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**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.801739>Available online at: <http://www.iajps.com>**Case Study****BLADDER INGUINAL HERNIA, HOSPITAL OF ZABOL, IRAN:
A CASE REPORT****Razieh Behzadmehr¹ and Morteza Salarzaei^{2*}**¹Assistant Professor, Department of Radiology, Faculty of Medicine, Zabol University of Medical Sciences, Zabol, Iran.²Student of Medicine, Students Research Committee, Zabol University of Medical Sciences, Zabol, Iran.**Abstract:**

Herniation of the bladder into the inguinal canal is an uncommon phenomenon, accompanied by complications, such as the obstruction of the neck of the bladder caused by prostatic hypertrophy, that increase intra-abdominal pressure, which occurs in one fourth of all inguinal hernia. It is quite difficult to diagnose the involvement of the bladder during the first medical examination of the patient and it might even require a herniorrhaphy. The main objective of the present study is to report an untouchable case of bladder herniation without any specific symptoms which was randomly diagnosed using spinal CT scan. Knowing the possibility of the incidence of such a case can help assess requirements of a surgery and improve readiness to implement useful interventions.

Key Words: *Inguinal Hernia, Bladder, Case Report, Zabol.***Corresponding author:****Morteza Salarzaei,***Student of Medicine,**Students Research Committee,**Zabol University of Medical Sciences, Zabol, Iran.**Email: pubmedp@gmail.com; Tel: +989127926703*

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INTRODUCTION:

Bladder herniation is a pretty rare medical phenomenon, covering one fourth of all cases of inguinal hernia; however, studies have proven that this percentage can rise up to 10% among men [1]. Most of these patients are asymptomatic and bladder herniation is often an accidental finding on radiographic images; however, in case of the incidence of symptoms, there might be nocturia, frequency, urgency, and hematuria [2]. A common complication of this disorder is the reduction of the size of bladder after urination and the ability to urinate by pressing the hernia sac [3]. Bladder herniation involves right wall of inguinal and femoral canal; however, this type of hernia has been found in ischiorectal locations, obturator canal, and the entrance of abdominal wall [4]. These types of inguinal hernia have been reported in old males who have suffered the obstruction of distal canal caused by enlarged prostate duct [5]. In order to avoid complications accompanying surgical procedures, such as herniorrhaphy and hernia repair, it has been suggested for all men above 50 years who suffer from prostate hypertrophy and inguinal and femoral hernia to conduct radiological examination to rule out the involvement of their bladder [6, 7].

CASE PRESENTATION:

The patient is an 82 years old male case of hypertension that has referred to hospital of Zabol, due to pain, fever, left flank ache, dysuria, urgency, and frequency. During examination, patient had an obese, big belly

And there was found an ecchymosis in the left flank without any sign of inguinal mass. Patient was not willing to install Foley catheter. A high contract spiral CT scan, during which the accumulation of sub-capsular liquid sized $48 \times 12 \times 120$ was witnessed in the left kidney (Figure 1), presenting the risk of hematoma, was performed to find the cause of ecchymosis and left flank pain. Additionally, there were found multiple cysts, with maximum diameter of 32 mm, in both kidneys, especially in the right kidney; considering left flank ecchymosis and the accumulation of left kidney sub-capsular liquid, the risk of bleeding and left kidney cyst rupture was foregrounded; this hematoma was, also witnessed in abdominal ultrasound in the left perinephric space. Right wall inguinal bladder herniation was, also randomly found in the spiral CT scan (Figure 2). The patient did not complain about inguinal pain or inflammation and there was found no mass in the examination; however, this inguinal examination is not totally reliable due to the fattiness of the patient. A 45 cc prostate was observed in the pelvic ultrasound; this can, in turn, enhance the possibility of BPH, justify obstructive symptoms, and function as one of the risk factors for bladder hernia. After the confirmation of renal cyst rupture and subsequent bleeding, the patient was hospitalized; he was, then, discharged because there was no symptom of inguinal hernia. The patient did not complain about inguinal hernia after being discharged from hospital; thus, no intervention was implemented.

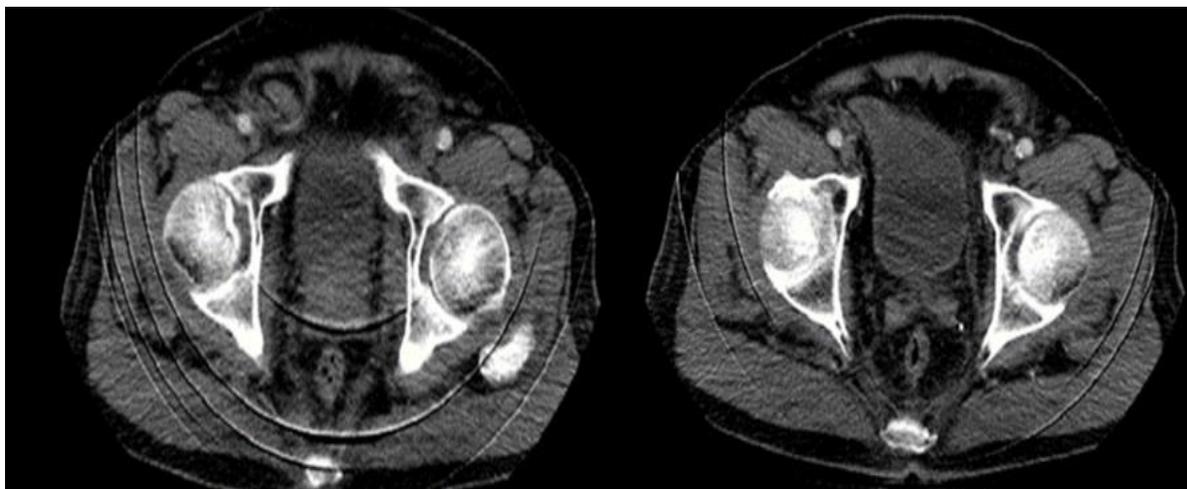


Fig 1: CT scan of right wall inguinal bladder herniation

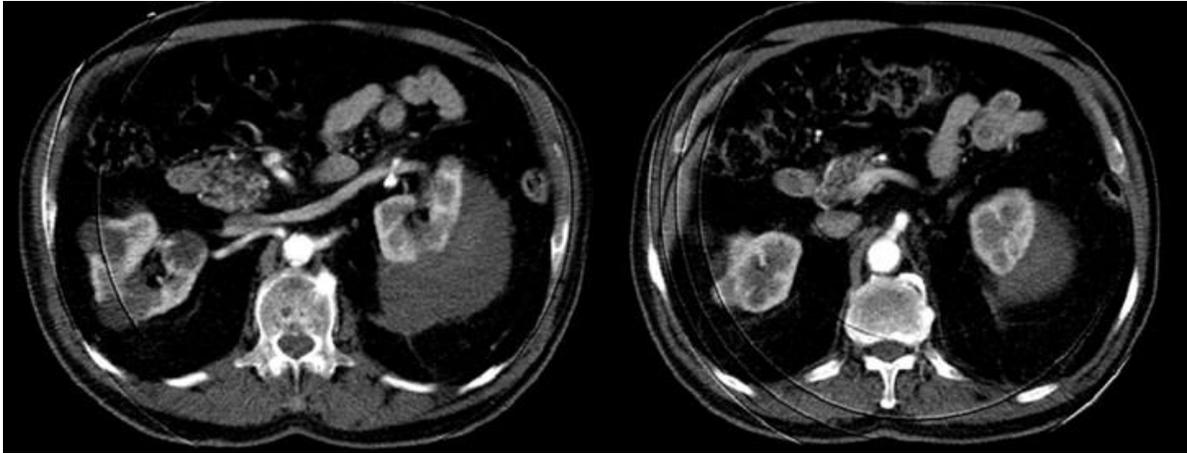


Fig 2: CT scan of sub capsular hematoma in left kidney

DISCUSSION:

Bladder herniation occurs in an acquired direct inguinal hernia with the bladder pulled into the hernia, together with a sheath of peritoneum, which forms its sac. Most of these patients are asymptomatic, without any specific symptoms, and tend to associate existing symptoms with prostatic hypertrophy. The patient's clinical history often involves urinary symptoms such as dysuria, frequency, and urgency. Various studies have reported improvement in urinary symptoms after hernia repair which can, in turn, prove the association between these symptoms and the incidence of hernia. Complications of inguinal hernia, such as reflux, Vesicouretric, bladder rupture, hydronephrosis, and strangulation, might cause bladder ischemia and infarction. The symptoms of hernia depend on the size of hernia; it might cause two-step urination, the first step of which is automatic and second step is facilitated by pressing the urinary bladder hernia in severe cases. Radiographic imaging is not a routine examination of inguinal hernia; But cystography is the gold standard in diagnosis with the highest diagnostic value showing indentation of the bladder wall. Herniation of the bladder is often accidentally sound on radiographs or during hernia repair surgery, which is consistent with the findings of the present study. Preoperative diagnosis of hernia can prevent possible bladder damages which might occur after a surgery; therefore, it is suggested for obese, over 50 years old patients who suffer lower urinary tract symptom or a history of previous hernia repairs to conduct radiologic evaluations. According to Ourc et al study, which was conducted on 190 cases in 2004, 11.2% of hernia cases involve urologic malignancies and 23.5% accompanied certain complications, some of which might be actually fatal. Thus, it is quite

crucial to diagnose inguinal hernia prior to surgery. In order to prevent complications resulting from surgery, confirming preoperative bladder herniation diagnosis through CT is recommended in case of any clinical suspicion, especially in high-risk patients, such as men aged over 50 years, obese men with urological symptoms or any blockage of the urinary tract, and those who have a history of previous hernia repair. Herniorrhaphy, which involves the removal of all or part of the bladder or hernia, is the standard treatment for inguinal hernia, because chronic bladder distention is the main cause of this group of hernias, which are associated with an enlarged prostate. Consequently, there will happen inflammation of the bladder and the bladder wall adhesion, causing stretching of the bladder wall into the hernia sac and, in turn, general weakness of the abdominal wall. Thus, this segment does not function normally and it will get back to its natural cycle by removing that anatomy and the margins of the bladder.

CONCLUSION:

Herniation of the bladder into the inguinal canal is an uncommon phenomenon. Preoperative inguinal hernia diagnosis is of paramount importance in order to avoid iatrogenic trauma or, even, prevent severe complications. General surgeons and urologists are required to be aware of this rare medical condition during a hernia repair surgery.

Ethical Considerations: This research project was approved by the ethics committee of Zabol University of Medical sciences and name and Specification of patients were kept confidential.

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Conflict of Interest: None.

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