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Case Report

Isolated segmental mega-diverticulosis of ileum: a rare presentation of acute intestinal obstruction

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ABSTRACT

We present an interesting case of acute intestinal obstruction where a woman, aged 26, presented to emergency room with constipation for 2 days and vomiting for 1 day. The examination and initial imaging suggested sub-acute intestinal obstruction, since the condition progressed she was taken to operating room for laparotomy. The intra-operative findings revealed isolated segmental mega-diverticulosis of ileum. She underwent resection of terminal ileum and caecum with ileo-colic anastomosis. Pathological evaluation of specimen showed diverticular features. Ileal diverticulosis excluding Meckel's is an extremely rare entity and complicating into acute intestinal obstruction is strange. With a low prevalence and absence of suspicion for it, diagnosis will be made intra operatively most of the time.

Keywords: Diverticulum, Ileum, Intestinal Obstruction

INTRODUCTION

Non Meckel's diverticulum of terminal ileum is less common than duodenal diverticulum and presenting as primary cause of intestinal obstruction is rarest.[1] Small bowel diverticula are asymptomatic and are found incidentally. We report a case of multiple large diverticulosis of terminal ileum presented with a complication.

CASE REPORT

A 26-year-old female with no significant past medical history presented to emergency room with constipation of two days associated with pain abdomen in the left lower abdomen and non-projectile vomiting of 5 episodes since one day. She had undergone Caesarean section 4 years back. She was pale with pulse of 90 beats per minute and blood pressure of 100/70mmHg and per abdomen examination revealed soft distended abdomen with tenderness in lower region more in the left iliac fossa. Bowel sounds were hyperperistaltic. Per rectal examination was unremarkable. Pfannenstiel scar which was healed by primary intention was seen. So the initial diagnosis of sub-acute Intestinal obstruction due to adhesions was made and closely followed up. Serial Abdominal girth monitoring showed increase by 8 cm in 24 hours.

Haemogram showed anaemia with haemoglobin level of 10.2g/dl and raised leucocyte count of 13,300. Other blood parameters were in normal range. Radiograph of abdomen showed multiple air fluid levels with dilated loops of small bowel. Ultrasound detected mild free fluid in POD and dilated small bowel loop to be approximately 4cm. Patient was further evaluated by Contrast enhanced CT of abdomen and pelvis which revealed short segment circumferential wall thickening of ileal loop proximal to

ileocecal junction as a suspected the cause of intestinal obstruction (Figure 1).

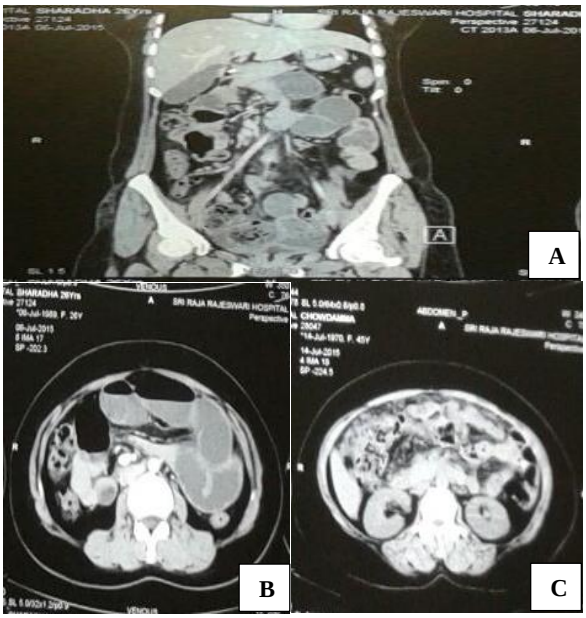

Figure 1: CT Abdomen showing suspension of diverticulosis in the ileum.

In view of un-resolving intestinal obstruction, patient underwent laparotomy on the 2nd day of admission. Multiple large diverticula were seen on both mesenteric and anti-mesenteric sides of ileum up to 12cm proximal to ileocecal junction with dilated proximal bowel loops (Figure 2). Appendix was normal and free from diverticular part (Figure 3). Resection of the terminal ileum involving diverticular part and caecum was done, with Anastomosis of ileum and ascending colon was done.

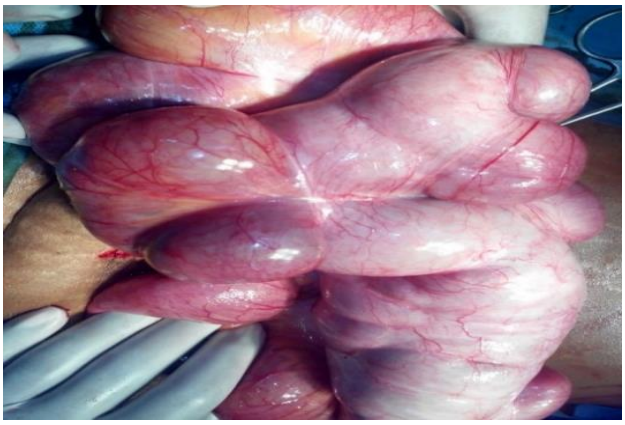

Figure 2: Intra operative picture of distal ileum showing multiple diverticulum.

Patient recovered well post operatively, even Histopathology report was diverticulosis of ileum with reactive hyperplasia of lymph nodes and sinus histiocytosis. Patient was followed up with upper GI endoscopy and colonoscopy for other associated diverticular pathology in gastrointestinal tract which was normal.

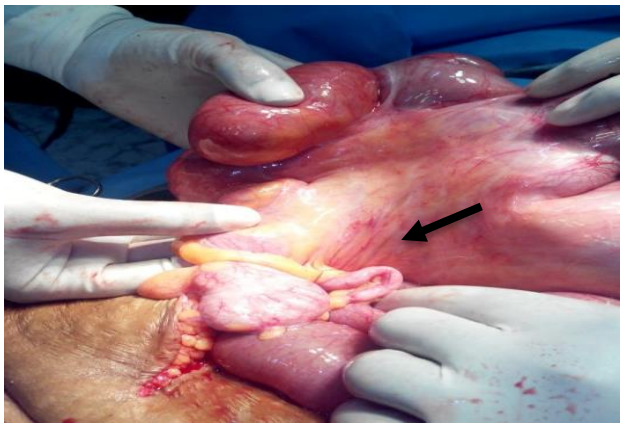

Figure 3: Diverticulum is proximal to ileocecal junction and appendix is free from diverticular part.

DISCUSSION

Although diverticula in the colon and duodenum are fairly common, ileal diverticulosis is an extremely rare entity, with reported rate of 0.1-1.5% on autopsy predominantly involving jejunum than ileum.[1-3] 80% of diverticula occur in the jejunum, 15% in the ileum, and 5% in both jejunum and ileum.[1,5] Diverticula of small bowel occur twice frequently in males than females. It is a condition after sixth decade of life.[2] Ileal diverticula are false diverticula when compared to the more common true Meckel's diverticulum. They are usually multiple and occur at the mesenteric border, sometimes hidden in the mesentery and overlooked during surgery.[4] The pathophysiology of acquired small bowel diverticulosis is thought to be due to abnormalities of smooth muscle and myenteric plexus.[5] It may be a primary condition or secondary due to abdominal surgery, tuberculosis or Crohn's disease.

The majority of small-bowel diverticula are asymptomatic and found incidentally.[6,7] Less than 10% cause complications such as dyspepsia, mild abdominal discomfort, malabsorption, obstruction, volvulus, and bleeding.[4,5] Terminal ileal diverticulitis is a rare complication. Park and Lee described incidence of terminal ileal diverticulitis to be 0.1% with common symptom of acute abdominal pain resembling that of acute appendicitis.[2] The most common complication is perforation with localized or generalized peritonitis. Gastrointestinal bleeding and small bowel obstruction are also reported but extremely rare.[8]

The presenting symptoms vary widely. They are nonspecific, commonly mimicking acute appendicitis but in present case it was acute intestinal obstruction. The mortality of the associated complications is 25-50%.[9] Ileal diverticulosis is diagnosed with radiological studies. CT is the initial test of choice demonstrating wall thickening, extra luminal free air, mesenteric

inflammation and fluid collection if perforation has occurred.[10] For complications such as bleeding, obstruction and perforation surgical intervention is required and Segmental resection with primary anastomosis is done.

CONCLUSION

In Conclusion, with a low prevalence and relative absence of suspicion for it, isolated segmental mega diverticulosis of terminal ileum was a strange cause of acute intestinal obstruction.

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