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Case Report

Jejunal diverticulitis

M. S. Ray, B. S. Deepak*

Department of Surgery, Military Hospital, Jalandhar Cantt, Jalandhar, Punjab, India

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***Correspondence:**
Dr. Deepak B.S.,
E-mail: deepaksatyapal@gmail.com

ABSTRACT

Jejunal diverticulosis is a rare condition associated with small bowel obstruction, bleeding, or perforation. It diverticulitis should be considered as an important differential in elderly patients who present with acute abdominal pain. We have brought forward a rare case report of multiple jejunal diverticula and peritonitis due to perforated diverticulum, making the management challenging and interesting.

Keywords: Diverticulosis, Jejunal diverticulitis, Perforation

INTRODUCTION

Jejunal diverticulosis is a rare condition associated with small bowel obstruction, bleeding, or perforation. Jejunal diverticulitis should be considered as an important differential in elderly patients who present with acute abdominal pain. We have brought forward a case report of multiple jejunal diverticula and peritonitis due to perforated diverticulum, making the management challenging and interesting.

CASE REPORT

84 years old lady a known case of sick sinus syndrome, hypertension and coronary artery disease under regular treatment and follow up reported to emergency department with complaints of sudden onset pain abdomen since 02 days, associated with nausea, vomiting, distension of abdomen and high grade fever with chills and rigors.

On examination patient was found to be very sick, febrile with tachycardia (irregularly irregular 122 bpm), tachpnoea (28 breaths per min) and BP 160/100 mmHg. She was pale, dehydrated, with poor urine output. Per abdomen examination displayed a scarless distended abdomen with "all over" yelling tenderness, guarding and rigidity and no bowel sounds, suggestive of generalized peritonitis. On PV examination there was tender left & posterior fornix and PR revealed boggy and tender anterior rectal wall. On systematic examination there was evidence of bilateral pneumonitis and sick sinus syndrome. Chest X-ray showed free air under diaphragm indicating hollow viscus perforation and abdominal X-ray displayed dilated bowel loops with multiple air fluid levels. Laboratory investigations showed leukocytosis and USG revealed multiple areas of fluid collections with absence of bowel movement.

A working diagnosis of acute abdomen with generalized peritonitis was made, probably due to hollow viscus perforation. Patient was lined and 'fast track' fluid-electrolyte resuscitation started. Blood and urine culture drawn and broad spectrum intra venous (IV) antibiotics fired off and the case was optimized for early emergency exploratory laparotomy.

Intra-operative findings were multiple jejunal diverticulae (01-02 cm dia) scattered from the duodenum to jejunum on the mesenteric border (Figure 1, 2, 3, 4 and 5). 700 ml

of thick pus was evacuated. A segment of jejunum 30 cm from DJ contained 03 highly inflamed and perforated diverticulae with interloop adhesion. Rest of small and large bowel and other organs of abdomen were unremarkable.

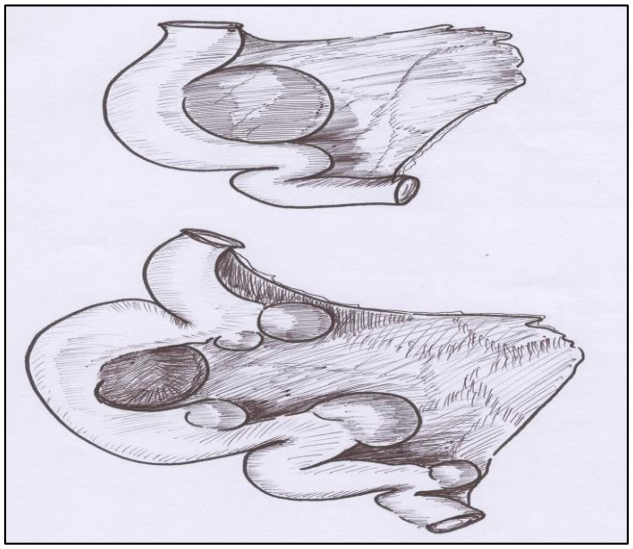

Figure 1: Diagramatic representation of the diverticulae on the mesentric side of the jejunum.

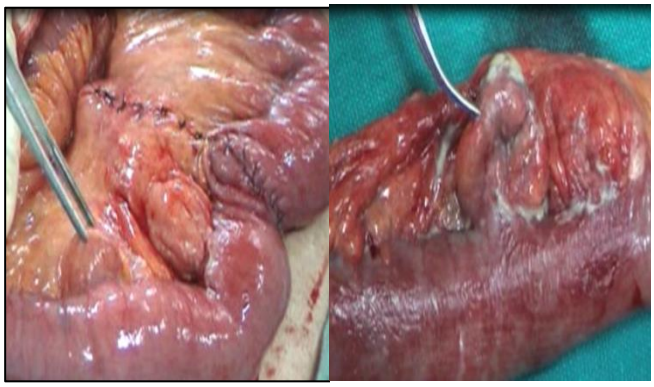

Figure 2: Intra-op view of the multiple diverticulae.

Operative procedure

Resection of segment of jejunum of about 30 cm in length, about 30 cm from DJ, bearing the perforated diverticula, with end to end jejuno-jejunostomy done (Figure 6). Followed by peritoneal lavage and abdomen was closed enmass with drains.

Early post op period, due to geriatric age group was very stormy, complicated with pneumonitis, cardiac arrhythmia with AF, which was managed accordingly. Patient was gradually weaned off ventilator and cardio supportive drugs. Enteral feeds were started gradually with lung and limb physiotherapy. By 10th post op day she was eating and passing well and was discharged to home by 14th post-op day. Hisptopathology report was acute jejunal diverticulitis.

Figure 3: Inverted diverticulae on the specimen showing inflamation and apical necrosis with peforation.

Figure 4: Forceps being introduced into a diverticulae form the luminal side.

Figure 5: Golf hole appearance of the opening of the diverticulae.

Figure 6: Post-opeartive view after the recection and anastamosis.

DISCUSSION

Diverticulosis is the condition in which there are outpouchings (diverticulae) of the intestinal mucosa and submucosa through the weakness of the muscle layers in the intestinal wall. The most common site is the colon followed by duodenum and rarely the jejunum.[1,2] Jejunal diverticulosis is a rare condition, with a reported incidence rate of 0.1-1.5%.[3] Jejunal diverticulosis is associated with small bowel obstruction, bleeding, or perforation.

The aetiology of jejunal diverticulosis is unclear. They are acquired false diverticulae (pseudo-diverticuli) which arise due to outpouching of mucosa and muscularis mucosa through the muscle coat at the point where the mesenteric vessels penetrate intestinal wall. Most commonly they occur on the mesenteric side of the jejunum and it is frequently seen in elderly males.[1] In our case too, multiple diverticula were seen on the mesenteric side in an elderly individual.

There are very few case reports in the literature of Jejunal Diverticulosis presenting with perforation.[4-7] Our patient too remained asymptomatic, until she presented with acute abdomen because of perforated diverticuli. Jejunal diverticulosis is a challenging disorder from a diagnostic perspective, with no truly reliable diagnostic tests. Abdominal radiographs and/or chest radiographs may demonstrate evidence of perforation, such as free air under the diaphragm or free peritoneal air; evidence of intestinal obstruction, or evidence of ileus, including multiple air-fluid levels and bowel dilatation. Computed tomography (CT) may identify thickening or inflammation of the jejunum or localized abscess formation.[8] The current treatment of choice for perforated jejunal diverticula causing generalized peritonitis is prompt laparotomy with segmental intestinal resection and primary anastomosis. The extent of the bowel resection depends upon the length of the bowel that is affected by the diverticula and the patient's peri-operative condition.[9]

Diagnostic laparoscopy can be very useful in investigating patients with a complicated symptomatology. It enables an accurate conclusive diagnosis to be made, avoiding the need for unnecessary laparotomy. Patients with perforated Jejunal Diverticulum often have localized or diffuse peritonitis. Percutaneous drainage and IV antibiotic administration is sufficient for treatment of patients in stable condition with localized peritonitis.[9] However, for patients with symptoms of generalized peritonitis, emergency laparotomy and segmental intestinal resection is recommended.[10] Our case had multiple jejunal diverticula and peritonitis due to perforated diverticulum.

CONCLUSION

Jejunal diverticulitis should be considered as an important differential in elderly patients who present with acute abdominal pain. Jejunal diverticulae are rare and usually asymptomatic. They rarely present as acute abdomen with complication of perforation as in our case making it a challenging diagnosis.

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