

Case Report

Adenocarcinoma of the Transverse Colon Presenting as Anterior Abdominal Wall Abscess

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Abstract

Introduction

Locally invasive colon carcinoma comprises a small fraction of the incidence of colon carcinoma. Complications, such as perforation and obstruction, can occur in less than 0.5% of cases and often present differently based on location.

Case Presentation

We present a case of an 85-year-old woman who presented with an acute abdominal wall abscess which was caused by perforation of transverse colon carcinoma.

Conclusion

En-bloc resection increases 5-year survival, and adjuvant chemotherapy reduces the risk of recurrence in patients with stage II resectable colon carcinoma.

Keywords

transverse colon cancer; bowel perforation; colon cancer screening; colonic neoplasms; colon cancer; colon carcinoma; abdominal abscess; abdomen, acute

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Introduction

Colon carcinoma can be locally invasive, which portends various presentations.¹ Complications such as bowel perforation may arise, resulting in fistulas or abscesses. Symptoms of an abdominal abscess present differently depending on its location.² While the direct invasion of adenocarcinoma of the transverse colon is rare, perforation of the colon with subsequent abscess formation in the abdominal wall has been reported even less in the literature.³ Abdominal wall abscess is a complication in 0.3% to 0.4% of cases.⁴ This case describes an anterior abdominal wall abscess due to perforated distal transverse colon adenocarcinoma presenting simultaneously with bilateral pulmonary emboli, likely provoked by active malignancy.

Case Presentation

An 85-year-old woman with a past medical history of iron deficiency anemia and sciatica presented to the emergency department (ED) with complaints of abdominal growth, worsening abdominal pain, and fatigue with associated constipation, decreased appetite, and shortness of breath. Sinus tachycardia was seen on an electrocardiogram. Initial laboratory studies revealed microcytic anemia and leukocytosis. Computed tomography (CT) angiography of the chest confirmed bilateral pulmonary emboli for which continuous intravenous heparin was initiated. Computed tomography of the abdomen and pelvis demonstrated an approximately 8.5 cm x 6.6 cm x 13.4 cm complex fluid collection with rim enhancement and enhancing septations consistent with an

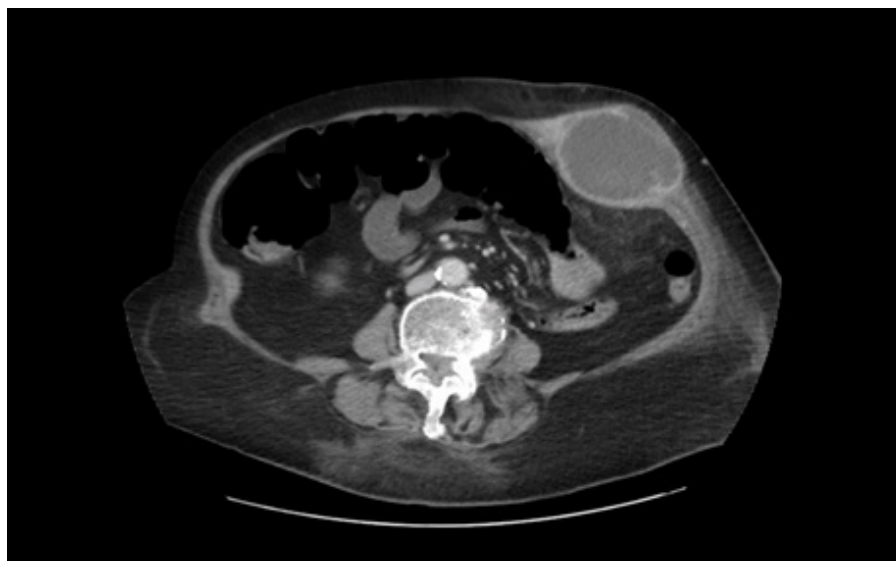


Figure 1. CT of the abdomen and pelvis shows fluid collection at the anterior abdominal wall.

abscess and focal bowel wall thickening at the left mid-to-upper anterior abdomen (**Figure 1**). Empiric antibiotics were provided, and an incision was made. A Jackson-Pratt drain was then placed to drain the abscess. The culture of the fluid grew pan-sensitive *Staphylococcus warneri* and *Prevotella*. When the rate of fluid draining had slowed sufficiently, a CT of the abdomen and pelvis was performed to confirm that the abscess was decompressed and revealed circumferential wall thickening of the distal transverse colon with an exophytic, lobulated, soft tissue density mass measuring about 10.9 cm x 6.7 cm x 9.1 cm originating

from the area (**Figure 2**). The mass involved the anterior abdominal wall where the previously seen fluid collection was located. The drain was removed, and the patient was discharged with instructions to follow up with general surgery for excision of the mass. However, the patient returned to the ED the following day with nausea, vomiting, and a diffusely tender distended abdomen. CT of the abdomen and pelvis was performed and showed small and large bowel obstructions. The patient was brought to the operating room for emergent resection of the mass by exploratory laparotomy, which found adhesions from the mass to multiple adjacent

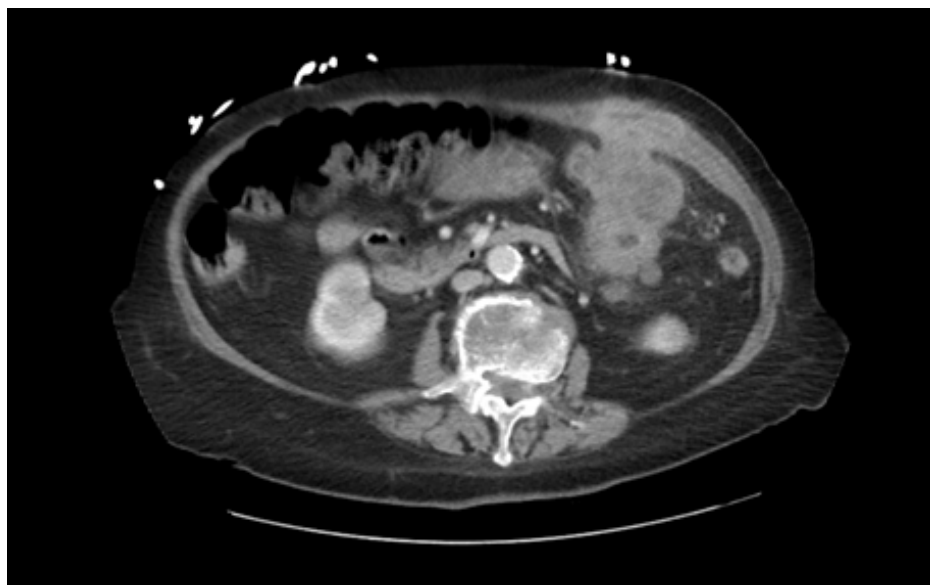


Figure 2. CT of the abdomen and pelvis performed after drainage of the abscess was complete reveals a mass of the transverse colon involving the anterior abdominal wall.

abdominal organs. Postoperative histopathological examination revealed a moderately differentiated adenocarcinoma of the transverse colon with direct invasion to the abdominal wall. All surgical margins were uninvolved by invasive carcinoma, and 12 lymph nodes were found negative for malignancy. According to the Tumor-Node-Metastasis classification, the pathological staging was T4b, N0, and M0.

Discussion

Out of the 100 000 cases of colon cancer diagnosed yearly, 10-20% are categorized as locally invasive. Colon cancer presenting as an acute abdominal wall abscess results from locally invasive cancer involving intraperitoneal portions of the colon that perforate near adjacent structures.² This presentation was first reported in the literature decades ago, but few cases have been published since then.⁵ En bloc dissection with R0 resection margins has been shown to confer a 5-year survival rate of 69% in patients with stage 2 disease and is the preferred method of resection as it eliminates the risk of tumor spillage that is associated with violating tumor planes in operative salvage. This treatment should be offered to patients as it may lead to a complete cure and, at a minimum, will improve prognosis.² In the past, The American Society of Clinical Oncology recommended against adjuvant chemotherapy in patients with stage 2 colon cancer since the 5-year survival benefit was less than 5% after an analysis of randomized trials. However, the guidelines were updated in 2021 to recommend offering adjuvant chemotherapy in patients with high-risk factors for recurrence, including perforation.⁶

Consideration of colon carcinoma as a differential diagnosis of acute abdominal abscess is crucial to management. A delay in diagnosis can lead to further spread and complications that can be fatal more quickly than the disease itself.⁷ This consideration is especially valuable in patients outside the age range of guideline-directed colon cancer screening recommendations, like this patient, as colon cancer has not been determined to be less likely based on any recent endoscopy results.

Conclusion

Abdominal wall abscess may be a rare presentation of locally aggressive colon carcinoma.

Considering this etiology can avoid further spread and fatal consequences of this and other complications. Early diagnosis and en bloc resection can lead to a cure. Adjuvant chemotherapy may reduce the risk of recurrence.

Patient Consent

Written consent for this case report and associated imaging was obtained from the patient.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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