

# Perforated Jejunal Diverticulum: A Rare Complication

Sir,

Jejunal diverticula are uncommon, acquired lesions which are usually asymptomatic. When symptomatic they present with chronic nonspecific symptoms like pain, nausea, malnutrition and sometimes with acute presentation like gastrointestinal hemorrhage, peritonitis and obstruction. While chronic pain and malabsorption occurs in 40% of cases, perforation occurs only in 2.3–6.4% of all diverticula-bearing patients.<sup>[1]</sup>

We report a case of 60-year-old male, who presented in the emergency with generalized abdominal pain, distension and constipation since four days. The patient had a past history of frequent abdominal pain since three years. On general physical examination he had tachypnea, tachycardia and blood pressure was within normal range. Per abdominal examination revealed distension, generalized tenderness, guarding and rigidity. Routine laboratory investigations were within normal limits. Abdominal X-ray displayed air under both the domes of the diaphragm. On laparotomy, multiple jejunal diverticula were present on the mesenteric side. A perforation measuring  $0.5 \times 0.5$  cm was found in the diverticulum which was approximately 2 feet distal to the duodenojejunal junction [Figure 1]. Peritoneal lavage with resection of only perforation-bearing segment with end to end anastomosis was done. Postoperative course was uneventful.

Jejunal diverticula are pseudo diverticula which were first described by Somerling in 1794 and by Sir Astley Cooper in 1807. Their incidence on enteroclysis is 2.0–2.3% and on autopsy it is 0.06–4.6%.<sup>[1]</sup> They are more common in elderly males (58%).<sup>[2]</sup> The most common part of the small bowel to be affected by diverticula is the proximal jejunum (75%), followed by the distal jejunum (20%) and the ileum (5%). Coexistent diverticula can be present in the colon (30–75%), duodenum (15–42%), esophagus (2%), stomach (2%) and urinary bladder (12%) of patients.<sup>[3]</sup>

Jejunal diverticula are usually found incidentally on small bowel radiography such as double-contrast enteroclysis or at surgery. Perforation of jejunal diverticula is a rare complication. Peritonitis caused by perforated jejunal diverticula can be localized and self-limiting because the diverticula are at the mesenteric border of the bowel and readily allow the small bowel mesentery to wall them off. The treatment of choice for perforated jejunal diverticulum with peritonitis is segmental intestinal resection with primary anastomosis including non-inflamed diverticula.<sup>[4]</sup> If the diverticula are extensive, resection may have to be limited to the segment containing the perforated diverticulum to avoid short bowel



**Figure 1:** Perforation of jejunal diverticulum along with multiple diverticula on the mesenteric side

syndrome. Other procedures like simple closure, excision, and invagination, are associated with an approximately three times greater mortality rate. Simple diverticulectomy may impair blood flow because of its mesenteric location, and therefore may lead to anastomotic breakdown or fistula formation. The reported overall mortality rate is 24%, with a mortality rate of 14% in cases where resection of the involved segment with primary anastomosis was done.<sup>[5]</sup> The high mortality appears to be related to the advanced age of the patients as well as to delayed diagnosis and treatment.

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## REFERENCES

1. Makris K, Tsiotos GG, Stafyla V, Sakorafas GH. Small intestinal nonmeckelian diverticulosis: clinical review. *J Clin Gastroenterol* 2009;43:201-7.
2. Tsiotos GG, Farnell MB, Ilstrup DM. Nonmeckelian jejunal or ileal diverticulosis: An analysis of 112 cases. *Surgery* 1994;116:726-32.
3. de Bree E, Grammatikakis J, Christodoulakis M, Tsiftis D. The clinical significance of acquired jejunoileal diverticula. *Am J Gastroenterol* 1998;93:2523-8.
4. Herrington JL Jr. Perforation of acquired diverticula of the jejunum and ileum: Analysis of reported cases. *Surgery* 1962;51:426-33.
5. Roses DF, Gouge TH, Scher KS, Ranson JH. Perforated diverticula of the jejunum and ileum. *Am J Surg* 1976;132:649-52.

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