

Appearances Can Be Deceiving - Colon Cancer Mimicking Ileocolitis

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Appearances Can Be Deceiving - Colon Cancer Mimicking Ileocolitis

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Background

- Colorectal cancer (CRC) is the third most common non-skin cancer, and the second leading cause of cancer death in the USA.¹
- The most widely accepted hypotheses for the origin of CRC are environment-induced genetic alterations, hereditary predisposition, or both factors acting together resulting in the unregulated cellular proliferation.²
- The disease usually begins as a benign adenomatous polyp which subsequently progresses to an advanced adenoma with high-grade dysplasia, and then progresses to an invasive cancer.³
- Both, the incidence and mortality rates of CRC have been decreasing in the United States.
- This has been largely attributed to an increase in CRC screening under the United States Preventive Services Task Force (USPSTF) guidelines recommending screening for all adults 50 years or older.⁴
- The USPSTF also recommends screening for CRC in high-risk patients (those with a history of familial polyposis, hereditary nonpolyposis CRC, ulcerative colitis) prior to 50 years of age.⁵

Table 1. Risk Factors for the Development of Colon Cancer

African American Race	Tobacco Use
Inflammatory Bowel Disease	Gender-Male
Family History of CRC	Obesity
Hereditary CRC Syndromes	Consumption of Red and Processed Meat

Case Presentation

- A 35-year-old Caucasian female with past medical history of opioid abuse presented to the Emergency Department with complaints of nausea, vomiting and cramping abdominal pain of four days' duration.
- Initial Abdominal CT (Image 1) showed circumferential thickening of the terminal ileum and the cecum suggesting active enteritis.
- Family history was negative for Inflammatory Bowel Disease or Colorectal Cancer.
- ESR was 0 mm/hr, C-Reactive Protein was elevated at 22.5 mg/L and Stool PCR for Bacterial pathogens was negative.
- She was treated empirically for presumed infectious enteritis with intravenous cefazolin and metronidazole with some improvement. She was discharged on oral antibiotics with planned outpatient evaluation for inflammatory bowel disease (IBD).
- She was readmitted with recurrent symptoms of nausea and vomiting one week after discharge. The patient also noted that her abdominal pain had become more sharp.
- A repeat CT Abdomen (Image 2) again showed active bowel inflammation with luminal narrowing.
- At this point a fecal calprotectin ordered on her first admission was elevated at 571 ug/g.
- She was treated for presumed recurrent infection and probable acute Crohn Disease with IV ciprofloxacin, metronidazole, and methylprednisolone at the recommendation of Gastroenterology.
- Despite three days of treatment with IV antibiotics and steroids, her symptoms failed to improve. Subsequently she developed a new-onset inability to pass stool or flatus.
- An abdominal obstruction series (Image 3) showed a partial small bowel obstruction. This failed to improve with conservative measures.
- The patient was taken for an exploratory laparotomy which revealed an obstructing ascending colonic mass (Image 4), and a hemicolectomy was performed.
- Pathology of the excised colonic mass (Image 5) confirmed stage IIA colonic adenocarcinoma.



Image 1. Initial Abdominal CT: Circumferential thickening of the terminal ileum and cecum, likely indicative of active enteritis.



Image 2. Repeat Abdominal CT: Active bowel inflammation with luminal narrowing affecting the terminal ileum and mid-ascending colon.



Image 3. Abdominal Obstruction Series: Dilated loops of small bowel within the left and central abdomen with an abrupt caliber change in the right lower abdomen compatible with small bowel obstruction.



Image 4. Gross specimen of the obstructing ascending colon mass.

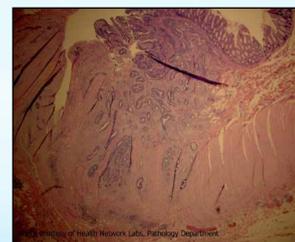


Image 5. Histopathologic specimen showing the characteristic findings of low-grade adenocarcinoma of the ascending colon.

Discussion and Follow-up

DISCUSSION:

- The incidence rates of CRC is increasing in young adults and declining in adults older than 50 years.⁶
- A recent study by Bailey et. al using the Surveillance, Epidemiology and End Results (SEER) databases showed an increase in the incidence of CRC in patients 20 to 49 years old, with the most significant increase in patients aged between 20 to 34.⁶
- The majority of CRC cases in young adults are sporadic in nature, and is likely due to behavioral and environmental causes, however the exact etiology remains unclear.⁷
- Young adults with CRC often present with symptoms (abdominal pain, rectal bleeding, weight loss) and diagnosis is often delayed due to physicians attributing symptoms to diagnoses other than CRC. Hence, it is always necessary to maintain a high index of suspicion.⁷
- The diagnostic challenge in our case was the elevated C-Reactive protein, elevated fecal calprotectin, and features of inflammation on imaging that appeared more consistent with inflammatory bowel disease.

FOLLOW-UP:

- The patient tolerated her procedure well and had no issues in the post-operative period.
- She was treated with single agent chemotherapy capecitabine and is currently undergoing adjuvant chemotherapy with 5-fluorouracil.
- She has declined genetic counseling and testing.

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