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Inguinal Bladder Hernia: About A Case Report

S. Taddart[1*], S. El Ansari[1], S. Amrani[1], Y. Bouktib[1], A. El Hajjami[1], B. Boutakioute[1], M. Ouali Idrissi[1], N. Cherif Idrissi El Ganouni[1]

[1]Service de Radiologie AR-RAZI, CHU Mohamed VI, Marrakech, Université Cadi Ayyad, Morocco

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***Corresponding author:** S. Taddart
Service de Radiologie AR-RAZI, CHU Mohamed VI, Marrakech, Université Cadi Ayyad, Morocco

Abstract **Case Report**

Inguinal bladder hernias are rare, with bladder involvement seen in 1–4% of inguinal hernias. The majority of cases are diagnosed intraoperatively, with only 7% of bladder hernias identified prior to surgery. Diagnosis may be challenging as patients are often asymptomatic or have nonspecific symptoms. Surgical repair is currently the standard treatment, and careful surgical planning is necessary to avoid complications including bladder injury. We report the case of a 74-year-old man presented with a mild painless right inguinal swelling, associated with chronic diarrhea. Physical exam revealed an expansive hernia on coughing and reducible at the level of the right inguinal fold. Preoperative ultrasound has shown a right inguinal hernia with a dislocation of the urinary bladder descending into the right scrotum. Plain CT was ordered and demonstrated a right partial inguinal incarceration containing bladder and omental tissue with adjacent peritoneal effusion without ureterohydronephrosis upstream. The patient underwent open surgical reduction and hernia repair and made a quick postoperative recovery without complications.

Keywords: Inguinal hernia, bladder, ureterohydronephrosis, digestive surgery.

INTRODUCTION

Herniation of the bladder into the inguinal canal is a rare condition. It has been reported that only 1% of inguinoscrotal hernias are accompanied by intestinal loops within the hernial sac of the bladder. Isolated herniation of the bladder is much less common. Most patients are asymptomatic, and diagnosis is made incidentally upon imaging or during surgical repairs, with only 7% of bladder hernias identified prior to surgery. Known risk factors for bladder herniation are obesity, bladder outlet obstruction, anterior abdominal wall weakness, or detrusor muscle weakness; Diagnosis may be challenging as patients are often asymptomatic or have nonspecific symptoms. Surgical repair is currently the standard treatment, and careful surgical planning is necessary to avoid complications including bladder injury.

CASE REPORT

A 74-year-old patient, with no particular pathological history, who presented with a mild painless right inguinal swelling, associated toa chronic diarrhea. Physical exam revealed an expansive hernia on coughing and reducible at the level of the right inguinal fold.

The biological assessment (blood count and ionogram revealed no abnormality Setting aside iron deficiency anemia).

The abdomino-pelvic ultrasound revealed a right inguinal hernia with a dislocation of the urinary bladder descending into the right scrotum (Figure 1). Diagnosis of inguinal bladder hernia was done on the uroscanner (Figure 2), which objectified a right partial inguinal incarceration containing bladder and omental tissue with adjacent peritoneal effusion without ureterohydronephrosis upstream. The exploration was performed through the right inguinal incision. It visualized the bladder in the right scrotum with repair of the hernia after reintegration of the bladder pocket, associated with a rise of the JJ catheter on the right.

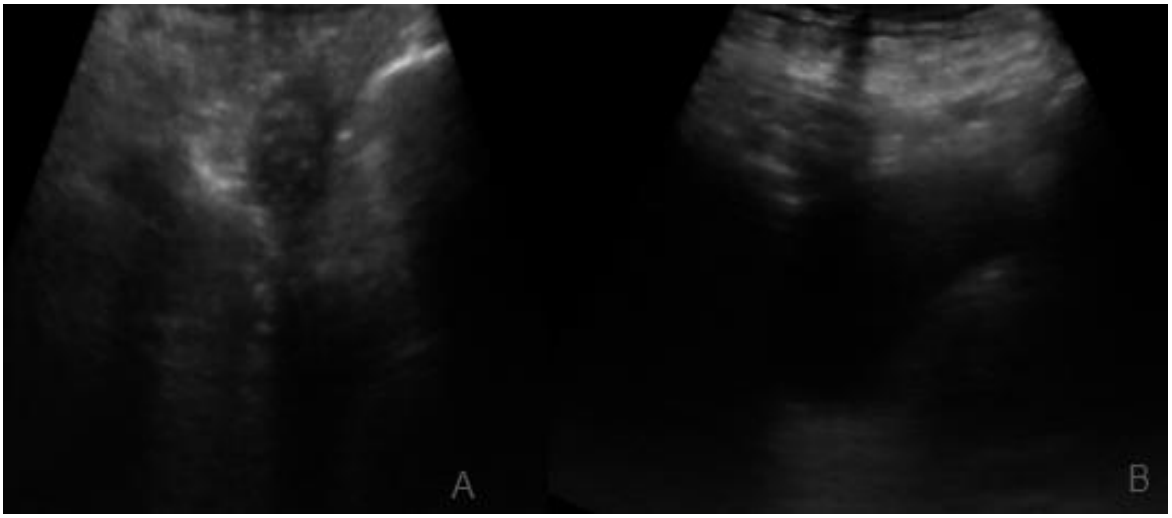

Figure 1: Pelvic ultrasound showing a bladder hernia in the right scrotum

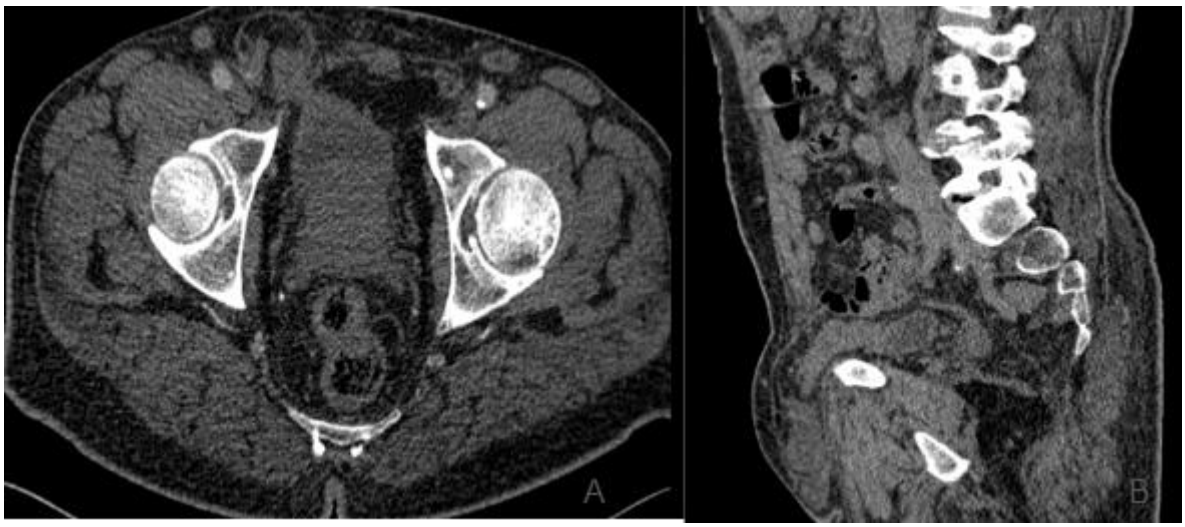

Figure 2: Uroscan: axial (a) and sagittal (b) section at arterial and venous phase showing a right partial inguinal incarceration containing bladder and omental tissue with adjacent peritoneal effusion

DISCUSSION

Bladder hernia is a multifactorial nosological entity in which its presentation progressively increases with age and association with well-described comorbidities like obesity, a weak musculature of the abdominal wall and above all an obstacle under the bladder, in particular an hypertrophy of the prostate [1], Due to its clinical presentation, which is somewhat nonspecific and occasionally nonexistent, its diagnosis is not made until the surgical moment, with a high risk of bladder injury [2, 3] . Hernias can affect a bladder horn, a diverticulum, or even the entire bladder. They are responsible for symptoms ranging from simple irritative syndrome to acute obstructive renal failure [4, 5, 7]. The classic Mery's sign, which results in urination in two stages with the need to compress the hernial contents during urination and the disappearance of the hernia after bladder emptying, constitutes a very evocative but inconstant clinical sign [6]. Its presence is strongly suggestive of the incarceration of the bladder in the hernia [7, 8].

Imaging modalities include CT scanning, intravenous urogram, and cystography. Ultrasonography can be used to detect the presence of hydronephrosis and to differentiate the bladder from other intrascrotal conditions such as a hydrocele, epididymal cysts, and abscesses. Given the advanced nature of the case presented above [9], a CT scan was sufficient to make a prompt diagnosis and plan the surgical approach, it's an imaging method that shows the relationship between the inguinal canal and bladder herniation in detail. Antero-inferior angulation of the bladder floor on tomography images is a sign of bladder herniation. In large-sized hernias, the bladder can be followed along the inguinal canal on sequential tomography images [11, 12].

The standard treatment of inguinal bowel hernia (IBH) is either reduction or resection of the herniated bladder followed by herniorrhaphy. In the past, surgeons have resected the herniated portions of the bladder where the hernia was found to be massive. However, current recommendations are to perform resection where this is evidence of bladder wall necrosis, herniated bladder

diverticulum, a tight hernia neck, or a bladder tumor [12, 13].

CONCLUSION

Only 7% of bladder herniation cases are diagnosed before the operation. Isolated bladder herniation is an extremely rare condition. Preoperative knowledge of bladder herniation is essential in terms of preventing injuries that may occur during surgery. Therefore, it is recommended to evaluate bladder hernia by advanced radiological methods in addition to USG in elderly patients with inguinal hernia accompanied by urinary symptoms.

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