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EDITÖRE MEKTUP/LETTER TO THE EDITOR

Bladder herniation into inguinal canal: an important differential diagnosis of inguinal hernia

İnguinal kanala mesane herniasyonu: inguinal herninin önemli bir ayırıcı tanısı

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Dear Editor,

Bladder herniation is a rare clinical condition and can be accompanied with 1-4% of all inguinal hernias and can have serious complications. Bladder herniation must be considered in the evaluation of inguinal hernias, and most importantly, urinary tract infections (UTIs), acute renal failure, vesico-urethral reflux, and obstructive nephropathy as common complications. Incidental diagnosis of bladder herniation has been reported often and re-emphasizes the careful and systematic assessment of all patients and diagnostic tests.

A 59-year old male was admitted to the emergency department with a complaint of abdominal pain, groin swelling, and dysuria for two days. The patient denied a 13-year history of insulin-dependent diabetes mellitus, nor any other chronic diseases.

His vital signs were: BP 130/70 mmHg, pulse rate 82 bpm (regular), temperature 36.4 °C, and SaO2 95 %. A herniation was palpated in his right inguinal region. Heart and lung auscultation, and other systemic examination were unremarkable.

Laboratory values revealed a haemoglobin value of 14.2 mg/dl (ref: 13.3-17.2), WBC 12.3 x10^3 /mm, and platelet count 225x10^3 /mm^3 (ref: 130-400). Arterial blood gas values on room air showed a pH 7.38, PCO_2 40.3 mmHg (ref: 35-46), and PO_2 68.2 mmHg (ref: 80-100). Urinalysis showed 3-4 WBCs/hpf. Routine biochemical analyses were in normal ranges except: glucose 228 mg/dL, urea 90 mg/dL, and creatinine 1.7 mg/dL.

Non-contrasted abdominal tomography was performed for differential diagnosis of pelvic pain and showed that the mass was a herniation of the bladder through the inguinal canal. (Figure 1).

Patient was consulted to the urology clinic and emergent surgical treatment was not indicated. Patient was administered intravenous normal saline and treated for urinary tract infection. Renal function tests improved.

Abdominal pain is one of the most frequent complaints in emergency departments and inguinal hernia is a common cause of abdominal pain. Herniation of the bladder through the inguinal canal can mimic direct inguinal hernia and it is usually associated with additional urinary symptoms[1-3]. Herniation of bladder into scrotum[4,5] has also been reported.

Some serious urinary complications to consider in herniation of the bladder include: perforation[6,7], vesico-urethral reflux 8, obstructive nephropathy[9,10] and renal failure. In our patient there was acute renal failure, but it was not post renal because there was not any urinary obstruction and regressed with intravenous saline administration.

Computed tomography[11] and cystography[12] are the major modalities in the diagnosis of bladder herniation. Many case reports in the literature have been reported as the incidental diagnosis of bladder herniation, such as bone imaging[13-17] and PET scan[18,19]. Our patient was also diagnosed with

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computed tomography and did not show any complication.

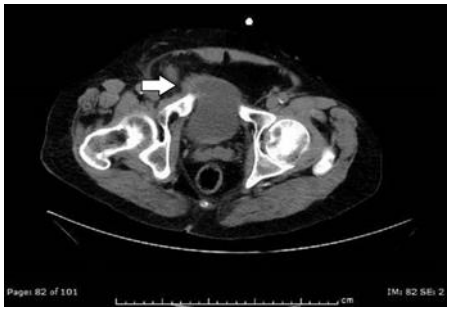

Figure 1. Non-contrasted abdominal tomography shows the herniation of bladder into inguinal canal

Bladder herniation must be considered in the differential diagnosis of all inguinal hernias because it may result in serious complications, such as perforation and renal failure. Bladder herniation has been diagnosed incidentally in many cases, hence it can be more frequent than expected.

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