



LAPAROSCOPIC REPAIR OF PARACECAL HERNIA: A CASE REPORT

General Surgery

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ABSTRACT

Introduction: Paracecal hernia is a rare type of internal hernia. Internal herniations is a rare cause of small bowel obstruction ranging from 0.6 to 5.8 %. Clinical presentation of the paracecal hernia are non specific , delay in the diagnosis may lead to strangulation. We report a case of paracecal hernia successfully operated by laparoscopy, along with review of literature .

Case report: Presenting a case of 54 yr old male, who came with complaints of abdominal pain with obstipation for two days . CECT reported intestinal obstruction, pericolic hernia with proximal and mid ileal loops herniating. Laparoscopic surgery was done with successful reduction of the incarcerated intestinal loops.

Conclusion: Clinical symptoms of paracecal hernia are vague , hence high index of suspicion and early intervention prevents strangulation and ischemia of the bowel. Minimal invasive surgery is a better surgical option for paracecal hernia to reduce morbidity and early recovery.

KEYWORDS

Internal Hernia; Paracecal Hernia; Laparoscopic Repair; Small Bowel Obstruction

INTRODUCTION

Paracecal hernia is a rare type of internal hernia. Internal herniations is a rare cause of small bowel obstruction ranging from 0.6 to 5.8 %(1). Clinical presentation of the paracecal hernia are non specific , delay in the diagnosis may lead to strangulation. Cect abdomen may help in prompt diagnosis of paracecal hernia. We report a case of paracecal hernia successfully operated by laparoscopic technique and the review of literature.

Case report

A 55 year old male patient came with the complaints of diffuse abdominal pain for the past 2 days, with multiple episodes of bilious vomiting and history of obstipation for the past one day. No previous surgical history. Patient was evaluated in an outside hospital for the same and was referred for further management. On examination patient was afebrile, no tachycardia. Per abdomen tenderness present in the right iliac fossa, with hyper peristaltic bowel sound . Ryle's tube showed bilious aspirate. X ray abdomen taken showed multiple air fluid levels.(Fig 1)



Fig1.X Ray abdomen erect showing multiple air fluid levels.

Cect abdomen taken reported cluster of proximal and mid ileal loops are located posteriorly and laterally to the ascending colon and caecum, displacing the ascending colon- Pericecal hernia with no signs of ischemia.(Fig 2,3)

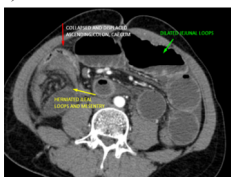


Fig2.Axial CT showing Clusters of proximal and mid ileal loops

are located posteriorly and laterally to the ascending colon . The lateral aspect extending into the paracolic gutter.



Fig3. Coronal section showing the whirlpool sign of the mesentery.

Patient was taken up for emergency diagnostic laparoscopic . The first 10mm trocar placed by open method at the palmer's point and two 5mm working ports created in the supraumbilical and left lower quadrant, showed dilated small bowel loops with collapsed terminal ileal segment. A paracolic hernia observed with peritoneal defect, forming a sac located in the paracolic sulci(Fig 4,5).The neck of the sac opened, the herniating small loops were reduced (Fig 6,7) and the peritoneal defect was splayed open to prevent recurrence(Fig 8). Post operative period was uneventful, started on diet on Post op day 2 and discharged on Post operative day 4.

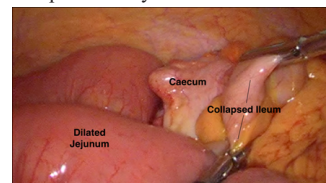


Fig4- Showing dilated jejunal loops and collapsed ileal loops.

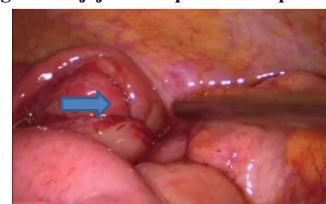


Fig 5.The arrow head showing the dilated small bowel loops in the Paracolic gutter.

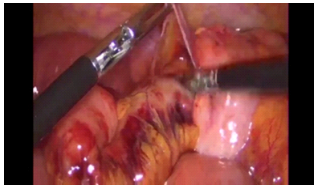


Fig 6. Herniating loops reduced by gentle traction.



Fig 7. Showing the Hernial sac.

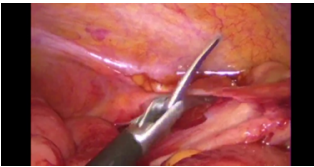


Fig 8. Hernial sac laid open.

DISCUSSION

Internal hernia is a protrusion of the visceral contents, either partially or completely through the defect in the peritoneum or mesentery, omental or diaphragmatic aperture. They can be classified as congenital or acquired. Congenital internal hernia occurs due to preexisting anatomic structures, such as foramina, recesses, and fossae. Acquired internal hernia are often seen post Roux-En-Y procedure. Internal hernias are classified into types based on Ghahremani et al: Paraduodenal 53%, Pericecal 13%, Foramen of Winslow 8%, Transmesenteric 8%, Intrasigmoidal 6% , Paravesical 6% and Transomental 1-4%. (2-5)

The anatomy of cecal and paracecal peritoneum is the end result of ileocecal migration occurring during rotation of the midgut in the fifth month. The fusion and resorption of peritoneum causes four kinds of peritoneal recesses by Meyer's classification of various sizes and depth (i) Superior Ileocecal recess (ii) Inferior Ileocecal recess (iii) Retrocecal recesses (iv) paracolic recesses (5). The paracolic fossa is located at the right gutter due to nonfusion of the lateral and posterior wall of the ascending colon. The sac travels under the proximal ascending colon.

Internal herniations is a rare cause of small bowel obstruction ranging from 0.6 to 5.8 % (1). Internal hernias are often asymptomatic if reducible spontaneously, but the majority cause epigastric discomfort, periumbilical pain, and recurrent episodes of intestinal obstruction, of which paracecal hernia accounts for upto 6.6%. (6)

The patients age ranging from 8 weeks to 92 years have been reported. (7,8) No significant difference between male and female gender. 10 cases of paracecal hernias have been reported to be treated laparoscopically in literature. (9,10)

Contrast enhanced computer tomography is the best modality for prompt diagnose internal hernias, as delay in the diagnosis may cause strangulation of the obstructed bowel. CT scans demonstrated a cluster of fluid-filled small bowel loops located lateral to the cecum and posterior to the ascending colon.

Clinical diagnosis of a paracecal hernia is difficult due its varied presentation. Emergency Surgery is the treatment of all cases of paracecal hernia, because of the high risk of strangulation of the incarcerated bowel. Minimal invasive surgery can be a better surgical option for pericecal hernia to reduce morbidity and early recovery.

CONCLUSION

Clinical symptoms are non specific, hence high index of suspicion and early intervention prevents strangulation and ischemia of the bowel.

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