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Case Report

A rare case of femoral Richter's hernia

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ABSTRACT

Among all abdominal hernias, femoral hernia is a relatively rare type, occurring more commonly in elderly female. Femoral Richter's hernia refers to a condition in which small portion of the bowel circumference becomes entrapped with in the sac of a femoral hernia. We hereby present the case of a 79 years old female with a strangulated femoral Richter's hernia, who presented without typical symptoms of bowel obstruction and its emergency operative management.

Keywords: Femoral hernia, Richter's hernia, Strangulated hernia

INTRODUCTION

The femoral hernia is the protrusion of abdominal content (commonly preperitoneal fat, omentum, or small bowel) through femoral canal. Femoral hernia is the rare hernia. Femoral hernias account for 2-4% of all groin hernias, 46% of femoral hernias result in strangulation. Furthermore, of all strangulated femoral hernias, 6.3% are of Richter's type.[1] More common in female due to large femoral canal, though inguinal hernia is still more common overall. Then tendency of femoral hernias to become incarcerated is explained by then constricted femoral ring and its unyielding ligamentous border. Authors report the case of a 79-years-old female presented with generalised abdominal pain and vomiting, without abdominal distension, along with unnoticed groin swelling. Then patient had atypical symptoms of bowel obstruction. A right femoral hernia was suspected based on a computed tomography scan. An emergency surgery revealed a strangulated femoral Richter's hernia.

CASE REPORT

A 79-year-old female patient presented to casualty with generalised pain in her abdomen and few episodes of vomiting, constipation since 4 days. She had outside CT abdomen which was suggestive of right-sided femoral canal hernia with herniation of one of the proximal ileal loop in it (Figure 2,3). The hernial defect measures 1.2 cm in size and the hernial sac measures 3.0×2.3 cm in size. Resultant dilatation (up to 3.3 cm) of intra-abdominal jejunal loops were seen with multiple air fluid levels within. The stomach, duodenum and visualized lower oesophagus were fluid-filled. Findings were suggestive of obstructive right femoral canal hernia causing subacute small bowel obstruction. The patient was thoroughly examined. On physical and systemic examination, her pulse rate was 88 bpm, the tongue was dry, blood pressure=130/90 mmHg. The abdomen was mildly distended and non-tender.

Normal peristalsis on auscultation. On hernial orifice examination, there was a tense lump in the right groin, approximately 3×3 cm in size, which was irreducible with negative cough impulse. On left hernial orifice examination, hernia or cough impulse was absent. The digital rectal examination was normal, and the finger was stained with normal colour stools. A radiograph of the chest was unremarkable and abdomen radiograph showed dilated small bowel loops (Figure 1). The patient was

resuscitated with intravenous ringer lactate fluid and was given a single dose of intravenous antibiotics (ceftriaxone and metronidazole). The patient was operated in emergency for obstructed femoral hernia. Preoperative markings of right femoral hernia, right ASIS and pubic symphysis are given in (Figure 4). Above the inguinal ligament, approximately 7 cm long, Lotheissen's incision was taken and femoral hernia sac identified. The anterior rectus sheath was borne till midline and halfway between umbilicus to pubic symphysis through the same incision.

Anterior rectus sheath was opened vertically around 5cm lateral to linea alba on the right side. The right rectus muscle was retracted medially, peritoneum opened and small bowel was traced from ileocecal junction. Approximately 90 cm proximal to the IC junction, the ileum was stuck to the femoral hernia sac (Figure 5a) which was reduced manually by pushing content from below the inguinal ligament.

A small portion of the circumference of the ileum was the content of the femoral hernia. It was dusky and resolved with warm saline mop application and 100 % fiO2 (Figure 5b). Redundant sac excised and trans fixation of sac was done with vicryl 2-0 and. Interrupted nonabsorbable Prolene 2–0 sutures were used to close the femoral ring (inguinal ligament anteriorly to pectineal ligament posteriorly) (Figure 5c). The patient was uneventfully extubated and shifted to a ward after 2 hours of observation in the recovery room.

Figure 1: X-ray radiograph of erect abdomen-suggestive of air fluid level.

Figure 2: Sagittal section of CT (abdomen+pelvis).

Figure 3: Coronal section of CT (abdomen+pelvis).

Figure 4: Preoperative marking of right femoral hernia.

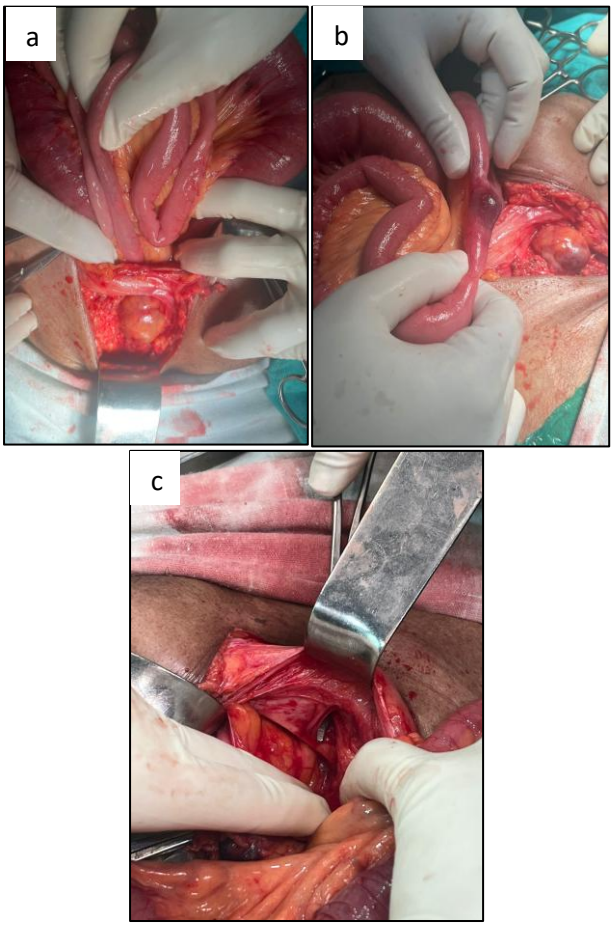

Figure 5 (a-c): Intraoperative photograph.

DISCUSSION

Femoral hernia is rare but can occur. Most commonly seen in elderly female.[2] Female incidence ratio for femoral hernia is 10:1 compare to men. Approximately 60% of femoral hernias are found on the right side, 30% on the left side, and 10%bilaterally. probably due to the anatomical position of the sigmoid colon can result in the bowel tamponing the femoral canal.[3] The narrow opening of the femoral canal often leads to cases presenting with incarceration or strangulation. Rate of femoral hernia to undergo incarceration or strangulation was in between 44% and 86%.[4] Occasionally, the patient may still pass stool or flatus if less than 2/3rd of the whole circumference of the bowel is involved, as seen in a Richter's hernia.[5]

Approximately 36 % of femoral hernias present lately. Many are not diagnosed until the patient presents with incarceration, strangulation, or bowel obstruction often necessitating emergency surgical intervention.[6] The preoperative diagnosis of femoral hernia remains difficult, with reported diagnostic accuracy ranging from 25 % to 40 %.[7] The differential diagnosis includes indirect inguinal hernia, cord lipoma, hydrocele of the canal of Nuck, indirect inguinal hernia, obturator hernia, and psoas abscess.[8] Surgical repair is the mainstay of treatment for this type of hernia without any alternative. There are three different types of techniques for open approach in the repair of femoral hernia, and appropriate cases can be managed laparoscopically.[9] The open repairs include infra-inguinal (Lockwood), trans-inguinal (Lotheissen), and extraperitoneal (modified McEvedy) approaches. In our case report of strangulated femoral Richter's hernia, early management prevented the complications like complete small bowel gangrene or perforation.

CONCLUSION

This case highlights that the femoral Richter's hernias, where the bowel lumen is not completely obstructed, classical signs of intestinal obstruction maybe absent. Which can delay diagnosis and treatment. The importance of maintaining a high index of suspicion for femoral hernia is elderly patients with atypical presentations, as early recognition is crucial to prevent complications such at bowel ischemia and perforation.

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REFERENCES

1. Mou CY, Lu HE, Yen SJ, Su CJ, Tan KH. Richter's hernia: report of six cases J Med Sci. 2000;20:201-6.
2. Subhash S, Subhash S, Ethiraj S, Bagchi U. Femoral hernia presenting as Richter's variant: A rare case report. Surg Case Rep. 2023;5:1–3.
3. Coelho JCU, Hajar FN, Moreira GA, El Hosni AV, Saenger BF, Aguilera YSH, et al. Femoral hernia: Uncommon, but associated with potentially severe complications. Arq Bras Cir Dig. 2021;34:1603–7.

4. Oishi SN, Page CP, Schwesinger WH. Complicated presentations of groin hernias. Am J Surg. 1991;162((6)):568–70.
5. Williams N, O'Connell PR, Mccaskie A. Bailey & Love's Short Practice of Surgery, 27th edition: The Collector's edition. Ch. 60. Boca Raton, FL: CRC Press. 2018: 1043–67.
6. Wang F, Ma Q, Liu X. Managing ischemic and necrotic incarcerated femoral hernia contents and their risk factors. Hernia. 2024;28:1373-9.
7. D.L. Sanders DL, A.N. Kingsnorth The modern management of femoral hernias. Ann R Coll Surg Engl. 2017;99(1):11-6.
8. Lumley JS, D'Cruz AK, Hoballah JK, Scott-Connor CE. Hamilton bailey's physical signs: demonstrations of physical signs in clinical surgery. CRC Press. 2016.
9. Hernandez-Richter T, Schardey HM, Rau HG, Schildberg FW, Meyer G. The femoral hernia: an ideal approach for the transabdominal preperitoneal technique (TAPP) Surg Endosc. 2000;14((8)):736–40.

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