

A Colorectal Adenocarcinoma With Obstruction in a 26-Year-Old Man: A Case Report in an Unlikely Age Group



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ABSTRACT

Colorectal cancer affects the rectum or large bowel, including the appendix. This type of cancer develops from the colorectal mucosa, with adenocarcinoma being the most common form, accounting for over 95% of cases. It typically affects individuals aged 50 years or older. However, this report highlights a case of colorectal adenocarcinoma that occurred at a young age, despite no family history. Unfortunately, the cancer was initially missed during check-ups because of the unlikely age group, resulting in a delayed diagnosis. The patient, who presented with an obstruction, underwent surgical interventions. Upon further examination, the histopathological tests revealed that the patient had well-differentiated type I colorectal adenocarcinoma.

Introduction

Colorectal cancer is a type of cancer that affects the rectum or large bowel, including the appendix. It originates from the colorectal mucosa, and the most prevalent form is adenocarcinoma, accounting for over 95% of cases [1]. Evidence suggests that colorectal cancer may be linked to certain health factors, including increasing age, body

mass index (BMI), type 2 diabetes mellitus [T2DM], diet, smoking, and exercise. However, the relationship between hypertension and dyslipidemia and the risk of colorectal cancer is still unclear, with conflicting results from prior studies [2].

According to the last statistics of the International Agency for Research on Cancer (IARC) of the World Health Association (WHO), colorectal cancer is the third most frequent malignant disease around the

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world (1.85 million new cases/year; 10.2% of total malignancies). It is also the third most common type of malignancy in men (1.03 million new cases/year) and the second most frequent malignancy in women (0.82 million new cases/year). Provided that current predictions are reliable, the global burden of colorectal cancer is expected to approximate 2.2 million new cases per year in 2030, thus exhibiting a further 20% increase. The risk of colorectal cancer increases with aging, becoming more common in subjects aged 50 years or older. The median age at diagnosis is 72 in women and 68 in men, respectively [3].

Despite its high incidence in older ages, it is alarming to learn that the incidence of colorectal cancer also has risen in the younger population. In fact, there has been a 51% growth between 1994 and 2014 in adults under 50 years old. The 40 to 44 age group has shown the most considerable increase in incidence. Unfortunately, many young patients with colorectal cancers experience delayed diagnosis due to the preconception that this disease only affects older patients. This delay can lead to a higher stage of

disease at diagnosis, which is concerning [4].

This report covers a case of colorectal adenocarcinoma that occurred at a young age with negative familial history and was initially missed during examinations, resulting in a delayed diagnosis.

Case presentation

A 27-year-old man was referred to the surgical department due to experiencing abdominal pain in the lower left area for a week. The pain was described as dull and not spreading to other parts of the abdomen. It was noted that the pain was not related to eating. The patient reported a history of constipation and decreased stool size from three months ago. In addition, vomiting yellow bile after drinking liquids one month ago was mentioned. During the physical examination, no signs of fever, chills, or weight loss were shown. However, the abdomen was swollen, and percussion revealed a tympanic sound. No guarding was observed. The patient had a similar experience

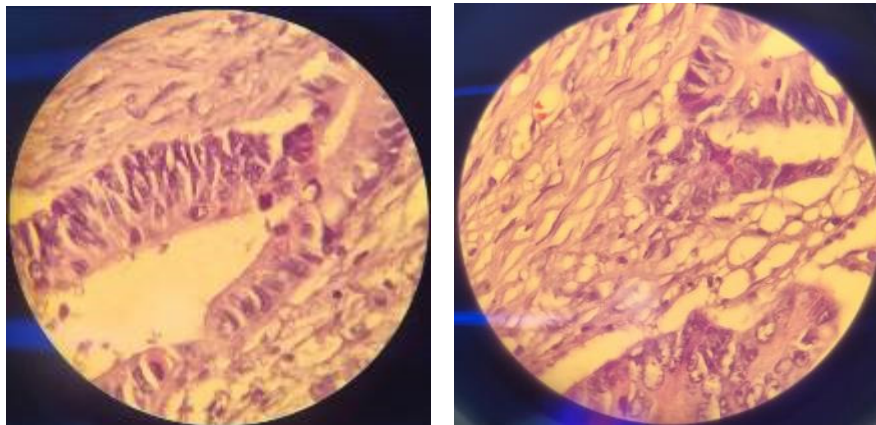


Fig. 1. Infiltration of glandular cells in muscular layer

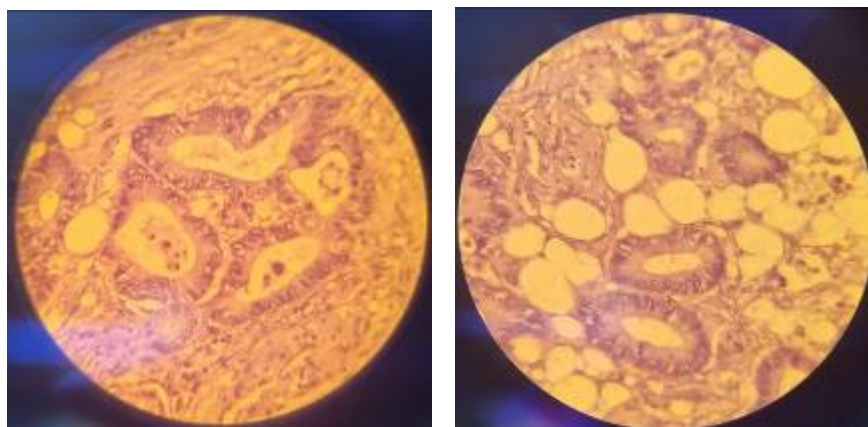


Fig. 2. Infiltration of glandular cells in serosal layer

six months ago, which showed colon distention in an abdominal radiography. However, colonoscopy, endoscopy, and abdominal sonography reports at that time were normal.

A contrasted spiral CT scan of the abdomen and pelvis revealed normal liver size and margins, spleen, and pancreas. No abnormalities were found in the kidneys and gallbladder, and no free liquid was present in the abdomen. However, the colon loops showed dilation, which could indicate a possible obstruction in the colon. As a result, surgery was performed with a primary diagnosis of colon obstruction. During the surgery, a sigmoidal tumor was discovered that had blocked the colon and involved the left gonadal vessel. Sigmoidectomy and partial omentectomy were performed, and the affected lymph nodes were removed.

The histopathological tests showed that the patient had a well-differentiated type I colorectal adenocarcinoma. The level of nuclear atypia was moderate and less than 1 percent of the tissue had necrosis. According to the examination, the tumor had spread to the muscular propria, serosal layer and peri colorectal tissue (T3), and seven out of the nine mesenteric lymph nodes tested were affected (N2b). Additionally, there were signs of vascular and perineural invasions, and the mesenteric vessels were thrombosed (Figure 1 and 2). Ultimately, the patient was diagnosed with a sigmoid tumor T3N2bMx and was discharged from the hospital in good condition with stable symptoms.

Discussion

It has been observed through epidemiologic data that colorectal cancer is not common before the age of 45 years [5]. However, it's concerning to hear that there has been an increase in colorectal carcinoma in young patients in recent years [6]. Colorectal cancer can lead to serious complications like obstruction and perforation of the large bowel, which can be very concerning [7].

When it comes to treating medical conditions, surgery is often the go-to solution for many patients. This approach can offer definitive management and even a potential cure in early cases. In more advanced cases, surgery can still provide effective palliation and relief for those who are suffering [8].

The patient presented a rare case of colorectal adenocarcinoma that appeared in their youth, despite no familial history of the disease. This

initially led medical professionals to overlook cancer as a potential diagnosis during the patient's first examinations. Unfortunately, the disease was not detected until later on, after complications such as colon obstruction had arisen. Thankfully, with the aid of surgical interventions, the disease was successfully treated.

Conclusion

It is crucial to remain vigilant for colorectal cancer in all age groups, as early diagnosis is essential for effective treatment. Healthcare providers should stay informed to provide the best care possible. In this study, a case of a sigmoidal tumor in a 26-year-old man was presented, highlighting the importance of considering colorectal cancer in the differential diagnosis of younger patients who are not included in regular screening.

Ethical Considerations

Compliance with ethical guidelines

There were no ethical considerations to be considered in this article.

Ethical Approval

Before the initiation of treatment and surgery, the patient signed an informed consent form. All the treatment procedures adhered to the applicable ethical guidelines.

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Conflict of Interests

The authors declared no conflict of interest.

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