

## Suprapubic Catheterisation and Bladder Trauma: An Unusually Early Presentation for Bladder Herniation

Quentin Isaacs\*, Lebo Mookamedi and Thendo Netshiongolwe

Division of Plastic Surgery, Department of Surgery, School of Clinical Medicine, Faculty of Health Sciences, University of Witwatersrand, Johannesburg, South Africa

**Citation:** Isaacs Q, Mookamedi L, Netshiongolwe T. Suprapubic Catheterisation and Bladder Trauma: An Unusually Early Presentation for Bladder Herniation. *World J Surg Surgical Case Rep*, 2026;2(2):141-143.

**Received:** 01 June, 2026; **Accepted:** 12 June, 2026; **Published:** 15 June, 2026

**\*Corresponding author:** Quentin Isaacs, Division of Plastic Surgery, Department of Surgery, School of Clinical Medicine, Faculty of Health Sciences, University of Witwatersrand, Johannesburg, South Africa, E-mail: [quentin.isaacs89@gmail.com](mailto:quentin.isaacs89@gmail.com)

**Copyright:** © 2026 Isaacs Q, et al., This is an open-access article published in World J Surg Surgical Case Rep and distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

### ABSTRACT

Bladder herniation following suprapubic catheterization is an exceptionally rare complication to occur. This case report demonstrates a unique case of bladder herniation in the setting of pelvic trauma and suprapubic catheterization. The bladder repair was combined with pedicled anterolateral free flap with tensor fascia lata utilised to provide support to the anterior abdominal wall.

**Keywords:** Bladder herniation, Bladder trauma, Anterolateral thigh flap

### 1. Introduction

The Suprapubic Catheter (SPC) is a surgically established conduit between the urinary bladder and the anterior abdominal wall, widely employed in the long-term management of neurogenic bladder dysfunction and urethral pathology. It has been associated with a well-recognised spectrum of acute and chronic complications including blockage, recurrent urinary tract infections, urinary leakage, bladder calculi and - after prolonged use - an increased risk of malignant transformation<sup>1</sup>.

Bladder herniation or prolapse through the suprapubic tract is an exceptionally rare late complication thought to arise from progressive weakening of the abdominal wall tract over years of indwelling catheterisation, compounded by poor wound care, infrequent catheter changes and peri-catheter fibrosis, with only a handful of cases documented in the global literature to date<sup>2-4</sup>.

Clinically, bladder herniation presents as an erythematous suprapubic mass carrying risk of incarceration and sepsis, with diagnosis best established by computed tomography and confirmed cystoscopically prior to surgical reduction<sup>3,4</sup>.

In contradistinction, extraperitoneal bladder rupture arising from blunt pelvic trauma - most commonly high-energy motor vehicle collisions - represents a distinct and more frequently encountered urological emergency, accounting for approximately 60% of all traumatic bladder injuries, with 85% to 100% of cases associated with concomitant pelvic fractures, whereby disruption of the pelvic ring transmits shearing forces and bony spicule penetration directly to the anterior and lateral bladder wall below the peritoneal reflection<sup>5</sup>. Uncomplicated injuries may be managed non-operatively with indwelling catheter drainage for 10 to 14 days, whereas operative repair is indicated in the setting of concomitant vaginal or rectal injury, foreign body or when pelvic fracture fixation with hardware is planned<sup>5</sup>.

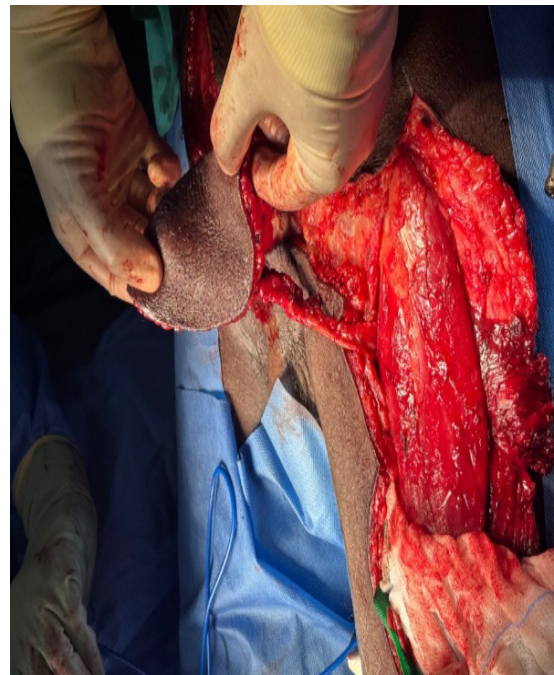
**2. Case Presentation**

Here we present a case of 54-year-old male patient who presented to a district hospital following a pedestrian vehicle collision. He was diagnosed with a left fibula fracture, pelvic fracture and underwent open reduction and internal fixation (Figures 1 and 2). A suprapubic catheter was placed during the course of his management and was left in situ to allow for recovery, with trial of voiding planned before removal. He subsequently developed wound dehiscence and bladder extrusion at the suprapubic catheter site. Subsequently referred to a quaternary hospital (Charolotte Maxeke Johannesburg Academic Hospital, Gauteng, South Africa) for further assessment and care. Upon arrival he was diagnosed with a missed extraperitoneal bladder rupture due to pelvic fracture and bladder herniation through suprapubic catheter site. He had an elective laparotomy and bladder repair; which noted that bladder was adherent at the pelvic fracture site (Figure 3). The suprapubic catheter was removed and transurethral catheter was placed (Figure 4). A pedicled anterolateral thigh flap was performed to provide well vascularized tissue and no mesh was used but tensor fascia lata was taken with the flap in order to adequately close the anterior abdominal wall (Figure 5).

Patient was discharged after Day 14 and represented with urine leaking from the abdominal wound and noted to have a blocked transurethral catheter, it was replaced and patient managed conservatively. No further surgery was required and no wound dehiscence at 30-day post op (Figure 6).



**Figure 3:** ALT dissected out.



**Figure 4:** ALT transposed underneath Rectus femoris muscle.



**Figure 1:** Defect 8x10cm.



**Figure 2:** Flap Markings for Anterolateral Thigh Flap (ALT).



**Figure 5:** Final closure.



**Figure 6:** 1 Month follow up.

### 3. Discussion

This case presentation highlights a few key aspects of thorough clinical review with clinically directed appropriate investigations to pick up all possible injuries. It is unclear how the bladder injury was not picked at time of presentation to the district hospital. With high velocity injuries and underlying pelvic fracture, a bladder injury should have been suspected<sup>5</sup>.

The form of reconstruction used for this case was not unique but highlights careful clinical consideration had to be made regarding use of any mesh to aid in the reconstruction due to having a contaminated wound. Tensor fascia lata can be used as a biological mesh and priority was given to well vascularized tissue cover to ensure adequate closure of the abdominal wall defect.

We do highlight an unusually early and uncommon presentation of bladder herniation due to suprapubic catheterization<sup>3,4</sup>.

### 4. References

1. Sheriff MK, Foley S, McFarlane J, et al. Long-term suprapubic catheterisation: clinical outcome and satisfaction survey. *Spinal Cord*. 1998;36(3): 171-176.
2. Roy A. Prolapse of bladder through suprapubic cystostomy wound - a case report. *Paripex Indian J Res*. 2016;5(7): 224.
3. Zarska K, Selvaraj N, De Silva S, et al. Herniation of the bladder through suprapubic catheter tract - an unusual complication. *Urol Case Rep*. 2022;44: 102132.
4. Scott G, Brousell S, Laungani R. Bladder herniation through a suprapubic wound tract: a case report. *Radiology Case*. 2025;19(2): 1-5.
5. Kang L, Geube A. Bladder trauma. In: *StatPearls*. Treasure Island (FL): StatPearls Publishing. 2023.