

Femoral Hernia Containing Urinary Bladder

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Abstract

Introduction: Inguinal bladder hernia (IBH) is a rare clinical condition, despite the proximity of the bladder to the inguinal canal. Femoral bladder hernias (FBH) are more prevalent in females than males and less common than inguinal bladder hernias. The majority of patients with bladder hernias are asymptomatic, and diagnosis is made intraoperatively. We report a rare case of a femoral bladder hernia which the diagnosis was made intraoperatively.

Presentation of Case: A 54 years-old female was admitted to our department with a history of left inguinal swelling that was gradually increasing in size. Physical exam revealed painless and reducible femoral hernia, skin above the hernia was without signs of inflammation. A contrast enhanced abdominal computed tomography showed a right femoral hernia with fluid content. Ultrasound (US) revealed an Amyand hernia with fluid content raising suspicion to mucocele of the appendix. The patient was operated the left inguinal canal's exploration revealed a portion of the urinary bladder inside the femoral hernia. The femoral hernia and defect were fixed with a polypropylene mesh via the Rives technique. The patient recovered well and was discharged one day after surgery.

Discussion and Conclusion: Femoral bladder hernias are extremely uncommon, with the vast majority being diagnosed intraoperatively.

Risk factors include male gender, advanced age, intravesical obstruction and benign prostatic hypertrophy. Most bladder hernias are asymptomatic. Radiographic imaging is not routinely performed in the workup of inguinal or femoral hernias. The standard treatment of inguinal bladder hernias is an open inguinal incision or in less cases with a laparoscopic approach, it involves a bladder reduction or on rare occasion partial resection, FBH remains a constant trap for the surgeon before the diagnosis, during herniorrhaphy, and even in the postoperative period.

Keywords: Femoral bladder hernias, urinary bladder

Introduction

Inguinal bladder hernia (IBH) is a rare clinical condition, despite the proximity of the bladder to the inguinal canal. Urinary bladder is found in 1–5% of inguinal hernias (IH) [1]. Femoral bladder hernias are more prevalent in females than males and less common than inguinal bladder hernias [2].

The majority of patients with bladder hernias are asymptomatic, and diagnosis is made intraoperatively [3].

We report a rare case of a femoral bladder hernia which the diagnosis was made intraoperatively. This work has been reported in line with the SCARE criteria [4].

Case Presentation

A 54 years-old female was admitted to our department with a history of left inguinal swelling that was gradually increas-

ing in size. Her past medical history includes hypertension and ulcerative colitis. She had no past surgical history or smoking history, she denied vomiting, hematuria or dysuria. Physical exam revealed painless and reducible femoral hernia, skin above the hernia was without signs of inflammation.

A contrast enhanced abdominal computed tomography showed a right Femoral hernia with fluid content (**Figure 1**).

Ultrasound (US) revealed an Amyand hernia with fluid content raising suspicion to mucocele of the appendix.

The patient was operated after a Foley catheter was inserted into the bladder without difficulties. The left inguinal incision was made and the left inguinal canal's exploration revealed a portion of the urinary bladder inside the femoral hernia (**Figure 2**), The femoral hernia sac was initially difficult to differentiate from the bladder due to its thickness, The bladder was

distended with saline solution via the urinary catheter confirming the bladder herniation, then it was reduced, unopened to the extraperitoneal space. Inside the hernia sac a normal appendix was found. The femoral hernia and the defect were fixed with a polypropylene mesh via the Rives technique. The patient recovered well and was discharged one day after surgery.

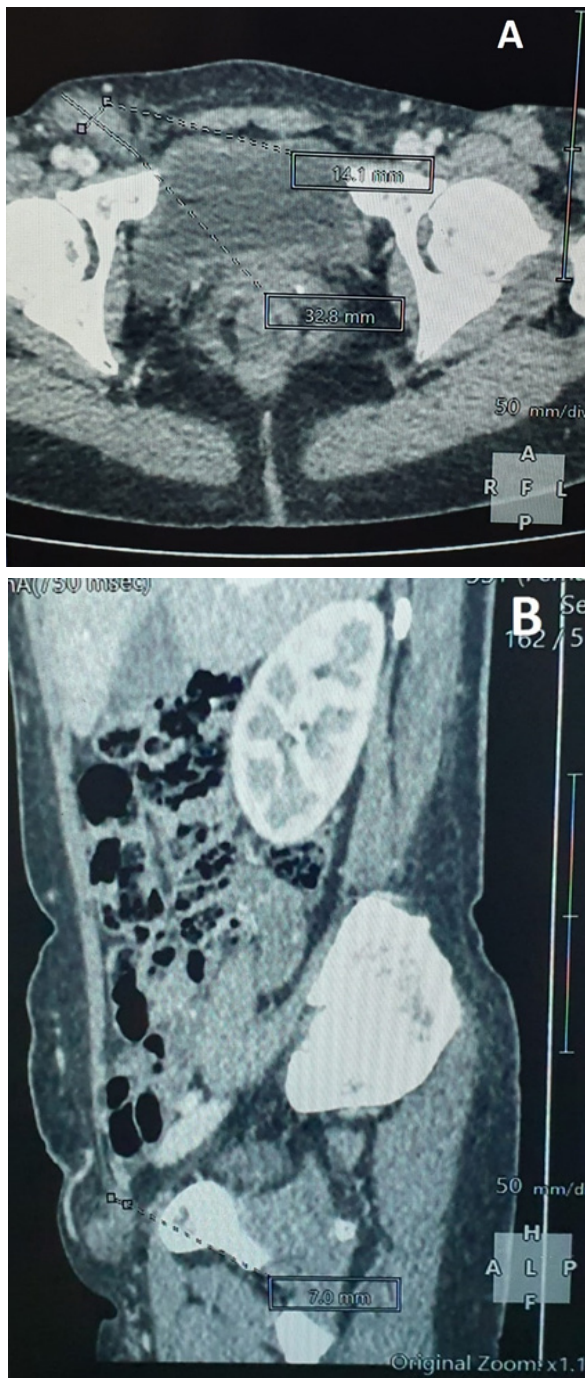


Figure 1 (A, B): CT scan of the abdomen (axial : A and sagittal : B planes) revealing a femoral hernia with fluid content.

Discussion

Femoral bladder hernias are extremely uncommon, bladder hernia accounts only for 0.4–3% of adult inguinal hernia cases [5].

only 7% of inguinal bladder hernias are diagnosed prior to surgery, with the vast majority being diagnosed intraoperatively and 16% diagnosed postoperatively due to complications including bladder injury and leakage [6].

Risk factors include male gender, advanced age, intravesical obstruction and benign prostatic hypertrophy [7] in our case the patient was a 54 years-old female.

Most bladder hernias are asymptomatic, usually discovered in-

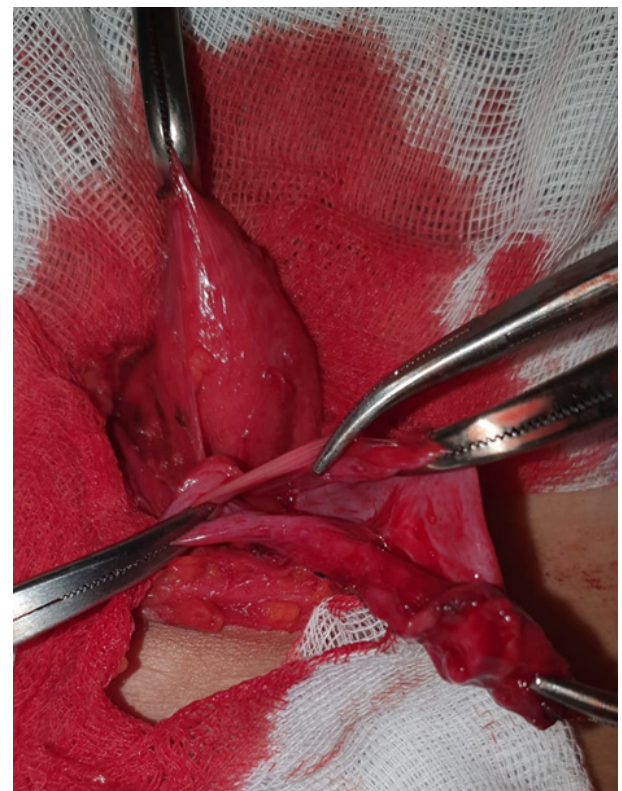


Figure 2: Intraoperative photograph showing the femoral hernia sac and the distended bladder after catheter was being filled with sterile saline.

traoperatively or during imaging studies performed for other purposes, however they may have nonspecific symptoms including nocturia, urinary frequency, urgency hematuria and two-stage micturition acute renal failure in some rare massive bladder herniation [8].

Radiographic imaging is not routinely performed in the work-up of inguinal or femoral hernias but ultrasonography, cystography, and CT have all been utilized to confirm the diagnosis of the bladder hernia [3].

The standard treatment of inguinal bladder hernias is an open inguinal incision and in certain cases a laparoscopic approach, it involves bladder reduction or on rare occasion partial resection, bladder resection is recommended only in cases with bladder wall necrosis, true herniated bladder diverticulum, a tight hernia neck, or tumor in the herniated bladder followed by hernia repair that can be performed with or without the use of a mesh to prevent recurrence [9].

Conclusion

FBH remains a constant trap for the surgeon before the diagnosis, during herniorrhaphy, and even in the postoperative period [10]. Careful history and physical examination are the key in establishing a preliminary diagnosis.

We present a case report of femoral bladder hernia in a middle-aged woman that presented as left lower quadrant pain, groin pain, and dysuria. Diagnosis was confirmed intraoperatively. The hernia was surgically reduced and the defect repaired without complications.

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Consent: Written informed consent was obtained from the patient for publication of this case report and accompanying image

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