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Abdominal Wall Abscess: An Infrequent Presentation of Colon Adenocarcinoma

Marlon San Martín-Riera[1*], Jennifer Vega-Carrión[2], Francisco Paredes-Játiva[3], Grace Tapia-Navas[4], Andrés Escobar-Cortez[4], Genesis Carreño-Oliveros[1], Gabriela Castillo-Andrade[1], Andrea Villarreal-Juris[1]

[1]General Surgery, Luis Vernaza Hospital, Guayaquil-Ecuador
[2]General Surgery, Espirítu Santo University, Guayaquil-Ecuador
[3]Basic Hospital of Alausí, Alausí-Ecuador
[4]Regional Teaching Hospital of Ambato, Ambato-Ecuador

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***Corresponding author:** Marlon San Martín-Riera
General Surgery, Luis Vernaza Hospital, Guayaquil-Ecuador

Abstract **Case Report**

Introduction: Colonic carcinoma has a variety of clinical presentations, however, invasion of the abdominal wall arising from the transverse colon is a rare one, as seen in this case report. ***Case report:*** 62-year-old patient with diffuse high intensity abdominal pain, fever, nausea, vomiting and an epigastric abscessed heterogeneous mass (8 x 7 x 7cm). A water-soluble contrast enema was performed, showing diverticula, absence of distal colon contrast transition and the apple core sign, compatible with transverse colon obstruction. A transverse colectomy was performed, with primary colo-colonic end-to-end anastomosis, including omentectomy and complete en-bloc resection of the affected abdominal wall area. The histopathological findings showed a transverse colon adenocarcinoma with abdominal wall invasion; all surgical margins were free of disease (R0), and 24 lymph nodes were retrieved. Patients' recovery was successful. ***Discussion:*** Locally advanced colorectal cancers invade adjacent organs without distant metastases. They may result in abscess formation even in unusual locations like the abdominal wall, which is a rare complication (0.3 to 4%). Colon cancer diagnosis before surgery may not always be possible; and a flawed diagnosis can determine an incomplete treatment because the intraoperative macroscopic malignancy recognition is not always achievable. En-bloc resection is the gold standard treatment to accomplish a complete resection, with histologically negative margins and no residual tumor (R0). ***Conclusion:*** Colon adenocarcinoma may rarely present as an abdominal wall abscess. Image studies may include CT, radiography, etc. but the patient's clinical status should always be prioritized; those who present abdominal obstruction with a high risk of sepsis and mortality should be offered immediate surgical treatment. En-bloc resection is the gold standard to accomplish histologically negative margins and no residual tumor.

Keywords: Colonic carcinoma, abdominal pain, diverticula, colorectal cancers, residual tumor.

INTRODUCTION

Locally advanced colon cancer's diagnosis and treatment is challenging, especially in patients with abdominal wall invasion, which require repairing of the subjacent tissue defects employing variable surgical techniques such as component separation, flaps (loco-regional, free, etc.) or prosthetic mesh [1]. Moreover, an overlying secondary infection of this cancerous cell invasion of the abdominal wall, clinically presenting as an abscess has been poorly reported [2].

CASE REPORT

A 62-year-old female patient with a family history of gastric cancer and a history of arterial hypertension, diverticular disease, and previous umbilical hernioplasty presents to the emergency room with diffuse high intensity abdominal pain, fever, nausea, and vomiting. On physical examination, a tender, non-mobile, abscessed heterogeneous mass measuring approximately 8 x 7 x 7cm was observed in the epigastrium, infiltrating the skin and underlying tissues, with scarce purulent discharge.

A water-soluble contrast enema was performed, showing diverticula, absence of distal colon contrast transition and the apple core sign, typical of colorectal carcinoma, compatible with transverse colon obstruction (Figure 1). Laboratory tests showed high levels of cancer antigen-125 (CA-125) and carcinoembryonic antigen (CEA).

Subsequently, the patient presented increased abdominal pain and abdominal tension with signs of peritoneal irritation, so upper and lower gastrointestinal endoscopies were not carried out, and surgical treatment was offered: an exploratory laparotomy, incising in the midline but in an elliptical manner to include the abdominal wall affected area. Once the peritoneal cavity was accessed, a malignant looking mass was found in the middle-third of the transverse colon, with some adherences to the greater gastric curvature. A transverse colectomy was performed, with primary colo-colonic end-to-end anastomosis, including omentectomy and complete en-bloc resection of the affected abdominal wall area (Figure 2). No liver metastasis or peritoneal dissemination was encountered. To close the underlying fascia defect and achieve adequate abdominal wall reconstruction, the component separation technique introduced by Ramírez et al. was performed, with no need to place prosthetic mesh. Patients' recovery was successful.

The histopathological findings showed a transverse colon adenocarcinoma with abdominal wall invasion; all surgical margins were free of disease (R0), and 24 lymph nodes were retrieved, being negative for malignancy, thus resulting in a T4b, N0, M0 pathological staging.

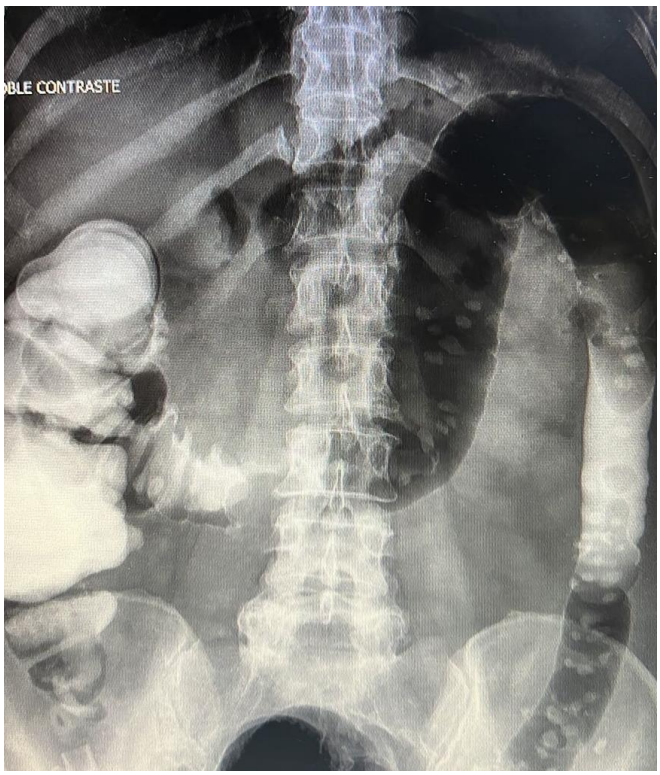

Figure 1: Water-soluble contrast enema showing transverse colonic obstruction

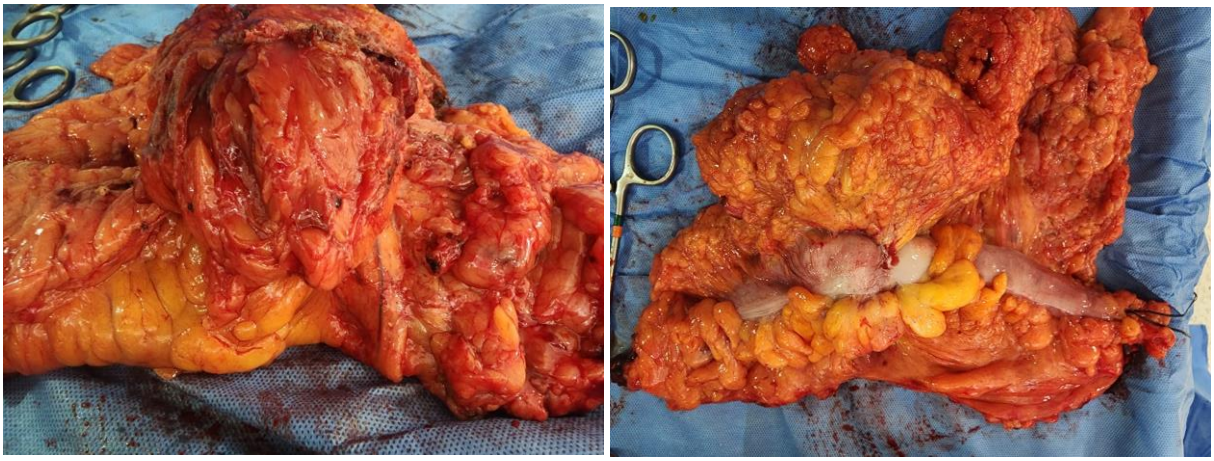

Figure 2: Surgical specimen after resection (transverse colectomy and en-bloc resection of the abdominal wall)

DISCUSSION

Of all colorectal cancers, locally advanced colorectal cancers, which are tumors that invade adjacent organs without distant metastases, reach 5% to 22% [3].

When they invade adjacent organs or disseminate along different tissue planes, they may result in abscess formation even in unusual locations as the presented case; this is a rare complication, occurring in 0.3 to 4% of cases approximately [4, 5].

An early diagnosis and adequate management, including a definitive surgical treatment, will lessen sepsis occurrence and death [6]. However, the diagnosis of colon cancer before surgery may be arduous, and not always possible; and a flawed diagnosis can determine an incomplete treatment because the intraoperative macroscopic malignancy recognition may not always be achievable [7].

The use of imaging methods in patients with abdominal wall abscess is of great value, for example, abdominal computed tomography (CT) is a very valuable tool for diagnosis and surgery planning, anyways, depending on the patient's clinical condition, this studies may not always be possible to execute.

Regarding surgical technique, in most reports, en-bloc resection is the gold standard treatment, to accomplish a complete resection, with histologically negative margins and no residual tumor (R0 resection) [8, 9], procedure has a low morbidity and mortality even in the elderly [10-12].

CONCLUSION

Colon adenocarcinoma may rarely present as an abdominal wall abscess. Image studies may include CT, radiography, etc. but the patient's clinical status should always be prioritized; those who present abdominal obstruction with a high risk of sepsis and mortality should be offered immediate surgical treatment. En-bloc resection is the gold standard to accomplish histologically negative margins and no residual tumor.

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