

Paracaecal Hernia – A Rare Case

Dr Vikalop Gupta, Prof Dr Brijesh Sharma, Dr Neelkamal Gupta

Department of General Surgery, Mahatma Gandhi Medical College, Jaipur, India

Abstract: Internal hernias are rare causes of small bowel obstruction, and one such internal hernia is the paracaecal hernia. We report a case of a small bowel obstruction due to paracaecal hernia for which laparotomy was performed. The surgery achieved a good outcome.

Keywords: Paracaecal Hernia

1. Introduction

Internal hernia is an infrequent cause of small bowel obstruction (SBO), with a reported autopsy incidence of 0.2 to 0.9%, and is the cause of small-bowel obstruction in 0.6 to 5.8% of the cases. Internal hernias are protrusions of the viscera through the peritoneum or mesentery but remaining within the abdominal cavity.

Types of internal hernias include:

- Lesser sac (foramen of Winslow) hernia
- Paraduodenal hernia
- Transmesenteric hernia
- Transomental hernia
- Pericaecal hernia
- Sigmoid mesocolon hernia
- Supravesical hernia
- Pelvic hernia

Preoperative diagnosis of internal hernia is extremely difficult because of the nonspecific clinical presentation. Urgent surgical intervention to prevent strangulation is essential. We are reporting a case of a small bowel obstruction due to paracaecal hernia.

2. Case Report

A 60 years female presented to us with

- Pain upper abdomen since 6 days.
- Vomiting since 6 days.
- Not passing flatus and stool since 6 days.
- Abdominal distension since 6 days.

Past History-There is no history of such illness in the past. There is history of hemithyroidectomy in 2004 and h/o sterilization in 2006.

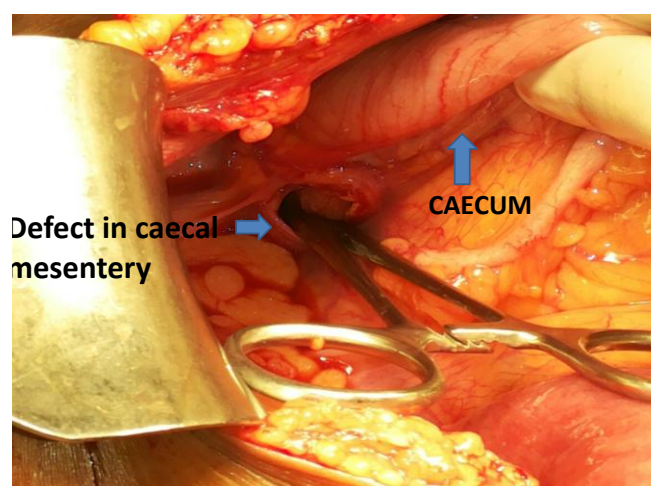
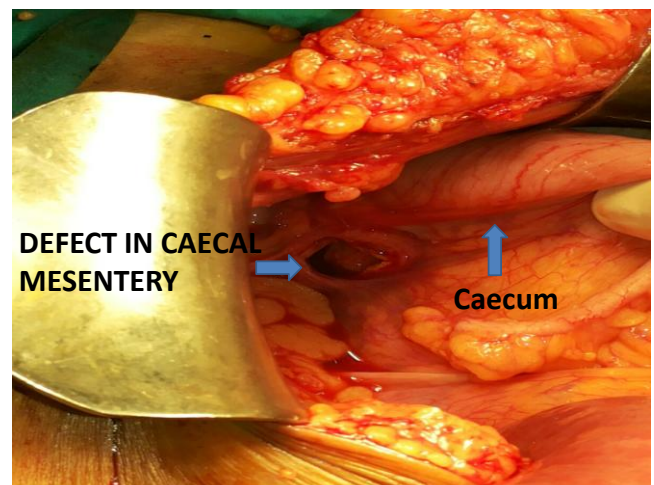
Clinical Examination

- Abdomen was distended but soft with no guarding and rigidity. Lump was palpable in epigastric region which became prominent on head raising test, which was confirmed to be epigastric hernia.
- There were sluggish bowel sounds.
- -Leukocytosis ($11 \times 10^3/\mu\text{L}$) with a predominance of neutrophils (84%) was noted on routine hematology.
- Plain abdominal X-ray showed dilated small bowel loops.
- USG was suggestive of
 - a) Intestinal Obstruction.
 - b) Epigastric Hernia.
 - c) Upper GI Endoscopy

Food residue with normal mucosa of stomach Suggestive of Proximal small bowel obstruction

3. Laparotomy

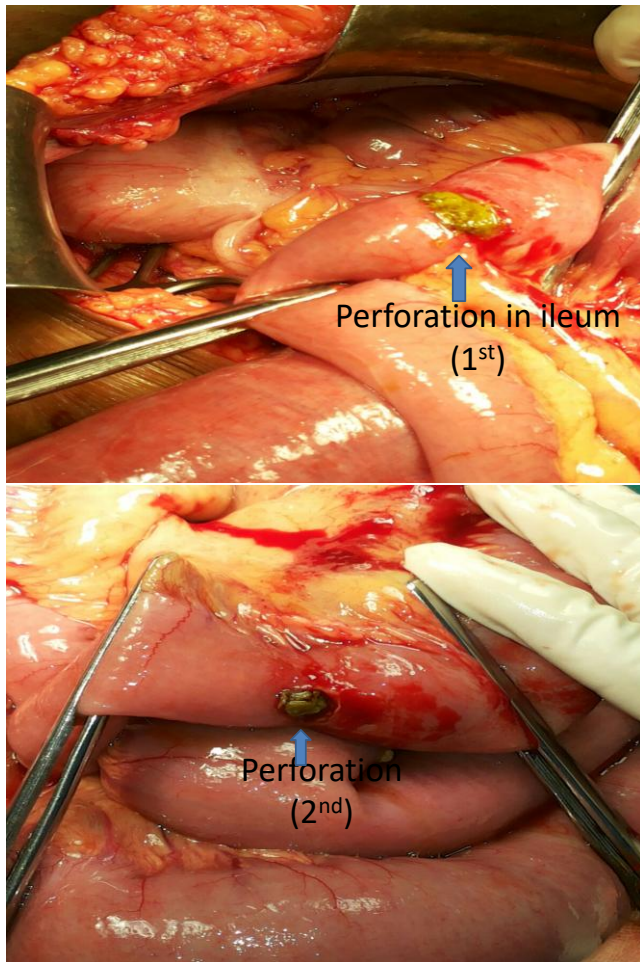
Patient was taken for laparotomy in view of small bowel obstruction. Abdomen was opened by midline incision. Epigastric hernia was present with defect of size 12mm. Contents were preperitoneal fat. We found loop of ileum herniating inside mesentery of caecum and protruding to the right paracolic gutter. This loop was about 5 feet proximal to ileocaecal junction. When loop was removed- 2 perforations were found in the loop at the same level for which resection and anastomoses was done. Window in the mesentery of caecum was closed. And drains put and abdomen closed.



Volume 6 Issue 3, March 2017

www.ijsr.net

Licensed Under Creative Commons Attribution CC BY



Post Operative

- Post Operatively patient had silent myocardial infarction for which patient was managed conservatively.
- Pt had surgical site infection which was managed by regular dressings followed by secondary suturing.

4. Discussion

- Internal hernias may infrequently cause Small Bowel Obstruction, which may be fatal because of the risk of strangulation of the hernial content. Paracecal hernias account for a minority of Internal Hernias-related Small Bowel Obstructions. These hernias are the result of alterations in the normal process of intestinal rotation during embryonic development. The embryological development of the caecum includes budding, exteriorization into the umbilicus and subsequent retraction onto the posterior abdominal wall, which usually predisposes the paracecal fossa to the formation of a number of pockets or recesses.
- An excellent classification for boundaries of hernias was formulated by Meyer, who described six: paracecal sulci, caecal fossa, caecal recess, superior ileocaecal recess, inferior ileocaecal recess, and retrocaecal recess. Paracecal sulci are lateral depressions of the peritoneum invested on the caecum, but recesses may be absent. The caecal fossa is a groove that is formed by two peritoneal folds. The lateral fold is a continuation of the white line of Toldt and the medial fold originating from the ileocaecal angle, medial aspect of the caecum. The caecal recess is formed

by folds described for the caecal fossa, but in this instance, the caecum is entirely retroperitoneal. Superior and inferior ileocaecal recesses are formed by a peritoneal fold originating from the terminal ileum to the caecum. A retrocaecal recess is formed by the caecum anteriorly, the iliac fossa posteriorly, the right colic gutter laterally and the mesentery medially.

- In our case, herniation of the Ileum through the cecal fossa was found during the operation. The clinical symptoms of internal hernias may range from intermittent mild digestive complaints to acute-onset incarceration. The major symptoms are obstructive symptoms of abdominal pain, nausea, vomiting, constipation and obstipation .
- CT allows advanced diagnosis of intestinal obstruction because it provides more information about the cause than do either X-ray or contrast studies. In addition to demonstrating the presence of extraluminal lesions, such as masses, adenopathy, soft tissue infiltration, fluid collections, abscesses and vascular anomalies, the greatest advantage of CT is the diagnosis of early or partial obstruction, closed loop obstruction and multiple segments of obstruction. Dilatation of small intestine loops with a transitional zone adjacent to the cecum or an edematous small bowel located lateral to the cecum allows a paracecal hernia to be diagnosed with high certainty.
- Almost always the treatment for small bowel obstruction caused by a paracecal hernia is surgical intervention. Recently, the laparoscopic technique has been found to be useful for the diagnosis and treatment of bowel obstructions.

5. Conclusion

Paracecal hernias are rare variety of internal hernia in which patients present as acute intestinal obstruction. These are difficult to diagnose clinically, clinical suspicion can only lead to early intervention. Early laparotomy and reduction of the hernia with closure of the window is the treatment. Delay in laparotomy will result in gangrene of the herniated contents resulting in major operation of resection and anastomose.

References

- [1] N.A. Choh, M. Rasheed, M. Jehangir. The computed tomography diagnosis of paracecal hernia. *Hernia*, 14 (2010), pp. 527–529
- [2] K. Sasaki, H. Kawasaki, H. Abe, H. Nagai, F. Yoshimi Retrocecal hernia successfully treated with laparoscopic surgery: a case report and literature review of 15 cases in Japan. *Int. J. Surg. Case Rep.*, 18 (2016), pp. 45–47.
- [3] D. Selcuk, F. Kantarci, G. Ogut, U. Korman Radiological evaluation of internal abdominal hernias. *Turk. J. Gastroenterol.*, 16 (2005), pp. 57–64
- [4] Ghiassi S, NguyenSQ, Divino CM, Byrn JC, Schlager A. Internal hernias: clinical findings, management, and outcomes in 49 nonbariatric cases. *J Gastrointestinal Surgery*.2007;11:291-295.
- [5] Schumpelick V, Dreuw B, Ophoff K, Prescher A. Appendix and aecum. Embryology and anatomy and surgical applications. *Surg Clin North Am*.2000;80:295-318

- [6] Furukawa A, Yamasaki M, Furuichi K, Yokoyama K, Nagata T, Takahashi M, et al . Helical CT in diagnosis of small bowel obstruction. Radiographics.2001;21:341-355
- [7] Boudiaf M, Soyer P, Terem C, Pelage JP, Maissiat E, Rymer R. CT evaluation of small obstruction. Radiographics.2110;21:613-624
- [8] Omori H, Asahi H, Inoue Y, Irinoda T, Saito K. Laparoscopic paracaecal hernia repair. J Laparoendosc Adv Surg Tech A.2003;13:55-57