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Simultaneous strangulated left femoral and left inguinal hernia with ruptured urinary bladder and incarcerated small bowel loop– A case report

Dr. Vinod Kumar Nigam[1*], Dr. Siddarth Nigam[2]

[1] Principal Surgeon, Department of General & Minimal Invasive Surgery, Max Hospital Gurugram, Haryana, India

[2] Senior Surgeon, Department of General & Minimal Invasive Surgery, Max Hospital Gurugram, Haryana, India

Abstract

Inguinal hernia and femoral hernia are quite common in females. Urinary bladder wall or diverticulum of urinary bladder can be found as a content in femoral hernia but incarceration and rupture of urinary bladder with simultaneous inguinal hernia with strangulated incarcerated ileal loop is a very rare occurrence. We are presenting here a such case in an elderly lady with 85 years age. She had left strangulated inguinal and left strangulated femoral hernia. Strangulated inguinal hernia had incarcerated ileal loop and strangulated femoral hernia had ruptured incarcerated wall of urinary bladder probably this is first such case in world literature.

Keywords: incarcerated ileal loop, incarcerated urinary bladder wall, strangulated femoral hernia, strangulated inguinal hernia, ruptured urinary bladder

Introduction

Femoral hernia is more common in females due to wider pelvis. It is specially more common in multifarious elderly women due to stretching of pelvic ligaments during pregnancy. It represents 2-4% of all groin hernias. It is the third most common hernia after inguinal and incisional hernia. It accounts for 20% of hernia in females and 5% in adult males. Femoral hernia is never congenital. No evidence of a congenital sac has ever been found [1]. Pregnancy is the most important causative factor. Increased abdominal pressure by repeated pregnancy is one of the reasons for femoral hernia. It can't be controlled by a truss. It is prone to get strangulated due to its narrow neck. In 40% cases the first presentation itself is strangulation. Operation should be performed as early as possible due to risk of strangulation. 70% occur in females. 25% femoral hernia become incarcerated or strangulated.

Due to rise of intra-abdominal pressure. The abdominal viscus or peritoneum with extra peritoneal fat is pushed through femoral ring to femoral canal. The hernia goes down from septum crurale then through femoral canal and then through cribriform fascia, here it turns up and comes out as a swelling below inguinal ligament. Sometimes it even goes above the inguinal ligament. The full course of femoral hernia take's the shape of a retort.

The strangulation occurs commonly in femoral hernia due to

1. Narrow neck of sac at femoral ring.
2. Tortuous narrow path of hernia sac.
3. Tough and unyielding boundaries of femoral ring.

The femoral hernia is most common between 40 and 70 years. The peak distribution occurs in the 50's [2]. It is rare before 40 years age and uncommon in children. It occurs in one percent of children with groin hernia. Commonest hernia in females is inguinal hernia. Femoral hernia is more common in females than males, 4-5 times.

We are presenting here a rare case of simultaneous strangulated left femoral and left inguinal hernia with ruptured urinary bladder and incarcerated small bowel loop. It is probably the first such case reported in world literature.

Case report

A 85 years old female attended the emergency department of the hospital with severe pain in lower abdomen and painful swelling in left groin for 2 days with recurrent vomiting. She did not pass stool for two days and could not pass any gas per rectum. She also had burning and pain during passing urine. She was also suffering with some comorbidites i.e., atrial fibrillation, diabetes mellitus, hypertension, coronary artery disease, dilated cardiomyopathy with LYEF 30%. She was on dabigatran, a anticoagulant. Dabigatran can cause a very serious blood clot around your spinal cord if you undergo a spinal tap or receive spinal anesthesia (epidural.) [3] Patient was in pain but general condition was not poor. She was conscious but slightly drowsy. HR was 108/mm BP was 89/60 mmHg and temperature was normal. Lungs were clear. Abdomen was soft but tender in left inguinal area and hypogastrium. There was a lump, 3"X2" in left inguinal area which was tender and non-reducible (fig 1). She was diagnosed after physical examination and investigations as suffering from left strangulated femoral hernia with ruptured incarcerated urinary bladder and left inguinal hernia with strangulated ileal loop.

Patient was urgently operated. Fortunately incarcerated ileal loop was revived by giving 100% oxygen and applying warm moist abdominal swab on the ileal loop. Bladder perforation was repaired. Femoral prolene plug was applied to the femoral canal. Inguinal hernioplasty was done (fig 2).

Bladder diverticulae are relatively rare and are usually caused by weakening of the muscular fibers of the bladder and increased intravesicular pressure leading to herniation of the bladder wall [4].

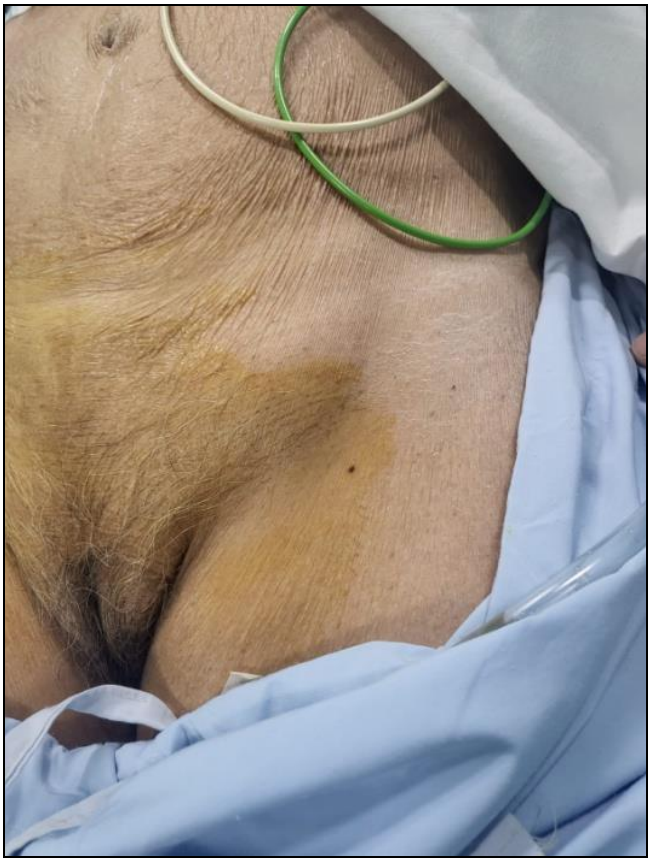

Fig 1: Left inguinal and femoral hernia,

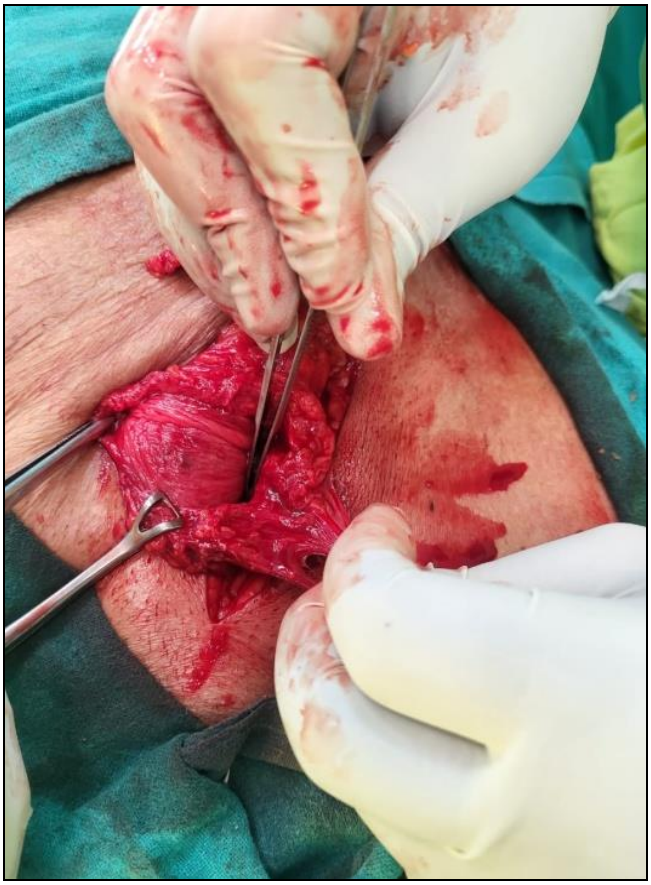

Fig 2: Perforated urinary bladder

Discussion

Herniation of the urinary bladder into the inguinal or femoral hernia has been knows, since the Middle Ages, with the first record of this entity by Platter in 1550. Herniation of the urinary bladder is a relatively uncommon but not rare condition. It occurs when the urinary bladder or ureter herniates into the inguinal canal, scrotal sac or female canal [5]. Herniation of the bladder is seen in 1-3% of inguinal hernia. It is seen in 10% of men older than 50 years. Femoral hernia are more common in women [6].

Urinary bladder diverticulum should be considered as a possible femoral hernia content in elderly patient presenting with recurrence symptoms of lower urinary tract infections and haematuria.

Groin hernia specially inguinal and femoral hernia usually contain intra-abdominal contents like bowel loops and omentum and extra peritoneal structures such as urinary bladder are not usually found as content. Bladder hernia occur by sliding through the inguinal or femoral canal due to hernia sac pulling the bladder [7].

Risks factor for bladder hernia include againg, obesity, urinary outlet obstruction and loss of bladder tone with weakness of supporting structures [8, 9]. In our case the probable causes were age and weakness of supporting structures.

However imaging is often not performed for common groin hernia and it is difficult to make a preoperative diagnosis of bladder hernia, especially a asymptomatic small ones [10].

In our case we performed the ultrasound of the area which showed the dragging of base of bladder towards hernia this of raesed the susricous of urinary bladder hernia. We recommend ultrasound and other imaging for preoperative diagnosis of urinary bladder hernia.

Femoral hernia are less common than inguinal hernias and are usually complicated with incarceration or strangulation of the organ that they contain [11, 12]. The radiographic demonstration of such a hernia is uncommon, despite it description by Robins as early as 1929.

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Conflicts of interest

There are no conflicts of interest

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