



Acute Total Bowel Obstruction Caused by Locally Advanced Rectal Carcinoma without Confirmed Distant Metastasis: A Case Report

Rizky Hardwiansyah^{1*}, Begard Mada Sagaling², Sahrul Anam³, Wisnu Widiyatmoko⁴

¹⁻⁴ Department of Surgery, Rumah Sakit Umum Kaliwates, Indonesia

Email: berashalal01@gmail.com¹, begardms@gmail.com², wisnu.widi33@gmail.com⁴

*Corresponding Author: berashalal01@gmail.com

Abstract. Rectal cancer may present with nonspecific symptoms that are frequently overlooked, leading to delayed diagnosis and advanced disease. Acute bowel obstruction is a severe complication associated with increased morbidity and emergency surgical management. A 49-year-old male presented with a three-day history of inability to defecate and pass flatus, accompanied by severe abdominal pain, distension, vomiting, and fever. He had a two-year history of an untreated anal mass, chronic constipation, rectal bleeding, and significant weight loss. Physical examination revealed a friable mass completely obstructing the anal canal. Imaging showed obstructive ileus and generalized peritonitis. Emergency exploratory laparotomy revealed a large, fixed tumor at the distal rectum with extensive bowel dilatation. Transverse colostomy and tumor debulking were performed. The postoperative diagnosis was rectal carcinoma staged intraoperatively as T4bN1Mx. This case demonstrates that severe local tumor progression may result in life-threatening obstruction even in the absence of confirmed distant metastasis at presentation. Diagnostic delay and emergency presentation significantly influence management strategy and outcomes. Rectal cancer can progress to total bowel obstruction due to extensive local disease. Early evaluation of chronic anorectal symptoms is crucial to avoid emergency presentations and associated complications.

Keywords: Bowel Obstruction; Case Report; Colostomy; Emergency Surgery; Rectal Cancer.

1. INTRODUCTION

Colorectal cancer is a major global health problem and remains one of the most frequently diagnosed malignancies worldwide. According to global cancer statistics, colorectal cancer ranks among the top three cancers in terms of incidence and mortality, accounting for a substantial proportion of cancer-related deaths each year (Arnold et al., 2017; Sung et al., 2021). Rectal cancer constitutes a significant subset of colorectal cancer cases and presents unique clinical challenges due to its anatomical location, patterns of local invasion, and treatment complexity (Rajput & Bullard Dunn, 2007). Despite advances in screening and early detection, a considerable number of patients, particularly in low- and middle-income countries, continue to present at advanced stages of disease (Arnold et al., 2017).

The clinical presentation of rectal cancer is often insidious. Early symptoms such as altered bowel habits, rectal bleeding, tenesmus, or a sensation of incomplete evacuation are frequently nonspecific and may be misinterpreted as benign anorectal conditions, including hemorrhoids or chronic constipation (Rajput & Bullard Dunn, 2007). As a result, delays in diagnosis are common, allowing progressive tumor growth and local invasion before medical attention is sought. This delayed presentation significantly contributes to increased disease burden and complication rates at the time of diagnosis.

One of the most severe complications of colorectal malignancy is bowel obstruction. Obstructive colorectal cancer represents a surgical emergency and is associated with increased perioperative morbidity, prolonged hospitalization, and higher short-term mortality (Cuffy et al., 2004; Frago et al., 2014). Obstruction may result from progressive luminal narrowing caused by tumor growth, associated inflammation, or extrinsic compression. In rectal cancer, distal tumor location may lead to pronounced proximal bowel dilatation, electrolyte imbalance, and systemic inflammatory response, often necessitating urgent surgical intervention rather than elective oncologic resection (Pisano et al., 2018). Acute total bowel obstruction, in particular, reflects advanced local disease and frequently mandates staged surgical management, including decompressive stoma formation or damage-control procedures (Pisano et al., 2018). In emergency settings, the primary goals of surgery shift from curative intent to stabilization, decompression, and prevention of further complications, such as perforation or sepsis. These circumstances often limit immediate definitive oncologic treatment and complicate subsequent management strategies.

Tumor size, depth of invasion, and nodal involvement are traditionally viewed as key determinants of metastatic potential in colorectal cancer. However, disease progression is increasingly recognized as biologically heterogeneous (Dienstmann et al., 2017). Large, locally advanced rectal tumors may exhibit aggressive local behavior, including invasion of surrounding structures and complete luminal obstruction, without synchronous distant metastasis at initial presentation (PelvEx Collaborative PC, 2022). This apparent discordance between extensive local tumor burden and the absence of confirmed distant spread challenges the conventional assumption of linear tumor progression and underscores the complexity of rectal cancer biology.

Socioeconomic factors, occupational demands, lifestyle habits, and limited access to healthcare services further contribute to delayed diagnosis and advanced-stage presentation (Rawla et al., 2019). Smoking and dietary patterns have been associated with colorectal cancer risk and progression, while working-age male populations may be particularly prone to postponing medical evaluation despite persistent symptoms (Rawla et al., 2019; Song & Chan, 2019). Consequently, many patients seek medical care only when severe complications arise, including obstruction, perforation, or significant bleeding (Song & Chan, 2019). This case report describes a patient with a long-standing rectal mass who presented with acute total bowel obstruction requiring emergency surgical intervention. The case highlights an uncommon but clinically significant presentation in which a large, locally advanced rectal tumor caused complete bowel obstruction, emphasizing the importance of early symptom recognition and

timely evaluation, as well as the complex relationship between tumor size, local disease severity, and metastatic spread.

2. LITERATUR RIVIEW

A 49-year-old male patient, a truck driver, presented to the emergency department with complaints of inability to defecate and pass flatus for three days prior to admission. These complaints were accompanied by severe abdominal pain involving the entire abdomen, marked abdominal distension, nausea, and repeated episodes of vomiting. The patient also reported intermittent fever. In the period preceding admission, bowel movements were described as being mixed with blood.



Figure 1. Clinical manifestation of the patient.

The patient reported a history of a mass in the anal region that had been present for approximately two years. During this time, he experienced persistent difficulty in defecation, with stool consistency described as small, pellet-like formations. Episodes of defecation were sometimes accompanied by fresh blood. He also experienced intermittent abdominal pain during this period. The patient reported significant weight loss over the past two years. He had never undergone medical evaluation or treatment for these complaints prior to the current presentation. There was no reported history of previous surgical procedures, known drug or food allergies, or other documented medical conditions. The patient had a history of active smoking for approximately 20 years, including vapor use, and reported frequent consumption of grilled foods.



Figure 2. Intraoperative documentation.

On arrival at the emergency department, the patient appeared weak and pale. Vital signs revealed hypotension with a blood pressure of 80/60 mmHg, fever with a body temperature of 38.7°C, tachycardia with a heart rate of 110 beats per minute, tachypnea with a respiratory rate of 24 breaths per minute, and oxygen saturation of 95% on room air. The Glasgow Coma Scale score was recorded as 3-4-6. Physical examination of the abdomen showed marked distension with generalized tenderness on palpation. Bowel sounds were absent. Examination of the extremities revealed cold extremities with capillary refill time of less than two seconds and erythematous coloration. Cardiopulmonary examination revealed normal vesicular breath sounds bilaterally without rhonchi or wheezing, and normal heart sounds.

Local examination of the perianal region revealed the presence of an irregularly contoured mass associated with blood and mucus discharge, completely obstructing the anal canal. Digital rectal examination revealed a friable mass with a nodular surface that bled easily upon contact. Initial laboratory investigations performed on December 16, 2025, demonstrated anemia with a hemoglobin level of 9.4 g/dL, leukocytosis with a leukocyte count of 15,940/ μ L, and thrombocytosis with a platelet count of 641,000/ μ L. Red blood cell indices showed microcytic anemia, with a mean corpuscular volume of 71.8 fL, mean corpuscular hemoglobin of 22.9 pg, and mean corpuscular hemoglobin concentration of 31.8 g/dL. Electrolyte analysis revealed hypokalemia with a potassium level of 3.0 mmol/L. Renal function tests showed blood urea nitrogen of 22 mg/dL and creatinine of 1.0 mg/dL.

Plain abdominal radiography demonstrated findings consistent with obstructive ileus and generalized peritonitis. Thoracic radiography revealed pneumonia. Electrocardiography showed normal results. Endoscopic examination revealed colitis with a differential diagnosis of malignancy, and histopathological examination of endoscopic biopsy specimens demonstrated chronic nonspecific colitis. Based on clinical presentation, physical examination,

laboratory findings, and radiological assessment, the patient was diagnosed in the emergency department with colic abdomen suspected due to peritonitis and ileus obstruction, with suspected rectal carcinoma.

Initial management in the emergency department included oxygen administration via mask at 5 liters per minute, intravenous fluid resuscitation with plasma expanders, placement of a nasogastric tube and urinary catheter, and administration of supportive medications including analgesics, proton pump inhibitors, antiemetics, antifibrinolytics, and vitamin K. Surgical consultation was obtained, and the patient was scheduled for emergency exploratory laparotomy.

Emergency surgery was performed under general anesthesia with the patient in the supine position. Intraoperative findings included dilatation and edema of the entire small intestine, including the ligament of Treitz, with intraluminal fluid retention. The colon was dilated from the caecum to the proximal one-third of the rectum. A solid mass with hard consistency, fixed position, nodular surface, and friable texture was identified at the distal one-third of the rectum. Multiple nodules were observed in the mesenteric lymph nodes of the mesenteric portion of the colonic segments, as well as nodules in the rectosigmoid and sigmoid regions. Nodules were also noted on the liver surface.

Surgical procedures performed included transverse colostomy with stoma formation, debulking resection of the rectal tumor, control of bleeding, bowel irrigation, and placement of an abdominal drain. Estimated intraoperative blood loss was approximately 250 mL. Tumor specimens were collected and sent for histopathological examination. The postoperative diagnosis was recorded as total bowel obstruction caused by carcinoma of the distal rectosigmoid region, with intraoperative staging documented as T4bN1Mx. Postoperative laboratory evaluation on December 20, 2025, demonstrated a hemoglobin level of 7.9 g/dL, leukocyte count of 5,530/ μ L, and platelet count of 356,000/ μ L. Coagulation studies showed prolonged activated partial thromboplastin time. Postoperative management included intravenous antibiotics, proton pump inhibitors, antiemetics, antifibrinolytic therapy, corticosteroids, nutritional support with parenteral feeding and gradual oral intake, laxative administration, and gradual closure of the nasogastric tube.

3. DISCUSSION

Clinical Significance of Acute Total Bowel Obstruction in Rectal Cancer

This case represents a severe and life-threatening presentation of rectal carcinoma complicated by acute total bowel obstruction. Obstructive colorectal cancer is a well-

recognized surgical emergency and is consistently associated with increased morbidity, prolonged hospitalization, and higher perioperative risk compared with elective presentations (Cuffy et al., 2004; Frago et al., 2014). In the present case, the patient presented with complete cessation of defecation and flatus, marked abdominal distension, vomiting, systemic inflammatory response, and hemodynamic instability, all of which are classical manifestations of advanced obstructive disease.

Rectal tumors, particularly those located in the distal segment, may cause progressive luminal narrowing over time. As the obstruction worsens, proximal bowel dilatation develops, resulting in increased intraluminal pressure, bowel wall edema, electrolyte imbalance, and risk of ischemia or perforation (Pisano et al., 2018). The extensive bowel dilatation observed intraoperatively in this patient, from the small intestine to the proximal rectum, correlates with the severity of obstruction and explains the acute clinical deterioration that prompted emergency surgical intervention.

Delayed Presentation and Progressive Local Disease

A striking feature of this case is the prolonged duration of symptoms prior to hospital presentation. The patient experienced difficulty defecation, pellet-like stools, intermittent rectal bleeding, abdominal pain, and significant weight loss over a two-year period. These symptoms are well-described early manifestations of rectal cancer but are frequently overlooked or misattributed to benign anorectal conditions, such as hemorrhoids or chronic constipation (Rajput & Bullard Dunn, 2007). This pattern of delayed presentation remains common, particularly in working-age male populations and in settings with limited access to routine screening or preventive care (Rawla et al., 2019).

Such diagnostic delays allow tumors to progress locally, increasing the likelihood of complications such as obstruction, bleeding, or perforation. Emergency presentation, as seen in this case, often precludes standard oncologic pathways and limits immediate curative surgical options (Gutlic et al., 2024). Instead, management must prioritize stabilization and resolution of the acute complication.

Tumor Burden, Nodal Disease, and Local Invasion

Intraoperative findings demonstrated a large, fixed, friable tumor involving the distal rectum, accompanied by extensive bowel dilatation and mesenteric lymph node nodules. These findings are consistent with locally advanced disease and nodal involvement, reflected in the intraoperative staging of T4bN1Mx. Advanced local tumor burden is a recognized risk factor for obstructive presentation in colorectal cancer (Cuffy et al., 2004; Frago et al., 2014).

The presence of nodal disease further supports the advanced nature of the malignancy. However, it is important to distinguish between aggressive local growth and systemic dissemination. While nodal involvement reflects regional spread, it does not necessarily indicate distant metastasis at presentation, underscoring the complexity of colorectal cancer progression (Dienstmann et al., 2017).

Absence of Confirmed Distant Metastasis and Tumor Heterogeneity

Despite the extensive local disease and nodal involvement, no confirmed distant metastasis was documented at the time of surgery, with metastatic status recorded as Mx. This finding is clinically relevant, as it challenges the common assumption that large tumor size and severe local complications invariably correlate with widespread metastatic disease.

Colorectal cancer is increasingly recognized as a biologically heterogeneous disease, with tumor behavior influenced by molecular subtype, host factors, and tumor–microenvironment interactions (Dienstmann et al., 2017). Several studies have reported cases of locally advanced rectal cancer presenting without synchronous distant metastasis, highlighting that tumor progression does not always follow a linear or predictable pathway (Gunderson et al., 2010). The present case aligns with these observations, demonstrating that extensive local tumor growth can occur in the absence of confirmed distant spread at initial evaluation.

Diagnostic Limitations in Emergency Settings

This case also highlights diagnostic challenges inherent in emergency presentations of colorectal cancer. Endoscopic evaluation demonstrated colitis with a differential diagnosis of malignancy, while biopsy revealed chronic nonspecific colitis. Sampling error in colorectal tumors, particularly in the context of friable, inflamed, or obstructing lesions, is a recognized limitation of endoscopic biopsy (Mommersteeg et al., 2021). In such cases, histopathological findings may not accurately reflect the underlying malignancy.

In emergency settings, clinical judgment, radiological findings, and intraoperative assessment often play a more decisive role in guiding management than preoperative histopathology alone. This reinforces the importance of maintaining a high index of suspicion for malignancy in patients with chronic anorectal symptoms and acute obstructive presentations, even when initial biopsy results are inconclusive.

Surgical Strategy and Emergency Management

The surgical approach in this case prioritized decompression and stabilization through transverse colostomy and tumor debulking. Such strategies are recommended in unstable patients presenting with obstructive rectal cancer, where immediate definitive oncologic

resection may not be feasible or safe (Gutlic et al., 2024). Emergency diversion reduces intraluminal pressure, alleviates obstruction, and allows for patient stabilization prior to further oncologic evaluation and treatment planning.

Emergency colorectal surgery is consistently associated with poorer short-term outcomes compared with elective procedures, emphasizing the importance of early diagnosis and timely referral (Mommersteeg et al., 2021; McArdle & Hole, 2004). However, staged surgical management remains an essential component of care in patients presenting with advanced complications.

Clinical Implications and Lessons Learned

This case underscores several important clinical lessons. First, chronic anorectal symptoms, particularly when accompanied by rectal bleeding and weight loss, should prompt early evaluation to exclude malignancy. Second, rectal cancer may progress to cause severe mechanical complications without confirmed distant metastasis at presentation, highlighting the heterogeneity of tumor behavior.

Third, emergency surgical intervention remains a critical and lifesaving strategy in obstructive colorectal cancer, requiring individualized decision-making based on patient stability and intraoperative findings. Finally, this case reinforces the ongoing need for increased awareness of colorectal cancer symptoms and risk factors, improved access to diagnostic services, and heightened clinical vigilance to prevent delayed presentation and emergency complications (Rawla et al., 2019; Song & Chan, 2019; Brenner et al., 2014).

4. CONCLUSION

This case highlights an emergency presentation of rectal carcinoma manifesting as acute total bowel obstruction after a prolonged period of untreated anorectal symptoms. Despite extensive local tumor burden and nodal involvement, no confirmed distant metastasis was identified at presentation. Early recognition of chronic rectal symptoms and timely diagnostic evaluation are essential to prevent advanced local complications requiring emergency surgical intervention.

REFERENCES

- Arnold, M., Sierra, M. S., Laversanne, M., Soerjomataram, I., Jemal, A., & Bray, F. (2017). Global patterns and trends in colorectal cancer incidence and mortality. *Gut*, *66*(4), 683–691. <https://doi.org/10.1136/gutjnl-2015-310912>
- Benson, A. B., Venook, A. P., Al-Hawary, M. M., et al. (2020). Rectal cancer, version 3.2020, NCCN clinical practice guidelines in oncology. *Journal of the National Comprehensive Cancer Network*, *18*(7), 806–815. <https://doi.org/10.6004/jnccn.2020.0032>
- Brenner, H., Kloor, M., & Pox, C. P. (2014). Colorectal cancer. *The Lancet*, *383*(9927), 1490–1502. [https://doi.org/10.1016/S0140-6736\(13\)61649-9](https://doi.org/10.1016/S0140-6736(13)61649-9)
- Cuffy, M., Abir, F., Audisio, R. A., & Longo, W. E. (2004). Colorectal cancer presenting as surgical emergencies. *Surgical Oncology*, *13*(2–3), 149–157. <https://doi.org/10.1016/j.suronc.2004.08.002>
- Cunningham, D., Atkin, W., Lenz, H. J., et al. (2010). Colorectal cancer. *The Lancet*, *375*(9719), 1030–1047. [https://doi.org/10.1016/S0140-6736\(10\)60353-4](https://doi.org/10.1016/S0140-6736(10)60353-4)
- Dekker, E., Tanis, P. J., Vleugels, J. L. A., Kasi, P. M., & Wallace, M. B. (2019). Colorectal cancer. *The Lancet*, *394*(10207), 1467–1480. [https://doi.org/10.1016/S0140-6736\(19\)32319-0](https://doi.org/10.1016/S0140-6736(19)32319-0)
- Dienstmann, R., Vermeulen, L., Guinney, J., Kopetz, S., Tejpar, S., & Tabernero, J. (2017). Consensus molecular subtypes and the evolution of precision medicine in colorectal cancer. *Nature Reviews Cancer*, *17*(2), 79–92. <https://doi.org/10.1038/nrc.2016.126>
- Frago, R., Ramirez, E., Millan, M., Kreisler, E., del Valle, E., & Biondo, S. (2014). Current management of acute malignant large bowel obstruction: A systematic review. *The American Journal of Surgery*, *207*(1), 127–138. <https://doi.org/10.1016/j.amjsurg.2013.07.027>
- Glynne-Jones, R., Wyrwicz, L., Tiret, E., et al. (2017). Rectal cancer: ESMO clinical practice guidelines. *Annals of Oncology*, *28*(suppl_4), iv22–iv40. <https://doi.org/10.1093/annonc/mdx224>
- Gunderson, L. L., Jessup, J. M., Sargent, D. J., Greene, F. L., & Stewart, A. K. (2010). Revised TN categorization for colon cancer based on national survival outcomes data. *Journal of Clinical Oncology*, *28*(2), 264–271. <https://doi.org/10.1200/JCO.2009.24.0952>
- Gutlic, I., Saraste, D., Nordenvall, C., Martling, A., Lydrup, M. L., & Buchwald, P. (2024). Postoperative complications and emergency surgeries in colorectal cancer patients <50 years: A national cohort study. *Colorectal Disease*, *26*(7), 1397–1404. <https://doi.org/10.1111/codi.17058>
- Habr-Gama, A., Perez, R. O., Proscurshim, I., et al. (2013). Patterns of failure and survival in rectal cancer. *Diseases of the Colon & Rectum*, *56*(5), 566–574. <https://doi.org/10.1097/DCR.0b013e3182a25c4e>
- Heald, R. J., & Ryall, R. D. H. (1986). Recurrence and survival after total mesorectal excision for rectal cancer. *The Lancet*, *327*(8496), 1479–1482. [https://doi.org/10.1016/S0140-6736\(86\)91510-2](https://doi.org/10.1016/S0140-6736(86)91510-2)
- Hilmy, A. A. M. (2019). Disparitas usia minimal perkawinan dalam Kompilasi Hukum Islam perspektif teori batas mashlahah Sa'id Ramadan Al-Buti. *Jurnal Islam Nusantara*, *3*(1), 123–157. <https://doi.org/10.33852/jurnal.in.v3i1.123>

- Huda, M. (2018). *Hukum keluarga Islam: Konsep dan implementasinya di Indonesia*. UIN Maliki Press.
- Iskandar, W., Dama, H., & Asi, L. L. (2022). Pengaruh budaya organisasi terhadap kualitas pelayanan publik pada Kantor Samsat Kabupaten Gorontalo. *Jambura: Jurnal Ilmiah Manajemen dan Bisnis*, 5(2), 819–824.
- Kasmir. (2016). *Manajemen sumber daya manusia (Teori dan praktik)*. Rajawali Pers.
- Kotler, P., & Keller, K. L. (2016). *Marketing management* (15th ed.). Pearson Education Limited.
- Kreitner, R., & Kinicki, A. (2014). *Perilaku organisasi* (Edisi 9). Salemba Empat.
- Lukman. (2019). Relevansi hukum Islam dan hukum positif tentang usia dewasa dalam perkawinan. UIN Fatmawati Sukarno Bengkulu.
- Luthans, F. (2011). *Organizational behavior* (12th ed.). McGraw-Hill.
- Malisi, A. S. (2018). Batas umur pernikahan dalam perspektif hukum Islam. *Syarah: Jurnal Hukum Islam dan Ekonomi*, 7(1). <https://doi.org/10.55681/seikat.v1i1.97>
- Mangkunegara, A. A. A. P. (2017). *Manajemen sumber daya manusia perusahaan*. PT Remaja Rosdakarya.
- Moenir, A. S. (2010). *Manajemen pelayanan umum di Indonesia*. Bumi Aksara.
- Nasution, K. (2013). *Hukum perkawinan dan waris di dunia Muslim modern*. ACAdemia + TAZZAFa.
- Nasution, M. N. (2004). *Manajemen mutu terpadu (Total quality management)*. Ghalia Indonesia.
- Nugraha, R., & Akbar, G. G. (2025). Pengaruh kompetensi dan budaya organisasi terhadap efektivitas pelayanan Sekretariat DPRD Kabupaten Garut. *Pendas: Jurnal Ilmiah Pendidikan Dasar*, 10(4), 36–51.
- Nugroho, G., & Sugandi, Y. S. (2023). Pengaruh kompetensi dan budaya kerja terhadap kinerja pegawai pada Sub Bagian Urusan Dalam Sekretariat Daerah Provinsi Jawa Barat. *Journal Publicuho*, 6(3), 1111–1122. <https://doi.org/10.35817/publicuho.v6i3.246>
- Pasolong, H. (2019). *Teori administrasi publik*. Alfabeta.
- Priansa, D. J. (2018). *Perencanaan dan pengembangan SDM*. Alfabeta.