Persistent Omphalomesenteric Duct Causing Small Bowel Obstruction in an Adult

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Abstract We report an unusual presentation of persistent omphalomesenteric duct causing intestinal obstruction in a middle-aged adult. Exploratory laparotomy revealed persistence of omphalomesenteric duct causing terminal ileum obstruction. Meckel's diverticulum along with gangrenous segment of ileum was resected and end-to-end anastomosis was done.

Keywords Omphalomesenteric duct · Meckel's diverticulum · Intestinal obstruction

Introduction

A 46-year-old male with no previous co-morbidities was admitted with features of acute intestinal obstruction. Examination revealed that he had fever, tachycardia, abdominal distension and diffuse rigidity. X-ray of the abdomen (Fig. 1) revealed multiple air fluid levels suggestive of small bowel obstruction. The patient was resuscitated and taken up for emergency laparotomy. Operative findings revealed dilated small bowel loops with a fibrous band arising from Meckel's diverticulum to the umbilicus (Fig. 2). This band had compressed the ileum and had caused gangrenous changes of the adjacent bowel as well (Fig. 3). The band was excised, inflamed Meckel's diverticulum along with gangrenous segment was resected and end-to-end anastomosis was done. Postoperative recovery was uneventful and the patient was discharged on the 10th day.

The omphalomesenteric duct is the embryonic structure connecting the primary yolk sac to the embryonic midgut that normally becomes a thin fibrous band, which eventually disintegrates and is absorbed spontaneously at the 5th–10th week of gestation. This condition remains asymptomatic in adults unlike in children [1, 2].

Persistent omphalomesenteric duct causing small bowel obstruction, especially in an adult patient, is a rather unusual presentation with few reported cases in the literature [3]. It should be taken into consideration in adults with acute mechanical small bowel obstruction without any previous history of surgery so as to prevent morbidity and mortality.

Fig. 1 X-ray of the abdomen showing multiple air fluid levels

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Fig. 2 Meckel's diverticulum showing its attachment to the umbilicus

Fig. 3 Gangrenous segment of Ileum adjacent to Meckel's diverticulum

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