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Case Report

Colon cancer presenting as an abdominal wall abscess: a case report

Marco A. Hernández[1,2]*, Jorge A. Garza[2], Gabriel G. González[1,2], Diego R. Cabrera[1]

[1]Department of General Surgery, University Hospital "Dr. José Eleuterio González". Universidad Autónoma de Nuevo León (UANL). Monterrey, Nuevo León, México
[2]Department of Emergency-Shock Trauma, University Hospital "Dr. José Eleuterio González". Universidad Autónoma de Nuevo León (UANL). Monterrey, Nuevo León, México

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***Correspondence:**
Dr. Marco A. Hernández,
E-mail: marco.hernandezgd@uanl.edu.mx

ABSTRACT

Colorectal cancer is one of the most common malignancies worldwide. However, its initial presentation as an abdominal wall abscess is extremely rare, occurring in only 0.3% to 4% of cases. Such atypical presentations may delay diagnosis and treatment, increasing morbidity. We present the case of a 58-year-old male with a history of comorbidities and chronic alcohol use. He developed progressive right flank swelling and localized pain following blunt trauma. Clinical evaluation and contrast-enhanced CT imaging revealed a cecal mass with infiltration into adjacent muscles and a purulent collection. The patient underwent CT-guided drainage followed by open debridement. Colonoscopy and biopsy confirmed adenocarcinoma and a right hemicolectomy with lymphadenectomy was performed. Histopathological analysis revealed a poorly differentiated adenocarcinoma pT4bN1M0, with infiltration into the appendix, ileum and pericolonic tissues, as well as angiolymphatic and perineural invasion. One of 27 lymph nodes was positive for metastasis. Postoperative recovery was uneventful and the patient was referred for adjuvant chemotherapy. Although rare, colorectal cancer should be considered in the differential diagnosis of patients presenting with abdominal wall abscesses, especially when risk factors or systemic symptoms are present. Cross-sectional imaging and colonoscopy are critical for early identification. Timely surgical intervention and oncologic resection with adequate lymphadenectomy significantly improve prognosis. This case highlights the importance of recognizing unusual manifestations of colorectal cancer to avoid delays in diagnosis and optimize patient outcomes.

Keywords: Abscess, Abdominal wall, Adenocarcinoma, Colon cancer, Surgery

INTRODUCTION

The initial presentation of colon cancer as an abdominal wall abscess is exceedingly rare, reported in approximately 0.3% to 4% of cases.[1] However, the presence of an abscess secondary to colon cancer does not affect the prognosis of recovery following the surgical treatment of both clinical conditions.[2] It is unusual for colon cancer to present with an abdominal wall abscess as its initial clinical manifestation. Nevertheless, cases have been reported in which patients visit the emergency department due to fever and swelling in the abdominal region. Still, if the diagnosis is made in a timely manner, surgical treatment through hemicolectomy and abscess drainage as management for the mentioned conditions leads to a decrease in morbidity and mortality.[3] This case report highlights the importance of performing a computed tomography (CT) scan to assess abdominal wall swelling accompanied by fever and severe abdominal pain, aiming for an early diagnosis of colon cancer.[4] This work has been reported in line with the SCARE criteria.

CASE REPORT

We present the case of a 58 years old male from Monterrey, Nuevo León, Mexico, with a history of chronic alcohol consumption spanning 30 years, which he ceased two months prior to admission. He was recently diagnosed

with type 2 diabetes mellitus and hypertension. There was no family history of neoplasms. The patient's current condition began approximately one month before admission, following a blunt trauma to the right flank caused by a steel door, subsequently, developed progressive swelling, erythema, local hyperthermia and fever reaching 39 °C, without clinical improvement despite the use of analgesics and antipyretics. On the day of admission, he experienced sharp, stabbing pain in the right flank, prompting him to seek emergency medical care. On evaluation, he was febrile at 38.5 °C. Physical examination revealed a 12 cm mass in the right flank, tender on both superficial and deep palpation, non-fluctuant and associated with erythema and increased local temperature. There were no signs of peritoneal irritation.

A contrast-enhanced abdominal CT scan demonstrated significant cecal wall thickening measuring 8.8×8.9×13.1 cm, with extension into the transverse abdominal, internal oblique and iliopsoas muscles (Figure 1). A CT-guided aspiration was performed (sensitivity 80-94%), evacuating approximately 30 cc of purulent fluid and a 9 Fr×30 cm universal drainage catheter was placed, through which a minimal output of 10-15 cc per day was obtained over 7 days.

A follow-up contrast-enhanced abdominal CT scan confirmed proper catheter placement and showed a collection of similar size, prompting a decision to proceed to surgery for open drainage and abscess debridement, resulting in approximately 300 cc of purulent material being evacuated (Figure 2). Forty-eight hours after the open drainage, the patient reported rectal bleeding, prompting a colonoscopy, which revealed a polypoid mass in the cecum with a nodular appearance, approximately 6 cm in size, from which multiple biopsies were taken (Figure 3a, b).

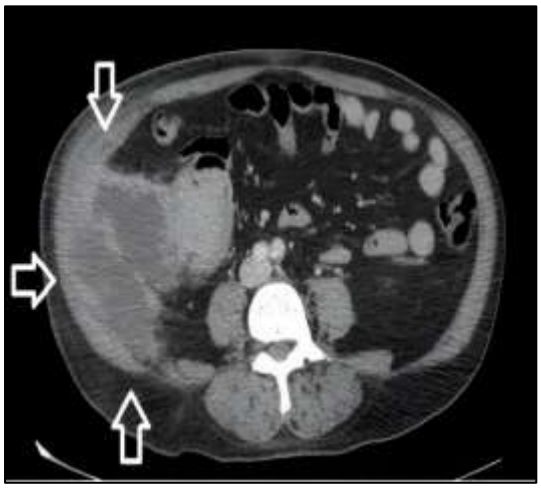


Figure 1: Contrast-enhanced tomography showing thickening of the wall and circumferential enlargement at the cecum level, with involvement of the transverse muscle, internal oblique muscle and iliopsoas, associated with a paracolic abscess.

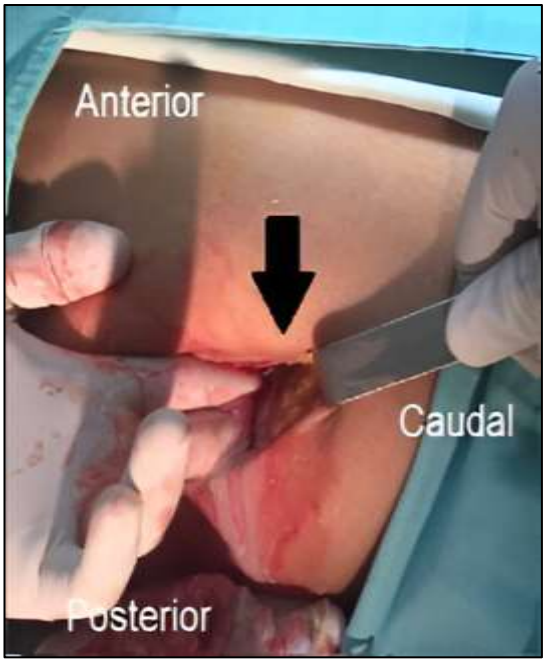
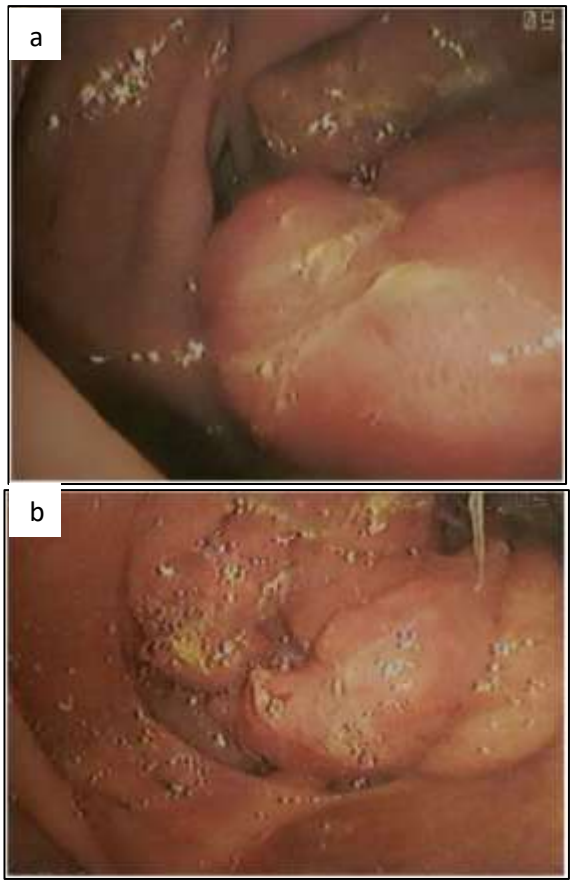


Figure 2: The black arrow indicates the oblique incision made in the flank for drainage and debridement of the abscess.



Figures 3 (a, b): Colonoscopy images showing a polypoid mass with a nodular appearance and friable mucosa, non-obstructive, approximately 6 cm in size, from which multiple biopsies are taken.

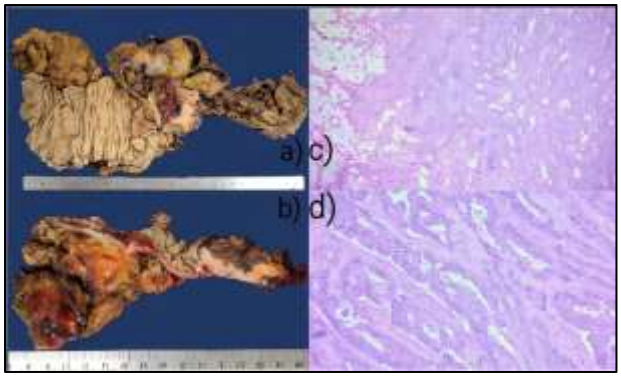


Figure 4: (a and b) Right hemicolectomy specimen fixed in formalin and sectioned, showing an exophytic ulcerated tumor involving the cecum and extending into the pericolonic soft tissues and serosal surface. (c) Low-magnification photomicrograph stained with haematoxylin and eosin, showing a moderately differentiated intestinal-type adenocarcinoma infiltrating the pericolonic fat. (d) High-magnification photomicrograph showing neoplastic glands formed by cells with eosinophilic cytoplasm and nuclei with loss of polarity, as well as intraluminal dirty necrosis.

Histopathological analysis revealed a moderately differentiated adenocarcinoma with invasion into the lamina propria. Based on these findings, an exploratory laparotomy was scheduled one week after percutaneous drainage of the initial collection. Intraoperatively, the cecum was found adherent to the abdominal wall, secondary to a sealed perforated diverticulum. A right hemicolectomy was performed, followed by a hand-sewn, two-layer ileo-transverse anastomosis using 3-0 vicryl sutures.

A closed-suction drain was placed and the abdominal wall was closed in anatomical layers up to the skin. A biopsy of the adherent abdominal wall tissue was obtained during the procedure, revealing an acute and chronic abscess-forming inflammatory process in the soft tissues, with evidence of bacterial colonization. Postoperatively, the patient received intravenous antibiotic therapy with ceftriaxone 1 g every 12 hours and metronidazole 500 mg every 8 hours for the duration of his two-week hospitalization.

The final pathology report confirmed a poorly differentiated intestinal-type adenocarcinoma with 30% medullary features, measuring 9 cm in greatest dimension. The tumor infiltrated the mucosa, submucosa and muscularis propria, with extension through the serosa into the pericolonic soft tissues. Tumoral involvement extended to the cecal appendix and was associated with metastatic foci in the ileum (Figure 4).

Evidence of angiolymphatic and perineural invasion was present. Of the 27 lymph nodes dissected, one tested positive for metastatic involvement. The tumor was staged as pT4N1M0 according to the AJCC TNM classification system. The patient recovered well after post resection surgery and was discharged 5 days after in stable condition. He continued under regular medical supervision and follow-up with the surgical and oncology teams. There were no complications or signs of recurrence to date. Being classified as clinical stage III, he is a candidate for adjuvant therapy with a regimen of capecitabine and oxaliplatin or a scheme of calcium leucovorin, fluorouracil and oxaliplatin.[5] The weaknesses and limitations of this case include the late diagnosis of the disease, the patient's comorbidities and the challenges in the initial management, particularly the percutaneous drainage used to resolve the purulent collection.

DISCUSSION

Colorectal cancer is among the most frequently diagnosed malignancies worldwide. Its prognosis is strongly influenced by the timeliness of diagnosis and initiation of appropriate treatment.[6] The clinical presentation of colorectal cancer varies depending on the tumour's size, location and stage. Tumors located in the cecum or right colon commonly present with iron-deficiency anemia secondary to chronic occult bleeding. In contrast, left-sided colon cancers are more likely to cause alterations in bowel habits, such as constipation or changes in stool calibre, due to the narrower luminal diameter; this may progress to partial or complete intestinal obstruction. Haematochezia is another frequent manifestation, representing overt lower gastrointestinal bleeding.

Systemic symptoms such as asthenia, anorexia and unintentional weight loss are more typical of advanced disease stages. Less frequent presentations include complications such as intestinal perforation, fistula or abscess formation, bacteraemia or clinical signs related to distant metastatic spread.[7] To establish the diagnosis, a thorough evaluation through CT is essential (as it allows visualization of tumor lesions when a contrast agent is used.[8] It is also important to perform a colonoscopy, as it is the reference test for diagnosing colorectal cancer and premalignant lesions.

Additionally, it allows for biopsy collection to confirm the diagnosis through histopathology.[7] In this case, the presentation of ascending colon cancer with the formation of an abdominal wall abscess was reported, which is one of the most unusual presentations of this type of cancer. This should always be considered in the differential diagnosis of patients with the disease and risk factors.

The presence of the abdominal wall abscess was ultimately attributed to a perforated cecal adenocarcinoma, which led to a localized collection extending into adjacent soft tissues. The perforation was initially contained, then the abscess represented a secondary complication of the underlying neoplastic process, with the tumor infiltrating through the bowel wall and into the pericolonic tissues and abdominal musculature resulting in a chronic and purulent inflammatory response.

A systematic therapeutic approach should be followed based on the patient's condition, starting with interventional management, confirming the diagnosis through colonoscopy, performing surgical management with lesion resection and, if necessary, using negative pressure therapy for more effective wound healing.[9] This approach aims to improve the prognosis and quality of life for patients, as untreated colon cancer can become the second leading cause of cancer-related mortality, surpassed only by lung cancer.[10] The prognosis of patients with colorectal cancer, where the initial finding is an abdominal wall abscess, depends on the number of affected lymph nodes and the pathological results of biopsies taken from the abdominal wall. Timely diagnosis can greatly reduce the occurrence of local and distant metastases.[11]

Surgery is the only potentially curative treatment accepted for eliminating colorectal cancer. Curative surgery must remove the tumor with wide margins and maximize regional lymphadenectomy, ensuring that at least 12 lymph nodes are available for histopathological study.[12] However, literature mentions that the number of lymph nodes to be analyzed is related to the pT category of the TNM classification, with a minimum of 12 lymph nodes for patients in stage T1 and up to 23 lymph nodes for patients with T4 stage tumors.[13]

In this case, the patient was classified as T4bN1M0 and 27 lymph nodes were obtained. Early diagnosis and drainage of the abscess reduce morbidity and mortality in these patients, especially if clinical signs of sepsis are present. Complete resection with microscopically negative margins is a predictive factor for survival. As previously mentioned, the prognosis depends on the number of local and distant metastases, as well as on timely diagnosis and treatment.

CONCLUSION

This case underscores the critical importance of including colorectal cancer in the differential diagnosis of patients presenting not only with classical clinical features but also with atypical manifestations such as abdominal abscesses, fistulas or sepsis. The occurrence of colon cancer presenting initially as an abdominal wall abscess is exceedingly rare. Clinical suspicion of this pathology should be guided by a comprehensive assessment of the patient's signs and symptoms, supported by relevant laboratory investigations and imaging modalities, particularly CT, which can provide valuable anatomical detail.

Furthermore, colonoscopy remains an essential diagnostic tool, enabling direct visualization of the colonic mucosa and facilitating the identification of malignant and premalignant lesions. Importantly, Colonoscopic biopsy allows for histopathological examination, which is indispensable for establishing a definitive diagnosis.

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REFERENCES

1. Mohandas S, Mazarello F, Bisset R. Right gluteal abscess: an unusual presentation of perforated caecal adenocarcinoma. J Gastrointest Cancer. 2010;41(4):285-7.
2. ElGendy K, Al Duhileb M, Salem A. Transverse colon cancer presenting as acute abdominal wall abscess. Case Reports. 2014;14:4204105.
3. El-Domeiri A, Whiteley H. Prognostic significance of abdominal wall involvement in carcinoma of cecum. Cancer. 1970;26(3):552-6.
4. Tsukuda K, Ikeda E, Miyake T, Ishihara Y, Watatani H, Nogami T, et al. Abdominal wall and thigh abscess resulting from the penetration of ascending colon cancer. Acta Med Okayama 2005; 59(6):281-3.
5. Hardiman KM, Felder SI, Friedman G, Migaly J, Paquette IM, Feingold DL. The American Society of Colon and Rectal Surgeons clinical practice guidelines for the surveillance and survivorship care of patients after curative treatment of colon and rectal cancer. Dis Colon Rect. 2021;64(5):517-33.
6. Kalaitzis J, Filippou G, Zizi-Sermpetzoglou A, Marinis A, Hadjimarcou A, Paschalidis N, et al. Case of a sigmoid colon cancer with metachronous metastases to the mesorectum and the abdominal wall. World J Surg Oncol. 2010;8:17.
7. Teran A, Arias Loste M, de la Peña J. Cáncer de colon y recto. Medicine - Programa de Formación Médica Continuada Acreditado. 2012;11(7):420-30.
8. Bogdanic B, Augustin G, Kekez T, Mijatovic D, Hlupic L, Vanek M. Perforated ascending colon cancer presenting as colocutaneous fistula with abscess to the anterior abdominal wall at the site of a cholecystectomy scar treated with biologic mesh. Coll Antropol. 2012;1(36):335-8.
9. Matsumoto G, Asano H, Kato E, Matsuno S. Transverse colonic cancer presenting as an anterior abdominal wall abscess: report of a case. Surg Today. 2001;31(2):166-9.
10. Rega D, Cardone E, Catalano O, Montesarchio L, Pace U, Scala D, et al. Locally Advanced Colon Cancer with Abdominal Wall Abscess: A Challenging Case Treated by an Innovative Approach. J. Cancer Ther. 2012;03(06):966-9.
11. Andaz S, Heald R. Abdominal wall abscess--an unusual primary presentation of a transverse colonic carcinoma. Postgrad Med J. 1993;69(816):826-8.
12. Martínez-Ramos D, Escrig-Sos J, Miralles-Tena J, Rivadulla-Serrano I, Salvador-Sanchís J. ¿Existe un número mínimo de ganglios linfáticos que se debe analizar en la cirugía del cáncer colorrectal. Cirugía Española. 2008;83(3):108-17.
13. Leibl S, Tsybrovskyy O, Denk H. How many lymph nodes are necessary to stage and advancer

adenocarcinoma of the sigmoid colon and upper rectum. Virchow Arch. 2003;443:133-8.
14. Attar L, Trabulsi N, Maghrabi A, Nassif M. Adenocarcinoma of the colon disguised as abdominal wall abscess: case report and review of the literature. Case Rep Surg. 2018;2:1-6.

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