



Occult Adenocarcinoma in Crohn's Disease Patient

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Abstract

Crohn's disease is a chronic inflammatory bowel disease that can affect multiple gastrointestinal tract segments and may lead to intestinal obstruction. Additionally, there is a known association between Crohn's disease and colon cancer. A 42-year-old male with a history of Crohn's disease presented to the emergency department with abdominal pain lasting one month. The patient was diagnosed with intestinal obstruction, and a differential diagnosis for colon cancer was considered due to overlapping symptoms. Following the biopsy, colon cancer was confirmed. Therefore, it is recommended that any patient with Crohn's disease presenting with signs of intestinal obstruction be evaluated for possible colon cancer.

Introduction

Crohn's disease is a chronic Inflammatory Bowel Disease (IBD) with a progressive course that may affect several gastrointestinal tract segments [1]. Crohn's disease can cause a range of gastrointestinal symptoms and can lead to serious complications such as bowel obstruction and fistulas. Also, there is a link between Crohn's and colon adenocarcinoma [2].

People with Crohn's might experience overlapping symptoms, which may be due to cancer rather than Crohn's. This paper aims to raise awareness of the potential for bowel obstruction due to colon adenocarcinoma in those with Crohn's.

Case Presentation

A 42-year-old male diagnosed with Crohn's disease presented to the emergency department with a one-month history of abdominal pain. The pain was diffuse in all abdomens, mainly on the left side, colicky in nature, and intermittent. It was not radiated nor shifted. He had associated vomiting once before one week. He was diagnosed with intestinal obstruction on admission, most likely due to Crohn's complications. An X-ray showed three air-fluid levels, and abdominal ultrasound revealed thickened edematous right hemicolon with reactive lymph nodes. Laboratory investigations were obtained, and a nasogastric tube was inserted. The plan is to keep the patient at Nothing Per os (NPO) and observe vital signs. Intravenous fluids, proton pump inhibitor, antibiotics, and paracetamol were started when required. A Computed Tomography (CT) scan with oral and intravenous contrast was scheduled for the morning.

CT scan with intravenous and oral contrast revealed a long segment of circumferential irregular enhancing wall thickening, engorgement of regional vessels, and multiple regional necrotic lymph nodes. Therefore, he was advised on a colonoscopy. Colonoscopy was done the next day and revealed severe right-sided colitis with an obstructive mass (mostly inflammatory, but malignancy still a possibility) and luminal narrowing at the level of the cecum/proximal ascending colon. So multiple Biopsies were taken to rule out malignancy. The plan was admission for IV fluids, antibiotics, and steroids (hydrocortisone 100 mg for 14 days).

The patient underwent right hemicolectomy following an ascending colonic biopsy showing poorly differentiated adenocarcinoma.

During a subsequent evaluation of the patient, a CT scan demonstrated numerous hypodense lesions in the liver and significant lymph node enlargement, indicative of liver metastases.

Discussion

Crohn's disease is a chronic inflammatory bowel disease that can affect any part of the gastrointestinal tract, leading to abdominal pain, diarrhea, rectal bleeding, and weight loss [3]. One

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Figure 1: Abdominal ultrasound revealed thickened edematous right hemicolon.

of the most common complications of Crohn's disease is intestinal obstruction, which occurs when the inflamed bowel becomes narrowed or blocked [4]. This can lead to severe abdominal pain, vomiting, and constipation [5].

In addition to intestinal obstruction, Crohn's patients are at an increased risk of developing colon cancer [2]. The link between Crohn's and colorectal cancer was detected in the first decades of the last century, after the report by Crohn and Rosenberg [6]. Several risk factors have been identified that contribute to this increased risk, including long periods of active inflammation, young age at diagnosis, and smoking [7]. Patients with Crohn's disease for over 10 years are more likely to develop colon cancer later in life [8]. It is important for patients with Crohn's disease to undergo regular screening for colon cancer to detect any abnormalities early.

Given this patient's history of Crohn's disease and subsequent development of intestinal obstruction, the initial differential diagnosis would include strictures, adhesion, or fistulas. A CT scan was performed to investigate further, which revealed an obstructive mass that was subsequently biopsied and found to be adenocarcinoma. It is likely that his Crohn's disease contributed to his cancer diagnosis. Although Intestinal obstruction is one of the complications associated with Crohn's, it is important to consider malignancy as a possible cause [9]. It is possible that chronic inflammation caused by

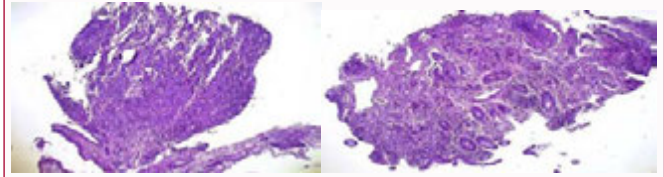


Figure 3: Ascending colonic biopsy showing poorly differentiated adenocarcinoma.

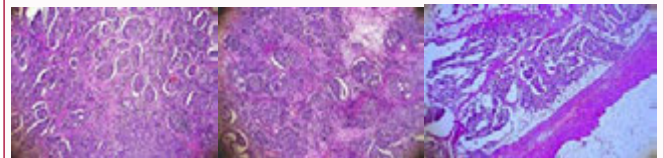


Figure 4: Sections from colectomy specimen show adenocarcinoma invading through muscularis into subserosal fatty tissue.



Figure 5: CT scan demonstrated numerous hypodense lesions in the liver indicative of liver metastases.

Crohn's disease led to changes in the cells lining the intestines which eventually resulted in adenocarcinoma [10].

This case highlights the importance of considering malignancy in the differential diagnosis of patients presenting with intestinal obstruction, even in those with underlying inflammatory bowel disease. It also underscores the need for prompt and accurate diagnosis to ensure timely treatment and improved outcomes [11].

Another important thing to mention is that screening for colon cancer in patients with Crohn's disease can be challenging due to the narrowing of the bowel caused by inflammation. This can make it difficult to perform a colonoscopy, which is the gold standard for detecting colon cancer. Additionally, there is often a fear among patients and healthcare providers about potential complications associated with performing a colonoscopy in patients with Crohn's disease.

Therefore, there is a need for more research on how to effectively



Figure 2: A Colonoscopy revealed severe right-sided colitis with an obstructive mass.

detect and screen for colon cancer in patients with inflammatory bowel diseases such as Crohn's disease. Early detection of colon cancer in these patients is crucial as it can improve survival rates and reduce morbidity associated with this condition [11].

Conclusion

In conclusion, this case report highlights the importance of recognizing symptoms and complications associated with Crohn's disease, such as intestinal obstruction and increased risk of developing colon cancer. Also, it emphasizes the need for further research on effective screening methods for the early detection of colon cancer in patients with inflammatory bowel diseases such as Crohn's disease.

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