## Colonoscopic Perforation. Is it Feasible to Suture?

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## **ABSTRACT**

Introduction: Colonoscopic perforation of the colon is a rare complication, although its risk has been increased due to the focus on prevention, diagnosis and treatment of colorectal lesions. It can occur during diagnostic or therapeutic endoscopy with a frequency of 0.02-0.8% and 0.1-0.3%, respectively, and may be related to several mechanisms. Management can be conservative, endoscopic, or surgical, and there is debate about the most appropriate approach. We present a case to show a laparoscopic colorraphy.

Case report: A 65-year-old woman underwent a screening colonoscopy for colon cancer, with good bowel preparation. The perforation occurred at the rectosigmoid angle and was visualized and immediately diagnosed by the endoscopist. After the study suspension, the patient presented mild abdominal pain, so within 4 hours she was taken to the operating room and a laparoscopic examination was performed. Two 5 mm and one 10 mm trocars were used. The perforation, easily identified, had a 30x30 mm extension at the level of the rectosigmoid junction and little free fluid was observed. It was repaired with a running suture in two planes with polyglactin 910, 3-0. All quadrants of the peritoneal cavity were washed and one drainage was placed to the cul-de-sac of Douglas, through one of the portal openings. The pneumatic test was negative. The complete operative time was 60 minutes. The patient evolved favorably, and was discharged on the fourth postoperative day with a full diet and good bowel function.

Conclusions: Laparoscopic primary closure is a safe minimally invasive approach for the management of colonoscopic perforations in the absence of extensive inflammation or fecal contamination. In experienced hands, it avoids laparotomy and provides the benefits of minimally invasive surgery. Laparoscopic colorraphy should be considered in the selective treatment of colonoscopic perforations.

Keywords: Colonoscopic perforation; Colorraphy; Videolaparoscopy

## **COMMENT**

Interesting video showing the laparoscopic resolution of an iatrogenic colonic perforation, secondary to a screening colonoscopy. The high-quality images show exploration of the abdominal cavity, a low degree of contamination and the correct identification and raffia in two planes of the perforated site. Congratulations to the authors.

Early treatment of this type of endoscopic complications is essential to be able to perform a primary closure and thus preserve the affected organ. Minimally invasive resolution is an added value that translates to the benefit of the patient. Having a previously prepared colon helps with the aforementioned.

In a recent retrospective study, 48 patients with surgically resolved colonoscopic perforations were evaluated, most with primary closure. The authors observed a higher postoperative leak rate in those patients in whom the primary raffia was performed without prior resection of the defect margins. Although the number of patients in the study is small, given the low incidence of this complication, this technical maneuver is worth considering.<sup>1</sup>

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