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Case Report

Pediatric small bowel obstruction: a rare case

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ABSTRACT

In the recent era, pediatric small bowel obstruction found commonly due to congenital anomalies like intussusceptions, Meckel's diverticulum etc. An unusual case of pediatric small bowel obstruction is being presented for its rarity and mode of presentation due to foreign body.

Keywords: Pediatric obstruction, Foreign body

INTRODUCTION

Pediatric small bowel obstruction is not a common emergency presented to surgeons and is life threatening if not diagnosed and treated early. Intestinal obstruction mostly due to intussusception, Meckel's diverticulum are reported but rarely found due to vegetative material like metal coin, peanuts etc.

We are reporting a case of pediatric obstruction due to foreign body for its rarity and to highlight that though rare, it can occur.

CASE REPORT

An eighteen months old girl presented with complaints of abdominal distension associated with vomiting since 3 days. H/o passage of stool intermittently with reduction in abdominal distention.

General examination revealed irritable child with tachypnea and tachycardia. Mild dehydration was present. Per abdominal examination showed distended abdomen visible peristalsis minimal tenderness all over abdomen, no guarding, UBLD maintained intestinal sounds exaggerated at all four quadrants. Rectal examination revealed faecal matter.

Blood investigations were normal X ray abdomen in standing position showed multiple air fluid levels suggestive of intestinal obstruction (Figure 1). Abdominal sonography suggestive of dilated bowel loops, negative target sign, no mass lesion.

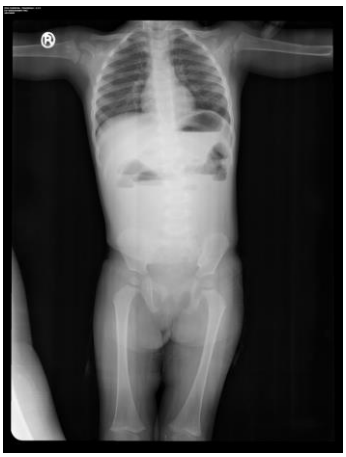

Figure 1: Small bowel obstruction.

Patient was admitted with provisional diagnosis of acute intestinal obstruction. Patient kept on conservative line of management in the form of Ryle's tube aspiration, abdominal girth, antibiotics and fluids.

On day one of admission patient passed motion and distention was reduced, but again she had repeat episode which didn't respond to the treatment. Hence on day 3, decision of exploration was taken.

Intraoperatively dilated bowel loops found 2 feet proximal to the ileo-caecal junction. At the junction of dilated and collapsed loops a hard mass like structure was palpable which could be dislodged to proximal dilated loop suggestive of foreign body causing obstruction. Enterotomy done. Foreign body in the form of a complete brittle nut removed (Figure 2).

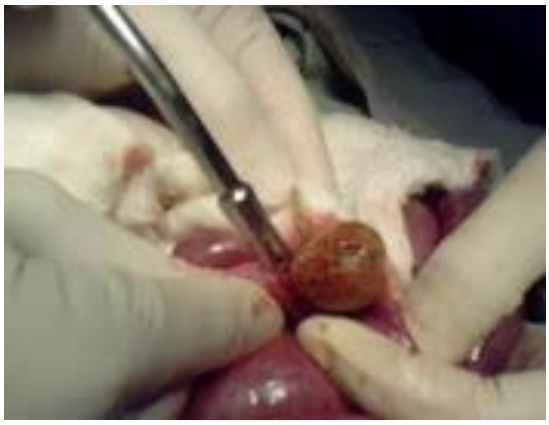

Figure 2: Enterotomy with removal of foreign body.

No evidence of any congenital malformation, intussusceptions, and meckel's diverticulum or lymph nodal mass present. Enterotomy closed .Postoperative period was uneventful. Sutures removed on tenth day.

DISCUSSION

Foreign body obstruction mostly found in esophagus at thoracic inlet and can be removed by endoscopy, Foleys catheter or bougies.[1]

Intestinal obstruction in pediatric age group may occur in small or large bowel, may be complete or partial, congenital or acquired.

Obstruction mostly found with congenital conditions like atresia, malrotation, Meckel's diverticulum, and with acquired conditions like intussusceptions, volvulus, polyp, foreign body.[2]

Majority of foreign body GI obstruction occurs in 6 months to 6 years of age with 65% to 85% occurring in children <3 years of age.[3] In Asia upto 90% of foreign body ingestion are fish bone.[3]

Males and females are equally affected (1:1).[1] Unmasticted food may acts as a bolus foreign body swallowed by children, alcoholics or insane.[4]

Once the foreign body reached to stomach complications are less likely. Foreign body impacted in GI tract may cause local inflammation, pain, bleeding, scaring, obstruction, perforation and septicemia.[1] In pediatric age intestinal obstruction requiring surgery includes malrotation, volvulus, intussusception, adhesions etc. A specific anatomical abnormality leading to intussusceptions are only approximately 5% in children <5 years with recognizable causes of intussusceptions as meckel's diverticulum, intestinal polyp or foreign body.[6]

Patient may presents with abdominal pain, vomiting or hematemesis.[5] Mortality and morbidity increases due to attack of FB over mucosal tissue leading to ulceration, pressure necrosis, fistula ,obstruction or perforation.[1] Most common areas for impactions includes pylorus, second portion of duodenum, ligament of Treitz, ileo-caecal valve or a congenital narrowing.[5]

Most foreign bodies pass harmlessly through GI tract and eliminated in stools.[1]

Indications for surgical exploration includes, sharp or pointed objects longer than 4 cm length, 2 cm diameter or with no movements at third day of ingestion, symptomatic patient at any time and acute abdominal conditions like obstruction or perforation.[5]

For GI foreign bodies, success rate due to endoscopy or surgical intervention about 94%-100% with mortality rate of 0.05%.[1]

In our case patient had FB small bowel obstruction as no cause was found even after detailed history and investigation. Post-operative period was uneventful with no complication as she was diagnosed and treated early. Early diagnosis and appropriate surgical treatment is the key to improve prognosis.

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