bladder rupture. We hereby present a patient with spontaneous bladder perforation due to EC.

Sixty-seven-year-old male patient presented with acute abdominal pain to the emergency room. The patient had a history of Alzheimer’s disease, but no history of diabetes mellitus or any operation. In addition to an inability to urinate for a long time, he had a history of intermittent hematuria for the prior two months.

After examining the patient, acute abdomen was detected and we called for emergency surgery to be performed. When the pre-operative blood and imaging tests were examined, his creatinine value was found to be 7.34 mg/dL and his hemogram value was normal. The patient’s CT imaging revealed intraperitoneal diffuse fluid, and perforation of the bladder from the right-anterolateral wall. There was also common mural gas in the bladder wall (Figure 1). Spontaneous bladder perforation was considered. We performed the operation and saw that the right-lateral, dome and posterior wall of the bladder were necrotic and disordered, and that the trigone and both ureters were normal (Figure 2). Partial cystectomy was performed. Meropenem treatment

was initiated. During post-operative follow-up, the patient’s creatinine levels significantly decreased to within the normal levels in 3 days and his hematuria improved. After 14 days of treatment, his general condition improved and the Foley catheter was removed. His pathology report also confirmed EC.

EC is a rarely seen disease characterized by the presence of gas within the bladder wall and also possibly in the lumen⁵. Spontaneous rupture of the bladder wall is rare, especially due to EC. In this case, acute abdomen due to spontaneous bladder rupture caused by EC was detected and treated by surgery and broad-spectrum antibiotics. We suggest that if the disease causes peritoneal related bladder rupture, emergency exploration should be performed and intravenous antibiotic therapy should be initiated.

Keywords: Emphysematous cystitis, bladder perforation, acute abdomen

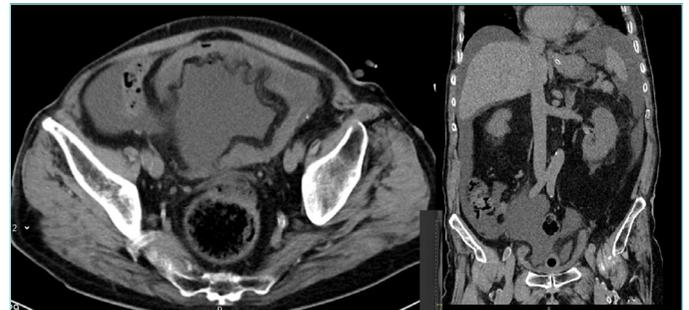


Figure 1. Computed tomography images of the bladder rupture and intra-abdominal fluid.

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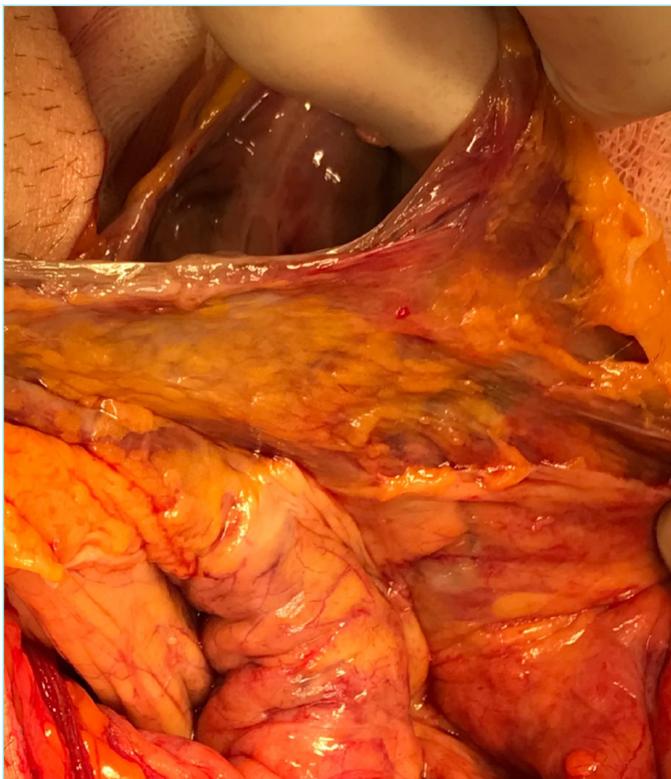


Figure 2. Bladder wall necrosis.

ETHICS

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DISCLOSURES

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