*Olgu / Case*

# Büyük inguinoscrotal mesane hernisi: İki olgu sunumu

*Large inguinoscrotal bladder hernia: Two case reports*

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**Özet**

Kasık fıtığı içerisinde mesane bulunması beklenmedik bir durumdur ve nadir görülmektedir. Mesane inguinal kanal veya skrotuma herniye olabilmekedir. Hastaların genellikle semptomlarının olmaması nedeniyle mesane hernisinin tanısı kolay olmamaktadır. Genellikle herniorafi sırasında veya intraoperatif yaralanma sonrası farkedilmektedir. Şüphelenilen olgularda tanı için intravenöz piyelogram, voiding sistoüretrografi ve sistoskopi kullanılabilir. Mesane çıkım obstruksiyonu ve prostat hacmi değerlendirilebilir. Bu olgu sunumunda büyük intraskrotal mesane hernisi olan iki vakamızı sunmayı amaçladık.

**Anahtar Kelimeler:** mesane, sistografi, herni

**Abstract**

Groin hernia may have uncommon content like urinary bladder which have been rarely reported and urinary bladder will herniate into the inguinal canal or the scrotum. Diagnosis of the bladder hernias are not easy because patients haven't got a symptom usually. Bladder hernia is often diagnosed during herniorrhaphy or identified after intraoperative injury. Large inguinoscrotal hernias are usually seen with voiding symptoms. Intravenous pyelogram, voiding cystourethrogram and cystoscopy should use for evaluation of patients with suspected bladder scrotal hernia. Bladder outlet obstruction and prostate volume should assess. We presented two patients with large inguinoscrotal bladder hernias.

**Keywords:** bladder, cystography, hernia

## INTRODUCTION

Bladder association with inguinal hernias usually involves a small portion of the bladder in a

sliding fashion which is a rare entity and occurs in up to 4% of inguinal hernias. Complete involvement of the bladder, however, is more infrequent and usually presents with voiding symptoms and a large scrotal mass (1). Large inguinoscrotal hernias, termed scrotal cystocele by Levine, are unusual and are almost always associated with symptoms (2).

Anatomically, bladder hernias (BH) are classified according to the relationship of the hernia to the peritoneum. The more common para-peritoneal hernia involves the extra-peritoneal portion of the bladder which lies along the medial wall of the hernia sac. In the intraperitoneal form, bladder enters the sac and is completely covered by peritoneum. The least common extra-peritoneal type is devoid of any peritoneal covering (3). We presented two patients with large inguinoscrotal bladder hernias.

## CASE REPORTS

Two men, with an age of 62 and 52 years, presented to our outpatient clinic complaining of a weak urinary stream, nocturia and mild dysuria accompanying inguinal swelling which was at the right side and the other was at the left side, respectively. Both patients reported that the swelling disappeared spontaneously after the voiding and increased in size before patients void urine. Cystography were performed for both patients (Figure 1, 2) and revealed the lateral wall of the bladders at the level above the trigone herniated into the inguinal canal inferiorly and extended into the scrotum in both cases. The younger one had a left inguinal hernia operation previously. The hernia was explored using an inguinal incision extended medially to the pubis. The bladder was dissected off the spermatic cord and replaced into its native position. The repair was completed in a Lichtenstein fashion using polypropylene mesh in both cases. The levels of urea and creatinine were normal. After the repair patients' complaining and symptoms were regressed and postoperative cystography was normal in first month (Figure 3).

## DISCUSSION

Groin hernia may have uncommon content like urinary bladder(UB) which have been rarely reported and UB will herniate into the inguinal canal or the scrotum. BH occurs in up to 4% of inguinal hernias (1). In 1951, Levine defined large inguinoscrotal hernias as scrotal cystocele, are unusual and are almost always associated with symptoms (2). Our cases presented outpatient clinic with lower urinary tract symptoms like weak urinary stream, nocturia and mild dysuria and both of them had large inguinoscrotal bladder hernia. Bladder protrusion into direct and indirect inguinal hernias occurs with equal frequency, and there is a predilection for it to occur on the right (3). In our cases one of them was on the right and other one was on the left side.

Thompson et al. reported that 2-stage micturition is the predominant symptom. Frequently, manual pressure on the bladder facilitates the second stage of the micturition procedure. The bladder outlet obstruction causes urological complaints. Bladder outlet obstruction for any reason (enlarged prostate, prostatitis, urethral stricture or bladder neck contracture), obesity and loss of bladder tone accompanying weakness of the supporting structures taking place with advancing age are considered as possible etiological reasons (4).

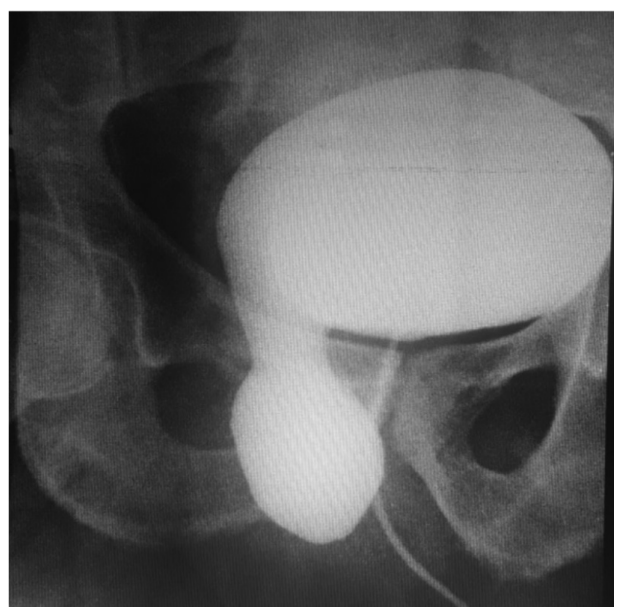

**Figure 1:** A 62 year-old man with right scrotal bladder hernia

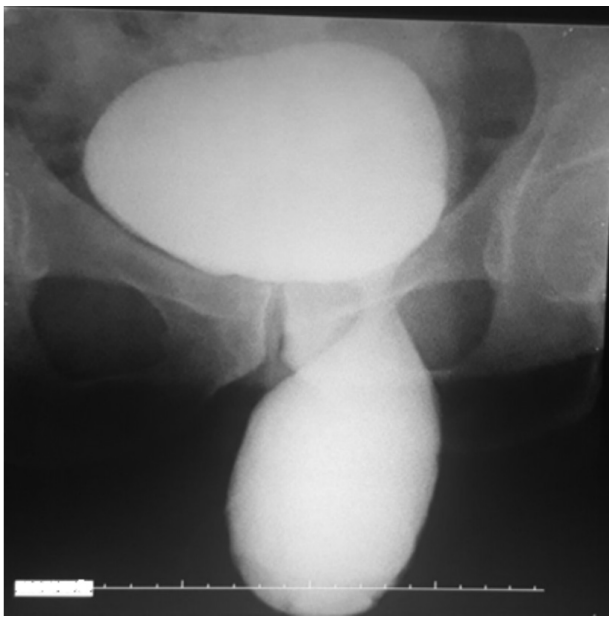

**Figure 2:** A 52 year-old man with left scrotal bladder hernia who had previous left inguinal hernia operation

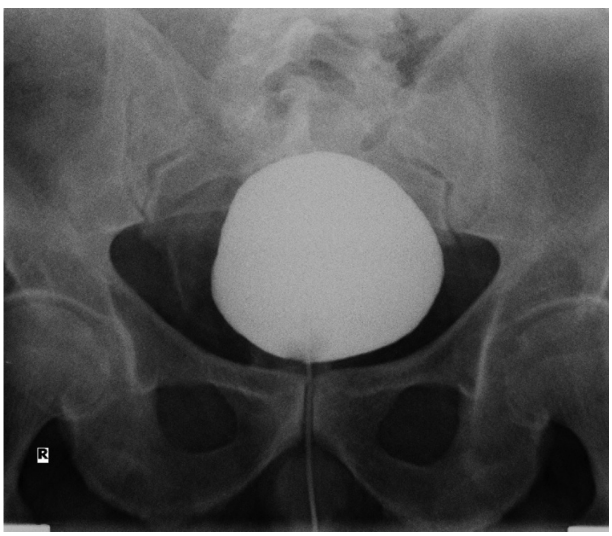

**Figure 3:** The cystography at postoperative first month

Diagnose of the BHs are not easy because patients haven't got a symptom usually. BH is often diagnosed during herniorrhaphy or identified after intra operative injury. A preoperative identification of the hernial contents can avoid surgical bladder injuries and modify operative management of the inguinal hernia (5). Gurer et al. reported that the incidence of groin hernias containing urinary bladder was 0.36% in their series with 1950 patients with groin hernia. They also had 1 patient with incarcerated bladder diverticula in an indirect hernia sac. Iatrogenic bladder injury was occurred in 2 patients. No patient was diagnosed preoperatively in their series. Iatrogenic bladder injury occurred in two patients (28.6%) in this series (6). Typically, the trigone is in a fixed position; thus, obstructive renal failure is rare, but it can occur with large bladder hernias (5). Levels of urea and creatinine values were at normal range in our cases.

Intravenous pyelogram, voiding cystourethrogram and cystoscopy should use for evaluation of patients with suspected bladder scrotal hernia. Bladder outlet obstruction and prostate volume should assess (7,8). A good diagnostic measure is the cystogram introduced by Sgalitzer in 1921 and used to verify 16 cases. Typically abnormality noted was dumbbell-shaped bladder, a large section of the bladder is found in the scrotum and the rest would be in the abdomen. If an x-ray is taken with contrast media a residual collection will be seen in the herniated bladder (2).

Beyond conventional diagnostic techniques CT can provide an additional diagnostic tool as it could show the outline of the narrow neck of hernia sacs, which remain inaccessible to contrast media (9). CT will also help identify complications such as neoplasm, calculi, hydronephrosis and strangulation. CT is also useful in evaluating high risk cases before surgery and it could help bladder hernias (10).

In the treatment a tension-free hernia repair using mesh can be safely performed and is essential to correct the anatomic defect. Resection of the bladder is not necessary unless necrosis, tumor, or diverticulum is present (1).

In conclusion, altough BH is a rare entity it must be suspected in patients with scrotal hernia and lower urinary tract symptoms. Diagnose of BH is very important because of avoid the injury during the hernia repairing surgery.

## REFERENCES

1. Wagner AA, Arcand P, Bamberger MH. Acute renal failure resulting from huge inguinal bladder hernia. Urology 2004;64:156–7.
2. Levine B. Scrotal cystocele. JAMA 1951;147:1439–41.

3. Bell ED, Witherington R. Bladder hernias. Urology 1980;15:127–30.
4. Thompson JE Jr, Taylor JB, Nazarian N, Bennion RS. Massive inguinal scrotal bladder hernias: a review of the literature with 2 new cases. J Urol 1986;136:1299–301.
5. Sardesai V, Bhatkhande S, Sahu S. Inguinal bladder hernia. Int J Res Med 2017;6;90-2.
6. Gurer A, Ozdogan M, Ozlem N, et al. Uncommon content in groin hernia sac. Hernia 2005;20:1– 4.
7. Croushore JH, Black RB. Scrotal cystocele. J. Urol 1979;121:541.
8. Gomella LG, Spires SM, Burton JM, Ram MD, Flanigan RC. The surgical implications of herniation of the urinary bladder. Arch. Surg 1985;120:964.
9. Andac N, Baltacioglu F, Tuney D, et al. Inguinoscrotal bladder herniation: is CT a useful tool in diagnosis? Clin Imaging 2002;26:347– 8.
10. Izes BA, Larsen CR, Izes CK, Malone MJ. Computerized tomographic appearance of hernias of the bladder. J Urol 1993;49:1002–5.