Laparoscopic segmental resection of the transverse colon. Step by step surgery

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Keywords: coloproctology, segmental resection, transverse colon, colonic polyps, laparoscopic approach.

INTRODUCTION

Colonic polyps are highly prevalent in the general population. Their importance lies in being potential precursors of colorectal cancer.^{1,3} For its management, endoscopy plays a fundamental role, not only in reaching diagnosis, but also often being therapeutic by allowing resection.

Surgery is reserved for patients with invasive malignant lesions requiring en bloc resection or polyps, with or without suspicious features, that cannot be safely removed endoscopically.² The proven advantages of laparoscopic colorectal surgery make it the gold standard for both benign and malignant conditions. This approach has been evolving over the last decades, with multiple studies validating its oncological safety.⁴ Not all patients are candidates for this approach; However, not all patients are candidates, and the choice depends on factors such as team experience, surgery complexity, and patient condition, requiring an individualized decision-making process.

Undoubtedly, one of the most complex laparoscopic procedures in colon surgery is exclusive transverse colectomy. 4.5 It requires, high knowledge of the region's anatomy and advanced surgical expertise for safe technical and oncological outcomes.

DESCRIPTION

The experience of our center in the treatment of a 61-yearold male patient with a colonic polypoid lesion with suspected malignancy, unresectable via endoscopy, is presented. During the laparoscopic approach the endoscopic tattoo of the lesion was identified in the distal transverse colon. The inferior mesenteric vein was ligated. A medial to lateral approach was performed and the splenic flexure was mobilized. The left branch of the middle colic artery was ligated. The gastrocolic ligament was divided and the transverse mesocolon was ligated with bipolar equipment. The proximal and distal transverse colon was transected with a linear stapler and a side-to-side stapled anastomosis was performed. The pathology reported a pT1N0 adenocarcinoma without unfavorable microscopic features.

CONCLUSIONS

Laparoscopic segmental transverse colectomy is a complex technique that an experienced team can perform with technical and oncological safety, achieving excellent results.

REFERENCES

- Mareth K, Gurm H, Madhoun MF. Endoscopic recognition and classification of colorectal polyps. Gastrointest Endosc Clin N Am. 2022;32(2):227-40.
- Shaukat A, Kaltenbach T, Dominitz JA, Robertson DJ, Anderson JC, Cruise M, et al. Endoscopic recognition and management strategies for malignant colorectal polyps: Recommendations of the US multi-society task force on colorectal cancer. Gastroenterology. 2020;159(5):1916-34.e2.
- Von Renteln D, Bouin M, Barkun AN. Current standards and new developments of colorectal polyp management and resection techniques. Expert Rev Gastroenterol Hepatol. 2017;11(9):835-42.
- Athanasiou CD, Robinson J, Yiasemidou M, Lockwood S, Markides GA. Laparoscopic vs open approach for transverse colon cancer. A systematic review and meta-analysis of short and long term outcomes. *Int J Surg.* 2017;41:78-85.
- Liu X, Wu X, Zhu R, Yu W, Zhou B. Comparison of survival outcomes between laparoscopic and open colectomy for transverse colon cancer: a systematic review and meta-analysis. *Int J Colorectal Dis*. 2023;38(1):111.

VIDEO: https://youtu.be/gEr33Ilog4o

The authors declare no conflict of interest. Alejandro Barbosa Martínez: alejandrobarbozamartinez@gmail.com Received: December 27, 2023. Accepted: March 5, 2024

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