

## Inguinoscrotal Hernia of the Bladder: A Case Report

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### Abstract

Inguino-scrotal hernia of the bladder is a rare entity of hernias corresponding to the migration of the bladder by inguino-scrotal way through the deep inguinal orifice.

Clinically, it presents as a chronic large bursa associated with urinary signs, particularly dysuria.

Diagnosis is confirmed by imaging treatment is based on surgery with reintegration of the bladder and fitting of a prosthesis.

**Keywords:** Hernia; Bladder; Scrotal mass; Prosthesis

### 1. Introduction

Inguinoscrotal hernia is a common surgical condition. Often, the hernial sac contains digestive components such as omentum and small bowel loops. It predominantly occurs in individuals over 50 years of age, especially in the presence of subvesical obstruction. Intra-scrotal herniation of the bladder represents a rare entity. It can be asymptomatic or manifest with lower urinary tract symptoms, notably dysuria and pollakiuria, and presents as a chronic scrotal mass. Treatment involves hernia reduction with the placement of a prosthesis.

### 2. Observation

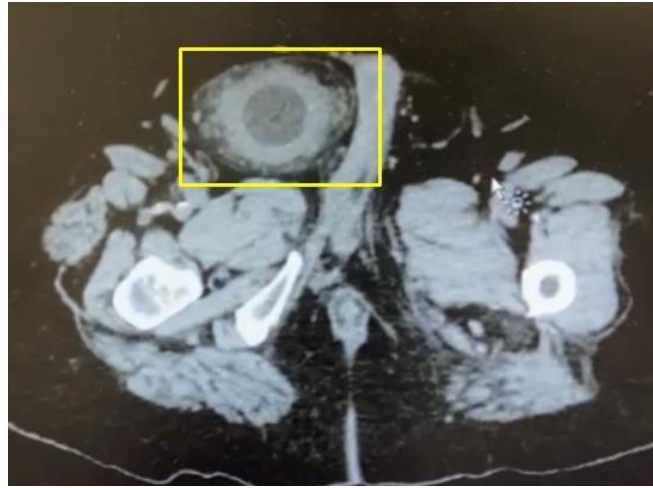
We report the case of a 63-year-old patient, A.M, a professional mason, with a normal body mass index and no significant medical history. He presented with lower urinary tract symptoms, characterized by dysuria, notably voiding in two stages, and frequent urination that had been evolving for several years.

Physical examination revealed a patient in overall good general condition with no surgical scars. He had a slightly tender large scrotum, which triggered the urge to urinate upon compression. There were no signs of inflammation in the area, and the transillumination test was negative. Rectal examination showed a soft 40g prostate.

Scrotal and vesical ultrasounds were performed and revealed a fluid collection that initially led us to suspect a hydrocele, along with an emptiness in the vesical cavity.

A supplementary CT scan was performed:

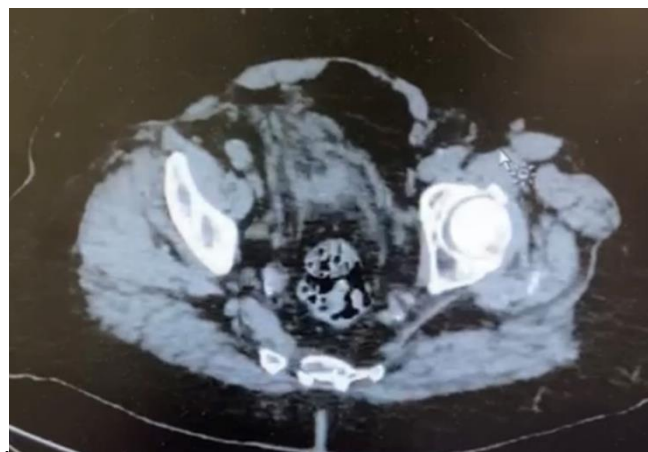
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**Figure 1** Cross-sectional view of a pelvic CT scan showing the bladder in an intrascrotal position



**Figure 2** Cross-sectional view of a pelvic CT scan showing the bladder in an intrascrotal position



**Figure 3** Cross-sectional view of a pelvic CT scan demonstrating the emptiness of

The surgical procedure was carried out through a midline subumbilical incision. Exploration revealed the migration of the bladder through the inguinal orifice. Dissection of the bladder was challenging due to the longstanding nature of the hernia. The careful reintegration of the bladder after its release was uneventful, and a reinforcement mesh was placed to reduce the risk of recurrence. The postoperative recovery was uncomplicated, with the removal of stitches on day 10. The patient became asymptomatic during the follow-up consultation.

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### 3. Discussion

Intrascrotal hernia of the bladder is a rare entity, accounting for only 1 to 4% of inguinal hernias [1]. The occurrence of this condition is primarily age-related, predominantly affecting men over the age of 50. It is often attributed to weaknesses in the abdominal wall, obesity, and increased abdominal pressure due to subvesical obstructions or certain professions [2].

In this particular case, the patient presented with two risk factors: age and increased abdominal pressure associated with his profession. Inguinoscrotal hernia is generally asymptomatic. Occasionally, lower urinary tract symptoms may be present, but they are nonspecific and often associated with concurrent prostatic hypertrophy. The clinical sign of Mery, characterized by voiding in two stages, facilitated by pressure on the hernial protrusion and reduction of the hernia after bladder emptying, is a suggestive indicator, although it can be inconsistent [3]. In the case of our patient, this sign was positive.

Furthermore, the presence of irritative and obstructive urinary symptoms in a patient with an inguinal hernia should raise suspicion, especially if there is voiding in two stages with reduction of hernia volume after urination [4].

According to a study by Watson et al. involving 347 cases of inguinoscrotal hernia [5], the diagnosis of a bladder hernia is made intraoperatively in 80.4% of cases or postoperatively following surgery for intestinal hernia, with the emergence of complications such as hematuria or urine leakage from the surgical wound [2].

In our case, the clinical presentation led to a suspected diagnosis and the indication for a CT scan examination. Prior to the CT scan, an ultrasound examination was performed on this patient, revealing two significant findings: the presence of fluid in the scrotum, suggestive of hydrocele, and the absence of a full bladder despite the patient's strong urge to urinate after ingesting water. Some authors have pointed out the challenges of diagnosing bilateral forms using ultrasound [6]. In reality, the CT scan facilitated the diagnosis and was of great assistance. It reinforced the diagnosis by revealing a highly significant triad, including a strong urge to urinate, bladder emptiness, and the presence of a fluid collection surrounded by a wall. This prospective approach helped minimize the risk of iatrogenic bladder injuries during the surgical intervention.

Retrograde urethrocytography (RUC) is considered the best examination for exploring a bladder hernia. It should be the initial choice due to its availability, ease of execution, speed, and lack of contraindications [7]. However, in our patient's case, RUC was not requested.

The treatment can be summarized as surgical repair of the hernia with reintegration of the bladder, as was the case with our patient.

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### 4. Conclusion

Inguinoscrotal hernia of the bladder is a rare condition. It should be considered in a patient presenting with lower urinary tract symptoms and a chronic scrotal mass. The diagnostic confirmation is achieved through a CT scan. Treatment involves the reintegration of the bladder with the placement of a prosthesis.

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### Compliance with ethical standards

#### *Disclosure of conflict of interest*

No conflict of interest to be disclosed.

*Statement of ethical approval*

'The present research work does not contain any studies performed on animals/humans subjects by any of the authors'.

*Statement of informed consent*

Informed consent was obtained from all individual participants included in the study.

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