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Case Report /Vaka Raporu

Perforated jejunal diverticulitis: A rare acute abdomen etiology

Nadir bir akut batın nedeni: Perfore jejunal divertikülitis

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ABSTRACT

Aim: Diverticulosis of the small intestine are mostly located in the duodenum, followed by the jejunum and the ileum. They can be symptomatic because of complications such as hemorrhage, intestinal obstruction, jejunal perforation, mesenteric abscess, and, rarely, generalized peritonitis. The management of symptomatic cases depends on the clinical presentation such as antibiotic therapy in cases of diarrhea, and surgery in the acute abdomen presentation. **Case Report:** A 62-year-old male patient was admitted to the emergency department with the complaint abdominal pain. His physical examination revealed with generalise peritonitis findings such as sensitivity in all quadrants of abdomen, widespread defense, and rebound . Temp: 37,8'C, Pulse: 114/min, TA: 110/80 mmHg, WBC: 15,600 and CRP;313. Ultrasound revealed that diffuse air-fluid, around the loop of the jejunal intestines. On laparotomy, two jejunal diverticula, 70 and 100 cm distal from the Treitz ligament, were present on the mesenteric side. Inflammation, edema and mesenteric perforation area of 1cm, with abscess focus surrounded by intestinal mesoceum and omentum were observed in the diverticulum 100 cm distal from the Treitz ligament. Resection of only perforation-related segment with side-by-side anastomosis were performed. **Conclusion:** Acquired jejunoileal diverticulosis is often associated with age over 60 years, male gender, colon diverticulosis and systemic connective tissue diseases. Only 10 to 30% of patients may had acute complications such as infection, bowel obstruction, volvulus, bleeding, and perforation which having high mortality level, usually caused by a delayed diagnosis and an advanced patient age. A diagnostic laparoscopy was also done in some cases. Jejunal diverticulitis is rare but complicated jejunal diverticulitis which can be life-threatening must be kept in mind as a cause of acute abdomen.

ÖZ

Amaç: İnce bağırsak divertiküliti çoğunlukla duodenumda görülür, bunu jejunum ve ileum takip eder. Kanama, bağırsak tıkanıklığı, jejunal perforasyon, mezenter apsesi ve nadiren de jeneralize peritonit gibi komplikasyonlar nedeniyle belirtiler olabilir. Semptomatik vakaların yönetimi klinik tabloya bağlıdır. İshal vakalarında antibiyotik tedavisi verilirken, akut karın tablosunda cerrahi müdahale gereklidir. **Vaka Sunumu:** 62 yaşında erkek hasta karın ağrısı şikâyetiyle acil servise başvurdu. Fizik muayenesinde; tüm batın kadranlarında hassasiyet, defans ve rebound gibi yaygın peritonit bulguları mevcuttu. Ateş: 37,8'C, Nabız: 114/dak, TA: 110/80 mmHg, WBC: 15,600 ve CRP;313. Ultrasonda; jejunal bağırsakların anslar arasında yaygın hava-sıvı odaklarını saptandı. Laparotomide biri Treitz ligamantinin 70 ve 100 cm distalinde olmak üzere iki adet jejunal divertikül mevcuttu. Treitz ligamanının 100cm distalinde ve mezenterik taraftaki divertikülde 1 cm'lik perforasyon alanı ve bu alandaki inflamasyon, ödem ve apse odağının bağırsak mezosu ve omentumla çevrelendiği gözlendi. Sadece perfore olan segmente rezeksiyon ve yan-yana anastomoz ile tedavi uygulandı. **Sonuç:** Konjenital olmayan jejunoileal divertikülozis sıklıkla 60 yaş üstü erkek hastalarda genellikle kolon divertikülozisi ve sistemik bağ dokusu hastalıkları ile birliktedir. Hastaların yalnızca %10-30'unda enfeksiyon, barsak tıkanıklığı, volvulus, kanama, perforasyon gibi akut komplikasyonlar gelişebilmektedir. Ancak tanının geç konulması ve ileri yaş hastalarda olması nedeniyle mortalite oranı yüksektir. Bazı durumlarda tanısal laparoskopi de yapılmalıdır. Jejunal divertikülit nadirdir fakat komplike bir jejunal divertikülitin hayatı tehdit edebilen akut karın nedeni olarak akılda tutulması gereken bir durumdur.

ARTICLE INFO/MAKALE BİLGİSİ

Key Words: Jejunal diverticulitis, acute abdomen, perforation

Anahtar Kelimeler: Jejunal divertikülit, akut karın, perforasyon

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INTRODUCTION

Diverticulosis of the small intestine are mostly located in the duodenum, followed by the jejunum and the ileum . The exact etiology jejunal diverticulosis has not been definitively identified but aceepted as acquired and usually asymptomatic lesions are a relatively rare condition with a reported annual incidence of 0.3-2.3% (1-2). But, they can be symptom because of complications such as hemorrhage, intestinal obstruction, jejunal perforation, mesenteric abscess, and, rarely, generalized peritonitis. Therefore clinical diagnosis alone remains challenging and are commonly required in order to form a prompt diagnosis. They can be visualized radiologycal, or intraoperatively. However, the management of symptomatic cases depends on the clinical presentation such as antibiotic therapy in cases of diarrhea, and surgery in the acute abdomen presentation (3).

CASE

Our aimed is to present a case of jejunal diverticulosis and diverticulum perforation which is a rare etiology in the presentation of generalized peritonitis, one of the causes of acute abdomen. We present a 62-year-old male patient was admitted to the emergency department with the complaint abdominal pain and his WBC; 14,26 K/µL(4.23-9.07), 2 days ago. He applied our clinic with widespread abdominal pain, nausea and vomiting. The patient had a past history of appendectomy. Physical examination revealed with generalise peritonitis findings such as sensitivity in all quadrants of abdomen, widespread defense, and rebound . Temp: 37,8'C, Pulse: 114/min, TA: 110/80 mmHg, WBC: 15,600 and CRP;313.

In the patient, who was operated on for apandisitis 6 years ago. There is no free air under the diaphragm on direct abdominal X-ray. Abdominal ultrasound revealed that diffuse air-fluid, around the loop of the jejunal intestines. Explorative laparotomy with upper midline insicion was performed because of perforation was the presumptive diagnosis. On laparotomy, two jejunal diverticula, 70 and 100 cm distal from the Treitz ligament, were present on the mesenteric side. Inflammation, edema and mesenteric perforation area of 1cm, with abscess focus surrounded by intestinal mesoceum and omentum were observed in the diverticulum 100 cm distal from the Treitz ligament (Figure 1,2). The abscess was drained and peritoneal lavage with resection of only perforation-related segment with side-by-side anastomosis were performed. Postoperative course was uneventful and patient was discharged with full recovery.

The patient had no specific postoperative complications any wound complication did not develop. Revision surgeries were not required due to 30-day and long-term postoperative morbidity/mortality.

DISCUSSION

Acquired jejunoileal diverticulosis, the incidence of jejunum is less with 0.7–1%, was defined as herniation of the mucosa and the submucosa of the mesenteric side of the small intestinal wall along the muscular layer (pseudodiverticule) (4). Abnormal neuromotor innervation causing intestinal dyskinesia may be a factor for their etiology. However, it is often associated with

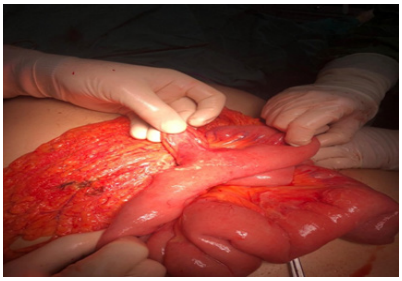

Figure 1: Non- perforated diverticulum

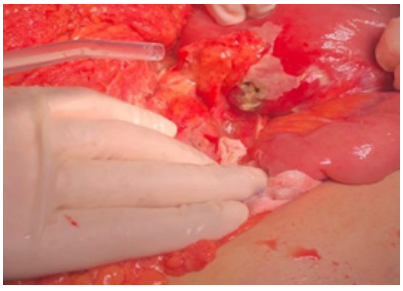

Figure 2: The perforated diverticulum and surrounding abscess

age over 60 years, male gender, colon diverticulosis and systemic connective tissue diseases.

The diagnosis of jejunal diverticula is often difficult and delayed beacuse of the different and non-specific clinical presentation. Only 10 to 30% of patients may had acute complications such as infection, bowel obstruction, volvulus, bleeding, and perforation which having high mortality level, usually caused by a delayed diagnosis and an advanced patient age (5). Elevated C-reactive protein, inflammatory markers, and leukocytosis are non spessific in laboratory findings. CT imaging is a more reliable method of diagnosis and was able to show the features of this entity in ases. However, a diagnostic laparoscopy was also done in some cases (3,6,7).

The jejunal diverticulitis with local mild inflammation and uncomplicated such as hemorrhage, obstruction, and perforation or abscess can be treated as conservative involves intravenous antibiotics, bowel rest, nasogastric suction, parenteral nutrition, and percutaneous peridiverticular abscess drainage.

However, an aggressive operative approach is most suitable for patients who present with acute peritonitis, hemodynamic instability, or evidence of free perforation. The elective excision of the diverticulum without segmental bowel resection was not widely accepted because of the higher rate of complications (5). The resection must be limited with the short segments that include only perforated diverticulitis loops in multiple jejunal diverticulitis with extensive segment involvement, because extensive resection should be short bowel syndrome (5, 8).

CONCLUSION

Jejunal diverticulitis is rare but complicated jejunal diverticulitis which can be life-threatening must be kept in mind as a cause of acute abdomen. Therfore laparotomy can be needed for a better management. The surgeon should remember that resection must be limited with the short segments, including only perforated diverticulitis loop.

Ethics approval

This study was written with the patient's ethical approval.

Conflict of interest

No author has any potential conflict of interest.

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