



A Case of Intraperitoneal Bladder rupture following blunt trauma

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KEYWORDS	

Introduction:

Spontaneous or traumatic intraperitoneal bladder rupture is rare. Sudden onset of abdominal discomfort, ascites, ileus, hematuria, oliguria with elevated renal parameters should prompt the diagnosis. Sometimes there is a delay in diagnosis as the features may be mistaken for intrinsic renal disease (Al-hamzawi et al., 2012).

Presentation:

A 22yrs old male patient came to our Emergency Room with complaints of abdominal distension and generalised abdominal pain for 2 days. Patient gives alleged history of road traffic accident 15 days back for which he was managed conservatively. On examination, patient was in altered sensorium, hypotension and tachypnoeic. On examination of abdomen generalized tenderness and rigidity was present. On general examination about 6x4 cm sized an oval shaped ulcer in LIF with fractured pieces of bone in the wound, pus discharge and no peritoneal breach was seen at wound site. Blood investigations were sent in emergency and an urgent ultrasonography of abdomen done. USG showed gross intraabdominal collection with altered echotexture. Serum creatinine was raised to 10.0 mg% and Urea was 248 mg%. An emergency exploratory laparotomy was done. Per-op on opening peritoneum about 2.5-3 liters clear fluid was drained. On examination, about 3x3 cm sized wall defect was seen over the fundus of bladder with possibility of intraperitoneal leak of urine. 2 layer wall closure was done using vicryl 2-0 sutures. Patient was shifted to surgical ICU. Post operative, after 10 hours, blood investigations were repeated and serum creatinine was found to be 1.0 and urine output was 1 liter.

Discussion:

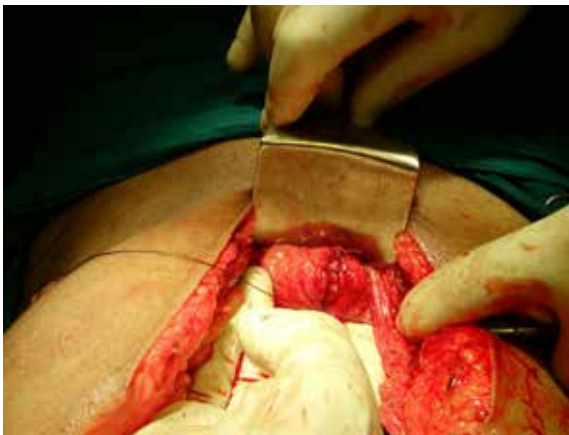
Intra peritoneal Bladder injuries after blunt or penetrating trauma are rare, owing to its protected anatomical position.

Normally, such type of intraperitoneal rupture is seen after a blunt trauma over a distended bladder. As bladder expands the dome becomes thinner and offers least resistance to a sudden change in intravesical or intraabdominal pressure. In our patient, the blunt trauma he sustained would have precipitated the rupture.

The diagnosis of this rare condition is difficult. Patients commonly present with lower abdominal pain, suprapubic tenderness and inability to pass urine, abdominal distension, with features of ascites or ileus and profound azotemia. Azotemia is not due to renal failure but due to reverse auto dialysis across the peritoneal membrane following an intraperitoneal rupture of the bladder with urinary leak. This can be seen within 24 h of rupture. Analysis of the ascitic fluid demonstrating elevated urea and creatinine levels alerts the clinician to the possibility of urinary ascites and cystography usually clinches the diagnosis. (Abirami, Sivaramakrishna, Lakshmi, & Sivakumar, 2012)

In our case, the patient presented with abdominal distension for last 2 days and suprapubic tenderness for 1 day. Trauma had happened 15 days back following a road traffic accident. Following which a patient was taken to a local hospital and was catheterised and managed conservatively. After 10 days patient was discharged without catheter in situ, which resulted in urinary ascites and absorption of serum creatinine through peritoneal membrane. Following the operation once pathology was removed and proper suction was done and proper wash was given, serum creatinine had fallen to normal levels in 10 hours.





Conclusion

In summary, we report a case of intraperitoneal bladder rupture in a patient after blunt trauma, to highlight its rarity and to appraise that the urinary ascites should always be considered and treated first before doing a hemodialysis or any drastic measures to get the creatinine levels within normal limits. In a patient who is being suspected for a bladder rupture should always undergo a full bladder CT scan or Ultra Sonography (Al-Mandeel & Qassem, 2010)

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