CASE REPORT: COLORECTAL CARCINOMA IN A YOUNG ADULT MALE

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ABSTRACT

This case highlights the significance of early detection and immediate operative management in managing colorectal carcinoma, especially in young patients who may present atypically. The diagnosis of colorectal adenocarcinoma in a young adult male underscores the need for increased awareness and consideration of malignancy even in younger patients presenting with obstructive symptoms.

KEYWORDS: Colorectal cancer, Adenocarcinoma, Rectosigmoid junction.

INTRODUCTION

Colorectal cancer (CRC) being a substantial worldwide healthcare challenge stands as the 3rd most commonly diagnosed cancer worldwide, following lung and breast cancer [1]. Each year, an estimated 1.2 million emerging cases of CRC adenocarcinoma are reported, with about 600,000 associated deaths [2]. The incidence rates for colon cancer are relatively similar across genders; however, rectal cancers are more frequently observed in men [3].

Several factors contribute to likelihood of developing CRC. Increasing age being a prominent risk factor, with the bulk of cases observed in individuals aged 50 and above [4]. Other important risk factors include a history of colorectal polyps, family background of CRC, and lifestyle habits like low dietary fiber intake, high consumption of animal protein and fat, cigarette smoking, excessive alcohol consumption, and physical inactivity [5]. Genetic predispositions also play a critical role, with hereditary conditions like Familial Adenomatous Polyposis (FAP) and Hereditary Nonpolyposis Colorectal Cancer (HNPCC) significantly increasing the risk of CRC [6].

Recent studies have also highlighted the potential protective effects of certain medications and lifestyle modifications. Nonsteroidal anti-inflammatory medications (NSAIDs) and hormone therapy have been found to substantially reduce the incidence of CRC [7].

CASE REPORT

A 27-year male patient presented to the department of surgery with a 5-day history of lower abdominal pain, vomiting, and abdominal distension. He also reported an inability to pass stools and flatus for 4 days. The pain was sudden in onset, colicky, progressive, and non-radiating, initially located in the periumbilical region before generalizing. The pain was aggravated by lying down and changes in posture but was somewhat relieved by medications. Vomiting began a few hours after the onset of pain, initially containing food particles and later becoming bilious and foul-smelling. Generalized abdominal distension with bloating was noted, and there was a significant loss of appetite over the past 8-10 months. There was no history of fever, dysuria, diet changes, swelling, chronic cough, trauma, jaundice, weight loss, irregular bowel habits, back pain, or rectal bleeding/mucus discharge.

There was no history of hypertension, diabetes mellitus, Tb, bronchial asthma, COPD, jaundice, thyroid disorders, heart diseases, or COVID-19. He had experienced similar abdominal complaints 8-10 months prior, which were managed conservatively. No prior surgeries or blood transfusions were done. No significant family history of any similar complaints or chronic disorder. A per rectal examination revealed an anal tag and decreased anal tone.

Parameters including liver and kidney function tests, electrolytes, and coagulation profile were within normal limits. Imaging studies included an ultrasound of the abdomen showing dilated bowel loops with fecal matter and sluggish peristalsis, indicating likely intestinal obstruction, along with bilateral pleural effusion and minimal fluid in the hepatorenal pouch. An X-ray of the abdomen revealed multiple air-fluid levels and distended bowel loops. CT abdomen showed thickened and edematous rectosigmoid junction and sigmoid colon causing luminal narrowing with loco-regional lymphadenopathy, suggesting a likely neoplastic

process. There were also signs of small bowel obstruction, hepatomegaly, and right renal concretions.

An emergency exploratory laparotomy was performed ,which unveiled a hard annular mass in the colon near the junction of rectum and sigmoid colon, causing obstruction.Histological sample from the mass was obtained and sent to the department of pathology.Histopathological analysis unveiled an infiltrating tumor composed of glands lined by atypical cells with a high nuclear-cytoplasmic ratio, nuclear pleomorphism, hyperchromasia, and prominent nucleoli, consistent with adenocarcinoma of the rectum.

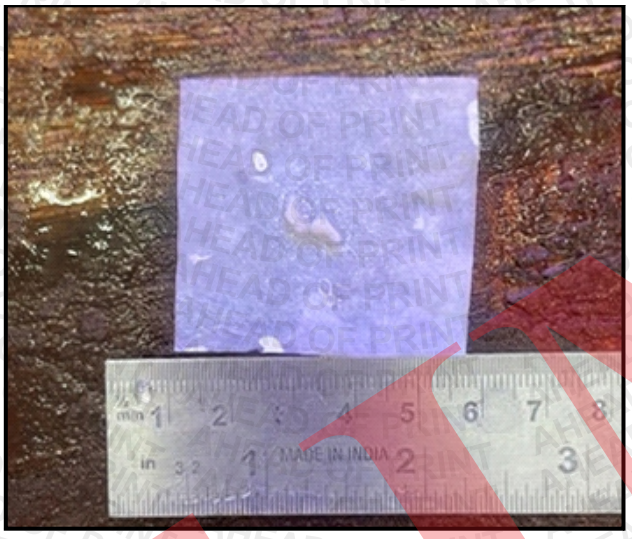

Fig. 1: Gross picture of Colonoscopic guided Biopsy

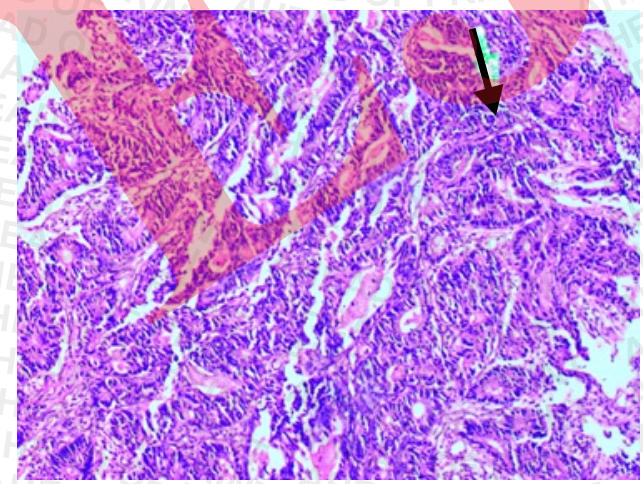

Fig. 2: Histopathological section of Adenocarcinoma of the rectum (H&E stain, ×10). The arrow highlights malignant glandular structures infiltrating the stroma with irregular architecture and desmoplastic response, indicative of invasive adenocarcinoma

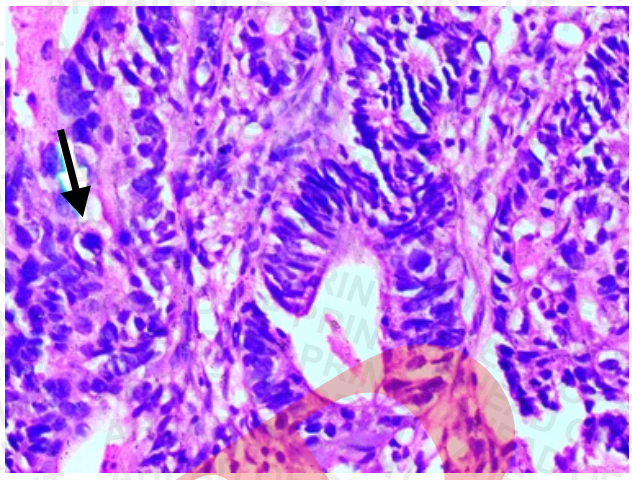

***Fig. 3:* High-power view of Adenocarcinoma of the rectum (H&E stain, ×40). The arrow points to malignant glandular epithelium with Hyperchromatic nuclei, loss of polarity, and prominent atypical features within the Tumor Glands**

CONCLUSION

Early detection and timely surgical intervention were pivotal in management of this condition. Despite the absence of a significant family history and typical risk factors, the presentation with obstructive symptoms necessitated thorough investigation and prompt action. The findings from the imaging and histopathological examination confirmed the presence of an aggressive malignancy, underscoring the potential for rapid progression even in younger patients.This case reinforces the need for increased vigilance and early screening strategies, particularly for individuals presenting with gastrointestinal symptoms that could indicate malignancy, regardless of age. It also calls for a broader awareness and consideration of colorectal cancer as a differential diagnosis in younger patients with gastrointestinal complaints, to ensure timely and effective treatment.

REFERENCES

1. Ferlay J., Ervik M., Lam F., et al. Global cancer observatory: Cancer today. International Agency for Research on Cancer. 2019. Available from: https://gco.iarc.fr/today
2. World Health Organization. Colorectal cancer. World Health Organization. 2021. Available from: https://www.who.int/news-room/fact-sheets/detail/colorectal-cancer
3. American Cancer Society. Colorectal cancer facts & figures 2023-2025. American Cancer Society. 2023. Available from: https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-

and-statistics/colorectal-cancer-facts-and-figures/colorectal-cancer-facts-and-figures-2023.pdf

4. Cancer Research UK. Colorectal cancer statistics. Cancer Research UK. 2022. Available from: https://www.cancerresearchuk.org/about-cancer/colorectal-cancer
5. Miller K. D., Nogueira L., Mariotto A. B., et al. Cancer treatment and survivorship statistics, 2021. CA: A Cancer Journal for Clinicians. 2021; 71(5): 358-377.
6. Jasperson K. W., Tuohy T. M., Neklason D. W., et al. Hereditary and familial colon cancer. Gastroenterology. 2015; 149(5): 1191-1202.
7. Schoen R. E., Weissfeld J. L., Buys S. S., et al. Effect of aspirin on colorectal cancer incidence and mortality in the polys study: A randomized clinical trial. JAMA. 2021; 325(3): 229-238.

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