

## Inguinal Bladder Hernia: About A Case Report

I. Daha<sup>1\*</sup>, N. Yassine<sup>1</sup>, I. Zouita<sup>1</sup>, D. Basraoui<sup>1</sup>, H. Jalal<sup>1</sup>

<sup>1</sup>Department of Radiology, Mother-Child Hospital, CHU Mohammed VI of Marrakech, Faculty of Medicine and Pharmacy, Marrakech Cadi Ayad University, Morocco

DOI: [10.36347/sjmcr.2022.v10i10.012](https://doi.org/10.36347/sjmcr.2022.v10i10.012)

| Received: 08.09.2022 | Accepted: 13.10.2022 | Published: 16.10.2022

\*Corresponding author: I. Daha

Department of Radiology, Mother-Child Hospital, CHU Mohammed VI of Marrakech, Faculty of Medicine and Pharmacy, Marrakech Cadi Ayad University, Morocco

### Abstract

### Case Report

Inguinal hernia is a frequent pathology in digestive surgery. It consists of the passage of abdominal or pelvic contents through the inguinal orifice. It is rare for the contents of the hernial sac to be bladder. Its discovery is most often fortuitous since no clinical sign generally allows it to be detected. The treatment is surgical which consists of reintegrating the bladder intra-pelvic. We report the case of a patient, in whom the diagnosis of an inguinal bladder hernia was made fortuitously after realizing an uro-scanner within the framework of the etiological assessment of a ureterohydronephrosis.

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

Copyright © 2022 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

## INTRODUCTION

Inguinal hernia is a frequent pathology in surgery. It consists of the passage of abdominal or pelvic contents through the inguinal orifice. It most often results from an increase in intra-abdominal pressure or a weakness of the abdominal wall, prostatic hypertrophy is a common cause in the elderly.

It is rare for the contents of the hernial sac to be bladder. Its discovery is most often fortuitous since no clinical sign generally allows it to be detected. The treatment is surgical which consists of reintegrating the bladder intra-pelvic.

We report the case of a patient, in whom the diagnosis of an inguinal hernia of the bladder was made fortuitously before the realization of a uro-scanner within the framework of the etiological assessment of a ureterohydronephrosis.

## OBSERVATION

This is a 71-year-old patient, with no particular pathological history, who presented with chronic right low back pain for 4 months, associated with a painless

right inguinal swelling, expansive on coughing and reducible at the level of the right inguinal fold.

The biological assessment (blood count and ionogram revealed no abnormality with a PSA of 3.5 ng/ml and a sterile ECBU.

The abdomino-pelvic ultrasound revealed a right inguinal hernia without specifying the affected organ. She objectified a right ureterohydronephrosis and an enlarged prostate estimated at 48 cm<sup>3</sup>.

Diagnosis of inguinal bladder hernia was done on the uroscanner (Figure 1), which objectified a right partial inguinal incarceration of the bladder associated with a major right ureterohydronephrosis upstream of a calculation of the pelvic ureter.

The release of the bladder was performed by laparoscopy with repair of the hernia after reintegration of the bladder pocket, associated with a rise of the JJ catheter on the right. Treatment with alpha-blockers has been prescribed for benign prostatic hyperplasia. The post operator course was simple.



**Figure 1: Uroscanner: sagittal (a) and axial (b) section at late stage showing the right inguinal hernia of the bladder**

## DISCUSSION

Bladder incarceration in the hernia sac is found in only 1-4% [1-3] of inguinal hernias. The predisposing factors are obesity, a weak musculature of the abdominal wall and above all an obstacle under the bladder, in particular an hypertrophy of the prostate which explains the frequency of inguinal hernia of the bladder in the age group 50-70 years [4, 5]. This bladder incarceration is often asymptomatic and incidentally discovered during a urological examination, intraoperatively or postoperatively following the occurrence of a complication such as haematuria, suture release, fistula [2, 6].

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 [7, 8]. 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 [9]. Its presence is strongly suggestive of the incarceration of the bladder in the hernia, the uroscanner confirmed the diagnosis.

Preoperative diagnosis of bladder hernia is made in less than 7% of cases, as was the case for our patient. It is of great help to the surgeon, because it allows the diagnosis to be consolidated, to guide surgical exploration and, consequently, to limit the risk of neglecting or even injuring the bladder during surgery, especially since dissection is difficult because of adhesions and the age of the hernia [6, 9].

Ultrasound, uroscanner and cystography can be very useful in showing the part of the herniated bladder engaged in the inguinal canal [7].

In 279 of the 347 cases reported by Watson, a herniated bladder was discovered during surgery. While in 43 patients out of 374 reported, the diagnosis of bladder hernia was made postoperatively in front of the

appearance of suppuration of the operative wound and the appearance of a urinary fistula secondary to an injury to the bladder not diagnosed in intraoperative [5].

In case of preoperative diagnosis, the treatment of an inguinal hernia of the bladder does not differ from that of other hernias and consists of a repression of the bladder associated with a repair of the wall. Bladder resection should be avoided because of the risk of reduced bladder capacity and lesion ureteral [1]. However Bladder resection is indicated in case of large hernia, narrow neck, necrosis [10] and intra tumor hernia [11].

In our patient, after confirmation of the diagnosis, the herniated part could be easily reintegrated at the pelvic level. The intervention was completed by closing the deep inguinal orifice.

Inguinal hernia is a common complication of benign prostatic hyperplasia. It occurs in 15% to 25% of cases [12]. The treatment the cause of abdominal hypertension and in particular prostatic obstruction should be considered before or at the same time as hernia treatment to avoid recurrence. The presence of an inguinal hernia does not justify surgical treatment of benign prostatic hyperplasia [13], which can be treated medically, endoscopically or surgically during inguinal hernia surgery [12].

In our patient, the medical treatment of the benign prostatic hyperplasia was very effective, resulting in an improvement in the symptomatology. Clinical and ultrasound monitoring remains necessary.

## CONCLUSION

The inguinal hernia of the bladder is an exceptional entity and most often occurs in a subject over 50 years old with a history of herniorrhaphy. The symptomatology is non-specific, the diagnosis is made intraoperatively or postoperatively following complications or fortuitously during a paraclinical

examination. The treatment is surgical and includes the cure of the hernia with reintegration of the bladder.

## BIBLIOGRAPHY

1. Pasquale, M. D., Shabahang, M., & Evans, S. R. (1993). Obstructive uropathy secondary to massive inguinoscrotal bladder herniation. *The Journal of urology*, 150(6), 1906-1908.
2. Vindlacheruvu, R. R., Zayyan, K., Burgess, N. A., Wharton, S. B., & Dunn, D. C. (1996). Extensive bladder infarction in a strangulated inguinal hernia. *British journal of urology*, 77(6), 926-927.
3. Schewe, J., Brands, F. H., & Pannek, J. (2000). The inguinal bladder diverticulum: a rare differential diagnosis of hernias. *International urology and nephrology*, 32(2), 255-256.
4. Karatzas, A., Christodoulidis, G., Spyridakis, M., Stavaras, C., Aravantinos, E., & Melekos, M. (2013). A giant inguinoscrotal bladder hernia as a cause of chronic renal failure: a rare case. *International Journal of Surgery Case Reports*, 4(3), 345-347.
5. Watson, L. F. (1948). St. Louis: Mosby; Hernia.
6. Catalano, O. (1997). US evaluation of inguinoscrotal bladder hernias: report of three cases. *Clinical imaging*, 21(2), 126-128.
7. Storm, D. W., & Drinis, S. (2008). Radiographic diagnosis of a large inguinal hernia involving the urinary bladder and causing obstructive renal failure. *Urology*, 72(3), 523.
8. Wagner, A. A., Arcand, P., & Bamberger, M. H. (2004). Acute renal failure resulting from huge inguinal bladder hernia. *Urology*, 64(1), 156-157.
9. Gomella, L. G., Spires, S. M., Burton, J. M., Ram, M. D., & Flanigan, R. C. (1985). The surgical implications of herniation of the urinary bladder. *Archives of Surgery*, 120(8), 964-967.
10. Sallami, S., Rhouma, S. B., & Chelif, M. (2009). Inguinal hernia of the bladder (apropos of two cases). *J Maroc Urol*, 16, 30-33.
11. Caterino, M., Finocchi, V., Giunta, S., De Carli, P., & Crecco, M. (2001). Bladder cancer within a direct inguinal hernia: CT demonstration. *Abdominal imaging*, 26(6), 664-666.
12. Dahami, Z., Barjani, F., Saghir, O., Moudouni, M. S., & Sarf, I. (2009). Combined inguinal hernia repair and transurethral resection of the prostate (TURP) for benign prostatic hypertrophy. *Journal de chirurgie*, 146(6), 549-552.
13. Initial assessment and follow-up of benign prostatic hyperplasia: systematic review of the literature by the LUTS committee of the French Urological Association Prog Urol, 2012221-6.