



ORIGINAL RESEARCH PAPER

General Surgery

A RARE CASE OF INTRAPERITONEAL RUPTURE OF URINARY BLADDER AND EXTRAVASATION OF URINE THROUGH PERIANAL REGION

KEY WORDS:

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INTRODUCTION

The urethra is not a common site of urologic trauma and injury due to external violence accounts for approximately 4% of all genitourinary injuries. Broadly, urethra is divided into anterior and posterior segments. The anterior segment of the urethra most commonly injured is bulbar urethra, accounting for 85% of urethral injuries. Approximately 3% to 6% of posterior urethral injuries are associated with pelvic fractures. Also 40% to 50% of penetrating wounds to the penis have urethral involvement.

CASE REPORT

History: A 12-year-old male patient presented to the emergency surgical department with alleged history of injury to the buttock region due to fall down from 1st floor on the floor on the buttock region while playing at home on 20.06.2021 at 06:00pm at Visnagar. Patient had complaints of urine discharge from wound over perianal region and abdominal pain. Patient had 1 episode of vomiting containing food particles & nonbilious. No comorbidities or history of any previous surgeries or hospitalization present.

Patient's vitals were within normal limits:

Pulse: 90 per minute.
 BP: 108/70 mmHg.
 Temperature: Normal/afebrile.
 Respiratory Rate: 16 per minute.

Per abdominal findings: Abdomen soft, Mild tenderness in hypogastrium.

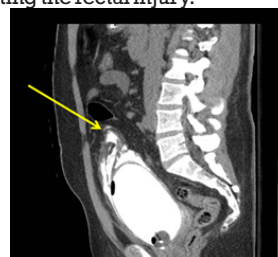
Per rectal examination: No internal injury present.

Investigations: As a routine, blood tests including complete blood count, renal function test, coagulation profile, chest, abdomen, pelvis and hip bone x-rays were done which were within the normal limits and no abnormalities detected.

Ultrasonography of abdomen with pelvis & local part: Urinary bladder appears over distended reaching up to umbilicus. Minimal to mild free fluid in peritoneal cavity. No evidence of collection is noted at the local site of injury over the gluteal region.

CECT abdomen with pelvis: There is intra peritoneal rupture of urinary bladder noted, 3x3 mm size in postero-lateral wall on the right side adjacent to the right vesico-ureteric junction region. There is extravasation of contrast to the perirectal region as well as in the peritoneum mainly in the bilateral paracolic gutter as well as in the pelvis. These above features suggest possibility of intra peritoneal rupture of

urinary bladder. There is suspicious tract noted extending from the posterior aspect of rectum adjacent to the coccyx in the infero-lateral aspect reaching up to the skin surface; possibility of small fistulous tract communicating to the skin surface. There is no extravasation of contrast in the rectum noted suggesting the rectal injury.



Local examination:

Approximately 1x0.5 cm size wound 1 cm above from anal verge in right gluteal cleft with no any active bleeding from it. Active urinary discharge present from the perianal wound. On IFT insertion, 7 cm track without any internal opening into the rectum is present.

Digital rectal examination: Normal anal tone.

Plan of management: On admission patient had urine discharge from wound over right perineal region and abdominal pain but was vitally stable. After initial assessment of the patient and emergency work up, the patient was sent for contrast enhanced CT scan of abdomen & pelvis region and later he was referred for urology reference. Patient was adviced to keep PUC in situ for 14 days. Patient was discharged after 2 days of hospital stay and then followed up in surgical OPD for further management. Later patient had undergone cystogram after 14 days with PUC in situ which showed no contrast extravasation from the urinary bladder.

DISCUSSION:

The patient had approximately 3x3 mm size breach in the urinary bladder with minimal collection into the intraperitoneal compartment and there were no signs of peritonitis and patient was also vitally stable so patient was planned to have managed conservatively with Foley's catheter in situ for 14 days allowing bladder to get relaxed and allowing healing of the damaged track. Later on follow up, patient was asked for cystogram to check for the patency of the track after 14th day. There was no contrast leak from the urinary bladder so PUC was removed on the 14th post injury day. Keeping in mind vital monitoring and no intraperitoneal urine extravasation with expanding collection into the peritoneum, such types of fistulous tracks opening onto the

skin over perianal region can be managed conservatively provided that there are no any other solid organs or bowel injuries.

Acknowledgement

I herewith acknowledge my patient, respected teacher and hospital staff for their support during the study.

Discussion References:

Sabiston textbook of surgery, first south asia edition.
Campbell-Walsh-Wein Urology Twelfth edition. Bailey & Love's short practice of surgery 27th edition. Reference code "P.I.G.A.D-7"