

Laparoscopic Approach of Obstructing Tumor of the Splenic Flexure: Surgical Strategies

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<https://youtu.be/lCHmeo4FyPo>

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INTRODUCTION

Tumors of the splenic flexure are relatively uncommon, accounting for less than 5% of all colorectal cancers. Their surgical management is challenging due to their anatomical location, vascular supply, and lymphatic drainage.^{1,2} These characteristics partly explain the lack of consensus regarding the optimal extent of resection. The following options are available for consideration: segmental resection of the splenic flexure, extended left colectomy, and, in selected cases, subtotal colectomy.^{3,4}

In the setting of large bowel obstruction, these challenges are amplified by proximal colonic dilation, mesocolic edema, and tissue fragility. These factors increase the risk of anastomotic complications. In this context, intraoperative assessment of anastomotic tension is critical, and the surgeon's ability to adapt the extent of resection or the reconstructive strategy is essential to ensure procedural safety and minimize morbidity and mortality.

This video presents the laparoscopic management of an obstructing tumor of the splenic flexure. It highlights the technical aspects of the procedure, the intraoperative decision-making process, and the adaptation of the surgical strategy in response to findings that compromised anastomotic safety.

CASE DESCRIPTION

A 68-year-old male patient with no significant medical history or prior endoscopic evaluations was admitted to the emergency department with abdominal pain and distension. Laboratory tests revealed leukocytosis (15,000/mm³), with no other abnormalities. Given the suspicion of acute obstructive abdomen, a contrast-enhanced abdominopelvic CT scan was performed, showing segmental wall thickening at the splenic flexure associated with proximal bowel dilation and gastric distension.

The surgical intervention was performed via a laparoscopic approach. Following an initial exploratory procedure, mobilization of the left colon, distal transverse colon, and splenic flexure

was performed. The surgical procedure involved a partial *en bloc* omentectomy due to tumor extension. The initial surgical plan involved a segmental resection of the splenic flexure, with meticulous vascular control of the left colic artery, inferior mesenteric vein, and left branch of the middle colic artery.

Following the resection, the feasibility of a side-to-side isoperistaltic transverse-to-descending colon anastomosis was assessed. However, the proximal colon exhibited significant dilation, shortening, and mesocolic thickening, suggesting potential tension during anastomosis, despite adequate mobilization. In view of these findings, the surgical strategy was modified to optimize reconstruction. A laparoscopic subtotal colectomy was performed, completing right colectomy and resection of the remaining transverse colon. An isoperistaltic ileo-descending anastomosis was fashioned without tension. Counterclockwise orientation was adopted due to limited reach of the terminal ileal mesentery for a clockwise configuration. The specimen was extracted via a Pfannenstiel incision. The patient exhibited an uneventful postoperative course and was discharged on postoperative day 5.

CONCLUSIONS

In obstructing tumors of the splenic flexure, a laparoscopic approach is feasible and safe in experienced centers. Intraoperative assessment of anastomotic tension is a critical determinant in surgical decision-making, and the ability to adapt the operative strategy based on intraoperative findings is essential to minimize complications.

This case demonstrates that timely conversion from a segmental resection to a more extended colectomy can facilitate the construction of a tension-free anastomosis and achieve an optimal postoperative outcome.

Careful evaluation of anastomotic tension should guide the reconstructive strategy in obstructing tumors of the splenic flexure. Intraoperative flexibility toward more extensive resections may be decisive in ensuring a safe and durable anastomosis.

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Author Contributions

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