Case Report

Urinary retention secondary to bladder herniation in the inguinal canal – Case report and review of literature

Iftikhar Ali, MBBSa,b, Muhammad Hamza Aslam, MBBSb, Abdullah Hussain, FCPSc

a Department of Urology, Furness General Hospital, University Hospitals of Morecambe Bay, Barrow in Furness, UK
b Department of Internal Medicine, University Hospital Wishaw, Wishaw, Scotland
c Department of Radiology, Sheikh Zayed Hospital Lahore, Wishaw, Scotland

A R T I C L E   I N F O

Article history:
Received 27 October 2021
Revised 10 November 2021
Accepted 16 November 2021

Keywords:
Cystocele
Bladder herniation
Inguinoscrotal hernia

A B S T R A C T

Bladder herniation in the inguinal canal is a rare occurrence, reported for the first time in 1951 as Scrotal Cystocele. Most cases are incidental intraoperative findings, with no particular manifestation. Few reports of symptomatic patients have been documented in literature. We report a case of a patient who presented with urinary obstruction and left sided scrotal hernia. MRI was performed and revealed a complete bladder herniation in the scrotal sac.

© 2021 The Authors. Published by Elsevier Inc. on behalf of University of Washington. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/)

Case report

Seventy-four-years-old gentleman was admitted with primary complaint of acute retention. He has been having lower urinary tract symptoms for past 3 months. He denies any other symptoms. Physical examination revealed left reducible hernia. Digital Rectal examination showed enlarged irregular prostate. Patient was catheterized subsequently and retention relieved with urine output of more than 900 mL. Investigation showed Prostate Specific Antigen (PSA) of 63.49 ug/L. Transrectal Biopsy was performed on suspicion of prostate cancer and outcome was moderately differentiated adenocarcinoma. MRI scan was warranted for staging of cancer. There was Manuscript (without Author Details) incidental finding of left bladder herniation in addition to Prostate adenocarcinoma with extracapsular extension Fig. 1(A-C).

A multidisciplinary team meeting was organized to discuss the treatment plan. Owing to local spread, the panel agreed for Hormonal treatment (Bicalutamide and Zoladex injection) and Radiotherapy for prostate cancer. Prior to this treatment, Plan is to treat the Inguinoscrotal hernia. Patient has been already listed for general surgical appointment for Hernial repair.

* Corresponding author
E-mail address: yariazaana5@gmail.com (I. Ali).
https://doi.org/10.1016/j.radcr.2021.11.038
1930-0433/© 2021 The Authors. Published by Elsevier Inc. on behalf of University of Washington. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/)
Fig. 1 – (A-C) MRI scan sagittal, coronal and axial sections showing bladder hernia protruded into the left inguinoscrotal region.

Discussion

We report about a case of a left-sided inguinoscrotal hernia with complete bladder herniation presenting with urinary retention. There was a history of Lower Urinary tract symptoms for a past couple of months. Inguinal bladder hernias mostly occur in patients beyond the fifth decade [9] and usually occurs on the right side [4]. In our case, the patient was aged 74, and had a left sided inguinocrotal hernia involving bladder. Bladder herniation is thought to occur due to a weakening of its musculature leading to a loss of bladder tone and to the impairment of supporting anatomical structures. Conditions leading to bladder herniations include outflow obstruction such as Benign Prostatic Hyperplasia (BPH), Prostate Cancer, direct inguinal hernia, weakening of abdominal and pelvic walls, and obesity [4–6]. In our case, the associated condition was a prostatic adenocarcinoma leading to the obstructive uropathy. Renal failure and ureteric obstruction are very rarely reported with inguinal urinary bladder hernia. These were not present in our case. Furthermore, the typical symptom of 2-stage micturition (double micturition: manual compression of the scrotal swelling to void) is pathognomonic. A correct preoperative diagnosis is necessary to prevent any iatrogenic injury to the bladder. CT scan should be recommended for patients with inguinoscrotal hernia associated with urinary disorders (Mery’s sign) [10]. The particularity of our case was incidental finding of bladder herniation on MRI that was sufficient to make a prompt diagnosis. The standard treatment of inguinal bladder hernias is the surgical repair with a mesh to prevent recurrence. Inguinal hernias with complete urinary bladder herniation are rare. They are often difficult to diagnose and remain a surgical challenge. Preoperative imaging is essential to prevent iatrogenic injury. An open
surgical repair with mesh by the Lichtenstein technique is the standard management. Partial resection of the herniated bladder is only recommended if there is evidence of bladder wall necrosis or bladder diverticula [11,12].

Declaration of Competing Interest

Author declare no conflict of interest.

REFERENCES

[11] Papatheofani Vasiliki, Katharina Beaumont, Natascha C Nuessler. Inguinal hernia with complete urinary bladder herniation: a case report and review of the literature. Journal of surgical case reports 2020;2020(1):rjz321.