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SPONTANEOUS TRANS-OMENTAL HERNIA - A RARITY!

Surgery

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ABSTRACT

Trans-omental hernias are rarest of the internal hernias, accounting for less than 4% in current literature. Diagnosis is usually difficult as the clinical symptoms are dubious. Most of the diagnoses are made intra-operatively. Trans-omental hernias are mostly acquired - previous surgery and trauma being common predisposing factors. In rare cases, such as the one described in this study, trans-omental hernias may occur spontaneously as a result of senile atrophy without history of surgery, trauma or inflammation. We report a case of a spontaneous trans-omental hernia of the small intestine causing intestinal obstruction.

KEYWORDS

Internal hernia, trans-omental hernia, intestinal obstruction

INTRODUCTION

Adult internal hernias are rare; they correspond to viscera protruding through a congenital or acquired peritoneal or mesenteric aperture in the peritoneal cavity. Internal hernias causing intestinal obstruction account for approximately 5.8% cases[1, 2, 5]. Internal hernias may be through paraduodenal (53%), pericaecal (13%), foramen of Winslow (8%), trans-mesenteric and trans-mesocolic (8%), inter-sigmoid (6%), or retro-anastomotic (5%) apertures[8,9]. Trans-omental hernias are very rare and account for only 1-4% of internal hernias[1, 2]. They may be congenital; or rarely acquired[8]. Spontaneous trans-omental hernias are rarest of them all[1]. We report a case of a spontaneous trans-omental hernia of the small intestine causing intestinal obstruction.

CASE REPORT

A 54-year-old man was admitted to the Emergency Department with an acute abdomen. He complained of acute onset abdominal pain and distention of one day duration, associated with bilious vomiting. There was no history of similar attacks previously, nor any history of surgery or trauma. Apart from tachycardia, general physical examination was within normal limits. On physical examination, the abdomen was distended and tympanic on percussion. The abdomen showed diffuse tenderness and had audible hyperactive bowel sounds.

Laboratory tests were unremarkable except for leucocytosis. A plain radiogram of the abdomen showed dilated small bowel loops with two air-fluid levels. Contrast enhanced computed tomography (CECT) scan of the abdomen could not be done because of unavailability of emergency facilities. The patient was suspected to have intestinal obstruction and exploration was decided upon.

Exploratory laparotomy was performed under general anaesthesia (GA). Intra-operative findings included dilated small bowel loops (Figure 2) which were walked through and the obstruction was identified at a 3*2 defect (Figure 1) in the greater omentum, through which small bowel loops were seen herniating. The herniated segment of the small bowel was congested (Figure 1) and aperistaltic. Obstruction was released and bowel evaluated for ischemic changes. The bowel showed normal colour and peristalsis after ventilating the patient with 100% oxygen and warming the bowel loops. No other abnormality was noted. An abdominal drain was placed and abdomen closed. The patient had an uneventful post-operative course and was discharged after six days of hospital stay. The patient was followed up after one month and was asymptomatic.

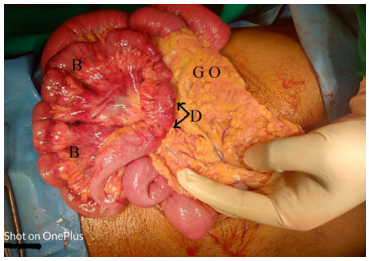

Figure 1: Intra-operative image of the trans-omental hernia ('B'- Congested bowel loops, 'D'- Hernial defect, 'GO'- Greater omentum)

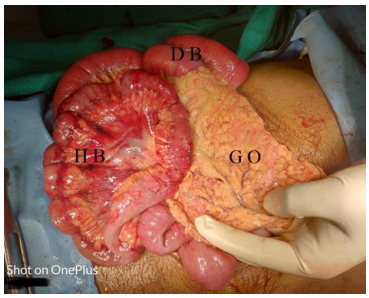

Figure 2: Trans-omental hernia ('DB'- Dilated bowel loops proximal to obstruction,'GO'- Greater omentum, 'HB'- Herniated bowel loops)

DISCUSSION

Internal hernias are characterized by protrusion of the viscera through a peritoneal or mesenteric opening, with the herniated viscera remaining within the abdominal cavity. The openings may be normal (foramen of Winslow), paranormal (paraduodenal, ileocaecal, supravesical fossa) and abnormal (transomental)[5, 13]. Upto 0.6 to 5.8% cases of intestinal obstructions may be caused due to internal hernias[6,14].

Only about 1% – 4% of internal hernias are the transomental type: either through the greater or lesser omentum [5]. These are usually reported in patients over the age of fifty[10]. Acquired transomental hernias are usual, commonly iatrogenic and are a result of surgical interventions, peritoneal inflammation or trauma[10, 12, 13]. Rarely, as described in this report, internal hernia may occur spontaneously, probably as a result of senile atrophy[10].

Transomental hernias were classified into 3 types by Yamaguchi[16]–
Type A (Hernia through the greater omentum)
Type B (Hernia through the omental bursa and into the peritoneal cavity)
Type C (Hernia into the omental bursa)

Clinical manifestations of transomental hernias are not specific making it difficult to diagnose. They are similar to acute obstructive syndrome including nausea, vomiting, abdominal pain, distended abdomen, and constipation[11]. On being compared to other internal hernias, transomental hernias patients show a greater frequency of strangulation of the small bowel[14]. Transomental hernias have a high postoperative mortality rate of 30%, making emergency diagnosis and treatment critical[11,14].

The plain abdominal roentgenogram may show multiple air fluid levels but being non-specific contributes very little to the diagnosis [6,14]. Abdominal CECT scans are usually helpful for the diagnosis[7,12,13].

However, a high degree of clinical suspicion should be maintained in the absence of facilities[14]. A definitive diagnosis is usually established intra-operatively[14].

Surgical treatment is aimed at reduction of the intestinal segments.

Bowel re-section is mandated in cases of necrotic, perforated or irreversibly ischemic viscera. Repair of the omental defect must be done to prevent subsequent herniation. Even without risk factors of previous abdominal surgery, trauma or peritoneal inflammation, the possibility of small bowel obstruction secondary to the internal hernia should be considered. Surgical treatment based on high clinical suspicion can reduce the risk of complications and postoperative mortality in patients with a transomental hernia[1,3,17].

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