

# Massive Inguino-Scrotal Urinary Bladder Herniation

Masif İnguinoskrotal Mesane Herniasyonunu

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Massive urinary bladder herniation is an uncommon condition. A 65-year-old obese man was admitted to our hospital complaining of dysuria, urinary frequency, urgency, two phased urination, recurrent urinary tract infection and a large scrotal mass. The patient was investigated with intravenous pyelography (IVP), cystography and computed tomography (CT). A big mass of inguinal hernia consisting of a part of the urinary bladder and propagating to scrotum was detected. The hernia was explored, the herniated part of the bladder was retracted and repositioned, fascial defect was repaired. This case emphasizes that patients who complain of two phased urination and a scrotal mass should be evaluated carefully since bladder can be herniated to scrotum. Otherwise, patients going through operation for inguinal hernia may cause surprises for the surgeon.

Key Words : **Bladder; Hernia; Scrotum; IVP, CT**

Masif mesane herniasyonu nadir görülen bir durumdur. 65 yaşındaki obez erkek hasta dizüri, sık idrara çıkma, ani ve şiddetli idrar yapma isteği, idrar sonrası yeniden idrara çıkma ve üriner infeksiyon yakınmaları ile kliniğimize başvurdu. Hastaya intravenöz piyelografi (IVP), sistografi ve bilgisayarlı tomografi (CT) yapılarak durumu değerlendirildi. İncelemeler sonunda mesanenin bir bölümü de içeren ve skrotuma uzanan büyük bir inguinal herni kitlesi tesbit edildi. Operasyon ile herniye olan mesane parçası retrakte edilip pozisyon sağlandı ve herni gelişen defekt onarıldı. Bu olgu ile, iki fazlı idrar yapma ve skrotal kitle şikayeti olan hastaların değerlendirilmesinde mesane herniasyonunun akılda tutulması gerektiği vurgulanmaktadır. Aksi takdirde inguinal herni nedeni ile operasyona alınan hastalar cerrah için sürprizlere neden olabilir.

Anahtar Sözcükler: **Mesane; Herni; Skrotum; IVP; BT**

Urinary bladder herniation into the inguinal canal or scrotum is a rare condition. It is reported to be present in %0.5-3 of all inguinal hernias (1). The herniated portion of the bladder is usually small and asymptomatic, therefore it is usually recognized incidentally. Massive herniation is even more uncommon and it is called scrotal cystocele. Since inguinal hernia has a risk of entrapment and necrosis, early diagnosis and treatment is essential to prevent the need of emergent exploration (2). In this report we describe the clinical and radiologic findings of a massive inguino-scrotal urinary bladder herniation as well as the surgical approach.

our hospital complaining of dysuria, urinary frequency, urgency, two phased urination, recurrent urinary tract infection and a large scrotal mass. Prostate gland was small and was felt benign on rectal examination. Urine culture, urine analysis, blood biochemistry were in normal limits. Pelvic ultrasonography was not helpful due to obesity of the patient and difficulty in obtaining a full urinary bladder. Intravenous pyelography (IVP), cystography and computerized tomography (CT) revealed a large inguinal urinary bladder hernia filling the hemiscrotum (Fig. 1). In postvoiding cystogram the herniated bladder was full and the neck of the hernia was 0.5 cm.

## Case Report

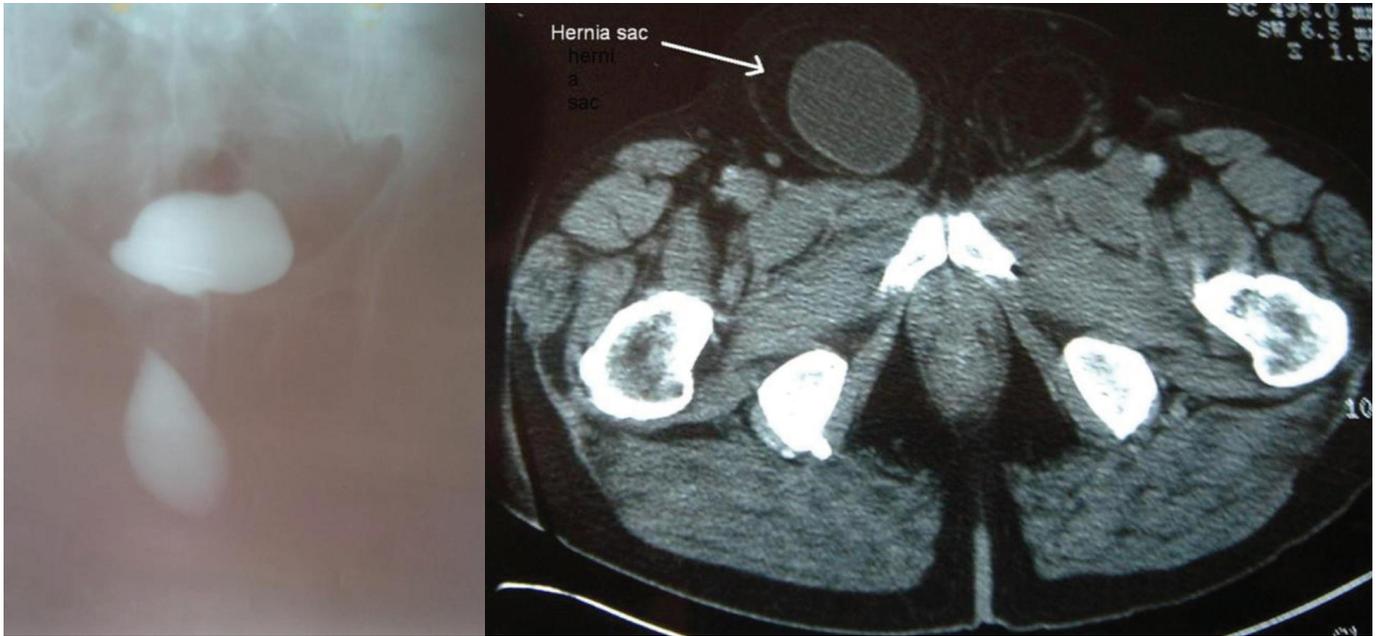
A 65-year-old, obese, smoker (a packet/day), male patient was admitted to

In cystoscopy the urethral orifice was seen in normal localization and the neck of the hernia was localized on the

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İletişim

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**Figure 1:** Preoperative images (A) Herniation of the bladder into the right inguinal canal is seen in intravenous pyelography image (B) The herniated part of the bladder is seen in inguinal canal in contrast enhanced axial pelvic computurized tomography image

right side. Operation was performed with a suprapubic incision. During inguinal exploration a bladder herniation from hasselbach triangle to scrotum was seen. After the herniation neck dissection, bladder was retracted and repositioned. There were no complications related to surgery. The patient was discharged on the post-operative fifth day. For the follow-up of the patient an IVP was performed one month after the operation which showed that the localization and the shape of the bladder were normal (Fig. 2). The patient didn't have an urological complaint for a long period. But in the third year, lung cancer was diagnosed and the patient died after six months.

## Discussion

Bladder may herniate into the inguinal canal or scrotum. It's usually named 'scrotal cystocele'. This situation is an acquired pathology. Etiological factors include urinary bladder outlet obstruction (benign prostate hyperplasia, urethral stricture, prostatitis), loss of bladder tonus and obesity in elderly males. Herniation of the bladder may be evaluated as the part of a ventral, obturator, peritoneal or ischioirectal

hernia (3). Some authors classify the bladder hernia according to peritoneum. These types are paraperitoneal, intraperitoneal and extraperitoneal hernia and paraperitoneal type is the most common type (4). There are also some authors that classify the bladder hernia according to its relationship with inferior epigastric artery (direct-indirect hernia). The direct type is medial to the inferior epigastric artery, indirect type is in the lateral epigastric artery. Our patient's herniation was extraperitoneal direct type.

As most of the bladder herniations are small, they are usually asymptomatic. In this case, the patient admitted to hospital complained of scrotal mass, double phase micturation and recurrent infection. Two phased urination is specific for massive herniation (5). First the patient evacuates his bladder, and afterwards evacuates the hernia in scrotum with manual

compression. Our patient had complaints like double phase micturation, urinary infection and dysuria.

Diagnosis of bladder hernia is made by physical examination, ultrasonography, intravenous pyelography (IVP), cystography, computerized tomography (CT) and cystoscopy. Cystography is an important method for the diagnosis. The diagnostic triad for IVP is suggested by Liebeskind as lateral displacement of the distal one third of



**Figure 2:** Postoperative intravenous pyelography image shows normal bladder

one of the ureters, incomplete visualization of the base of the bladder and existence of a small bladder (6). CT shows all the details of herniation and is more informative than cystography (7). As bladder herniation is generally small and asymptomatic, there is no need for treatment. But in patients who have complaints, a surgical operation is needed. The surgery of hernia can be done in two ways which are repositioning and resection. Reposition-

ing of the bladder and repair of the hernia may be adequate for the mild cases. The advantages of repositioning are the protection of the neck of the bladder and the lower risk of ureteral injury and the contamination of the wound. Resection should be done in cases with massive bladder hernia, necrosis, malignancy or in hernias with narrow neck (< 0.5 cm). Another treatment option is resection of the bladder and repair of the inguinal her-

nia with a mesh (8) Our patient's hernia sac was massive and neck of the sac was wide (1cm). So bladder was repositioned and hernia was repaired.

In summary, although the herniation of the bladder through the scrotum is rare, patients who complain of two phased urination and a scrotal mass should be evaluated carefully. Preoperative detection of the urinary bladder in the herniation site is helpful for the surgeon.

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