

Jejunal diverticulitis with sealed perforation- an unusual cause of acute abdomen

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Abstract

Jejunal diverticula are rare and usually asymptomatic. Acute complications may include haemorrhage, diverticulitis, obstruction, abscess formation and perforation. Here we report a case of 61 years lady who presented with generalized abdominal pain, vomiting and fever. on examination her pulse rate - 120/min, BP -100/70, febrile, generalized abdominal tenderness and guarding present. CECT abdomen s/o jejunal diverticulitis and sealed perforation. Exploratory laparotomy revealed a perforated jejunal diverticulum. Resection of the jejunal segment containing the perforated diverticulum and primary anastomosis was done.

Keywords: acute abdomen, perforation, jejunal diverticulum, small bowel diverticular disease

1. INTRODUCTIONS

Jejunal diverticula are rare but life threatening clinical entities.(1) The majority of cases are asymptomatic but can present with chronic non-specific abdominal symptoms and acute complications, including haemorrhage, intestinal obstruction, diverticulitis and perforation.(2-5) due to its rarity diagnosis often difficult and delayed.(6) We are presenting a case of jejunal diverticulitis with sealed perforation.

2. CASE REPORT

A 61 years old lady came to emergency department with complain of severe abdominal pain and recurrent vomiting for last 2 days. She was ill looking, dehydrated with heart rate of 120 bpm, blood pressure of 100/60 mmHg. There was generalized abdominal tenderness and guarding present. White cell count was elevated ($16 \times 10^9 /L$) with neutrophils 87%. Other laboratory tests were normal. Supine abdominal X-ray displayed multiple dilated loops of small bowel. initially patient was resuscitated with intravenous fluid, antibiotic, Foley catheterization, CRTS. CECT abdomen s/o multiple large diverticula (largest - 5.6*4 cm) with impacted fecal seen arising from the proximal / mid jejunum with inflammatory wall thickening, few intramural air foci, air foci in adjacent mesentery with fat stranding and mild ascities probability of jejunal diverticulitis with content perforation. A duodenal diverticula also present.(figure-1)



Figure-1

So pt. planned for emergency laparotomy. Intra-operative findings revealed multiple jejunal diverticulum of 5x5 cm with sealed perforation and pus flakes (Figure.1) at 30 cm from the duodeno-jejunal flexor and minimal amount of pus in the peritoneal cavity. segmental resection of the jejunum containing diverticula and perforation site done and primary jejuno-jejunal (side to side, single layer) anastomosis were carried out. Peritoneal lavage was done with warm normal saline and abdomen was closed with tube drains in pelvis and in vicinity of anastomosis (Figure.2).

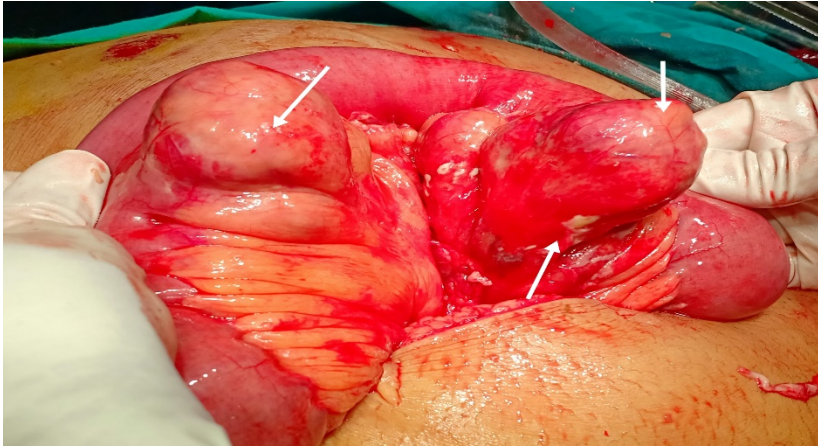


Figure - 2

She made an uneventful recovery and was discharged on the 7th post operative day. . Histopathology revealed the jejunal diverticulum with pinhole perforation

3. Discussion

The incidence of jejunal diverticulosis is up to 2.3% of the population. Jejunal diverticulum was first described by Somerling in 1794 and later by Astley Cooper in 1809. Gordinier and Shil performed the first operation for diverticula in 1906 [3, 4]. The most common part of the small bowel to be affected by diverticula is the Jejunum (85%), ileum (15%). Isolated jejunal diverticulosis coexists with diverticula of the esophagus (2%), of the duodenum (26%) and of the colon (35%) [7]. In our case multiple jejunal and single duodenal diverticula was present.

Small bowel diverticula are rare. These diverticula are classified as acquired diverticula. They are formed by herniation of mucosa and submucosa through the muscular layer of the bowel wall and are usually multiple, arising on the mesenteric border where the arteries enter the intestine, contrary to the true congenital Meckel's diverticulum. Their size varies from a few millimetres to more than 10 cm and they occur in greatest number in the oral part of the small bowel and they also tend to be larger. In our case also, the diverticulum was originating on the mesenteric border of the jejunum and was 5 cm in size with sealed perforation at tip with purulent material in peritoneal cavity.

The predominance of diverticula in the jejunum is attributed to the greater diameter of the penetrating jejunal arteries. the most common complications reported were diverticulitis with or without perforation, occurring in 2.3% - 6.4% of cases, hemorrhage occurring in 3.4% - 8.1% of cases, and obstruction occurring in 2.3% - 4.6% of cases. (3,5,7) Chronic complications include chronic hemorrhage and malabsorption. (7) Stasis within diverticula along with jejunal dyskinesia can lead to a bacterial overgrowth with resulting diarrhea and malabsorption in up to 10% of patients. (7) Chronic malabsorption can present as an iron-deficiency anemia with microcytosis or a vitamin B12 deficiency with megaloblastosis. (8. Jejunal diverticulosis is generally not visible on plain radiograph images of the abdomen, CT or dedicated CT enterography can detect small bowel diverticula. The CT images from our patient clearly demonstrate jejunal diverticulosis with inflammatory changes and sealed perforation with mild ascities.

The old lady in our case with rare disease of jejunal and duodenal diverticula presented with sealed jejunal perforation and was successfully managed with resection anastomosis during emergency laparotomy.

4. Conclusion

Although rare, small bowel diverticulosis can be a cause of abdominal pain that should be kept in mind during evaluation of acute abdomen.

5. Refrence

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