

# Non-Traumatic Small Intestine Perforation

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Dear Editor,

We read through two reviews published in this journal about the occurrence of non-traumatic small bowel perforation (NTSBP) during two different periods: 2009-2019 and 2016-2019.<sup>1,2</sup> Dal et al.<sup>1</sup> compared the surgical management between two groups of patients with NTSBP based on their status of survival (group 1, n=25) or mortality (group 2, n=17) at 90 days of the postoperative period. The mean age (54 vs. 61 years) and percentage of male patients (48% vs. 76.5%) were higher in group 2. Among the patients, 42% underwent previous abdominal surgery, and 30% had antecedent malignancies. Moreover, the most common sites of perforation were the jejunum (64.7%) in group 2 and the ileum in group 1 (68%). The authors stressed that the morbidity and mortality of patients treated for NTSBP were high and that previous diseases and hypoalbuminemia played a role, unlike the perforation site and time of admission to the hospital.<sup>1</sup> More recently, Muniandy et al.<sup>2</sup> performed a retrospective study on the outcomes of 42 patients with non-traumatic jejunum and ileum perforation (NTJIP). Their mean age was 55.7 ( $\pm$ 19.3) years, and 29 patients (69%) reported symptoms within a 3-day period.<sup>2</sup> The mean hospitalization time was 10 days, the post-operative ileus was 21%, the surgical site infection was 23%, the anastomotic leak was 23%, and the mortality rate was 36%. Moreover, the peritonitis index was a reliable predictor of mortality. The authors emphasized radiation and vascular etiologies as the most common identifiable causes of NTJIP.<sup>2</sup>

It seems appropriate to add short comments about three case studies of Brazilian patients with perforated jejunal

diverticulitis, which was not a highlighted cause in the above-mentioned studies.<sup>3</sup> An 80-year-old woman had abdominal symptoms 5 days prior to admission, and an imaging study showed pneumoperitoneum, duodenal and colonic diverticula, and inflammatory changes at the proximal jejunum. Moreover, the laparotomy revealed a perforated diverticulitis at 60 cm of the Trietz angle, which was managed via enterectomy (20 cm) with primary anastomosis, and the patient had an uneventful postoperative course.<sup>3</sup> An 80-year-old man was admitted due to severe abdominal pain, with 24 hours of duration, and the exploratory laparoscopy converted to laparotomy revealed a diagnosis of perforated diverticulitis at the level of the jejunoileal transition. A segmental enterectomy with primary anastomosis was then performed. The patient recovered without complications and was discharged home on the sixth postoperative day.<sup>3</sup> A 72-year-old man was admitted with abdominal pain for one day, and an imaging study revealed inflammatory changes at the jejunoileal transition besides the pneumoperitoneum, and the laparoscopy showed perforated jejunal diverticulitis, which was managed via enterectomy (30 cm) with an end-to-end anastomosis. The patient was discharged on the eighth postoperative day, accepting the diet and experiencing normal intestinal transit.<sup>3</sup> The authors emphasized that perforated jejunal diverticulitis is an uncommon condition, is rarely included in differential diagnoses of acute abdomen, and is often incidentally detected by abdominal imaging studies. They also highlighted that case studies contribute to enhancing the index of suspicion about this rare entity.<sup>3</sup>



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Therefore, the literature included herein may increase awareness among healthcare workers.

### **Ethics**

**Peer-review:** Externally peer-reviewed.

### **Authorship Contributions**

**Concept:** V.M.D.S., L.A.M.D.S., **Design:** V.M.D.S., L.A.M.D.S., **Data Collection or Processing:** V.M.D.S., L.A.M.D.S., **Analysis or Interpretation:** V.M.D.S., L.A.M.D.S., **Literature Search:** V.M.D.S., L.A.M.D.S., **Writing:** V.M.D.S., L.A.M.D.S.

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