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Ileal Duplication - Presentation And Management - A Rare Case Report

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I. Introduction-

Duplications of alimentary tract are found in 1 in 10,000 births. They may be either cystic or tubular. Approximately 80% cases present before age of 2 years [1].

Although they can be detected in any part of the digestive tract from the oral cavity to the anus, they are most frequently identified in the small intestine.[2]

They usually present with complaints like pain, abdominal distention and vomiting [3]. Features like obstruction, bleeding per rectum, perforation, volvulus, intussusception and malignancy may be seen with gastrointestinal duplication.[4]

We managed a similar case of 4-month male child who presented as case of intestinal obstruction.

II. Case Report-

A 4-month male was admitted with complaints of abdominal distention, vomiting and constipation for 3 days. Patient had history of malena and recieved blood transfuison for the similar episodes in the past. On arrival, patient had tachycardia (PR- 138/min), was dehydrated and was tachypneic (RR-42/min). Per abdomen examination revealed a distended abdomen with visible peristalsis. An X-Ray abdomen was done which showed dilated bowel loops. Patient was planned for exploratory laparotomy. The child accepted orally well in the post operative periodand was followed up for same.

Intra-operative findings-

1. A Thick band extending from sigmoid colon till ileum was found.
2. Ileal duplication (tubular type) of length 20 cms extending 50 cms from D-Jjunction.
3. Dense adhesions present from distal end of duplication to normal bowelcausing obstruction.
4. Proximal end was ending into the mesentery. Resection of ileal duplication segment and end to end anastomosis was done.

III. Discussion-

The midgut forms the primary intestinal loop and gives rise to the duodenum. At its apex, the primary loop remains in open connection with the yolk sac through the Vitelline duct. During the 10th week, the primary loop returns into the abdominal cavity. While these processes are occurring, the midgut loop rotates 270° counterclockwise. Remnants of the vitelline duct, failure of the midgut to return to the abdominal cavity, malrotation, stenosis and duplication of parts of the gut are common abnormalities.

Enteric duplications are generally cystic or tubular masses [5-6].

Majority of duplications are found in the proximity to the small intestines, most common being in the ileum. [2-3] They are mostly found in the mesenteric side. In our case, the duplication was located in the ileum and was of tubular type [2]. The presentation of these cysts depends on their size, location and content. Presenting symptoms are varied but abdominal pain, vomiting and abdominal mass are most common. [3]

Duplications of midgut or hindgut are more likely to cause abdominal pain, distention, melena or perforation. In our case patient presents with pain abdomen, vomiting, distention of abdomen and with history of malena which is a very rare finding in the cases of ileal duplication.

The cyst arising in the ileum can be confused with the presentations of acute appendicitis due to similar presentation of symptoms.
Small bowel duplications may also present as intussusceptions by acting as a lead point.

Prior to surgery, it is difficult to diagnose alimentary duplication because of the non-specificity of symptoms and the presentation [7]

Surgical treatment is advocated after a diagnosis of ileal duplication in order to prevent potentially lethal complications such as perforation, volvulus, intussusception, bowel obstruction, and enteric bleeding.

Optimal treatment for small intestinal duplication is resection. Long tubular duplication of the small intestine represents a greater surgical challenge. Ectopic gastric mucosa should be removed.

Heterotopic mucosa of gastric or pancreatic origin are sometimes seen, with a frequency of 17%–36% for gastric mucosa [8], and these are thought to result in perforation or bleeding
The duplication itself is also thought to have malignant potential [9-10]

IV. Conclusion –

We believe that in case of unexplained abdominal pain, and features of intestinal obstruction and bleeding per rectum , gastrointestinal duplications should be kept in mind as part of differential diagnosis in both children and adults.

Once recognized complete resection of the segment is the appropriate treatment due to risk of perforation and malignancy.

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