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Case report *Medical research*

Duplication of small gut present in right iliac fossa lump in adult patient: A rare clinical presentation

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ABSTRACT

Duplication of gut presenting as recurrent obstruction as recurrent vomiting and colicky abdominal pain an adult is a very rare clinical presentation. Here we report a case of an adult male patient came with recurrent vomiting and colicky pain was caused by tubular communicating 3rd part of duodenum with terminal ileum through mesenteric border. This condition was managed by performing laparotomy, excision of duplicated segment of both ends (duodenal and ileal attachment) and stapled repair of ilea and duodenal ends.

KEYWORD: Recurrent Vomiting, Recurrent obstruction, Pain Abdomen, Resection

CASE REPORT

A 18 years old male presented in surgical OPD with the history of recurrent pain abdomen and recurrent vomiting, since childhood. He had been suffering from episodes of these symptoms for 15 days suggestive of sub-acute intestinal obstruction. However for last few days, these symptoms were aggravated. Patient had been empirically put on conservative treatment by clinicians whom he had been consulting before coming to our hospital. Patient appeared quite ill, dehydrated with mild fever. Physical examination revealed partially distended abdomen with tenderness and guarding in right iliac fossa. No hepato splenomegaly was detected. P/V and P/R examination were within normal limits. Hematological profile revealed normal study. X-ray abdomen erect view showed multiple Air fluid levels. Previously done endoscopy suggestive of large opening at D2 with hyperaemic mucosa. Duodenal diverticula. USG study of abdomen showed small focal dilated bowel loops with thickened wall in right lower abdomen. Meckel's Diverticulitis and CECT of abdomen showed minimal circumscribed edematous wall thickening is seen at distal ilial loops in right iliac fossa with partial luminal narrowing, minimal adjacent fat standing and necrotic collection causing phlegmon formation. He was taken up for

Exploratory Laparotomy after correcting his dehydration. Abdomen was opened through mid-line incision which revealed dilated small bowel loops with free fluid. Exploration revealed about one feet long tubular, dilated and connected 3rd part of duodenum to terminal ileum at mesentery border. This communication takes place through mesentery. There was a constriction in between duplication. The segment had no independent mesentery. It derived it's vascularity from the mesenteric vessels with which it was communicating. This segment was attached to second part of duodenum from its one side to another side about 1 ft. proximal to ileocecal junction at mesenteric border. This duplicated gut segment was resected and stapled applied and resected both ends. No evidence of abdominal Koch's was detected. His post-operative period remained uneventful and he was discharged fifteen days after surgery.

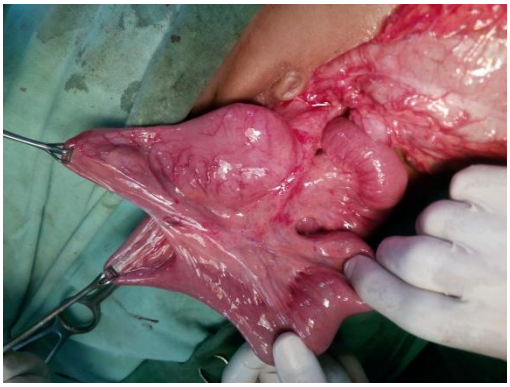

Figure 1duplication part connecting betwin duodenum3nd Part with terminalileum.

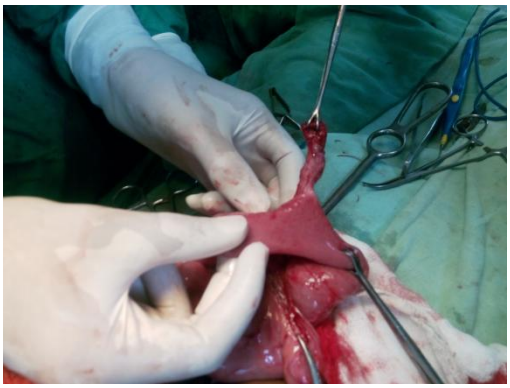

Figure 2 duplicate part separated from duodenum and connecting with terminal ileum

HPE REPORT

Revealed duplication of small gut with all three layers, No evidence of heterotopia, dysplasia or tuberculosis was found.

DISCUSSION

Alimentary tract duplications are rare congenital malformation that can occur at any site in the digestive tract. Duplication may be as a cyst or rarely as a tubular structure on the mesenteric aspect sharing a common vascular and muscular wall with the main segment but separated by mucosal lining[1]. Ileum is most commonly involved (63%) followed by stomach and duodenum[2]. Most patients with duplication present with a palpable abdominal lump[3], bowel obstruction, intussusceptions and/or hemorrhage due to heterotrophic gastric mucosa in the duplicated segment[4] but recurrent vomiting caused by duodenal tubular duplication is rarely

seen[5]. Many theories have been put forward in an attempt to explain these duplications. Lewis and Thyng frequently found diverticula in the fetal alimentary tracts of pigs, rabbits, cats, sheep and man[6]. These knob-like outpockets of the intestinal wall normally regressed, but the pinching off of one of these structures, separating it from the normal intestinal wall, was thought to be the mode of formation of these abnormalities. Bremmer[7] attributed duplication to a failure of cystic spaces which convert a solid stage of the intestinal canal into a tube, to join up with the main lumen. Other possible explanation is that duplication represents a localized form of twining[8]. Foetal stress and anoxia caused by vascular in sufficiency during intrauterine life have also been implicated as a cause of duplication of gut[9]. This case is unusual for its presentation in adult age group, tubular structure with no heterotrophic mucosa and presenting as perforation peritonitis.

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