Case report

An Acute strangulated Inguinal hernia in an elderly female – A case report

Abstract

Acute strangulated inguinal hernia is uncommon in females. We report a case of an inguinal hernia with small bowel strangulation in a 76 year old woman with history of chronic constipation and abdominal straining. The forward stooping posture, weak abdominal wall along with continuous abdominal straining resulted in a complicated acute inguinal hernia. An open hernia repair was done without bowel resection. Chronic abdominal straining is a risk factor for acute hernias in elderly females.

Keywords – Acute, Hernia, Inguinal, Female

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Introduction

An inguinal hernia is defined as an abnormal protrusion of abdominal contents into the inguinal canal. A direct hernia protrudes medial to the inferior epigastric vessels through the Hesselbach's triangle whereas an indirect inguinal hernia protrudes laterally through the deep ring. Inguinal hernias are relatively uncommon in women. The lifetime risk of developing an inguinal hernia in women is 3–5.8 %, [1]. Similar to men, direct inguinal hernias are less common than indirect inguinal hernias in women, [2]. Femoral hernias are frequently obstructed than inguinal hernias in females, [3]. Among inguinal hernias, direct inguinal hernias carry less risk of strangulation and incarceration than indirect inguinal hernias due to wide neck, [4]. Hence a strangulated inguinal hernia in a female is quite uncommon.

We present a case of an acute strangulated inguinal hernia in an elderly female in our case report.

Case presentation

A 76 year old female patient with history of chronic constipation presented to the emergency with complaints of sudden onset of a painful lump in the right groin since 6 hours. She noticed the swelling after her nature calls. She did not give history of any noticeable lump before. She was an old lady who takes the help of a stick for walking, known case of senile kyphoscoliosis, who underwent left hip replacement for fracture neck of left femur 2 years back. There was no history of vomiting, fever, abdominal distention, and trauma at the time of presentation. On local examination there was an obliquely oval swelling of size 6 x 4cm in the right groin over the area of pubic tubercle just above the right labia above the groin crease with well-defined superolateral and inferomedial borders (Figure-1), whose surface appeared smooth, skin over the swelling was normal without any discoloration, the swelling was irreducible, without cough impulse, there was tenderness without local rise of temperature, the swelling was firm in consistency and was not moving in any direction. Her left groin was normal. Abdomen was slightly distended. A provisional diagnosis of an irreducible inguinal hernia was made. She was kept nil by mouth. Gradually patient developed vomiting and increase in abdominal distention, the swelling increased in size, tenderness increased, X-ray erect abdomen showed small intestine obstructive features (Figure-2) with lumbar scoliosis and X-ray pelvis showed left total hip replacement prosthesis (Figure-3). She was immediately taken up for surgery.

Intraoperatively there was a hernia sac which was just lateral to the right pubic tubercle (Figure-4) containing congested small bowel (Figure-5) which was getting compressed between the pubic bone, conjoined tendon fibers and the superficial inguinal ring. There was disruption in

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the external oblique aponeurosis, and multiple tears in the conjoint tendon fibers. The site of herniation was from the medial corner of the Hesselbach's triangle (Figure-6). 100% oxygen inhalation and warm mopping reversed the small bowel ischemic changes. A small serosal tear was sutured and the posterior wall of the inguinal canal was repaired. There was toxic fluid from the strangulated hernia sac contaminating the surgical field. Mesh repair was not done due to risk of infection.

Post-operative period patient was stable and got discharged on 4th day.

Discussion

Our case findings might seem consistent with an acute hernia superimposed on a direct inguinal hernia defect with weak posterior wall. The sudden increase in intra-abdominal pressure during straining at stools due to chronic constipation might have led to tears in the posterior wall and acute herniation of the direct hernia sac through the superficial ring leading to incarceration and strangulation of small bowel.

Our case also shares few anatomical features with sportsman's hernia/groin or Gilmore's groin which is often seen in sports persons playing football, rugby, cricket where the proximal muscles of the femur and lower abdominal muscles are specifically or excessively used [5]. The term sportsman's hernia is a misnomer [6] as there is no classical herniation of soft tissue in the groin but the anatomical findings of weak posterior wall along with disruption of the external oblique aponeurosis, dilation of the superficial ring and conjoint tendon tears [5] were all seen in our case too. It may seem inappropriate to compare an elderly woman's hernia findings to a Sportsman's hernia findings seen in athletic males, but the reason for our comparison was the patients continuous forward stooped posture (Figure-7a-d) due to her kyphoscoliotic spine, limb length discrepancy due to prior hip replacement, continuous abdominal and inguinal straining

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which are also the risk factors for a sportsman's hernia [5]. This forward stooped posture resulted in maximum weight bearing on her right side of the body which created continuous strain on the right lower abdominal and upper femoral muscles which is a risk factor for sportsman's groin. In this compromised groin with multiple defects, a recurrent acute increase in intra-abdominal pressure during her nature calls led to the development of an acute hernia through these defects leading to incarceration and strangulation of the acute hernia at the superficial inguinal ring. Though many readers may disagree with our comparison, our only intent is to see this hernia in a different perspective. There is no single case of an acute strangulated inguinal hernia in an elderly female that too a direct hernia which was reported in the literature. This rarity and our patient's physical posture have compelled us to compare our case findings to sportsman's hernia.

Whatever the cause may be, this was a case of an acute strangulated inguinal hernia which was superimposed either on a preexisting direct hernia defect or a compromised Gilmore's groin, the discretion of which is left to the readers.

Conclusion

Acute strangulated inguinal hernia in an elderly female is an uncommon condition which requires emergency surgery. Elderly females should restrict any activities which increase their intra-abdominal pressure. Inguinal hernias in elderly women with history of chronic constipation and abdominal straining should be operated as soon as possible to prevent future complications.

References:

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Figure Legends

Figure-1: Showing inguinal hernia with prominent borders which was above and medial to the right groin crease.

Figure-2: Xray-erect abdomen showing small intestine obstruction features with kyphoscoliosis of lumbar spine.

Figure-3: Xray pelvis showing left hip replacement prosthesis

Figure-4: Intraoperative picture of the hernia immediately after skin and subcutaneous fat incision.

Figure-5: Showing opened hernia sac with congested small bowel.

Figure-6: showing multiple tears in the conjoint tendon, the straight artery forceps pointing out the hernia defect which was just lateral to the pubic tubercle.

Figure-7a-d: showing our patients forward stooping posture due to kyphoscoliosis a- anterior, b- left lateral, c- right lateral and d- posterior views.

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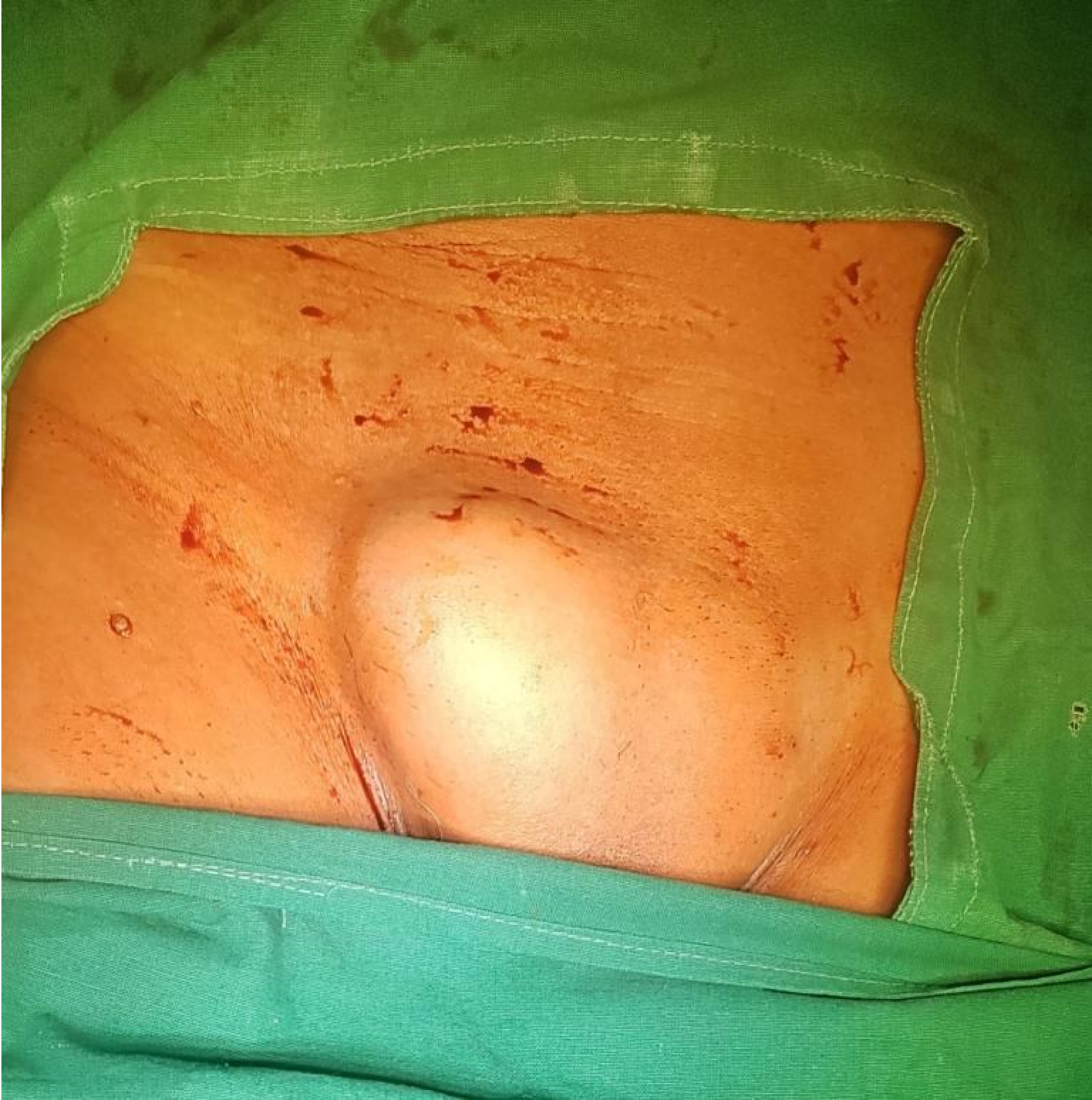

Figure-1

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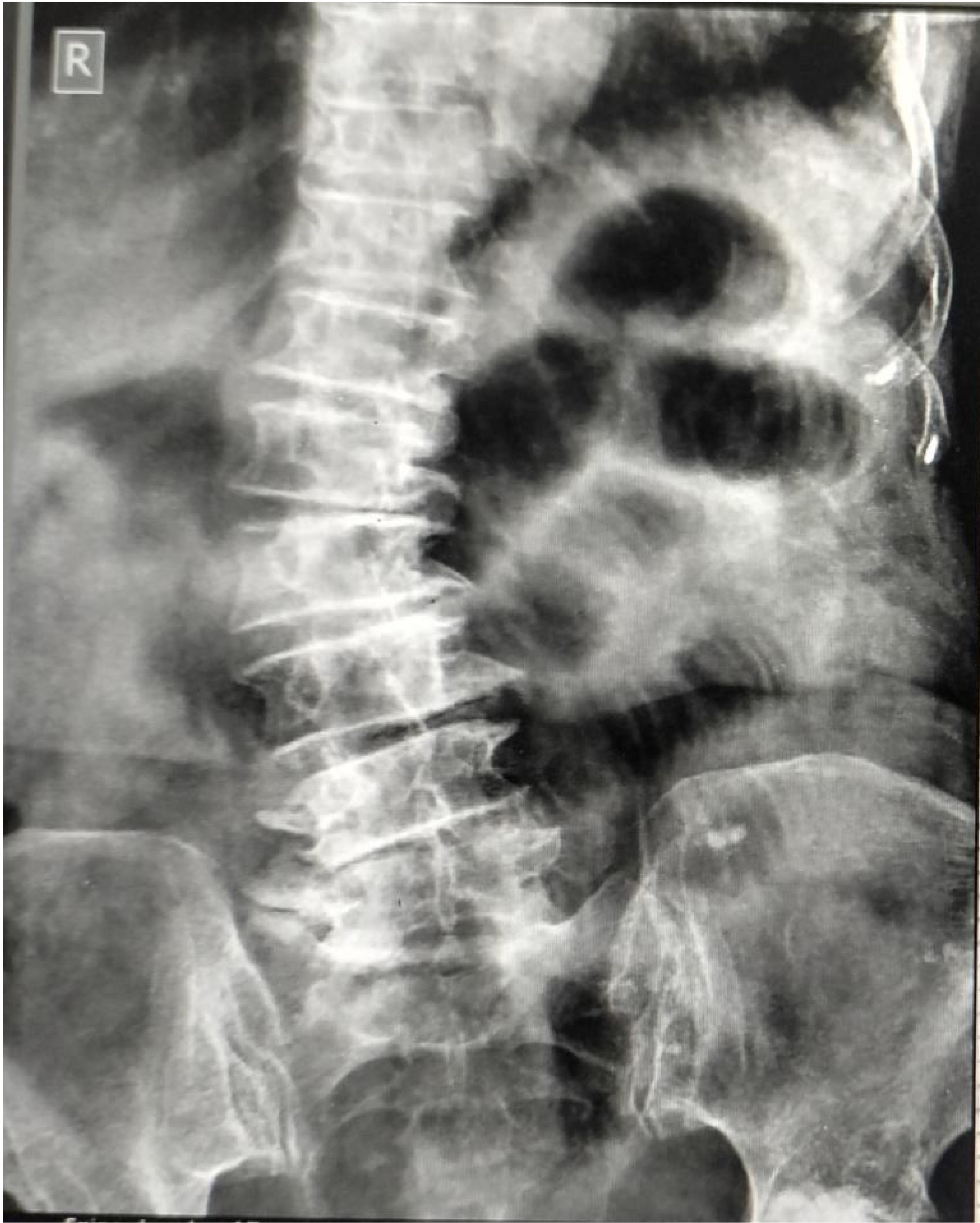

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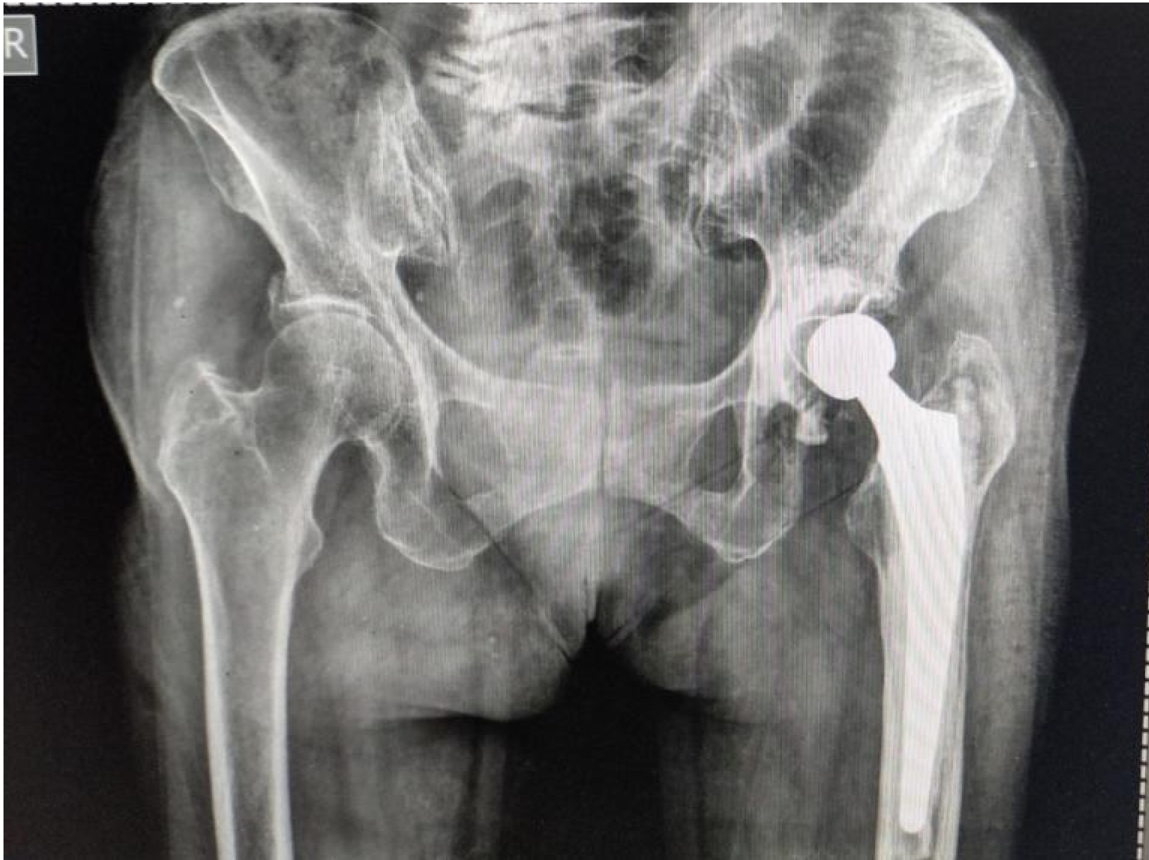

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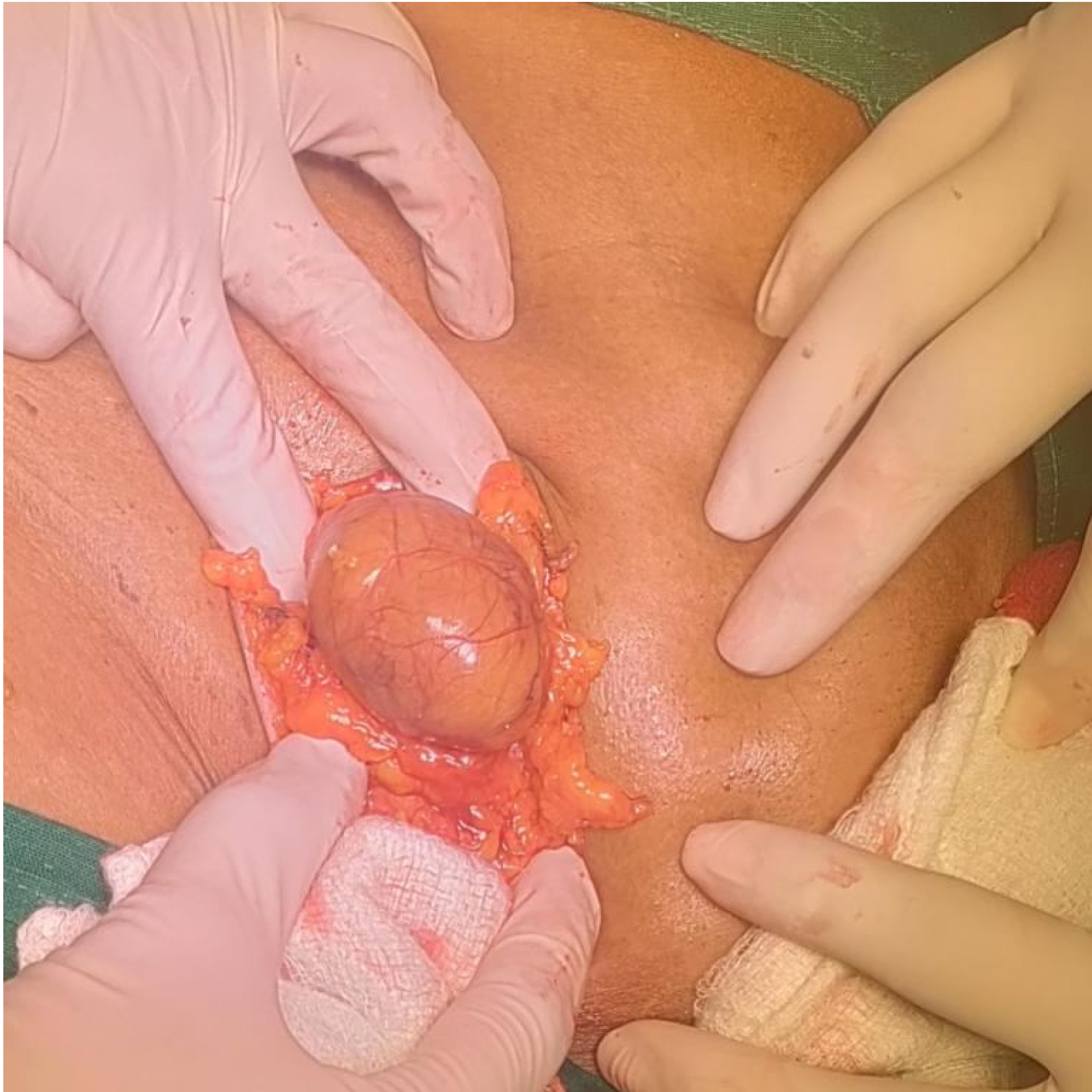

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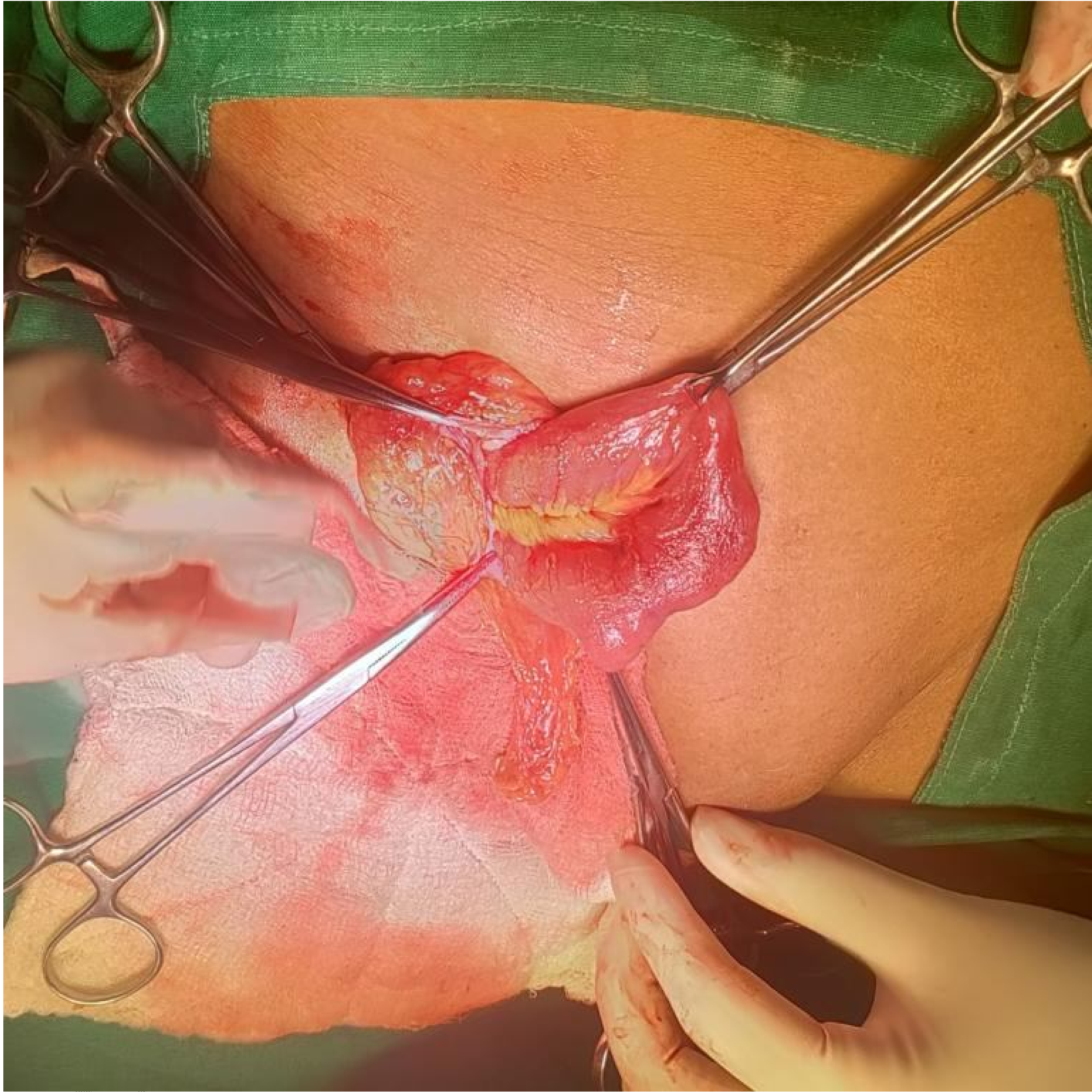

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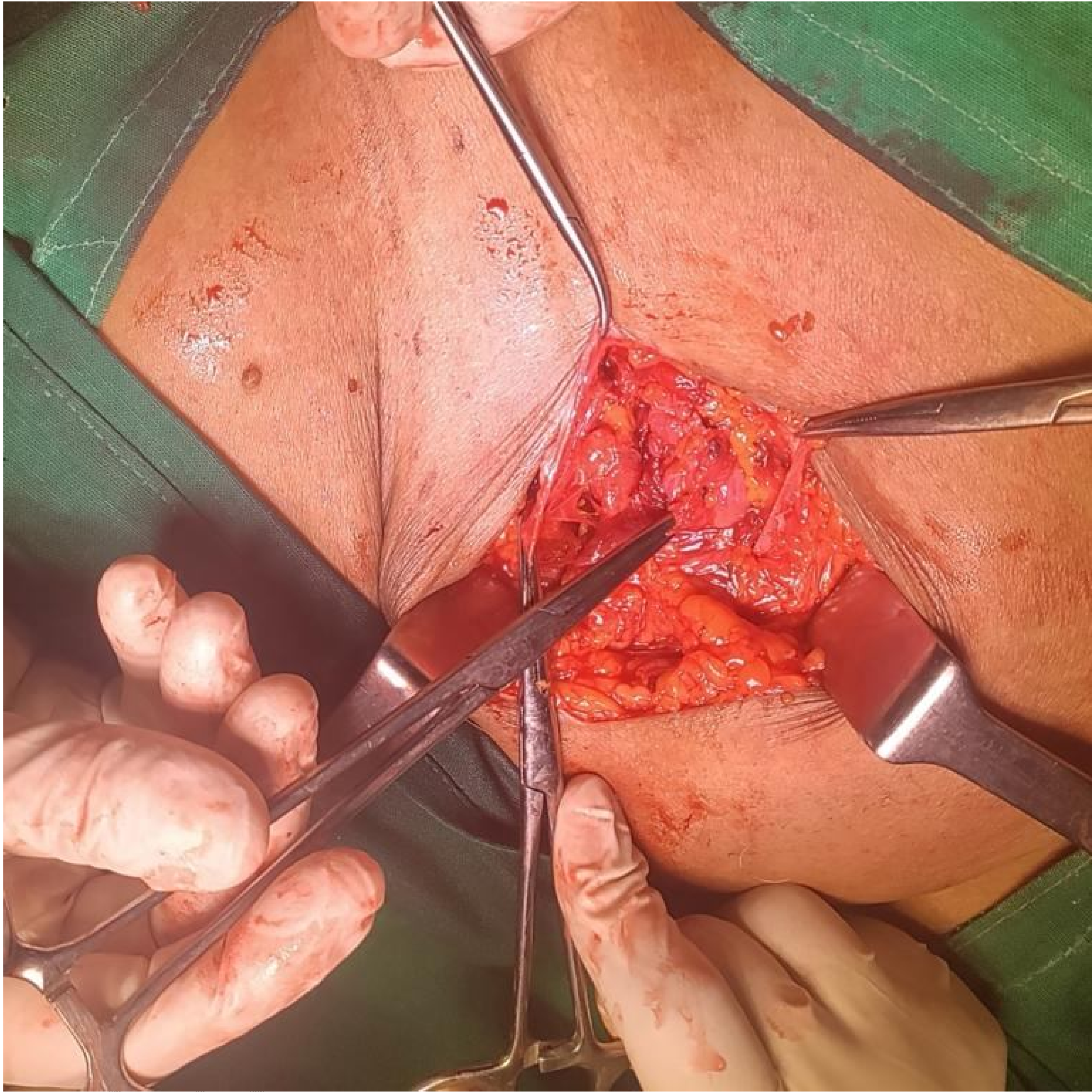

Figure-6

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Figure-7