



Case Report

Abdominal wall recurrence following laparoscopic surgical treatment of colorectal cancer – case report[☆]



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ABSTRACT

The treatment of colorectal diseases by videolaparoscopy (VL) began in the 1990s, bringing multiple advantages in the treatment of cancers in general, especially benign tumors. Specifically, in case of colorectal cancer (CRC), the laparoscopic approach offers very attractive prospects, such as the staging of advanced lesions and palliative management of patients with incurable CCR. The most controversial aspect of this technique is the use of VL in curative resections. One questions the possibility of metastasis in portals related to tumor recurrence, as well as the violation of oncological principles. The mechanisms responsible for this phenomenon may be related to pneumoperitoneum, tissue manipulation, and biological factors.

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Recidiva parietal em câncer colorretal operado por vídeo-laparoscopia - relato de caso

R E S U M O

O tratamento das doenças colorretais por vídeo-laparoscopia (VL) se iniciou na década de 90, trazendo inúmeras vantagens no tratamento dos cânceres em geral, sobretudo nos cânceres benignos. Especificamente no caso do câncer colorretal (CCR) o acesso laparoscópico oferece perspectivas bastante atraentes, como o estadiamento de lesões avançadas e o manuseio paliativo de pacientes com CCR incurável. O aspecto mais controverso dessa técnica reside na utilização da VL em ressecções curativas. Questiona-se a possibilidade de metástase em

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portais relacionadas com a recidiva tumoral, além da violação de princípios oncológicos. Os mecanismos responsáveis por esse fenômeno podem estar relacionados ao pneumoperitônio, manipulação tecidual e fatores biológicos.

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Introduction

The treatment of colorectal diseases by videolaparoscopy (VL) began in the 1990s and several advantages have been gradually demonstrated, especially with regard to benign diseases. Laparoscopic surgery of the gastrointestinal tract (GIT) results in less postoperative pain, less prolonged paralytic ileus, shorter hospital stays, and better cosmetic results.¹ These advantages enshrine this approach to the surgical treatment of gallbladder and gastroesophageal transition, making this an extremely safe and effective option for the management of inguinal-femoral hernias and colorectal diseases.²

In colorectal cancer (CRC), the laparoscopic approach offers very attractive prospects, such as the staging of advanced lesions and the palliative management of patients with incurable CRC.³ However, here the most controversial aspect is the use of VL in curative resections, with the questioning of the possibility of violation of oncological principles and of an early recurrence (especially the portal metastasis phenomenon). It is postulated that the mechanisms responsible for its genesis relate to pneumoperitoneum, tissue manipulation, and biological factors.⁴

Clinical case

A female patient, aged 91, a retired farmer, born in Treze de Maio/SC, with asthenia and significant weight loss associated with a picture of normocytic/normochromic anemia waiting for clarification. This patient had a history of Alzheimer's dementia, systemic hypertension, dyslipidemia and diabetes mellitus undergoing treatment. On physical examination, the patient presented weight loss and pale mucous membranes, and a slightly painful, palpable abdominal mass in the right flank, with no other changes.

Upper endoscopy and colonoscopy studies were requested, and this last procedure revealed an ulcerated lesion in the hepatic angle; then, biopsies were performed, which confirmed the diagnosis of colorectal adenocarcinoma. Imaging studies for staging were requested, and a computed tomography of the abdomen showed a liver angle lesion with local peritoneal infiltration and lymph node enlargement in the root of the middle colic artery (Fig. 1). Therefore, the patient underwent a videolaparoscopic right colectomy due to the right colon adenocarcinoma in stage III, according to the classification of Dukes, with good postoperative evolution.

Fourteen months post-surgery the patient presented a vegetating lesion in the portal incision on the left iliac fossa, associated with local pain of mild intensity. It was suggested the hypothesis parietal recurrence due to the colon

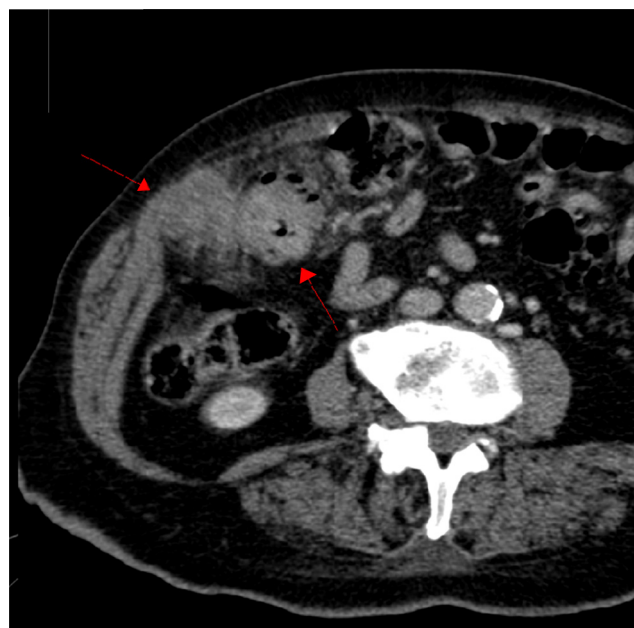


Fig. 1 – Computed tomography of the abdomen showed a liver angle lesion with local peritoneal infiltration and lymph node enlargement in the root of the middle colic artery.

adenocarcinoma, and a resection of the lesion was performed, with subsequent confirmation of relapse by anatomopathological examination.

Discussion

According to INCA (Instituto Nacional de Câncer) data, colorectal cancer is the third most frequent neoplasm in men, soon after prostate and lung cancer, and the second-most frequent in women, second only to breast cancer. It is estimated that in 2014 there were 30,660 new cases of colon and rectal cancer.⁵

By being a minimally invasive procedure, the treatment of GIT cancer by videolaparoscopy has become the preferred access route in the palliative handling of advanced tumors, enabling the complementation of preoperative staging and allowing the making of intestinal diversions and resections with less risk and better postoperative outcomes.¹

It is recognized today that the oncological progress after potentially curative operations for colorectal cancer is not compromised. It has been shown that, in this case, survival and relapse rates seem to be similar to those observed after surgical laparotomy. The tumor recurrence patterns, including the risk of tumor implants in the peritoneum and in the

portals used, are also not different. This risk is considered as not exclusive for laparoscopic resections, but an unfortunate consequence of the learning curve and/or of an advanced disease, taking a smaller proportion in a scenario of an adequate training and technical skill.

Nowadays, it is acknowledged that parietal dissemination in laparoscopic surgery is a complex and multifactorial problem that also occurs in gynecologic procedures and in general and thoracic surgery. It is important to note that not all tumor recurrences occur at the incision produced in order to extract the piece. Relapses occur even in cases in which the piece was removed wrapped in devices designed to prevent direct contact with the abdominal wall. Tumor recurrences occur even in cases whose tumor location was restricted to the colon wall (Dukes A).

Other preventive measures to avoid this complication are the fixation of trocars in the abdominal wall, avoidance of an excessive manipulation of the tumor, slow emptying of the pneumoperitoneum and replacement of CO₂ in its production, and washing the trocars and incisions with an iodine-based solution prior to their removal.⁶

Nonetheless, given the evidence presented, the authors conclude that prospective randomized studies are needed to compare videolaparoscopic *versus* conventional access in the radical treatment of colorectal cancer, despite its advantages, which still outweigh their complications.

Conflicts of interest

The authors declare no conflicts of interest.

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