

ISOLATED BLADDER RUPTURE IN A PATIENT WITH ALCOHOL INTOXICATION PRESENTING AS ACUTE ABDOMEN

Prof. Dr. B. Santhi	MBBS, MS (General Surgery), DGO, Professor and Head of the Department, Department of General Surgery, Government Kilpauk Medical College, Chennai -600010
Dr. Uma. M	MBBS, MS (General Surgery), Assistant Professor, Department of General Surgery, Government Kilpauk Medical College, Chennai -600010
Dr. Balamurugan. C	MBBS, Postgraduate in General Surgery, Department of General Surgery, Government Kilpauk Medical College, Chennai -600010

ABSTRACT

Rupture of the urinary bladder secondary to abdominal trauma is uncommon and is usually associated with visceral or bone injuries; less than 10% of all cases occur without associated injuries. We present a 29 year old male who presented with acute abdominal pain after and without history of trauma or other evidence of associated injuries. If any blunt injury occurs to the abdomen with full bladder, the bladder is most likely to rupture intraperitoneally. The most plausible explanation for such an isolated injury is that due to the sudden rise of intravesicular pressure, the bladder can rupture at its weakest point which is the dome of the bladder. There can be extravasations of urine and blood into peritoneal cavity which can lead to resorption of urine that can cause electrolyte imbalance, acidosis, and uremia.

KEYWORDS : Bladder injury, intraperitoneal bladder rupture, laparotomy, blunt injury abdomen.

INTRODUCTION

Most frequently, continuing chronic illnesses of the bladder wall have been linked to cases involving bladder wall rupture in the literature. Bladder rupture can have several distinct reasons. Idiopathic bladder rupture without trauma is still a very rare occurrence. In response to reports that appeared in the literature that "spontaneous rupture of the bladder" occurred without obvious reason, a classification of spontaneous rupture of the bladder into known vs. idiopathic etiologies was created. Normally, the urinary bladder is secure and safe from harm. A small percentage of cases of idiopathic bladder rupture have alcohol consumption listed as the etiology. Patients who present with acute alcohol intoxication in the Emergency Department setting are infamously bad historians. Because of the patients' frequent complaints of vague abdominal pain and lapses in memory of specific events, these situations are frequently difficult.

In order to rule out major illnesses such as a bleeding ulcer, cholecystitis, pancreatitis, intra-abdominal trauma, bowel blockage, severe gastritis, or other serious conditions, surgeons who are investigating a patient's abdominal pain frequently try to identify its underlying cause. If bladder rupture is not considered as a differential diagnosis, it could go unnoticed and have serious repercussions. We discuss an adult male with isolated bladder rupture in an alcohol intoxicated state with any associated injuries.

Case Report

A 29-year-old male came with chief complaints of abdominal pain for past one day. Patient had decreased urine output for the past one day. Not associated with vomiting, fever, loose stools, obstipation. No history of altered bowel habits.

History of binge alcohol intake for the past two days. On examination: Patient had diffuse tenderness and guarding over the abdomen. Patient had tachycardia and was dehydrated. Routine blood investigations were taken which revealed and elevated urea and creatinine levels (Urea – 42 and creatinine – 3.1)

Ultrasonogram abdomen and pelvis revealed Minimal free fluid. Contrast enhanced computerized tomography of Abdomen and Pelvis revealed Minimal free fluid noted, minimal intraperitoneal free air noted. CT cystogram revealed: Defect noted in dome of bladder. Extravasation of

contrast into intraperitoneal and interbowel space. Features suggestive of intraperitoneal bladder rupture. Patient was taken up for emergency laparotomy.

Intraoperative findings:

Perforation of size 6cm noted at the dome of bladder with foleys bulb protruding. Bladder repair done in 2 layers using 2-0 vicryl and SPC placed.

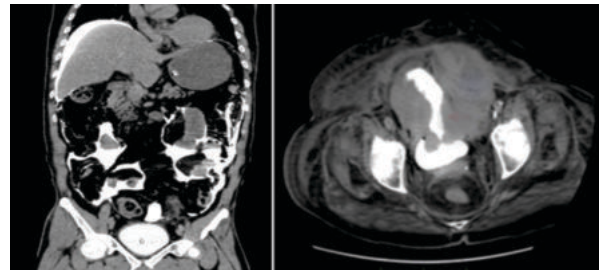


Fig 1: CT Cystogram image showing intraperitoneal bladder rupture

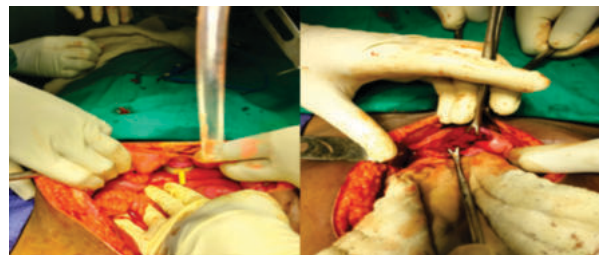


Fig 2: Intraperitoneal dome of bladder rupture



Fig 3: Bladder repaired with SPC insitu

CONCLUSION

When patients present with abdominal pain in alcohol intoxicated state with or without trauma, one of the differential diagnoses that needs to be considered is bladder rupture. The appearance of micro- or macrohematuria and an increase in kidney function tests are warning indications of vesical perforation. After the patient has been stabilized, a diagnosis can be made using the proper imaging. For prompt treatment and a better prognosis, a high index of suspicion is required.

REFERENCES:

1. Evans RA, Reece RW, Smith MJV. Idiopathic rupture of the bladder. *J Urol* 1976;116:565-7.
2. Thompson IM, Johnson EL, Ross G Jr. The acute abdomen of unrecognized bladder rupture. *Arch Surg* 1965;90:371-4.
3. Herd M, Crofts NG, Lee LM, et al. Isolated bladder rupture after minor trauma in a patient with alcohol intoxication. *J Emerg Med* 1994;12:409-11.
4. Bastable JR, Dejode LR, Warren RP. Spontaneous rupture of the bladder. *Br J Urol* 1959;31:78-86.
5. Munshi A, Hong JJ, Mueller CM, et al. Spontaneous rupture of the urinary bladder in the alcoholic patient. *J Trauma* 1999;46:1133-4.
6. Sezhian N, Rimal D, Suresh G. Isolated intraperitoneal bladder rupture following minor trauma after alcohol ingestion. *South Med J* 2005;98:572-3.
7. Heyns CF, Rimington PD. Intraperitoneal rupture of the bladder causing biochemical features of renal failure. *Br J Urol* 1987;60:217-22.