Case Report

Advanced rectal adenocarcinoma presenting with chronic gastrointestinal symptoms: A case report highlighting the role of multidisciplinary management and magnetic resonance imaging staging

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ABSTRACT

Rectal adenocarcinoma is a common subtype of colorectal cancer that often presents with subtle, progressive symptoms such as rectal bleeding, altered bowel habits, fatigue, and weight loss. We present the case of a 62-year-old male with an 8-month history of loose stools, rectal bleeding, anorexia, and significant fatigue. Contrast-enhanced magnetic resonance imaging revealed a large ulcerative mass involving the rectum with extension to the rectosigmoid junction. Colonoscopy confirmed a friable, proliferative growth, and histopathological analysis demonstrated well-differentiated adenocarcinoma. The patient underwent staging laparoscopy and a palliative loop colostomy with an uneventful postoperative recovery. This report emphasizes the importance of early diagnostic evaluation, detailed imaging for staging, and a coordinated multidisciplinary approach–even in seemingly routine advanced rectal cancer cases–to guide optimal management and overcome diagnostic delays.

Key words: Colorectal cancer, Magnetic resonance imaging staging, Multidisciplinary management, Palliative colostomy, Rectal adenocarcinoma

Colorectal cancer remains a significant global health challenge, and rectal cancer accounts for approximately one-third of these cases [1]. Despite increased awareness and screening, many rectal cancers are diagnosed only after the onset of symptoms such as rectal bleeding and altered bowel habits.

In this report, we describe a patient with an advanced rectal adenocarcinoma whose diagnosis was delayed despite classic warning signs. This case is reported to underscore the diagnostic challenges, highlight the pivotal role of high-resolution imaging and endoscopy in staging, and discuss the rationale behind the chosen surgical intervention even in advanced disease [2].

CASE PRESENTATION

A 62-year-old male presented with an 8-month history of loose stools, rectal bleeding, and profound fatigue. His symptoms also included decreased appetite, unintentional weight loss, and persistent abdominal pain. On further inquiry, the patient described the abdominal pain as a constant, dull ache with intermittent cramping episodes. The pain was moderate in intensity (rated 5–6/10), worsened by eating and bowel movements, and partially relieved by lying down. The patient denied nausea or vomiting.

The patient had been previously healthy until symptoms began 8 months prior. He experienced progressively worsening altered bowel habits and chronic rectal bleeding. Although he had received conservative management in the past, he had never undergone a colonoscopy. There was no history of alcohol consumption or smoking; however, he had used tobacco for the past 32 years.

On examination, vital signs were stable with a pulse rate of 85 bpm and blood pressure of 110/70 mmHg. Digital rectal examination revealed normal anal tone and a palpable ulcerative growth approximately 2 cm from the anal verge, tender on palpation, and with a small, discharging opening. Laboratory studies showed

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a decreased hemoglobin level (9.3 g/dL) and a reduced red blood cell count (3.33 million/μL), while white blood cell and platelet counts were within normal limits.

A contrast-enhanced magnetic resonance imaging (MRI) of the abdomen and pelvis demonstrated a heterogeneously enhancing mass lesion with circumferential wall thickening of the rectum extending to the rectosigmoid junction. The mass measured approximately 8.5 × 5 × 9 cm, appeared hyperintense on T2-weighted images, and showed anterior infiltration into the urinary bladder and prostate, involvement of the peritoneal reflection, extension into bilateral seminal vesicles, posterior invasion into the presacral fat reaching the sacrum, and inferior extension to the anal verge with involvement of the right internal and external anal sphincters (Fig. 1). Colonoscopy revealed an ulceroproliferative, friable lesion extending from 1 cm to 12 cm from the anal verge (Fig. 2). Multiple biopsies confirmed a diagnosis of well-differentiated adenocarcinoma of the rectum.

Based on the imaging and colonoscopic findings, the patient was scheduled for staging laparoscopy with colostomy. Under general anesthesia, a 10 mm port was inserted using the open Hasson technique, and pneumoperitoneum was established. A secondary 5 mm port was placed for assistance. Peritoneal lavage was performed for cytological evaluation. Following tumor staging, mobilization of the sigmoid colon was achieved, and a loop colostomy was created to relieve the luminal obstruction. The procedure was completed with layered port closure and application of a sterile dressing.

Postoperatively, the patient received antibiotics, antiemetics, multivitamins, and analgesics. His symptoms improved steadily, he remained hemodynamically stable, and he was discharged with instructions for weekly follow-up in the surgical and medical oncology departments.

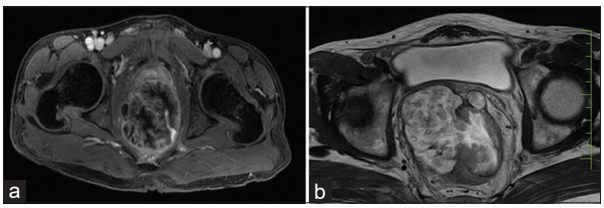

Figure 1: Magnetic resonance imaging axial hyperintense T2 weighted image of the rectum

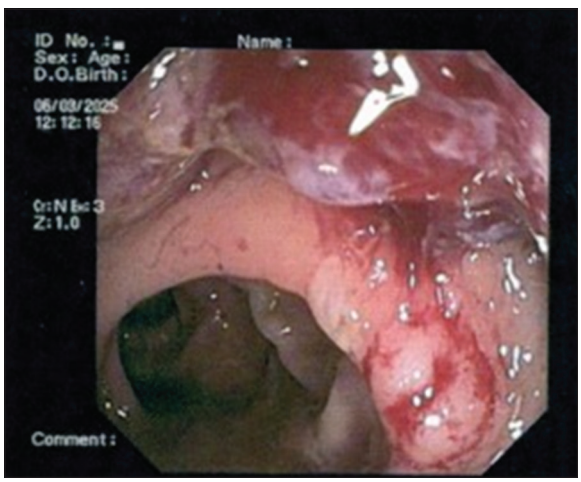

Figure 2: The colonoscopy shows a protruding, irregular, and ulcerated lesion in the colon

DISCUSSION

This case typifies the common presentation of rectal adenocarcinoma with an 8-month history of rectal bleeding, altered bowel habits, and progressive fatigue. However, several aspects merit further discussion.

Diagnostic delay and clinical implications

Despite the hallmark signs of rectal bleeding and altered bowel habits–symptoms that should trigger early diagnostic evaluation–this patient experienced a significant delay in diagnosis. Such delays may be due to misattribution of symptoms to benign conditions or lack of timely referral for colonoscopy. This case emphasizes the need for heightened clinical vigilance, especially when warning signs persist [3].

Role of high-resolution imaging

The use of contrast-enhanced MRI was critical in accurately assessing the extent of tumor invasion, particularly its encroachment on adjacent structures (urinary bladder, prostate, and presacral fat) and determining the involvement of the mesorectal fascia. High-resolution imaging guides treatment planning and helps determine whether neoadjuvant therapy may be beneficial [4].

Rationale for early surgical intervention

In most cases of advanced rectal cancer, neoadjuvant chemoradiotherapy is often considered. However, in this case, urgent surgical management was planned due to several factors: (a) The presence of severe luminal narrowing with obstructive symptoms; (b) The need for staging via laparoscopy to assess the extent of local invasion and cytological evaluation of peritoneal fluid, especially since the imaging suggested possible peritoneal involvement; (c) The patient's overall condition and the surgical team's assessment that immediate palliative colostomy would relieve symptoms and optimize the patient's quality of life while providing critical information to guide further oncological management. These points underscore that even in advanced cases, individualized treatment planning may lead to early surgical intervention when warranted by clinical and radiological findings [5,6].

Comparison with similar reports

Several recent case reports and studies highlight the variability in presentations of rectal cancer and the

importance of a multidisciplinary approach in managing advanced cases. For example, Connelly *et al*. [7] reported unusual osseous metastases in rectal cancer, while Tsukamoto *et al*. [8] systematically reviewed adjuvant treatment outcomes. Similar cases stress that even routine presentations can harbor complex staging and management decisions that deviate from standard protocols due to unique anatomical involvement.

Implications for future practice

This case reinforces that persistent gastrointestinal symptoms should not be overlooked, and early advanced imaging should be considered in symptomatic patients. Moreover, it showcases the value of a multidisciplinary team in tailoring both diagnostic and therapeutic strategies to individual patient scenarios.

CONCLUSION

This case underscores the critical importance of early recognition and comprehensive diagnostic evaluation in rectal adenocarcinoma. High-resolution MRI and prompt endoscopic evaluation enabled accurate staging and informed a surgical strategy tailored to the patient's complex presentation. The coordinated multidisciplinary approach, despite a seemingly routine presentation, was vital in addressing diagnostic delays and optimizing patient management. Ultimately, this case advocates for increased clinical vigilance and individualized treatment planning to improve outcomes in advanced rectal cancer.

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