

# Spontaneous atraumatic rupture of urinary bladder

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## Citation

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## Abstract

Spontaneous atraumatic rupture of urinary bladder is a very rare condition, difficult to distinguish from other causes of acute abdomen. Causes, which have been reported, are: Perforation of an infected urachal cyst, Perforation following augmentation enterocystoplasty, Emphysematous cystitis, Following intra-pelvic gynecological operations, Associated with alcohol abuse, Due to eosinophilic cystitis, Complication of neurogenic bladder dysfunction, In association with carcinoma (TCC), After pelvic radiotherapy, Bladder outlet obstruction

## THE CASE

A 51 years old male with a history of multiple sclerosis presented to emergency department at Russells hall hospital with symptoms of acute abdominal pain and rigors. PMH included MS, PVD-left BKA and depression. SH: Previous professional boxer drinks 3-4 units of alcohol daily, smokes 20 cigarettes a day and has long-term urinary catheter.

Signs: Lower abdominal rigidity and mass, Sepsis: BP 83/52, HR: 110/min, T: 38 C, Sweaty, rigors, Urinalysis revealed: Nitrite ++, Blood +++++, Protein ++, and Leucocytes ++. However, urine culture showed no growth

Laboratory findings: WBC: 19.9, CRP: 221

Initial diagnosis made as sepsis secondary to UTI Because of the persistent hypotension and tachycardia and the presence of lower abdominal mass, abdominal CT scan was arranged, which showed distended bladder, urinary catheter blocked, and extraperitoneal urinary bladder rupture

Treatment: Systemic broad-spectrum antibiotics, Drainage of urine via transurethral Foley catheter, admission to SHDU and CVP monitoring, IV fluids and nutritional support.

The further course of the disease was: Patient responded to above treatment, CT scan repeated 5 days later showed no pelvic fluid collection and discharged home on 10/7/2007

## DISCUSSION

Acute bladder rupture is a surgical emergency, which may be rapidly fatal if diagnosis and treatment are delayed.

The combination of non-specific symptoms, the absence of trauma history and its very rare occurrence mean that

initially a spontaneous bladder rupture may not be suspected.

Multiple sclerosis is characterized by disseminated patches of demyelination in the brain and spinal cord. Urinary dysfunction and difficulty in bladder control (urgency, hesitancy, retention or incontinence) are some of the symptoms. Decreased sensation of bladder filling may play roles in the mechanism of rupture, triggered by urinary retention

A CT scan or retrograde cystography would provide the diagnosis.

Extraperitoneal vesical perforations can be resolved with a vesical catheter or cystostomy.

**Figure 1**



Extravasation of the infected urine may result in a perivesical abscess, septic shock, and abdominal and thoracic wall phlegmone. Early surgical management should be considered in these cases. The attached CT images of the same patient: First one showing the extraperitoneal fluid .Second showing gas in the bladder

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