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Gastrointestinal Obstruction Due to Fibrous Band with Meckels Diverticulum

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Abstract: ***Meckel's diverticulum is the most common congenital anomaly of the small intestine. Meckel's diverticulum, though often asymptomatic, can lead to several complications. The most common is bleeding, especially in children, due to ulceration from ectopic gastric mucosa. In adults, intestinal obstruction is more frequent, caused by volvulus, intussusception, or adhesions. Other complications include diverticulitis mimicking appendicitis, perforation leading to peritonitis, and rarely, tumors such as carcinoid or GIST. Here we present a case of intestinal obstruction due to twisting of mesentery due to fibrous band and meckels diverticulum in a 35 year old male patient.***

Keywords: Meckel's diverticulum, mesenteric twisting, Intestinal obstruction, fibrous band

1. Introduction

The etiology for the majority of small bowel obstruction cases results from postoperative adhesions.[1] Meckel's diverticulum is a congenital outpouching of the distal ileum caused by incomplete obliteration of the vitelline duct. It may contain ectopic tissue like gastric or pancreatic mucosa and can lead to bleeding, obstruction, or inflammation. Most of the Meckel's diverticula are discovered incidentally during a surgical procedure performed for other reasons. Hemorrhage, small bowel obstruction, and diverticulitis are the most frequent complications.[2] This case report presents the diagnosis and management of small bowel obstruction causes by mesenteric twisting due fibrous band and meckels diveticulitis causing bowel ischemia and necrosis managed by resection of the ischemic bowel followed by stoma formation.

2. Case Report

A 35 year old male patient presented to emergency department with complain of abdominal pain since last 5 days. Pain was of insidious onset, progressive in nature with moderate intensity aggravated by food intake and relieved with medication. Pain was associated with multiple episodes of vomiting. Vomiting was projectile and bilious in nature, having several episodes aggravated by food intake. On examination patients temperature was normal, his abdomen was distended and tender on touch. There was no guarding and rigidity present. No abdominal mass was palpable. Patients past history was insignificant with no any previous major abdominal surgery. Patient was admitted and was investigated.

The blood reports were suggestive of hemoglobin 10.60gm/dl and leucocyte count of 12000/cmm. Patients Na was 126.0mEq/L and K 4.58mEq/L. Rest all investigations were within normal limits. Patients erect abdominal xray showed multiple Air fluid levels with dilated bowel loops. He was admitted to surgery ward for further management. After all routine investigations patient was posted for operative intervention.

Emergency exploratory laparotomy was done. On exploration gangrenous bowel loops with fibrous band causing twisting of mesentery with meckels diverticulum adherent to mesentery was found. Approximately upto 80cm from ileocecal junction, ileum was found gangrenous. Derotation and cattle braasch release of right sided colon was done. Resection of gangrenous bowel with ileocolic junction, caecum and 10cm of ascending colon was done. Adequate length of small bowel and colony were chose for stoma. Ileoascending stoma was created. Rest of the bowel and solid organs were examined and were found to be normal. Two 32 FR drain were kept and layer vise closure of abdomen was done. Patient was shifted to ICU and immediate post operative period was uneventful. Patient was started sips orally on Post operative day 3 and progressed to soft diet on post operative day 5. Patient was discharged on post operative day 15 with patients vitals stable and tolerating all orally.

3. Discussion

Meckel's diverticulum is the most common congenital abnormality of the gastrointestinal tract with incidence of approximately 2%.[3] It represents the failure of normal regression of vitellointestinal duct during 5-7 weeks of gestation. It is a true diverticulum arising from the antimesenteric border of the distal ileum mostly containing heterotopic gastric mucosa (70%) or pancreatic tissue (20%) in symptomatic patients and is known for its complications like bleeding, obstruction or perforation. Till date only 3 cases of concurrent intestinal malrotation and Meckel's diverticulum have been reported in literature. Of these, one case was reported with perforated Meckel's diverticulum. Our patient presented to us with acute abdomen and obstructive symptoms caused due to inflamed meckels diverticulum and fibrous band causing mesenteric twisting and acute small bowel obstruction. It is rare to find such presentation in a case of acute abdomen.

4. Conclusion

From the few cases reported with our case presenting with both mesenteric twisting and meckels diverticulum it is important to remember the unusual presentations in cases of patient presenting with acute abdomen. Patients should be evaluated properly when presenting with recurrent complains of abdominal pain. Appropriate treatment before the onset of complications can lead to better outcome on patients favour.

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