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Squamous cell carcinoma of the bladder presented with spontaneous intraperitoneal bladder rupture: A case report

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ABSTRACT

INTRODUCTION: Spontaneous intraperitoneal bladder rupture can present with symptoms of acute abdomen. The associated high mortality rate is attributed to the delay in diagnosis, and the possibility of the presence of a bladder carcinoma contributes to high mortality as well.
CASE PRESENTATION: We present a case of spontaneous intraperitoneal bladder rupture associated with squamous cell carcinoma managed with partial cystectomy.
DISCUSSION: The incidence of this condition is (1:126,000) but with high mortality rate. It occurs more commonly in male [1]. It can be associated with carcinoma, chronic cystitis, chronic catheterization, bladder outflow obstruction and others. Standard management includes timely diagnosis of this condition, followed by bladder repair in the form of primary closure, partial cystectomy or radical cystectomy. However in the presence of carcinoma the prognosis is poor.
CONCLUSION: high index of clinical suspicion and the timely diagnosis can lead to a more favorable outcome.

1. Introduction

Spontaneous bladder rupture is rare and life threatening event, with a high mortality rate reaching up to 50% [2]. It can occur as a direct or indirect consequence of other associated conditions such as Urothelial Carcinoma (UC), the less common squamous cell carcinoma (SCC), pelvic radiotherapy, chronic cystitis, bladder outflow obstruction, alcohol intoxication and others [3]. There is often delay in diagnosis as the clinical presentation is usually that of a peritonitis [4]. High clinical suspicion coupled with proper imaging can lead to timely diagnosis of the condition and more favorable outcome [5]. Here we report a case of intraperitoneal spontaneous bladder rupture with squamous cell carcinoma managed with partial cystectomy. Squamous cell carcinoma (SCC) of the urinary bladder is rare compared to urothelial carcinoma (UC). SCC accounts for 2–5 % of cases in most contemporary cystectomy series in western countries, with stage T2 being the most presenting stage at diagnosis [6]. This case is reported in line with the SCARE criteria [7].

2. Case report

A 56 year old male patient presented to emergency department. He was complaining of diffuse abdominal pain started two hours prior to presentation after he strained during urination. The patient reported hearing a popping sound from his abdomen followed by Inability to urinate. There was no history of trauma, alcohol intake, smoking or drug abuse. He reported history of obstructive symptoms started within 6 months prior to his admission. He denied any episode of hematuria. During physical examination the patient looked ill. He had stable vital signs with blood pressure 115/80, pulse 90, and respiratory rate of 18. There was suprapubic and diffuse abdominal tenderness, distention and rigidity. His white blood cell count was 17.7 × 109/L, creatinine 3.53 mg/dl, serum sodium 131 mmol/L, potassium 4.3 mmol/L, His level of urea was 40 mmol/L. Acute urinary retention was suspected so foley's catheter was inserted. However only 200 ml of clear urine was drained. Urine analysis showed 3-5 pus cells and numerous RBCs.

Abdomen and pelvic CT scan without contrast was done and showed abdominal and pelvic fluid of low density (7HU), thickening of the bladder wall, however not all borders of the urinary bladder were clearly visualized. It also showed multiple liver metastatic lesions (Fig. 1).

Urinary bladder rupture was suspected and confirmed by retrograde cystogram which showed intra-peritoneal leak (Fig. 2). Few diverticula were also seen.

Treatment options were discussed with the patient and he refused radical cystectomy with ileal conduit. Emergency laparotomy was performed. Intraoperative findings included a defect (2 cm) at the bladder dome (Fig. 3). The bladder was filled with debris and urinary bladder tumor was suspected Two large lateral diverticula were noted. Extended partial cystectomy with removal of the debris and peritoneal lavage was performed, tumor is shown

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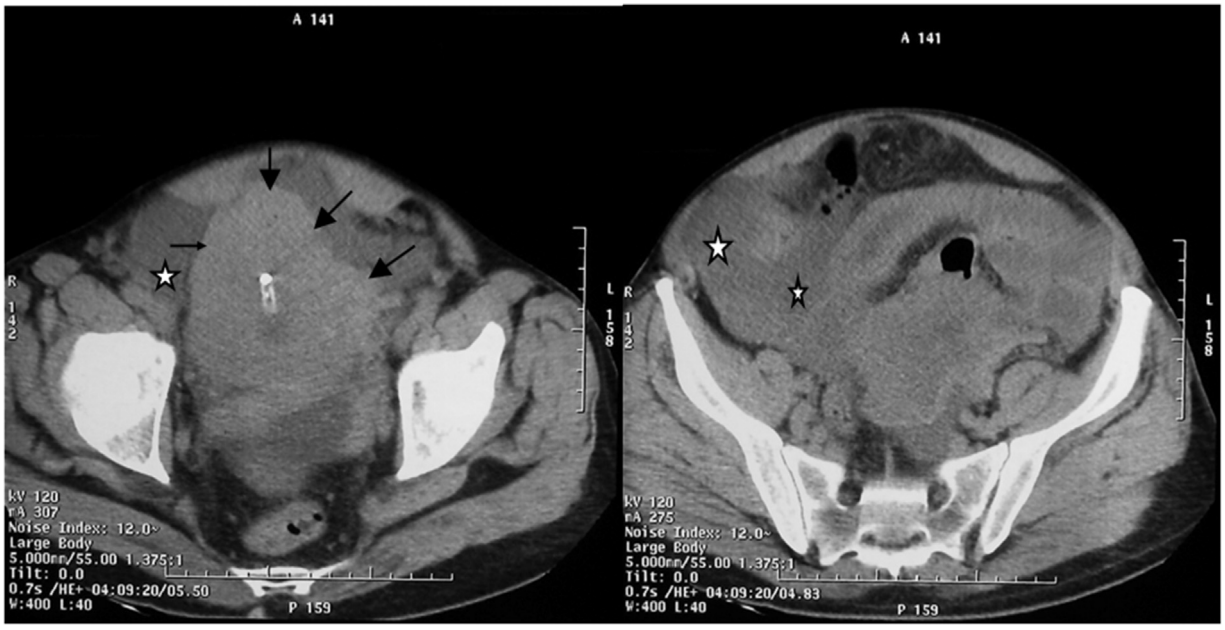

Fig. 1. Showing thickened bladder wall (arrow) with pelvic (star) and abdominal (stars) fluid (ascites).

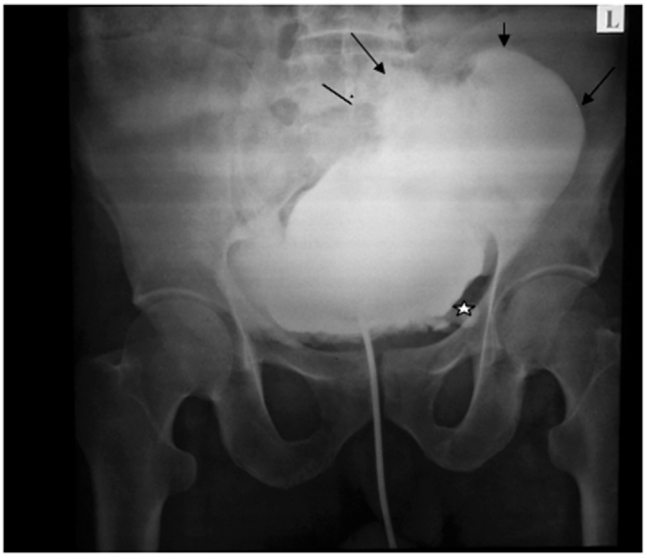

Fig. 2. Antero-posterior view of retrograde cystogram showing intraperitoneal contrast leak (arrows) more on the left side due to bladder rupture and few diverticuli (star).

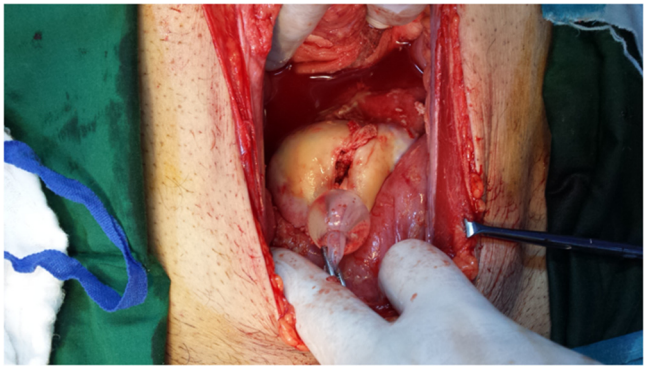

Fig. 3. Intraoperative findings included a defect (2 cm) at the bladder dome.

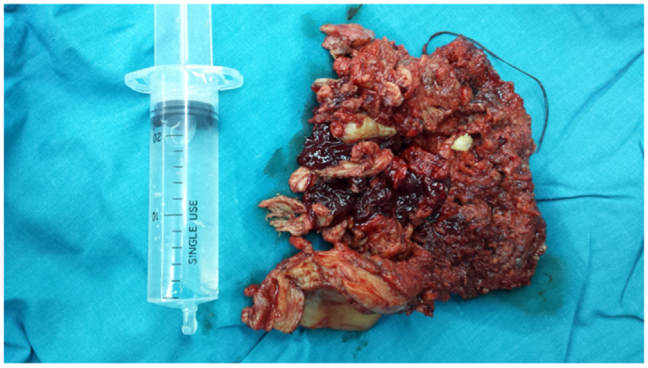

Fig. 4. The resected tumor.

in (Fig. 4). Bladder was closed in two layers, suprapubic and urethral catheters were inserted.

A histological examination of the specimen showed invasive squamous cell carcinoma pT4 pNx M1b (Fig. 5, 6).

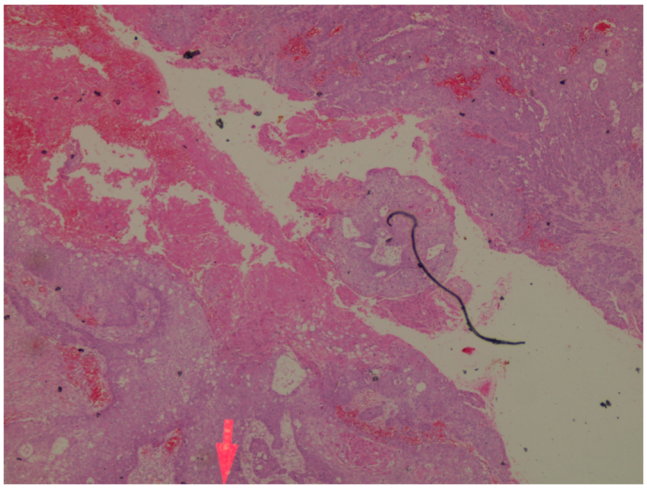

Fig. 5. Histological examination showed invasive SCC.