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LETTER TO THE EDITOR

Massive bladder herniation: an interesting case of scrotal cystocele with bowel herniation

Masif mesane herniasyonu: barsak anslarının eşlik ettiği ilginç bir skrotal sistosel olgusu

Sıtkı Safa Taflan[1], Ahmet Orçun Köroğlu[1], Zeynep Münteha Akbulut[1]

[1]Ankara Etlik City Hospital, Ankara, Türkiye

To the Editor,

Inguinal bladder herniation (IBH), is defined as the displacement of urinary bladder into inguinal canal. It is a rare clinical entity that represents 1–4% of all inguinal hernias. The extensive inguinoscrotal herniation of the bladder, known as scrotal cystocele, is a subtype of inguinal bladder herniation[1,2]. Herniation may vary according to the site of herniation. The hernia sac in the femoral canal, abdominal wall, perineum, or obturator canal has also been described. It is pivotal to make the diagnosis of bladder inguinal hernia to avoid further complications. There are numerous risk factors for IBH. Male gender, advanced age, urinary tract obstruction, weak pelvic muscle structure, pelvic masses, loss of bladder tone, and obesity stand out as predisposing factors that may cause IBH[3]. In our case, we reported an elderly patient who applied to our emergency clinic with complaints of inability to urinate and left groin bulging. Despite scrotal cystocele is a scarce clinical entity, we aimed to indicate it should be kept in mind as a differential diagnosis in the presence of the inquinal hernia.

A 72-year-old male patient was admitted to the emergency department of our hospital with complaints of left groin pain and a palpable mass. He had no relevant medical history and laboratory parameters were within normal limits. After a physical examination and ultrasound scan, a hernia was found to be present. For further evaluation computed tomography (CT) was performed. On the axial CT scan, an inguinal hernia was suspected (Figure 1).

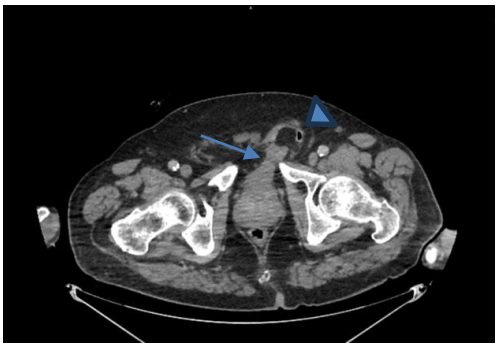

Figure 1: An axial CT image shows the herniated bladder into the left inguinal canal (long arrow). Colon herniation is also seen in the hernia sac (arrow head).

The coronal and sagittal CT scan demonstrated that a massive part of the bladder with accompanying intestinal loops herniated through to left inguinal canal to the scrotum (Figure 2,3). Based on the clinical findings and CT scan, the patient was diagnosed with scrotal cystocele and referred to the urology department. As a result of a multidisciplinary assessment of radiologists and urologists, surgery was recommended. Left Lichtenstein hernia repair was done. During the exploration, the content of the hernial sac included the omentum, bladder, and intestinal loops. It was reduced directly from the scrotum and fixed into the abdomen.

Address for Correspondence: Sıtkı Safa Taflan, Ankara Etlik City Hospital, Department of Radiology, Ankara, Türkiye
E-mail: safataflan@gmail.com
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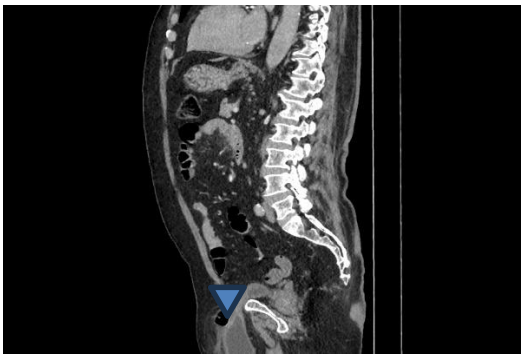

Figure 2: Sagittal reformat of the CT scan shows herniated bladder (arrow head) as hyperdense tissue in the anterior abdominal wall suggesting IBH.

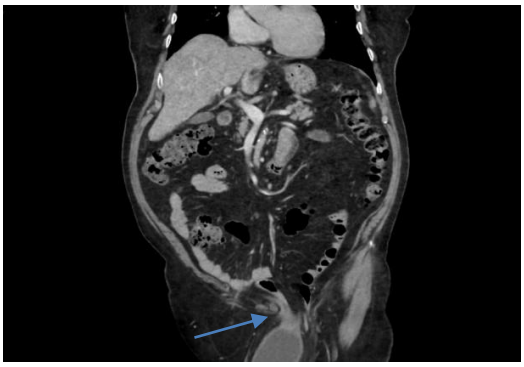

Figure 3. Coronal reformat of the CT image showing the herniated bladder into the left inguinal canal (long arrow).

IBH was first described in 1951 by Levine as scrotal cystocele[4].It can be divided into 3 groups according to its relationship with the parietal peritoneum: paraperitoneal, intraperitoneal, and extraperitoneal. If peritoneal tissue accompanies the bladder within the hernial sac, it is classified as paraperitoneal. When the bladder is completely surrounded by the peritoneum, then it is called intraperitoneal. On the other hand, herniation of the bladder without peritoneum is classified as extraperitoneal hernia[3,5]. In our case, a small part of the peritoneum detected in the inguinal canal accompanying the bladder and paraperitoneal IBH was diagnosed. Since IBH is a rare phenomenon, early diagnosis is crucial to prevent complications. It usually has an asymptomatic course. If symptomatic, renal failure, upper urinary tract dilation, vesicourethral reflux, bladder necrosis and bladder perforation might occur. Symptoms also vary on the contents of the hernia sac. Especially, herniation of bowel loops might cause strangulation and incarceration and require immediate surgical intervention[5].

Radiographic imaging could have a significant role in the diagnosis to reduce the risk of bladder injury during hernia repair when urinary symptoms are present. CT scan is a gold standard to identify the hernia sac and its contents[6]. CT findings observed in axial planes, should also be carefully evaluated in other imaging planes. Sagittal or coronal reformations might provide a better evaluation of the hernia and its relationships with surrounding tissues. For detailed imaging, if required, retrograde urethrocystography or magnetic resonance imaging (MRI) can also be performed. In massive hernias, a CT scan would be sufficient to identify the hernia sac and its contents.

The standard treatment of IBH is either reduction or resection of the herniated bladder followed by hernia repair. The most preferred surgical technique is Liechtenstein tension free mesh repair. Asymptomatic bladder hernias are diagnosed at the time of inguinal hernia repair. Therefore, they are repaired through the same inguinal incision. Bladder resection should be preferred only if there is a bladder wall necrosis, a bladder diverticulum or a massive hernia with narrowed neck[7,8]. In conclusion, IBH may be rarely present with bowel herniation. Detailed imaging techniques, especially CT, help us to detect this rare clinical entity. A limited number of scrotal cystocele cases have been reported in the literature so far. A detailed meta-analysis or a study with a large population will play an important role in explaining the etiology of scrotal cystocele.

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