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Case Report

Small bowel obstruction due to spontaneous transomental hernia in an octogenarian patient: a case report

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ABSTRACT

Internal hernia is a condition caused by herniation of intra-abdominal organs through congenital or acquired peritoneal defects and represents a rare cause of small bowel obstruction. Transomental hernia is an uncommon subtype and accounts for a small percentage of all internal hernias, but delayed diagnosis may result in strangulation and increased morbidity, particularly in elderly patients.

We report the successful surgical treatment of small bowel obstruction due to spontaneous transomental hernia in an 86-year-old female patient with no history of previous abdominal surgery. Emergency laparotomy revealed a small bowel loop, approximately 100 cm distal to the ligament of Treitz, herniating through a 1-cm defect in the greater omentum. The herni-ated bowel was viable and was reduced without the need for resection. The postoperative course was uneventful, and the patient was discharged on postoperative day six.

Keywords: hernia, intestinal obstruction, internal hernias, omentum, small bowel obstruction, transomental hernia

Introduction

Internal hernia (IH) is defined as herniation of intra-abdominal organs through congenital or acquired peritoneal defects and represents a rare cause of small bowel obstruction. Transomental hernias (TOH) are an uncommon subgroup of internal hernias and may be associat-ed with significant morbidity and mortality, particularly when diagnosis and surgical inter-vention are delayed (1,2).

Internal hernias are classified as paraduodenal (53%), pericecal (13%), foramen of Winslow (8%), transmesenteric and transmesocolic (8%), intersigmoid (6%), and retroanastomotic (5%), with an overall incidence of approximately 5.8%. Transomental hernias account for only 1–4% of all internal hernias and are often difficult to diagnose preoperatively due to nonspecific clinical findings. Because of their rarity and diagnostic challenges, reporting such cases may contribute to increased clinical awareness and improved management strate-gies (1,3,4).

Case Presentation

An 86-year-old female patient was admitted to the emergency department with a three-day history of nausea, vomiting, and abdominal pain. She had no previous history of similar complaints. Vital signs on admission were stable. Physical examination revealed generalized abdominal tenderness and distension without rebound tenderness or guarding. According to

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the patient's history and information obtained from her relatives, she had no history of previous abdominal surgery.

Abdominal computed tomography (CT) demonstrated dilatation of the small bowel loops proximal to the ileal level, consistent with small bowel obstruction. No specific CT findings suggestive of transomental hernia were identified preoperatively. An incidental hiatal hernia was also noted. The patient was admitted to the general surgery ward with a preliminary di-agnosis of ileus. Due to worsening abdominal pain and deterioration of physical examination findings during follow-up, surgical intervention was decided.

Exploratory laparotomy revealed a 10-cm segment of small bowel, located approximately 100 cm distal to the ligament of Treitz, herniating through a 1-cm defect in the greater omentum (Figure 1).

Figure 1. Intraoperative view demonstrating a dilated small bowel loop herniating through a defect in the greater omentum, with adjacent dilated and collapsed bowel segments.

After reduction of the herniated bowel segment and application of a warm compress, bowel viability was confirmed and no resection was required. The omental defect was eliminated by opening the omentum, thereby preventing re-herniation.

Postoperatively, the patient was started on a liquid diet, followed by a regular diet after passage of flatus on postoperative day four. She was discharged in good condition on postoperative day six. At one-month follow-up, the patient was in good clinical condition and had no complaints.

Discussion

The incidence of internal herniation is approximately 5.8% of intestinal obstruction. Transomental hernia constitutes a small portion of internal hernias, but early diagnosis and treatment are very important because mortality may be high when strangulation develops. Although most transomental hernias occur after surgery, they can also develop spontaneously (4-6).

Transomental herniations account for approximately 1%–4% of all internal herniations, with a reported mortality rate of around 30%, largely due to a higher risk of strangulation compared with other types of internal hernias (1,6). In elderly patients, age-related atrophy of the greater omentum may predispose to spontaneous omental defects even in the absence of prior abdominal surgery (7).

Clinical findings of TOH include abdominal pain, nausea, vomiting, inability to pass gas or stool, and abdominal distension. Although clinical diagnosis is challenging, certain computed tomography findings may be helpful. Contrast-enhanced CT may demonstrate clustering of bowel loops and a beak-like appearance of the incarcerated small bowel loops (8). However, as in our case, these characteristic signs may be absent, making preoperative diagnosis difficult.

Yamaguchi classified transomental hernias into three categories: type A (peritoneal cavity → greater omentum → peritoneal cavity), B (peritoneal cavity → omental bursa → peritoneal cavity), or C (peritoneal cavity → omental bursa)

(7). Our case corresponds to Yamaguchi type A, as the small bowel herniated directly through a defect in the greater omentum and returned to the peritoneal cavity.

TOH can be managed by laparotomy or, in selected cases, laparoscopically. After reduction of the herniated small bowel segment causing obstruction, the decision for bowel resection depends on the presence of ischemic findings. Omental defects may be managed by opening, resection, or ligation of the omentum (9,10). In our case, the omental defect was excised because it was located at the edge of the omentum.

Conclusion

Internal herniation should always be considered in cases of ileus, particularly in patients without a history of abdominal surgery. Although transomental hernia has a lower incidence compared to other types of internal hernias, it carries a high risk of strangulation and should be taken into consideration during surgical decision-making. This case demonstrates that spontaneous transomental hernia can occur in elderly patients and can be successfully managed with timely surgical intervention, even in an octogenarian patient.

Ethical approval

The patient has consented to the submission of the case report for submission to the journal. Patient signed informed consent regarding publishing their data and photographs.

Author contribution

The authors confirm contribution to the paper as follows: Study conception and design: ME; data collection: ME, OŞ; analysis and interpretation of results: ME; draft manuscript preparation: ME, OŞ. All authors reviewed the results and approved the final version of the manuscript.

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Conflict of interest

The authors declare that there is no conflict of interest.

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