Congenital Intra-Mesosigmoid Hernia- A Case Report of a Rare Sigmoid Mesocolon Hernia

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Abstract Internal hernia is the protrusion of the viscera through normal or abnormal peritoneal or mesenteric apertures within the confines of peritoneal cavities.

Keywords Intra-mesosigmoid hernia · Internal hernia

Case Report

We report here case of a 78 year old male patient, without any previous history of laparotomies presenting with acute intestinal obstruction. On exploration an internal hernia through the right leaf of mesosigmoid was identified. Gentle milking of the herniated bowel loop was done out of the orifice in mesosigmoid.

The possibility of congenital internal hernia must be considered in patients of old age presenting with acute intestinal obstruction. Early intervention is essential in these cases so as to minimize complications.

Introduction

Internal hernia accounts for only 0.2-0.9% of cases of intestinal obstruction. Untreated they have been reported to

have an overall mortality of more than 50% [1]. Due to lack of specific clinical manifestations, they are usually diagnosed late during laparotomy for acute intestinal obstruction. Sigmoid mesocolon hernia is rare congenital hernia and intra-mesosigmoid hernia is the rarest amongst the mesosigmoid hernia [2]

Case Report

A 78 year old male patient was admitted to the emergency surgical ward of medical college hospital in March 2008 with complaints of intermittent colicky peri-umbilical pain associated with nausea, vomiting. Patient had not passed flatus or faeces since 1 day. There was a past history of few similar episodes which lasted for less than 48 hours. There was no history of previous laparotomy.

On examination the patient was mildly dehydrated. He had mild tachycardia. Abdominal examination revealed a soft and mildly distended abdomen. Peristaltic sounds were normal. There were no palpable lumps. External hernial orifices were normal. Per rectal examination was inconclusive. Straight X-ray abdomen revealed few gas filled shadows. Considering the possibility of sub-acute intestinal obstruction; the patient was put on conservative management.

Next day his symptoms aggravated with increased abdominal distension. A repeat straight X-ray abdomen revealed multiple air-fluid levels. A diagnosis of acute intestinal obstruction was made. The patient was subjected to exploratory laparotomy. An internal herniation of approximately 15 cm of ileal segment through an orifice in right leaf of mesosigmoid was found. The left leaf was intact (Fig. 1). The herniated loop was gently extracted out. The orifice was approximately 1.8 cm diameter. It was

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Fig. 1 Herniated small gut in the mesocolon

closed by 2-0 vicryl (Fig. 2). The affected ileal segment was inspected meticulously. Apart from the mild constriction ring over the bowel wall, there was no vascular or luminal compromise.

The peristaltic sounds return next day and the patient was discharged after an un-eventful post operative period on the 8th post operative day.

At two follow-ups at one month interval the patient is healthy with no complains.

Discussion

Internal hernia is the protrusion of the intraabdominal viscera through peritoneal or mesenteric orifices within the peritoneal cavities. The orifice can be either acquired, such as post surgical, traumatic or post-inflammatory defect or

Fig. 2 Rent being closed

congenital, including both normal apertures, such as Foramen of Winslow, and abnormal aperture arising from anomalies of internal rotation and peritoneal attachment. Though termed congenital internal hernia they usually manifest later in life. There are several types of internal hernia as traditionally described by Meyers [3].

They are

- Paraduodenal-53%
- Pericecal-13%
- Foramen of Winslow-8%
- Trans-mesentric and trans-mesocolic-8%
- Inter-sigmoid-6%
- Retro-anastomotic-5%
- Paravesical hernia-7%

Sigmoid mesocolon hernia is an uncommon type of internal hernia. There are three types of sigmoid related hernia;

1. Inter-sigmoid hernia-most common and herniation is through inter sigmoid fossa.
2. Trans -mesosigmoid hernia - herniation is through a complete defect involving both the layer of sigmoid mesocolon and lie in a position postero-lateral to the sigmoid [1, 4]. In this type, the edge of the defect is bounded by branches of inferior mesenteric artery [3].
3. Intra-mesosigmoid Hernia- Least common type. Herniation is through an incomplete defect involving only one layer (usually the left leaf) of the meso-sigmoid [1, 4].

The diagnosis of internal hernia is very difficult. The diagnosis of internal hernia should be considered for patients with signs and symptoms of intestinal obstruction in the absence of any intraabdominal pathology as inflammatory intestinal disease, or previous intervention as external hernia or previous laparotomy [5–7]. Internal hernia manifest as acute intestinal obstruction that require early diagnosis and immediate surgery. Due to lack of specific signs and symptoms the diagnosis is confusing and is usually made late & per-operatively [5].

In general internal hernias have a high incidence of strangulation with rapid onset of gangrene of the bowel. The mortality is high and role of early surgical intervention is stressed.

The surgical management of internal hernia should be prompt and same in the line of management of obstructed hernia. It includes reduction of herniated structures (either by delicate traction or dilating and widening of the hernial orifice and hernial sac), resection of ischemic intestinal segments (if any) and closure of the hernial orifice [7]. Closure of normal orifice is not advocated for the fear of complication e.g. closure of Winslow's foramen has a potential risk for portal thrombosis [8].

To conclude; when faced with a clinical condition of acute intestinal obstruction in which there is a possibility of internal hernia, the surgeon must proceed to laparotomy as early as possible, with no priority for specific diagnosis of the cause of obstruction. This policy aims at reducing the risk of intestinal ischemia, necrosis, perforation and decreasing post operative morbidity and mortality.

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