An Interesting Case of a Left Paraduodenal Hernia with Peritoneal Encapsulation Presenting as Acute Intestinal Obstruction

Arghya Basu, Amit Kumar Gupta, Soumika Biswas, Manas Kumar Dutta

Abstract

Internal hernias commonly present as left duodenal, right duodenal, mesocolic, or retrocolic, intersigmoid hernias, as well as herniation through the foramen of Winslow and lesser sac herniation through an abnormal orifice [1]. Paraduodenal hernias are extremely rare entities, which may prove dangerous because of the high risk of bowel obstruction, strangulation and gangrene. These hernias are notorious because of non-specific signs and symptoms that can lead to diagnostic difficulties. We report the case of a left paraduodenal hernia with peritoneal encapsulation presenting as acute intestinal obstruction in a patient without any history of prior abdominal surgery. The patient underwent bowel reduction, adhesiolysis, resection of the sac, and repair of the defect. The patient’s recovery was uneventful.

Keys words: Paraduodenal hernia, intestinal obstruction, peritoneal encapsulation, malrotation

Introduction

Paraduodenal hernias are rare anomalies of the midgut caused by malrotation of the gut in peritoneal spaces and folds near the ligament of Treitz [1,2]. Left paraduodenal hernias are most commonly found in relation to the fossa of Landzert and are caused by plica venosa, a peritoneal fold wrapped around the inferior mesenteric vein. They may present with intermittent and non-specific clinical features like acute or chronic abdominal pain, or they may remain asymptomatic for a lifetime. Symptomatic cases with complications are reported to have high mortality and morbidity. Hence, timely diagnosis is of utmost importance to prevent complications such as bowel obstruction, ischaemia, strangulation, gangrene, and rupture. We report the case of a left paraduodenal hernia with peritoneal encapsulation presenting as intestinal obstruction in a patient without any history of prior abdominal surgery.

Case Report

Written informed consent was obtained from the patient.

A 21-year-old Indian female was admitted with acute abdominal pain, fever, abdominal distension, constipation and two days of bilious vomiting. The patient had no history of abdominal surgery or injury, but over the past three years, she had occasionally experienced recurrent abdominal pain which subsided with medication. She was febrile with marked dehydration, tachycardia and tachypnoea. On examination, the abdomen was distended, diffusely tender with rebound tenderness and loud bowel sounds. Shifting dullness or fluid thrill could not be elicited.

Haematological investigations revealed leucocytosis with neutrophilia. A plain abdominal X-ray revealed mul-
tiple air fluid levels and vulvulae conniventes. Abdominal ultrasonography identified a distended gall bladder with sludge and microcalculi and dilated fluid-filled bowel loops without ascites.

Exploratory laparotomy was performed through a standard midline incision. A large left paraduodenal hernial sac was found which almost enclosed the entire small gut from the duodenal-jejunal junction to the ileocaecal junction. The content of the sac entered through an opening just below the fourth part of the duodenum. The contained part of the gut was filled with fluid; it was distended, and severely congested, but returned to its normal colour after administration of 100% oxygen and warm mop. The inferior mesenteric vein was found to pass anterior to the terminal ileum. Redundant sigmoid colon with a long mesenteric attachment was found which was not related to an obstruction.

The gut content was reduced, and the hernial sac excised near and along its attachment. An appendicectomy was also performed as the appendix was raw and severely inflamed. A thorough lavage was carried out, and haemostasis was established. The abdomen was closed in layers after drain placement in the hepato-renal pouch and pelvis. The drains were removed four days after surgery, and skin sutures were removed 10 days post surgery. Histopathological examination of the sac wall revealed normal peritoneal tissue. The patient had an uneventful recovery. During seven years of follow-up, no complications were reported.

Discussion

With an incidence rate of 1-2%, internal hernias are a rare congenital or acquired entity (traumatic, postoperative,