

Silent Leak: Delayed Presentation of Intraperitoneal Bladder Rupture After a Minor Fall

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INTRODUCTION

Bladder injuries are rare, seen in about 1.6% of blunt trauma cases, and are mainly associated with pelvic fractures. Motor vehicles accidents are the leading cause, while penetrating and iatrogenic injuries are much less common.



CASE DESCRIPTION

A 49-year-old man who presented with hip pain, urinary difficulty, fever, lethargy and gross hematuria with clots several days after falling from a stationary pickup truck.

Initially he was ambulatory hence did not seek medical attention.

Examination on arrival revealed generalized abdominal tenderness, and insertion of a Foley catheter drained gross hematuria with clots. Bedside ultrasound showed free fluid in the abdomen and clots in the bladder.

Laboratory investigations revealed electrolyte and metabolic abnormalities with severe metabolic acidosis. A contrast-enhanced CT confirmed an intraperitoneal bladder rupture at the dome, with the Foley catheter tip visible through the defect.

The patient underwent successful laparoscopic bladder repair, was monitored in ICU, and later transferred to the general ward. He was discharged well with scheduled urology follow up.



CONCLUSION

- ❖ Intraperitoneal bladder rupture is rare.
- ❖ Early clinical suspicion, timely diagnosis, and prompt surgical repair are essential to prevent severe complications.

REFERENCES

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2. Gomez RG, Ceballos L, Coburn M, et al. Consensus statement on bladder injuries. *BJU Int* 2004; 94:27



DISCUSSION

Bladder injuries are uncommon due to the protection provided by the pelvic bones. Pelvic pain and gross hematuria are common, but physical exam findings can be inconclusive. The presence of blood at the urethral meatus or gross hematuria is an important clue (sensitivity 90%). However, **FAST exam is not sensitive** enough for detecting bladder injuries. In delayed presentations, signs of peritonitis or ileus may occur due to urine extravasation into the peritoneal cavity, often from rupture at the bladder dome. Intraperitoneal rupture initially results in urine and blood leakage, causing reduced urine output and electrolyte/ metabolic abnormalities; anuria may develop. Later, **hematuria may reappear** as abdominal pressure pushes urine back into the bladder. **Retrograde urethrogram (RUG)** should be done before bladder imaging but is not a substitute for cystography, **the gold standard** (sensitivity 95%). Intraperitoneal bladder injuries require urology consultation and almost always surgical repair to prevent peritonitis, sepsis and poor outcomes.

