

Blunt Intraperitoneal Bladder Trauma - An Atypical Presentation



Pedro de Souza Lucarelli Antunes¹, Giovanna Mennitti Shimoda¹, Jorge Ricardo Góis e Cunha¹, Jenny Greeyce Ji Soo Kim¹, Alicia Maria Nascimento Batista¹, Luca Giovanni Antonio Pivetta¹, José Gustavo Parreira¹, José Cesar Assef¹



1 – Faculdade de Ciências Médicas da Santa Casa de São Paulo, Disciplina de Cirurgia – São Paulo – Brasil

INTRODUCTION

The genitourinary trauma corresponds to nearly 10% of abdominal trauma's lesions and the kidney is the most injured organ, followed by bladder and urethra^{1,2}. The bladder trauma (BT) frequently occurs by blunt mechanism, due to an abrupt rise of intra-abdominal pressure in a fulfilled bladder². The anatomical classification, which guides the treatment, divides the lesions in extraperitoneals, whose treatment is conservative, and intraperitoneals, whose bladder dome is injured. In this last case, urine extravasation occurs to the peritoneal cavity, demanding surgical treatment^{2,3}. This study aims to report an atypical presentation of intraperitoneal BT, with a lesion out of the bladder dome, demanding a surgical approach. It also highlights the correct use of diagnostic tools to better assess the patient's injury and improve management quality.

CASE PRESENTATION

A 21-year-old male patient was admitted in the Emergency Department, after being the victim from a frontal motorcycle-car collision, with direct abdominal and pelvic blunt trauma. He presented pelvic ring fracture and scrotal oedema, associated with difficult urinating and hypogastric pain. The patient was hemodynamically stable, and a Computed Tomography (CT) was performed, revealing an increased volume of the left testicular parenchyma, and the presence of hematic content in the bladder, without signs of perivesical contrast leak in the excretory phase (Figure 1). There was also a moderate amount of free peri-hepatic liquid, in the parietocolics drips, without identified parenchymal viscera lesions. An exploratory laparotomy was performed and a large amount of serohematic fluid was found in the peritoneal cavity, which corresponded to urine. Two extraperitoneal lesions in the anterior bladder wall (1,5 and 2 cm) were identified, associated with an anterior

parietal peritoneum lesion, next to the anterior vesical flexure. The patient had no other injuries or postoperative complications and received antibiotic therapy (ceftriaxone and metronidazole) as well as a bladder catheter.



Figure 1: CT revealing the presence of hematic content in the bladder (*), without signs of perivesical contrast leak in the excretory phase.

DISCUSSION

BT is a rare, but life-threatening condition, associated with gross hematuria, lower quadrant pain, difficulty voiding and oedema of the perineum¹. The early diagnosis and appropriate treatment are required to prevent complications³.

Besides an atypical presentation, dubious CT findings with free intraperitoneal fluid, without contrast leakage in the excretory phase, challenged our management. Due to the possibility of an unnoticed BT, a surgical approach was the option. Intraoperative findings showed BT only in the extraperitoneal segment. However, urine in the retroperitoneal space was draining to the peritoneal cavity. In conclusion, this case highlights the need of anatomical and clinical individual analysis in addition to the current classifications, in order to promote early diagnosis and adequate conduct.

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