



JEJUNAL DIVERTICULAR PERFORATION IN CHRONIC NSAID USER

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ABSTRACT Jejunal diverticulosis is a rare gastrointestinal condition, often discovered incidentally but can lead to significant complications such as perforation. Chronic NSAID use has been implicated in increasing the risk of jejunal diverticular perforation. This case report presents a 45-year-old female with a history of chronic NSAID therapy, admitted with symptoms of acute abdomen and diagnosed with jejunal diverticular perforation, managed successfully with surgical intervention.

KEYWORDS : Jejunal Diverticulosis, NSAID, Perforation

INTRODUCTION

Jejunal diverticulosis is a rare condition with reported annual incidence of 0.2- 0.3%[1]. It is often discovered incidentally during medical imaging or surgery for unrelated issues. It can manifest as asymptomatic cases to more severe complications such as diverticulitis, bleeding, intestinal obstruction or perforation[1]. While drug-induced jejunal perforation, particularly related to steroid treatment, is rare, long-term non-steroidal anti-inflammatory drug (NSAID) therapy can lead to clinically silent enteropathy and increase the risk of severe diverticular infection and perforation[2]. Prompt recognition of jejunal diverticular perforation is crucial[3], especially in patients with chronic NSAID ingestion presenting with acute abdomen, as illustrated by this case.

Case Study

A 45-year-old female patient admitted to our emergency department with acute abdominal pain and nausea persisting for 3 days. She had a history of intermittent epigastric pain over the past 5 years and chronic neck pain attributed to cervical spondylosis, for which she had been on diclofenac and paracetamol combination therapy for 15 years. On examination, she displayed signs of systemic inflammation with a high fever (102°F), tachycardia (102 bpm), and hypotension, accompanied by abdominal guarding, rebound tenderness, and hypoactive bowel sounds. Laboratory tests revealed leukocytosis (14,600/mm³) and haemoglobin level (12.5 g/dL). Radiographic findings indicated free gas under Right hemidiaphragm suggestive of hollow viscus perforation. Prompt resuscitation with IV fluids, antibiotic therapy and nil per orally status were initiated, followed by emergent abdominal exploration due to worsening clinical condition.

Management

Despite initial attempts to manage the patient conservatively, the patient's condition did not improve, leading to the decision for Exploratory Laparotomy.

INTRAOPERATIVE FINDINGS: - There was presence of multiple jejunal diverticula (atleast 16) on both mesenteric and anti-mesenteric border with multiple secondary diverticular outpouchings from 15cm from Ligament of Trietz to 85cm with one exhibiting perforation, 60cm distal to ligament of Trietz (Fig.1). The perforated diverticulum was sealed with omentum. Although the perforated diverticulum was sealed but the other diverticula had unhealthy walls. A segment of 70cm of the jejunum, encompassing the multiple diverticula, was excised, followed by end-to-end jejunojejunostomy. Postoperatively, the patient recovered well, with oral intake initiated on day 3 and removal of abdominal drains on day 4. However, a wound infection at the suture site required management with dressings and antibiotics. The patient was discharged on postoperative day 8, and histopathological examination of the perforated diverticulum revealed nonspecific inflammatory changes [4].



Figure 1: Jejunal Diverticula With Perforation

CONCLUSION

This case report sheds light on the rare occurrence of jejunal diverticular perforation, particularly in the context of chronic NSAID usage. Although a definitive association between NSAID use and jejunal diverticular perforation remains to be proven, this unique case prompts further investigation into this potential relationship. Additionally, the presentation of diverticular perforation at the relatively young age of 45 years highlights the need to broaden the differential diagnosis beyond the elderly population typically associated with this condition. Further research in this area may help elucidate the underlying mechanisms and risk factors associated with jejunal diverticular perforation, ultimately aiding in improved diagnosis and management strategies.

REFERENCES

- [1] Lebert P, Millet I, Ernst O, Boulay-Coletta I, Corno L, Taourel P, et al. Acute jejunoileal diverticulitis: multicenter descriptive study of 33 patients. *AJR Am J Roentgenol.* 2018;210(6):1245–51.
- [2] Vermeulen J, van der Harst E, Lange JF. Pathophysiology and prevention of diverticulitis and perforation. *Neth J Med.* 2010 Oct;68(10):303-9. PMID: 21071775.
- [3] Falidas, E., Vlachos, K., Mathioulakis, S, et al. Multiple giant diverticula of the jejunum causing intestinal obstruction: report of a case and review of the literature. *World J Emerg Surg* 6, 8 (2011).
- [4] Gupta S, Kumar N. Jejunal diverticula with perforation in non steroidal anti inflammatory drug user: A case report. *Int J Surg Case Rep.* 2017;38:111-114. doi: 10.1016/j.ijscr.2017.07.021. Epub 2017 Jul 22. PMID: 28756358; PMCID: PMC 5537402.