Case Report

Journal of Emergency Medicine Case Reports

Giant Jejunal Diverticula Causing Pseudoobstruction

Murat Çakır
Necmettin Erbakan University, Meram Medical Faculty, Department of General Surgery

Abstract

Introduction: Small bowel diverticula is a rare condition and is rarely seen in the jejunum compared to the ileum. It is usually incidentally detected. It is mostly asymptomatic. Herein, we aimed to discuss a case of multiple jejunal diverticula that have caused pseudoobstruction in the light of the literature.

Case report: A 55-year-old male patient had complaints of abdominal pain, abdominal swelling, nausea and vomiting. Mechanic intestinal obstruction was considered. Multiple giant diverticula were found in entire jejunum.

Conclusion: Jejunal diverticula may produce a different clinical picture. It should be kept in mind that jejunal diverticula that is a rare condition may cause pseudoobstruction.

Keywords: Jejunum, Diverticula, Pseudoobstruction.

Introduction

Diverticle is defined as outpocketing of the intestinal wall. Intestinal diverticula is a commonly seen condition. However, small bowel diverticula is a rare condition and is more frequently seen in the ileum. The prevalence of small bowel diverticula differs between 0.3% and 4.5% in autopsy studies[1-3]. Jejunal diverticula are mostly asymptomatic[1]. The diagnosis is usually made incidentally. The most commonly expected symptoms are abdominal pain, bleeding, and rarely intestinal obstruction[2]. It is more common in male gender and advanced ages[4].

Herein, we aimed to discuss a rare case of giant multiple jejunal diverticula progressing with abdominal pain and vomiting, in light with the literature.

Case Report

A 55-year-old male patient was admitted to the emergency department with complaints of abdominal pain, nausea, vomiting, abdominal swelling, weight loss, and excessive fatigue. In the physical examination, the patient was cachectic. The inspection revealed abdominal distention and abdominal fullness on palpation. He had a history of hypertension.

Blood pressure was 90/50 mmHg, and pulse was 100 bpm. Among the laboratory values, hemoglobin was 10 g/dL, and albumin was 3 g/dL. İnitially, intestinal malignancy was considered in the patient. He was admitted to the general surgery clinic. Parenteral feeding was initiated.

In the endoscopic examination, no pathology was found in the upper and lower gastrointestinal systems. On the all abdominal computed tomography, dilatation and multiple diverticula like structures were observed at the small intestinal proximal level (Figure 1).

The patient was taken to the operation after 5-day resuscitation. Parenteral nutrition was started for the patient. Electrolyte imbalance of the patient was corrected. Multiple giant diverticula with the largest one reaching 10 cm were found in entire jejunum (Figure 2).

Diverticula began after the 4th part of the duodenum and ended at the level of ileojejunal junction. Despite dilation in

Corresponding Author: Murat Çakır **e-mail:** drmuratcakir@hotmail.com
Received: 28.05.2020 • **Accepted:** 6.10.2020
DOI: 10.33706/jemcr.744147

DOI: 10.33706/jemcr.744147
Journal of Emergency Medicine Case Reports 2020; 11(3): 71-73

Figure 1: A section of abdominal computed tomography

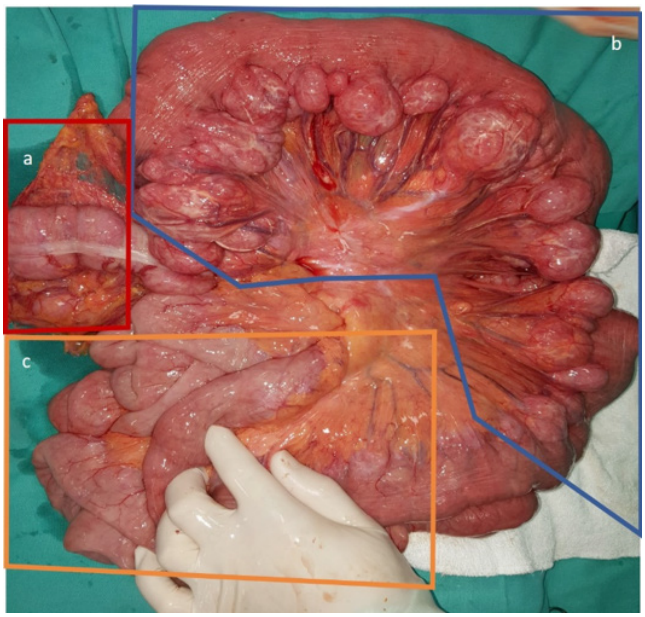

Figure 2: Operation image (a: normal colon, b: jejunal diverticula, c: normal ileum).

the jejunal loops, there was no any cause leading to obstruction. Resection was not performed due to general status of the patient. Postoperative period was complication free and oral intake was started on the third day. The patient who tolerated oral intake was discharged with a medication containing otilonium bromide and simethicone.

Discussion

Mechanisms of the formation of jejunal diverticula with is a rarely seen disease has not been fully clarified. In general, intestinal wall smooth muscle dysfunction or myenteric plexus defects have been accused[5]. Irregular jejunal contractions cause elevation in intraluminal pressure. Following the increase in intraluminal pressure, pulsion of the mucosa and submucosa develops in the weakened intestinal wall (at the vasa recta entrance region). Diverticula usually occur in the mesenteric surface. In our patient, all diverticula developed in the mesenteric region. Intestinal wall was thick and dilated. The number of diverticula was beyond measure.

Majority of cases have an asymptomatic course. Rarely they may be symptomatic. Symptomatic cases show perforation, obstruction, malnutrition and bleeding[5, 6]. Perforation is usually progress with abdominal pain and fever. In the imaging examinations, inflammatory mass, abscess, free air or mesenteric air may be observed. The diagnosis is usually confused, increasing the mortality rate up to 50%[6]. In our case abdominal pain was prominent. However, there was no acute abdominal finding in the physical examination. Oral intake of the patient was disrupted because of nausea and vomiting. Malabsorption, which is seen in such cases, accelerated weight loss in our patient. He lost 15 kg within the last 3 months.

Bleeding is one of the complications seen in these patients. Although rarely, fatal bleeding may also occur[2]. Bleeding manifests as melena or hematemesis. Hematemesis is due to the traume occurring in diverticula and subsequent ulcer[7]. Endoscopic diagnosis investigations usually fail[7, 8]. Mesenteric angiography or scintigraphy are successful in showing the localization. No active bleeding was seen in our patient. However, hemoglobin value was low. We thought that the existing chronic anemia was related to occult bleeding or malnutrition.

Diverticula related obstruction is rarely developing clinical picture. Patients develop adhesion and stricture due to experienced diverticulitis attacks. Diverticula can establish a focus for intussusception[8, 9]. These manifestation cause vomiting and distension in the patient. Large diverticula can develop pseudoobstructrion table due to dysmotility. This table shows clinical signs in the patient including mechanical intestinal obstruction[9]. Our patient had the symptoms of intestinal obstruction. No pathology that will explain intestinal obstruction could be found during the operation. Although there was no obstruction in distal of the jejunum, dilatation was observed in all areas where diverticula were localized. This supported pseudoobstruction. Resection was not considered in the patient with poor general status. No problem was found at postoperative follow up.

Conclusion

In conclusion; jejunal diverticula may be encountered with a different clinical picture. It should be kept in mind that there may be pseudoobstruction table without mechanical intesti-

nal obstruction in patients with intestinal obstruction table due to jejunal diverticula. More nonoperative approaches should be attempted in patients preoperatively diagnosed with jejunal diverticula.

Conflict of Interest Statement: The authors declare no conflict of interest.

Financial Disclosure: The authors declared that this study has received no financial support.

References

1. Prough H, Jaffe S, Jones B. (2019). Jejunal diverticulitis. J Surg Case Rep. 31: 1-3. doi: 10.1093/jscr/rjz005.
2. Mazahreh TS, Aleshawi AJ, Alorjani MS, Elayyan R, Al-Zoubi NA. (2019). Arteriovenous malformations within jejunal diverticulosis: case report and literature review. BMC Surg. 27;19(1):70-5. doi: 10.1186/s12893-019-0538-0.
3. Wilcox RD, Shatney CH. (1988). Surgical implications of jejunal diverticula. South Med J. 81:1386–91.
4. Syllaios A, Koutras A, Zotos PA, Triantafyllou E, Bourganos N, Koura S, et al. (2018). Jejunal diverticulitis mimicking small bowel perforation: case report and review of the literature. Chirurgia (Bucur). 113:576–81.
5. Woods K, Williams E, Melvin W, Sharp K. (2008). Acquired jejunoileal diverticulosis and its complications: a review of the literature. Am Surg. 74:849-54
6. Kassahun WT, Fangmann J, Harms J, Bartels M, Hauss J. (2007). Complicated small-bowel diverticulosis: a case report and review of the literature. World J Gastroenterol. 13: 2240-2
7. Yen HH, Chen YY, Yang CW, Soon MS. (2012). Diagnosis and management of jejunoileal diverticular hemorrhage: a decade of experience. J Dig Dis. 13: 316-20
8. Uhm MS, Kim N, Nah JC, Jung YM, Kang SB, Kim DW, et al. (2009). Congenital angiodysplasia in a woman presenting with idiopathic jejunal varicosis on angiography. Gut Liver. 3:122–6.
9. Makris K, Tsiotos GG, Stafyla V, Ponsky J, Shuck JM. (2009). Small intestinal nonmeckelian diverticulosis. J Clin Gastroenterol. 43: 201-7