Usefulness of intraoperative endoscopy in laparoscopic rectal resection

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INTRODUCTION

The use of intraoperative endoscopy in laparoscopic colorectal surgery is often limited by the need for mechanical bowel preparation as well as the insufflation it produces. On the other hand, most lesions can be located by their size or by the preoperative tattoo.

DESCRIPTION

Three cases of laparoscopic rectal resections are presented in which, for different reasons, intraoperative endoscopy was used.

CASE 1

A 66-year-old male patient presented with invasive adenocarcinoma of the upper rectum (intraperitoneal) 10 cm from the anal verge and a large sessile polyp (villous adenoma with high-grade dysplasia) 7 cm from the anal verge, not amenable to endoscopic resection. The therapeutic alternatives of local resection of the polyp versus conventional resection of both lesions in a single stage were discussed. The latter was chosen and a low anterior resection was performed. The resected specimen contained both lesions, with a macroscopically free distal margin of 1 cm. Histopathology reported an adenocarcinoma of the upper rectum (pT4N2) and an intramucosal carcinoma (pTis) of the middle rectum, with 25 lymph nodes removed. The usefulness of intraoperative endoscopy in this case was to ensure the distal resection margin including the villous lesion.

CASE 2

A 75-year-old male patient was diagnosed with a villous tumor occupying ¾ of the circumference 10 cm from the anal margin. The biopsy reported a villous adenoma with low-grade dysplasia. Preoperative staging with rectal magnetic resonance imaging was T2N0M0. Without neoadjuvant criteria, a low anterior resection was performed. Since the lesion was not palpable, its distal limit was located by intraoperative endoscopy. The anatomopathological study concluded that it was a pT1N0 (12 lymph nodes removed).

CASE 3

A 75-year-old female patient presented with an ulcerated adenocarcinoma occupying ¼ of the circumference, 15 cm from the anal verge, which was not identifiable on the preoperative CT scan. A tattoo was performed with Indian ink and a laparoscopic anterior rectosigmoid resection was scheduled. Upon accessing the peritoneal cavity, an extensive spread of the Indian ink was observed along the abdominopelvic cavity, which made identification of the tumor by laparoscopy difficult. The tumor was located at the rectosigmoid junction by intraoperative endoscopy. The specimen, removed with sufficiently wide margins, confirmed the presence of the lesion corresponding to a pT4N2 tumor (12 of the 21 lymph nodes removed were metastatic).

CONCLUSIONS

Intraoperative endoscopy during laparoscopic rectal resection may be especially useful in particular cases: very small or soft lesions that are difficult to identify by palpation, extensive spread of India ink, or subperitoneal polyps that cannot be removed by endoscopy or transanal minimally invasive surgery (TAMIS), in which the suspicion of malignant transformation justifies extending the rectal resection distally.

VIDEO: https://youtu.be/oePFUUOjorM

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