Case	(750) Bladder rupture: is ct cystography always necessary?
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CASE PRESENTATION

A 58-year old male suffers a fall from 2 meters in height, with trauma to the anterior wall of the abdomen and significant pain in the exploration.

DISCUSSION

: Bladder is an extraperitoneal organ, even if in intimate relation with the peritoneum. The majority of bladder injuries are secondary to trauma. There is a high association between pelvic fractures and urinary bladder (UB) rupture. Pelvic fracture are present in up to 80% of UB ruptures. Bladder injuries must be correctly classified so that appropriate therapy can be undertaken.

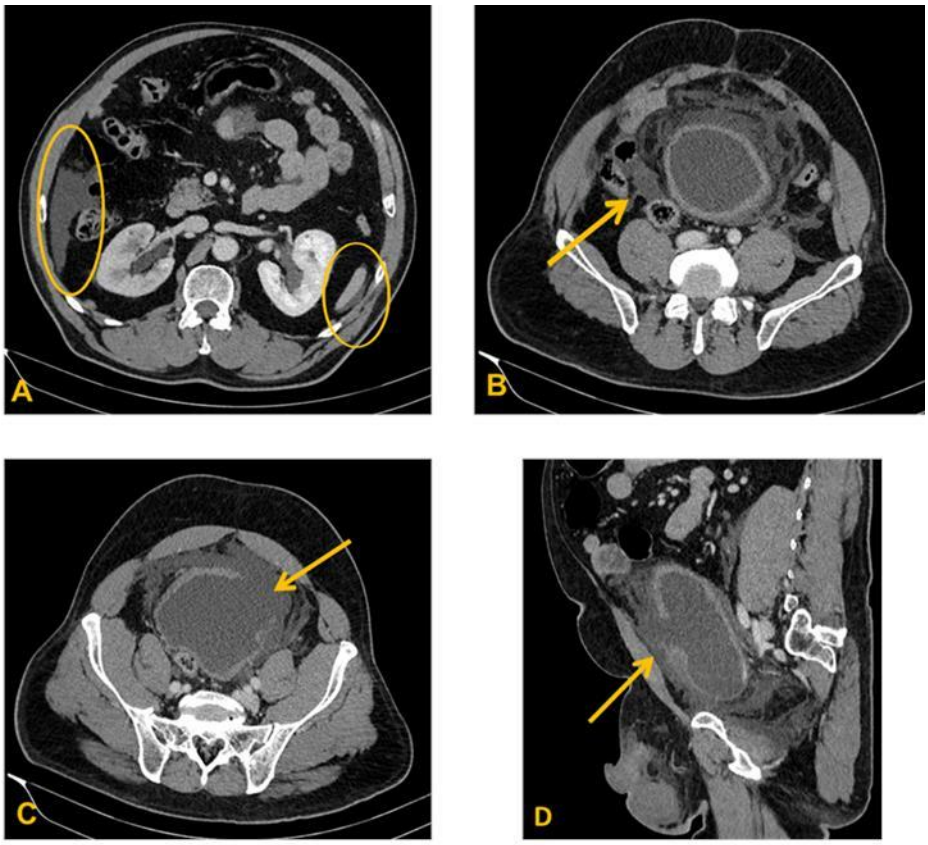
There are five types of urinary bladder (UB) injury in the radiologic classification system. Type 1 (UB contusion) and type 3 (interstitial) injuries are treated conservatively. Type 4 injury (extraperitoneal rupture) is the most common type of UB injury (80-90% of all bladder tears), and is usually treated conservatively, although large or complicated type 4 injuries or those that nor respond to conservative management may require surgery. Type 2 (intraperitoneal rupture) and type 5 (combined intra and extraperitoneal rupture) usualy require surgical intervention.

Intraperitoneal bladder tears often occurs at the dome, which is the most vulnerable portion of the UB and the only part that is covered by peritoneum. Typically it results of a direct blow to the already distended bladder. Intraperitoneal perforations result in a communication between the urinary bladder and the peritoneal cavity, with resultant free fluid into the paracolic gutters, rectovesical or rectouterine pouch or around loops of bowel.

If an urinary bladder injury is suspected, CT cystography should be considered. However, it should be performed after initial CT scan of the abdomen and pelvis. In this particular case, the diagnosis was clear after the initial CT scan, so CT cystography was considered unnecessary.

CONCLUSION

Accurate diagnosis and classification of bladder injuries is important. Prompt diagnosis and appropriate management have been shown to result in decreases in overall morbidity and mortality.



A - Axial CT image shows free fluid in right paracolic gutter and periesplenic space. **B** - Axial CT image shows free fluid in prevesical space (extraperitoneal) and paravesical spaces. **C** - Axial CT image shows rupture of the anterior bladder wall. **D** - Sagital CT image shows rupture of the anterior bladder wall.

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