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## CASE REPORT

# Inguinal Hernia Containing Stomach, Transverse Colon and Small Bowel

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## INTRODUCTION

Inguinal hernia is quite common in surgical practice. However, sliding hernia is rare with an incidence of 2 to 5%. The exact diagnosis of sliding hernia is made on the operating table. Hernia *per se* is not a difficult surgical condition but assumes importance when there is delay in seeking medical care, ultimately leading to increased morbidity. Complications like incarceration, strangulation, and obstruction of the hernia can occur. Groin hernia is a common surgical problem and almost all intraabdominal organs and a variety of unusual pathologies can be found in the hernia sac. The presence of vermiform appendix, acute appendicitis, ovary, fallopian tube and urinary bladder has been reported exceptionally in the literature and very infrequently it might even contain stomach. We report the case of sliding hernia containing stomach, transverse colon and small bowel.

## CASE REPORT

Sixty five years old male farmer presented to the Emergency department with huge swelling over left inguinoscrotal region and shock. The patient elaborated the presence of a reducible swelling involving the left inguinoscrotal region since 15 years that became painful and irreducible the day prior to admission. Gradually abdominal distension, pain, vomiting, and obstipation ensued. Vomiting was of multiple episode containing darkish red fluid. The patient was dehydrated, had a feeble pulse (126/min), and was tachypneic (29/min). His blood pressure was 100/60 mm Hg. Clinical examination of the abdomen revealed it to be grossly distended and tender. Diffuse guarding, rigidity pointed towards peritonitis. There was huge swelling on left inguinoscrotal region. The inguinal hernia on the left side was indirect, tense, tender, and irreducible. The patient was immediately resuscitated with 2 liters of Ringer lactate with two large bore 16G cannula and reassessed in two hour when the patient's blood pressure improved to 110/70 mmHg. The patient was given 2g intravenous ceftriaxone and 500mg

metronidazole. The patient's initial blood parameters showed hemoglobin of 10 g/dl, total leukocyte count 14500 cells/mm<sup>3</sup>, serum urea (54mg/dl), serum creatinine (0.9mg/dl), serum sodium, potassium 134 and 3.5 mEq/L, respectively. A plain abdominal radiograph of the abdomen revealed multiple air fluid level. Further radiological investigations were limited to an ultrasound in the Emergency department showing fluid along with the confirmation of bowel loops in the inguinal hernia. The patient was planned for exploration. Left sided inverted hockey stick incision was given above inguinal region and on exploration it was found to be containing gangrenous part of stomach, transverse colon and small bowel. Therefore for proper exposure exploratory laprotomy through a vertical midline incision was done that revealed moderate amount of dirty fluid contaminating the peritoneal cavity with gangrenous distal body and proximal antrum of stomach and normal small bowel and colon. Resection of gangrenous gastric wall and end to end anastomosis and tube gastrostomy was done, including herniorrhaphy. Patient recovered well and was discharged on 11<sup>th</sup> post operative day.

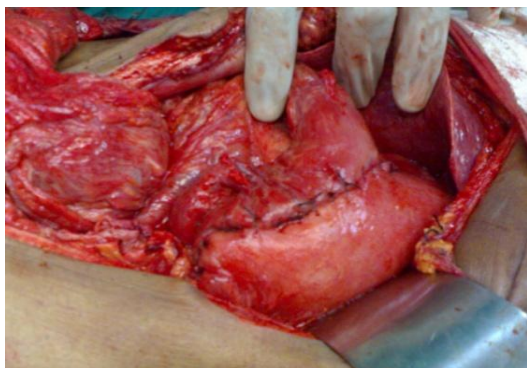
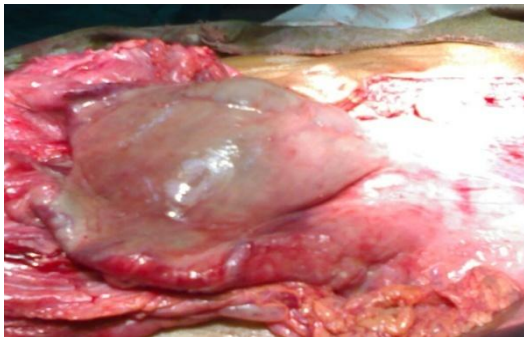
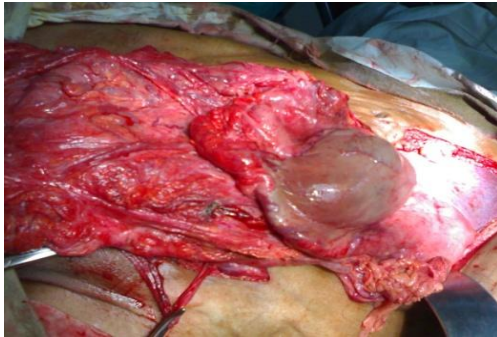
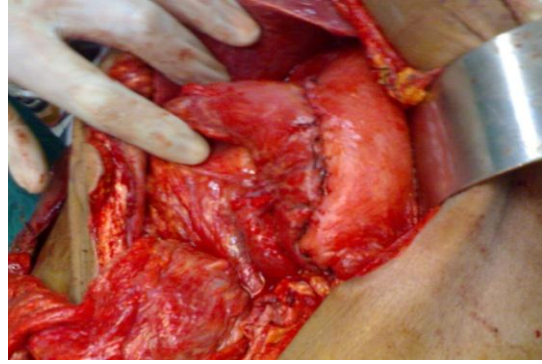
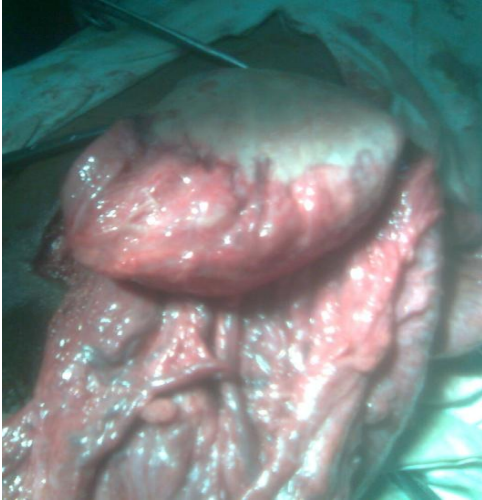


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## DISCUSSION

Inguinal hernia is a common condition, and its prevalence in an elderly population is approximately 6%. Many hernias are long-standing and often neglected by the patient. Inguinal hernia can be of different type and is a common surgical problem which may sometimes surprise the surgeon with its unusual sac content. Our case had stomach, transverse colon and small bowel in the inguinal hernia which appears to be a rarely diagnosed condition, to judge by the sparse reports in the literature. In a comprehensive review in 1954, Davey and Strange detailed 34 cases of stomach in inguinal hernia and added 1 case of their own. There has been few more documentation regarding this, but still it's rare.

The sac of the ordinary indirect inguinal hernia is formed entirely by parietal peritoneum. When part of the wall of the sac is formed by a viscus, the hernia is called a sliding hernia. Even our case is a sliding hernia; therefore we are going to review the literature regarding sliding hernia. Sliding hernia (synonym: hernia en glissade) is a result of slipping of the parietal peritoneum due to elongated mesentery. These hernias arise because of relaxation of tissues associated with advancing age and increasing obesity. The proportion of sliding hernias is even higher in the aged. Hernias of this kind are found almost exclusively in males and usually on the left side. Such hernias usually are of long duration before operation. Symptoms and signs of intestinal obstruction are reported to be infrequent.

Sliding indirect inguinal hernia is still an enigma to many physicians including surgeons who repair large numbers of hernias. Sliding indirect inguinal hernia has been considered to be comparatively rare. It has been reported in from 2 to 5 per cent of indirect inguinal hernias. At the Los Angeles County General Hospital, In the eight-year period from 1948 to 1955 inclusive, inguinal hernia repair was done in 2,688 cases. This number included 52 indirect sliding inguinal hernias, an incidence of 1.9 per cent of all

inguinal hernia repairs. Ryan recently reported 313 cases, which constituted 5.06 per cent of all the inguinal hernia repairs or 6.75 per cent of all the indirect inguinal hernia repairs done in an eight-year period. In persons over 50 years of age the incidence was 10.7 per cent of the indirect inguinal hernias repaired. Undoubtedly, as one's experience with this condition increases, he will recognize some hernias actually to be sliding and not merely large bowel adherent to the wall of the hernia sac. Almost all intraabdominal organs, including stomach and their pathologies can be found to be located in the hernia sac. Generally in the right side caecum, appendix and ileum form the posterior wall of the hernia and in the left side the sigmoid colon and different pathologies related to it have been reported.

Imaging provides diagnostic clarification in addition to reliable delineation of anatomy, including possible hernia sac contents—simple extraperitoneal fat, extraperitoneal fat plus colon or intraperitoneal structures such as small bowel. Computed tomography scans in the surgical emergency with some accuracy identify the loop of bowel that has herniated into the inguinal canal and give information on the condition of the strangulated contents.

CT is utilized for pre-operative evaluation in most centers; however, magnetic resonance imaging (MRI) is reported to give precise delineation of the defect. Plain radiography of the abdomen is useful in confirming the presence of obstruction or perforation. Intra-luminal dye studies are generally avoided in the acute setting as they are time consuming and serve little purpose.

Exploration is inevitable in most of the cases ensuring correction of shock and electrolyte imbalances present. Early operative repair at the time of diagnosis is recommended.

## CONCLUSION

The diagnosis often is unsuspected before operation. A large hernia of long standing in an elderly patient should cause suspicion of a sliding hernia. Vigorous resuscitation to correct fluid and acid-base deficits is of prime importance. The repair may be difficult and does require careful consideration. Proper repair is dependent upon proper understanding of the pathological anatomical changes involved. Care must be taken to identify the contents of the hernia to avoid inadvertent injury.

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