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Case Report
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A Rare Case of Internal Hernia Presenting as a Obstructed Inguinal Hernia

Dhaval C, Krupesh C, Chintan B and Dhaval V*

Department of General Surgery, GMERS Medical College, India

Abstract

A 48-year-old male patient come to surgical OPD at Civil Hospital, Rajpipla with complain of: Swelling in right groin region for 1 week. Internal hernias have an overall incidence of less than 1%, they constitute up to 5.8% of small bowel obstruction. If it left untreated have been reported to an overall mortality exceeding 50% if strangulation is present. It caused by 2 ways, one developmental defect and second acquired.

Introduction

Internal hernias have an overall incidence of less than 1%, they constitute up to 5.8% of small bowel obstruction. If it left untreated have been reported to an overall mortality exceeding 50% if strangulation is present. It caused by 2 ways, one developmental defect and second acquired.

There are three general mechanisms whereby developmental abnormalities result in the formation of internal hernias.

1. Abnormal retroperitoneal fixation of the mesentery resulting in anomalous positioning of the intestine (*e.g.* mesocolic or paraduodenal hernia).

2. Abnormally large internal foramina or fossae.

3. Incomplete mesenteric surface with the presence of an abnormal opening through which the intestine herniates (*e.g.* mesenteric hernia).

Acquired internal hernias result from the creation of abnormal mesenteric defects after operative procedures or trauma. The creation of a small space allows the herniation of the small intestine through the mesenteric rent and the development of intestinal obstruction. Treatment of these patients is operative reduction of the hernia and closure of peritoneal defect.

Case Presentation

A 48-year-old male patient come to surgical OPD at civil hospital, Rajpipla with complain of: Swelling in right groin region in the last 1 week.

Sever lower abdominal pain in the last 1 day.

Vomiting 3-to-4-episode (Bilious in nature) 1 day.

Swelling was reducible in nature on onset, which become irreducible since last 1 day, and a/w pain which gradually increase.

Patient had complained of vomiting, not passing stool and flatus in the last 1 day.

Past history

- Left inguinal hernioplasty -7 years back.
- chest and abdominal blunt injury -5 years back, patient manage conservatively.

Radiological investigation

X-Ray abdomen standing: multiple air-fluid level seen, which s/o – small bowel obstruction.

Intra-operative findings

Open at inguinal region for obstructed inguinal hernia: Mesenteric ring with small bowel coming out from it as a content present.

Second lower midline laparotomy skin incision kept: Internal hernia found from mesenteric

Correspondence:
Dhaval Chaudhari, Department of General Surgery, GMERS Medical College, Civil Hospital, Rajpipla, Narmada -393145, India,

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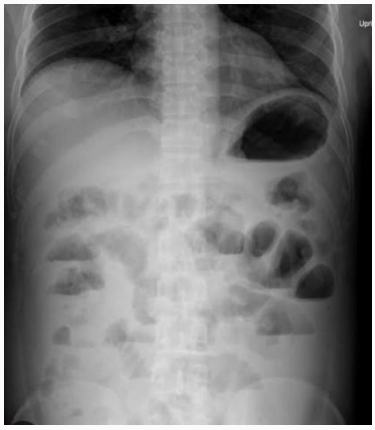

Figure 1: X-Ray abdomen standing.

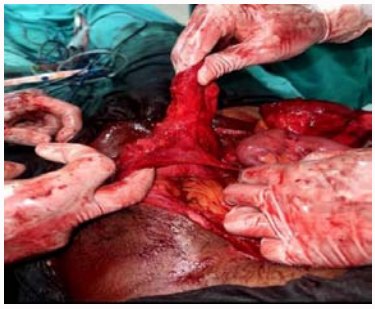

Figure 2: Intra-operative pic. s/o mesenteric ring.

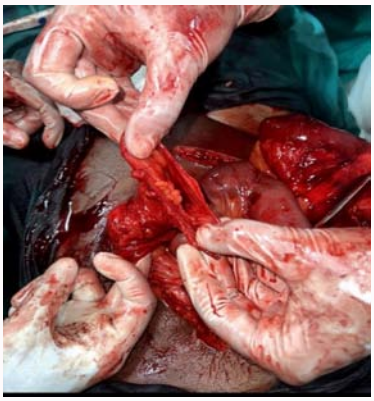

Figure 3: Opening of mesenteric ring.

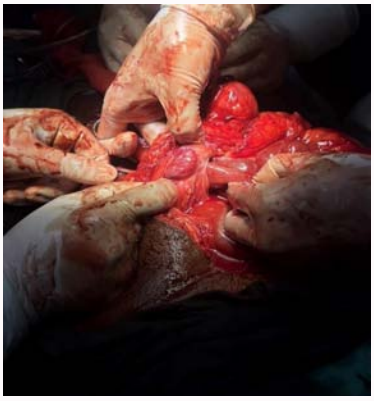

Figure 4: Small bowel passed through ring.

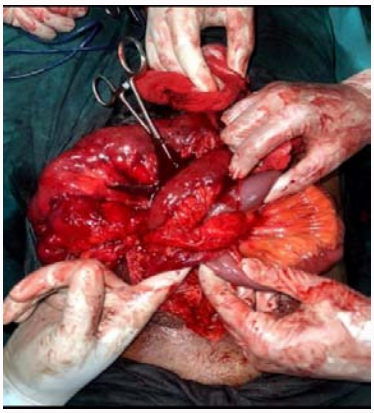

Figure 5: Small bowel passed through mesenteric ring.

Figure 6: Multiple small bowel adhesion.

ring, multiple small bowel adhesion found and 1 to 2 strictures at loop found passable, proximal bowel loops was dilated & inflamed, distal bowel loops collapsed.

Bowel release from obstructed mesenteric ring and mesenteric margin opposed, adhesiolysis done, pre-peritoneal meshplasty done.

The post-operative course is uneventful, with the patient resuming a normal diet. Regaining normal bowel function at second postop day (Figures 1-6).

Discussion

In the adult population, acquired mesenteric defects are more common than congenital defects. They can be caused by surgical interventions (Roux-Y gastric bypass, liver transplantation, small bowel or colon resection) or abdominal trauma, peritoneal inflammation or ischemic changes. Primary or congenital internal hernias in adults are extremely rare. Congenital Internal Abdominal Hernias (CIAH) are either retroperitoneal or formed from congenital anomalous openings lacking a true peritoneal sac [1]. Retroperitoneal hernias further classified by Ghahremani into paraduodenal (30% to 53% of CIAH), pelvic [2] & paravesical hernia (6%), congenital internal hernias can be categorized as transmesenteric (8% to 10%) [3], broad ligament (4% to 7%) or transomental hernia (1% to 4 %) [4,5]. Acquired internal hernias in post abdominal trauma (0.2% to 0.9%) [6]. Patient with a history of blunt abdominal trauma may

present with late complication caused by a missed diagnosis of an associated injury, such as small bowel mesenteric injuries [7].

In this case, patient present with an obstructed right inguinal hernia and signs of small bowel obstruction. He had past history of left inguinal hernioplasty 4 years ago. Also, a blunt chest and abdominal trauma 5 years ago which managed conservatively. An abdominal X-ray suggestive of small bowel obstruction, in such case early operative intervention is essential to decrease morbidity & increase survival.

Conclusion

Although internal hernias were previously an uncommon but important cause of intestinal obstruction given the high mortality associated, nevertheless still often underdiagnosed. As illustrated in the present patient, who presented with obstructed inguinal hernia of right side in which small bowel herniation through a mesenteric ring as a content present, with past history of blunt abdominal trauma. Early surgical intervention is crucial to avert the high risk of associated morbidity and mortality. While conducting emergency surgery for obstructed inguinal hernia with intestinal obstruction, with past history of blunt abdominal trauma, the rare type of internal hernia as seen in our case should be kept in mind.

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