



Jejunal Diverticulosis Presenting As Intestinal Obstruction- Case Report And Review Of Literature

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Abstract : Small bowel diverticulosis is a rare entity. mostly, it is asymptomatic. It may present as haemorrhage, malabsorption, volvulus, diverticulosis, obstruction, abscess and perforation. Intestinal obstruction in diverticulosis can be caused by diverticulitis, adhesions, stenosis, and volvulus. Exploratory laparotomy and resection of affected segment with primary anastomosis is the treatment of choice. We now report a case of small bowel diverticulosis with diverticulitis and adhesion, presenting as intestinal obstruction

Keyword : Small bowel diverticulosis, jejunal diverticulosis

CASE SCENARIO:

A 35 years Old Male was admitted with Chief complaints of Abdominal Distention, Abdominal Pain, Constipation, Vomiting for 4 Days. Vitals are Stable On examination Abdomen was Distended and Fullness was present in Epigastric region, Diffuse Tenderness, Shifting Dullness were noted .No guarding and rigidity observed. on Per rectal examination- Rectum was Empty, Emergency investigation: X-Ray Abdomen erect showed multiple dilated loops with multiple air fluid levels. Basic investigations were within normal limits Patient was diagnosed to have intestinal obstruction and PLANNED for emergency laparotomy

ON EXPLORATORY LAPAROTOMY:

- About 500 ml of toxic fluid was present in peritoneum.
- Multiple giant diverticulosis were present in jejunum and ileum in the anti-mesenteric border
- The Diverticular part was adherent to each other with dense adhesions,
- Areas of discoloration & unhealthy bowel were found. Part of the small bowel containing diverticulosis was found to be twisted around caecum

Procedure: Diverticular part was found to be unhealthy and with dense adhesions. Jejunum approximately 20 cm and ileum approximately 10 cm with diverticulosis was resected out. End to end anastomosis was done, rest of the bowel was normal without any diverticulum.



Histopathology examination:

Macroscopic findings: GROSS: 30 cm small intestine. Serosa showed multiple diverticula, adhesions & focal black areas **CUT SURFACE:** Showed opening of diverticula **MICROSCOPY: Section** of diverticula showed mucosa & sub mucosa with lymphocytic infiltrate Section of black areas-hemorrhage, necrosis & congested blood vessels in serosa. No evidence of granuloma/malignancy, Uneventful

Oral diet was started on 5th POD;

Pt. was discharged on 12th POD

Review of literature:

Introduction:

Small bowel diverticulosis was first described by Sommering in 1794 and Sir Astley Cooper in 1809(1, 2). Gordinier and Shil performed the first operation for diverticula in 1906(2). Jejunal diverticulosis is a rare entity and incidence ranging from 0.3% to 1.3% in autopsy and 2.3% in radiographic findings (3).

Pathogenesis:

Jejunal diverticulosis are usually pseudo diverticula resulting from a mucosal and sub mucosal herniation through the muscular layer in places of minor resistance to intraluminal pressure such as anatomic points where blood vessels penetrate the intestinal wall(2). In some cases incoming blood vessel runs over the diverticulum dome (13). Abnormalities of smooth muscles or of myenteric plexus explain the intestinal dyskinesia. This explains the typical location on the mesenteric side. Jejunal diverticulosis can be seen on the anti-mesenteric border but in rare pattern(4). Diverticula are more frequent in the jejunum(61%) than the other parts of the small bowel and it is attributed to the greater diameter of the penetrating jejunal artery(4). Jejunoileal diverticulosis are usually multiple.

Clinical features:

This disorder is clinically asymptomatic. When symptomatic they present with epigastric or periumbilical abdominal pain, satiety, bloating, constipation and diarrhoea (7, 8). Malabsorption may be due to non-synchronous peristaltic movement, dilatation of diverticulum, stasis of intestinal content, bacterial overgrowth. The only definitive way to confirm jejunal diverticulosis as the primary source of abdominal pain is cessation of symptoms after surgical resection of the involved segment of small bowel (7).

Complication:

The reported complications of jejunal diverticulosis include haemorrhage, malabsorption, volvulus, diverticulosis, obstruction, abscess and perforation in 10-30% of patients. (1). Mechanical obstruction can be caused by adhesions or stenosis due to diverticulitis, intussusception, enterolith in diverticula at the site of diverticulum and volvulus of the segment containing the diverticula (2, 5)

Investigations:

Diagnosis is usually made when diverticulosis becomes symptomatic or complicated (2). Nobles et al described characteristic triad of clinical and radiographic findings of jejunoileal diverticulosis –abdominal pain, anaemia and segmental dilatation in epigastrium or in left upper abdomen (2, 9, and 6). Upper gastrointestinal x-ray study by barium contrast clearly shows presence of multiple diverticula (3, 8). Computed tomography may show focal area of bowel wall thickening or smooth margin, areas of low attenuation with the mass, rim enhancement after IV contrast, gas within mass, edema or thickening of surrounding fat/fascial planes(10,8). Endoscopic procedures as double balloon enteroscopy and wireless capsule endoscopy are useful in detection of small bowel diverticulosis (2, 7, and 8). Diagnostic laparoscopy is also useful in investigation of complicated diverticulosis (7).

Management:

Although, symptomatic diverticulitis can be treated conservatively with antibiotic administration, nasogastric tube aspiration, CT guided drainage of abdominal abscesses (2, 7). When symptoms are persistent or refractory-resection may be useful (6, 8) Exploratory laparotomy and resection of affected segment with primary anastomosis is treatment of choice (1, 2, 3, 5, and 10). If extensive diverticula are present resection may be limited to segment containing complicated diverticulosis to avoid short bowel syndrome (7).

Asymptomatic, incidental diverticulosis on radio raphic study or at laparotomy usually do not need resection(6). If dilated, hypertrophied segment of bowel with large diverticula is found at laparotomy it may indicate progressive form of disease. Resection of such diverticular segment found incidentally at laparotomy is recommended (5, 6, and 12).

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