Adult Intestinal Malrotation Presenting as Recurrent Vomiting: a Case Report

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Abstract Gut malrotation is a congenital anomaly characterized by either lack of rotation or incomplete rotation of gut around axis of superior mesenteric artery. Most patients present within first year of life. Presentation during adult life is considered rare. Diagnosis of intestinal malrotation during adult life is most often by chance rather than by clinical acumen. Once diagnosed, treatment is based on the general principles of management of intestinal obstruction. We are presenting one such case in which CECT abdomen done to look for the diagnosis of acute pancreatitis leads us to the identification of intestinal malrotation.

Keywords Gut malrotation · Intestinal obstruction

Introduction

Cases of intestinal malrotation are familiar to pediatric surgeons but are rarely encountered by those caring strictly for adults. So, diagnosis is often delayed. Symptomatic adults present as acute abdomen or chronically as vague pain abdomen.

Patient and Methods

A 25-year-old gentleman presented with bilious vomiting of 8 days duration. Upon admission, the patient had signs of moderate dehydration. Abdominal examination was unremarkable except for epigastric fullness. He had history of similar complaints 1 year back which improved with conservative management details of which were not known. The patient was subjected to upper GI endoscopy which showed dilated

stomach filled with bile. Serum amylase was found to be 250 IU/ml. Ultrasound of the abdomen did not reveal any significant abnormality. But contrast enhanced computed tomography (CECT) abdomen showed intestinal malrotation with the midgut volvulus. Exploration was done via right upper transverse incision. Intraoperatively, there were no ischemic changes of bowel. Hence volvulus was derotated in anticlockwise direction, Ladd's bands were divided at both ends (Fig. 1), small bowel was placed on right side of the abdomen, and cecum was placed on left side of the abdomen. Appendicectomy was done and abdomen was closed in layers. Postoperative course was uneventful.

Discussion

Malrotation of gut is a congenital anomaly referring to either lack of rotation or incomplete rotation of gut around the axis of superior mesenteric artery [1]. Usually, more than 80 % patients present within first year of life. Presentation after 2 years is seemingly rare [2]. True incidence in adults is difficult to estimate because most remain asymptomatic and their condition is never diagnosed. A review of literature by Von Flue et al. cited 40 cases from 1923 to 1992 [3]. However, autopsy studies have identified malrotation in 0.03 % of population [4]. Majority of the cases are detected incidentally during imaging or laparotomy for some other reasons [1]. Symptomatic patients present either acutely with bowel obstruction and intestinal ischemia or as cecal volvulus or chronically with vague abdominal pain [3]. Diagnosis is often delayed not only due to rarity of the condition but also due to varied presentation. However, USG and CT abdomen provide excellent cross-sectional anatomical orientation which allows preoperative diagnosis [5]. Conventional Ladd's procedure remains the standard procedure [6]. Recently, even laparoscopic Ladd's procedure has been found to be safe and effective in adults [7].

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Fig. 1 Ladd's band being divided

Conclusion

Intestinal malrotation often remains asymptomatic and presents as acute intestinal obstruction past the pediatric age group. Hence it should be kept in the differential diagnosis

whenever a case of acute intestinal obstruction is encountered in a young adult without any significant past history.

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