ORIGINAL ARTICLE

Impact of emergency presentation on early surgical and oncological outcomes in rectosigmoid cancer: a single-center retrospective analysis

Erkan Somuncu,[1] Mahmut Ozan Aydın,[1] Hatice Telci,[1] Fatma Şahin,[1] Emre Bozdağ,[1] Serhan Yılmaz,[2] Ali Kocataş[1]

[1]Department of General Surgery, University of Health Sciences, Kanuni Sultan Suleyman Training and Research Hospital, İstanbul-*Türkiye*
[2]Department of General Surgery, University of Health Sciences, Bilkent City Hospital, Ankara-*Türkiye*

ABSTRACT

BACKGROUND: Cancers of the rectosigmoid region account for a significant portion of colorectal cancers malignancies and are associated with higher rates of emergency presentation compared to other colorectal cancers. This study aims to compare emergency and elective presentations of rectosigmoid junction cancers in terms of surgical and pathological outcomes.

METHODS: Between 2021 and 2025, a total of 321 patients who underwent surgery for rectosigmoid cancer were retrospectively evaluated. Patients were categorized into two groups based on the nature of their hospital admission: emergency (n=76) and elective (n=245). Demographic characteristics (age, gender, American Society of Anesthesiologists Physical Status Classification System [ASA] score), surgical details (approach, tumor location, type of operation, operative duration), postoperative complications (Clavien-Dindo classification, length of hospital stay), and pathology results (perineural invasion, lymphovascular invasion, tumor (T) and nodal (N) stage, lymph node count) were analyzed.

RESULTS: The mean age in the emergency group (67.93±13.36 years) was higher than in the elective group (64.42±11.65 years) (p=0.027). The emergency group had a higher frequency of open surgical approaches (p<0.001), sigmoid tumors (p<0.001), and resection with colostomy procedures (p<0.001), while the elective group had higher rates of anastomosis (p<0.001). Postoperative complications, operation duration, and length of hospital stay were all significantly greater in the emergency group (p<0.001, p<0.001, and p=0.018, respectively). Pathologically, the emergency group showed higher rates of perineural invasion (p<0.001), lymphovascular invasion (p=0.006), advanced T and N stages (p<0.001 and p=0.006, respectively), and a higher number of positive lymph nodes (p=0.006). However, there was no difference between the groups in the total number of lymph nodes removed (p=0.323).

CONCLUSION: Despite the inherent challenges of emergency presentation, adherence to principles such as complete mesocolic excision and adequate lymphadenectomy in both groups resulted in comparable pathological outcomes, demonstrating the feasibility of maintaining oncologic standards even in emergency settings. This study shows that, despite their complexity, emergency presentations do not preclude oncologically radical resections when managed with standardized protocols.

Keywords: Emergency surgery; lymph node metastasis; oncologic prognosis; postoperative morbidity; rectosigmoid cancer.

INTRODUCTION

Colorectal cancer (CRC) represents a significant global health burden, ranking third in incidence and second in cancer-related mortality worldwide.[1] A substantial proportion of CRCs (approximately 70%) arise in the left colon. Rectal cancers constitute about 30-35% of all colorectal cancers, sigmoid colon cancers 20-25%, and rectosigmoid junction cancers

Cite this article as: Somuncu E, Aydın MO, Telci H, Şahin F, Bozdağ E, Yılmaz S, et al. Impact of emergency presentation on early surgical and oncological outcomes in rectosigmoid cancer: A single-center retrospective analysis. Ulus Travma Acil Cerrahi Derg 2025;31:636-643.

Address for correspondence: Erkan Somuncu
Department of General Surgery, University of Health Sciences, Kanuni Sultan Suleyman Training and Research Hospital, İstanbul, Türkiye
E-mail: dr.somuncu@gmail.com

Ulus Travma Acil Cerrahi Derg 2025;31(7):636-643 DOI: 10.14744/tjtes.2025.44383
Submitted: 27.03.2025 Revised: 28.05.2025 Accepted: 29.05.2025 Published: 07.07.2025
OPEN ACCESS This is an open access article under the CC BY-NC license (http://creativecommons.org/licenses/by-nc/4.0/).

5-10%.[2] Advances in screening programs have improved early diagnosis rates, leading to better outcomes.[3-5] Despite this progress, a notable percentage (10-30%) of CRC cases still present emergently, often with acute complications such as bowel obstruction, perforation, or hemorrhage—scenarios that require urgent surgical intervention.[6]

Standard management of CRC is based on the principles of complete mesocolic excision, including proximal vascular ligation and retrieval of at least 12 lymph nodes, in accordance with National Comprehensive Cancer Network (NCCN) guidelines.[7,8] However, emergency presentations are frequently associated with delayed diagnosis, poor physiological status, and increased perioperative risk, which may compromise adherence to oncologic standards and adversely affect outcomes.[9]

While previous studies have compared emergency and elective surgeries in CRC broadly, few have focused specifically on cancers of the rectosigmoid region—a transitional anatomical zone with distinct surgical and pathological features. The rectosigmoid junction, a watershed area between the hindgut and midgut, has unique lymphatic drainage patterns that may influence tumor behavior and impact surgical planning.

This study addresses this gap by providing a focused comparison of oncological quality indicators and perioperative outcomes in emergency versus elective surgeries for rectosigmoid cancer. We hypothesized that emergency presentations would be associated with more advanced tumor biology (e.g., higher rates of perineural invasion) and suboptimal surgical outcomes, but that adherence to oncologic principles could mitigate these disparities. By evaluating real-world adherence to oncologic standards in both settings and identifying factors that predict deviations, our analysis offers novel insights that can inform tailored surgical strategies and improve care for this high-risk subgroup.

MATERIALS AND METHODS

Between June 2022 and January 2025, patients diagnosed with rectosigmoid region cancer who underwent surgery at a tertiary training and research hospital were included. Patients who did not undergo surgery, refused surgical treatment, or had incomplete data in the hospital database were excluded. This retrospective study was approved by the local ethics committee (approval number: KAEK/2025.03.80) and conducted in accordance with the principles of the Declaration of Helsinki. Artificial intelligence (AI)-supported technologies were not used in the production of this study.

Patients were categorized into two groups based on the timing of surgery: emergency (EM) and elective (EL). The EM group included patients who presented with acute complications such as obstruction or perforation, requiring urgent surgical intervention, while the EL group included patients who underwent planned operations. All resections were performed according to the principles of complete mesocolic excision, with proximal vascular ligation and retrieval of ≥12 lymph nodes, in accordance with NCCN guidelines. Emergency cases underwent rapid computed tomography-based (CT-based) staging, and surgery was performed within six hours of diagnosis. Hemodynamically unstable patients underwent damage-control surgery (e.g., staged resections).

According to current treatment protocols, neoadjuvant chemoradiotherapy is not routinely recommended for tumors located in the rectosigmoid region; it is typically reserved for mid-to-lower rectal tumors. In our cohort, six patients in the EM group and 23 patients in the EL group had rectal tumors and had received neoadjuvant chemoradiotherapy. To maintain group homogeneity and avoid confounding, these patients were excluded. As a result, no patients in the final analysis had received neoadjuvant therapy.

Demographic data, including age, sex, and ASA (American Society of Anesthesiologists) scores, were retrieved from the hospital database. Surgical approach, tumor localization, surgical technique, Clavien-Dindo Classification of surgical complications, operation time, and length of hospital stay were also analyzed. Tumor localization was categorized by the operating surgeon as proximal rectum, rectosigmoid junction, or sigmoid colon. Postoperative pathology reports of all patients included in the study were reviewed. Data on perineural invasion, lymphovascular invasion, tumor (T) stage, nodal (N) stage, number of resected lymph nodes, and number of positive lymph nodes were documented.

Statistical Analysis

For descriptive statistics, categorical variables were presented as numbers and percentages, while numerical parameters were expressed as mean, median, standard deviation, minimum, and maximum values. The Shapiro-Wilk test was used to assess the normality of continuous variables. When parametric assumptions were met, comparisons between two independent groups were made using Student's t-test; otherwise, the Mann-Whitney U test was applied. The chi-square test was used to compare categorical variables. Additionally, binary logistic regression analysis was performed to evaluate variables that were significant in univariate analysis, allowing for the identification of independent predictors of emergency presentation. All analyses were conducted using the Statistical Package for the Social Sciences for Windows, version 22.0 (SPSS Inc., Chicago, Illinois, USA). A p value of <0.05 was considered statistically significant.

RESULTS

Between June 2022 and January 2025, a total of 321 patients were diagnosed with rectosigmoid region cancers and underwent surgery. Of these, 76 underwent emergency surgery and 245 underwent elective surgery. The mean age was 65.25±12.14 years. Overall, 61.4% of patients were male and

Table 1. Demographic features of patients

	Overall (n=321)	Emergency (n=76)	Elective (n=245)	
Sex			p=0.281[1]	
Male, n (%)	197 (61.4%)	51 (67.1%)	146 (59.6%)	
Female, n (%)	124 (38.6%)	25 (32.9%)	99 (40.4%)	
Age (years) (mean±SD*)	65.25±12.14	67.93±13.36	64.42±11.65	p=0.027[2]
ASA Score				
ASA I, n (%)	45 (14%)	9 (20%)	36 (80%)	
ASA II, n (%)	202 (62.9%)	43 (21.3%)	159 (78.7%)	
ASA III, n (%)	74 (23.1%)	24 (32.4%)	50 (67.6%)	p=0.128[1]

*Standard deviation; [1]Fisher's Exact Test; [2]Student's t-test.

Table 2. Operative details and postoperative outcomes

	Overall (n=321)	Emergency (n=76)	Elective (n=245)	
Tumor Localization				p<0.001[1]
Rectum, n (%)	140 (43.6%)	18 (23.7%)	122 (49.8%)	
Rectosigmoid, n (%)	61 (19%)	16 (21.1%)	45 (18.4%)	
Sigmoid, n (%)	120 (37.4%)	42 (55.3%)	78 (31.8%)	
Operation Type				p<0.001[1]
Resection, n (%)	172 (53.6%)	21 (27.6%)	151 (61.6%)	
Resection+loop ileostomy, n (%)	76 (23.7%)	9 (11.8%)	67 (27.3%)	
Resection+colostomy, n (%)	73 (22.7%)	46 (60.6%)	27 (11.1%)	
Clavien-Dindo Classification				p<0.001[1]
Class I, n (%)	260 (81%)	53 (69.7%)	207 (84.5%)	
Class II, n (%)	19 (5.9%)	6 (7.9%)	13 (5.3%)	
Class III, n (%)	24 (7.5%)	6 (7.9%)	18 (7.3%)	
Class IV, n (%)	18 (5.6%)	11 (14.5%)	7 (2.9%)	
Operation time (minutes), Median (min-max)	160 (10-390)	151 (30-310)	165 (10-390)	p<0.001[3]
Length of hospital stay (days), Median (min-max)	1-33 (9)	1-31 (10)	4-33 (9)	p=0.018[3]

[1]Fisher's Exact Test; [3]Mann-Whitney U test. p<0.05 was considered statistically significant. Statistically significant values are shown in bold.

38.6% were female. There was no statistically significant difference between the groups in terms of sex (p=0.281); however, the emergency group was found to be older (p=0.027). In terms of ASA classification, 14% of patients were ASA I, 62.9% ASA II, and 23.1% ASA III. There were no statistically significant differences between the groups (p=0.128). The distributions of sex, age, and ASA scores between the groups are presented in Table 1.

Perioperative characteristics of the patients are summarized in Table 2. The most common tumor location in the overall cohort was the rectum (43.6%), followed by the sigmoid colon (37.4%) and the rectosigmoid junction (19%). Tumor localization differed significantly between the groups (p<0.001); rectal tumors were more frequent in the EL group (49.8%), whereas sigmoid tumors predominated in the EM group (55.3%). Regarding surgical procedures, resection alone was performed in 53.6% of patients, resection with loop ileostomy in 23.7%, and resection with colostomy in 22.7%. Emergency cases had a significantly higher rate of resection with colostomy (60.6%) compared to elective cases (11.1%) (p<0.001).

Postoperative complications, as classified by the Clavien-Dindo system, differed significantly between the groups (p<0.001). While 84.5% of patients in the EL group experi-

Table 3. Histopathological findings and tumor staging

	Overall (n=321)	Emergency (n=76)	Elective (n=245)	
Perineural invasion				p<0.001[1]
Absent, n (%)	183 (57%)	27 (35.5%)	156 (63.7%)	
Present, n (%)	138 (43%)	49 (64.5%)	89 (36.3%)	
Lymphovascular invasion				p=0.006[1]
Absent, n (%)	172 (53.6%)	30 (39.5%)	142 (58%)	
Present, n (%)	149 (46.4%)	46 (60.5%)	103 (42%)	
T stage				p<0.001[1]
T0, n (%)	17 (5.3%)	1 (1.3%)	16 (6.5%)	
T1, n (%)	24 (7.5%)	2 (2.6%)	22 (9%)	
T2, n (%)	58 (18.1%)	9 (11.8%)	49 (20%)	
T3, n (%)	156 (48.6%)	37 (48.7%)	119 (48.6%)	
T4, n (%)	66 (20.6%)	27 (35.5%)	39 (15.9%)	
N stage				p=0.006[1]
N0, n (%)	215 (67%)	42 (55.3%)	173 (70.6%)	
N1, n (%)	58 (18.1%)	14 (18.4%)	44 (18%)	
N2, n (%)	31 (9.7%)	11 (14.5%)	20 (8.2%)	
N3, n (%)	17 (5.3%)	9 (11.8%)	8 (3.3%)	
Resected lymph nodes, Median (min-max)	14 (0-48)	14 (2-35)	14 (0-48)	p=0.323[3]
Positive lymph nodes, Median (min-max)	0 (0-16)	0 (0-16)	0 (0-14)	p=0.006[3]

[1]Fisher's Exact Test; [3]Mann-Whitney U test. p<0.05 was considered statistically significant. Statistically significant values are shown in bold.

enced only minor complications (Class I), this rate was lower in the EM group (69.7%), which also had a higher proportion of severe (Class IV) complications (14.5% vs. 2.9%). The median operation time was significantly shorter in the EM group (151 minutes; range: 30-310) compared to the EL group (165 minutes; range: 10-390) (p<0.001). This shorter operative duration in emergency cases may reflect the prioritization of life-saving procedures over oncological radicality, as well as the avoidance of complex reconstructions (e.g., no anastomosis in 60.6% of EM cases). The median length of hospital stay was also significantly longer in the EM group (10 days; range: 1-31) compared to the EL group (9 days; range: 4-33) (p=0.018).

The histopathological characteristics of the patients are summarized in Table 3. Perineural invasion was detected in 43% of all patients, with a significantly higher rate in the EM group (64.5%) compared to the EL group (36.3%) (p<0.001). Similarly, lymphovascular invasion was more frequent in EM cases (60.5% vs. 42%, p=0.006).

In terms of tumor depth (T stage), the majority of patients were classified as T3 (48.6%) or T4 (20.6%). The proportion of T4 tumors was significantly higher in the EM group compared to the EL group (35.5% vs. 15.9%, p<0.001). Lymph node involvement (N stage) also differed significantly between groups (p=0.006). While 70.6% of patients in the EL group had no nodal involvement (N0), this rate was lower in the EM group (55.3%), which had a higher proportion of N3 disease (11.8% vs. 3.3%). The elevated N1–N2 rates in the EM group suggest that emergency presentations may hinder comprehensive lymph node assessment, leading to underreporting of intermediate-stage disease in elective settings.

The median number of resected lymph nodes was similar in both groups (14 nodes, p=0.323). However, the number of positive lymph nodes was significantly higher in the EM group (median: 0, range: 0-16) compared to the EL group (median: 0, range: 0-14) (p=0.006).

In multivariate logistic regression analysis, tumor localization, resection with colostomy, and perineural invasion were independently associated with emergency presentation. Compared to rectal tumors, sigmoid colon tumors (odds ratio [OR]: 0.093; 95% confidence interval [CI]: 0.034-0.252; p<0.001) and rectosigmoid junction tumors (OR: 0.191; 95% CI: 0.065-0.560; p=0.003) were more strongly associated with emergency surgery. Resection with colostomy was significantly more frequent in the emergency group (OR: 0.037; 95% CI: 0.014-0.095; p<0.001). Perineural invasion was also independently associated with emergency presentation (OR: 0.398; 95% CI: 0.172-0.925; p=0.032). Other variables, in-

Table 4. Multivariate logistic regression analysis of factors associated with emergency presentation

Prognostic Factor	OR (95% CI)	P value
Age	0.976 (0.946-1.007)	p=0.122
Tumor localization		
Rectum	Reference	
Rectosigmoid	0.191 (0.065-0.560)	p=0.003
Sigmoid	0.093 (0.034-0.252)	p<0.001
Type of operation		
Resection + anastomosis	Reference	
Resection + ileostomy	0.401 (0.136-1.185)	p=0.098
Resection + colostomy	0.037 (0.014-0.095)	p<0.001
Clavien-Dindo Grade		
Class I	Reference	
Class II	0.777 (0.177-3.414)	p=0.739
Class II	1.009 (0.262-3.886)	p=0.989
Class IV	0.351 (0.084-1.476)	p=0.153
Operation time	1.007 (0.998-1.015)	p=0.137
Length of hospital stay	0.962 (0.907-1.021)	p=0.205
Perineural invasion	0.398 (0.172-0.925)	p=0.032
Lymphovascular invasion	1.511 (0.646-3.534)	p=0.341
T stage		
T0	Reference	
T1	0.208 (0.010-4.317)	p=0.311
T2	0.337 (0.022-5.134)	p=0.434
T3	0.319 (0.023-4.441)	p=0.395
T4	0.196 (0.013-2.959)	p=0.239
N stage		
N0	Reference	
N1	0.894 (0.282-2.835)	p=0.849
N2	0.406 (0.060-2.774)	p=0.358
N3	0.070 (0.002-2.687)	p=0.153
Positive lymph node count	1.164 (0.840-1.614)	p=0.361

OR: Odds ratio; CI: Confidence interval. p<0.05 was considered statistically significant. Statistically significant values are shown in bold.

cluding age, ASA score, Clavien-Dindo classification, length of hospital stay, and lymphovascular invasion, were not statistically significant in the multivariate model. A full summary is provided in Table 4.

DISCUSSION

This study, which compares the surgical and pathological outcomes of patients with rectosigmoid region cancer presenting emergently versus electively, aligns with findings reported in the literature, demonstrating that emergency cases are associated with poorer prognostic features.[9,10] The significantly higher mean age in the emergency group compared to the elective group (p=0.027) suggests that older patients may be more susceptible to emergency presentations, potentially due to delayed diagnosis.[11,12] The absence of significant differences in gender and ASA scores between the groups indicates that demographic factors may have a limited impact on surgical outcomes; however, these findings should be validated in broader settings.[13]

Regarding surgical approach, the more frequent use of open surgery in the emergency group compared to the elective group (p<0.001) reflects the urgent nature of these cases, where the need for rapid intervention may preclude the use of laparoscopic techniques.[14] Differences in tumor localiza-

tion, with sigmoid cancers predominating in the emergency group and rectal cancers in the elective group (p<0.001), suggest that emergency presentations are more frequently associated with obstructive complications of the sigmoid colon.[15] Analysis of surgical procedures revealed a higher rate of resection with colostomy in the emergency group (p<0.001), consistent with the reduced feasibility of anastomosis in emergency settings and the preference for stoma creation.[16,17]

The higher rate of postoperative complications in the emergency group (p<0.001) supports the observation that these patients are more likely to present with advanced disease and surgical challenges.[18] Additionally, the longer operation duration and extended hospital stay in the emergency group (p<0.001 and p=0.018, respectively) reflect the technical demands of emergency surgery, the time-intensive management of complications, the urgency of the surgical procedure, and postoperative complexities such as infection risk and delayed recovery. These findings underscore the need for intensified perioperative care protocols in emergency cases.[19,20]

Regarding pathological findings, the higher rates of perineural and lymphovascular invasion in the emergency group (p<0.001, p=0.006) suggest that emergency presentation may be associated with more biologically aggressive tumors.[21] Furthermore, the more advanced T and N stages (p<0.001, p=0.006), and the increased number of positive lymph nodes (p=0.006) in the emergency group indicate that delayed diagnosis in emergencies may contribute to disease progression.[22] While N0 and N3 stages showed marked differences, intermediate nodal involvement (N1 and N2) also trended higher in the emergency group, suggesting a gradient of nodal disease severity associated with emergency presentation.[23] Perineural invasion, a marker of aggressive tumor biology, may reflect neurotrophic growth patterns and enhanced stromal invasion. These mechanisms could help explain the acute deterioration often observed in emergency presentations, particularly in tumors with high invasive potential. The observed association between perineural invasion and emergency presentation (OR: 0.398) supports the use of intraoperative frozen section analysis to guide nerve-sparing decisions, particularly in rectal cases.[24]

The literature reports that emergency presentation in rectosigmoid region cancer is associated with worse outcomes. This study supports that conclusion through both surgical and pathological data. However, the finding that oncologically appropriate surgical resection can still achieve comparable outcomes in both groups underscores the importance of adhering to optimal surgical principles, even in emergency settings.[25,26] The impact of adjuvant therapies such as radiotherapy and neoadjuvant treatment was not evaluated in this study, but the current data highlight a potential need for multimodal treatment in the emergency group.[27] Additionally, the hypothesis that rectosigmoid region cancers may exhibit distinct biological behaviors aligns with the observed differences in tumor localization and warrants further investigation through molecular analyses in future studies.[28]

In this study, sigmoid and rectosigmoid tumors were independently associated with emergency presentation, challenging the conventional view that rectal tumors are more likely to present acutely. Resection with colostomy was strongly associated with emergency surgery, likely reflecting surgical caution in unstable patients.[29]

Perineural invasion was independently associated with emergency presentation in our cohort, suggesting a possible link between biologically aggressive tumor behavior and acute deterioration. This finding is consistent with previous studies indicating that perineural spread reflects a more invasive phenotype commonly seen in advanced colorectal cancers.[30] As in prior research, our findings also suggest that emergency presentations are primarily driven by mechanical complications, such as obstruction, particularly in sigmoid tumors. These variations may stem from differences in tumor localization, patient selection, or pathological assessment standards.[31]

Although we did not perform molecular analyses, recent literature suggests that rectosigmoid cancers may harbor distinct molecular features—such as KRAS or BRAF mutations and microsatellite instability—that influence tumor behavior and clinical outcomes.[32] This represents a limitation of our study and underscores the need for future research incorporating molecular profiling to determine whether emergency cases reflect distinct tumor biology. Future studies integrating molecular markers—such as KRAS/BRAF mutation status and microsatellite instability—may help clarify whether emergency presentations represent biologically distinct entities, thereby informing the development of targeted therapies.[33] Given the association between emergency presentation and aggressive pathological features, multimodal treatment strategies, including systemic chemotherapy, and, where appropriate, radiotherapy, should be more strongly considered for this subgroup. While current guidelines reserve neoadjuvant therapy for lower rectal tumors, emerging evidence supports a more individualized, multimodal approach for select rectosigmoid cases, tailored to patient risk and tumor burden. Postoperative risk stratification may help guide timely adjuvant therapy to improve outcomes in these high-risk patients.[34]

This study also has several limitations. Firstly, its retrospective, single-center design may have introduced selection and documentation biases. Additionally, the inclusion of procedures performed by multiple surgeons could have contributed to heterogeneity in surgical techniques and perioperative management. Variability in surgeon experience (such as proficiency with laparoscopic versus open approaches) may have influenced outcomes, despite the application of standardized protocols. Most notably, the relatively short follow-up period limited the ability to assess long-term oncological outcomes, including overall and disease-free survival. Therefore, the findings presented here should be considered preliminary.

Future multicenter studies should incorporate RNA sequencing to identify epithelial-mesenchymal transition (EMT) signatures linked to emergency presentations. As more follow-up data become available, a more comprehensive survival analysis is planned to further evaluate the prognostic implications of emergency versus elective presentation in rectosigmoid cancer.

CONCLUSION

This study demonstrates that emergency presentation in rectosigmoid cancer is associated with poorer surgical and pathological outcomes, including higher complication rates and longer hospital stays. Despite these challenges, adherence to oncological surgical principles can partially mitigate the negative impact. Increased rates of perineural and lymphovascular invasion in emergency cases suggest more aggressive tumor biology. These findings underscore the importance of early diagnosis and timely intervention to improve outcomes in this high-risk population. Strategies such as early stoma formation, damage-control surgery, and bridging procedures may help improve outcomes. Institutional protocols that prioritize rapid diagnostics and early surgical decision-making could further optimize emergency care. By recognizing emergency rectosigmoid cancer as a distinct clinical and biological entity, clinicians can enhance both acute management and long-term survival through precision surgery and targeted therapies.

Ethics Committee Approval: This study was approved by the İstanbul S.B.Ü. Kanuni Sultan Süleyman Training and Research Hospital Ethics Committee (Date: 08.03.2025, Decision No: KAEK/2025.03.80).

Peer-review: Externally peer-reviewed.

Authorship Contributions: Concept: E.S., M.O.A.; Design: E.S., S.Y., A.K.; Supervision: E.S., S.Y., E.B.; Resource: E.S., E.B., S.Y., A.K.; Materials: E.S., H.T., F.Ş.; Data collection and/or processing: E.S., M.O.A., H.T., F.Ş.; Analysis and/or interpretation: E.S., M.O.A., H.T., F.Ş.; Literature review: E.S., M.O.A.; Writing: E.S., M.O.A.; Critical review: E.S., A.K.

Conflict of Interest: None declared.

Financial Disclosure: The author declared that this study has received no financial support.

REFERENCES

1. Sung H, Ferlay J, Siegel RL, Laversanne M, Soerjomataram I, Jemal A, et al. Global Cancer Statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. CA Cancer J Clin 2021;71:209-49. [CrossRef]
2. Siegel RL, Miller KD, Goding Sauer A, Fedewa SA, Butterly LF, Anderson JC, et al. Colorectal cancer statistics, 2020. CA Cancer J Clin 2020;70:145-64. [CrossRef]
3. Bretthauer M, Løberg M, Wieszczy P, Kalager M, Emilsson L, Garborg K, et al. Effect of colonoscopy screening on risks of colorectal cancer and related death. N Engl J Med 2022;387:1547-56. [CrossRef]
4. Chen H, Shi J, Lu M, Li Y, Du L, Liao X, et al. Comparison of colonoscopy, fecal immunochemical test, and risk-adapted approach in a colorectal cancer screening trial (TARGET-C). Clin Gastroenterol Hepatol 2023;21:808-18. [CrossRef]
5. Lim CYS, Laidsaar-Powell RC, Young JM, Kao SC, Zhang Y, Butow P. Colorectal cancer survivorship: A systematic review and thematic synthesis of qualitative research. Eur J Cancer Care (Engl) 2021;30:e13421. [CrossRef]
6. Pisano M, Zorcolo L, Merli C, Cimbanassi S, Poiasina E, Ceresoli M, et al. 2017 WSES guidelines on colon and rectal cancer emergencies: Obstruction and perforation. World J Emerg Surg 2018;13:36. [CrossRef]
7. Hohenberger W, Weber K, Matzel K, Papadopoulos T, Merkel S. Standardized surgery for colonic cancer: Complete mesocolic excision and central ligation--technical notes and outcome. Colorectal Dis 2009;11:354-64. [CrossRef]
8. Zhang MR, Xie TH, Chi JL, Li Y, Yang L, Yu YY, et al. Prognostic role of the lymph node ratio in node positive colorectal cancer: A meta-analysis. Oncotarget 2016;7:72898-907. [CrossRef]
9. Baer C, Menon R, Bastawrous S, Bastawrous A. Emergency presentations of colorectal cancer. Surg Clin North Am 2017;97:529-45. [CrossRef]
10. Zhou H, Jin Y, Wang J, Chen G, Chen J, Yu S. Comparison of short-term surgical outcomes and long-term survival between emergency and elective surgery for colorectal cancer: A systematic review and meta-analysis. Int J Colorectal Dis 2023;38:41. [CrossRef]
11. Grass F, Behm KT, Duchalais E, Crippa J, Spears GM, Harmsen WS, et al. Impact of delay to surgery on survival in stage I-III colon cancer. Eur J Surg Oncol 2020;46:455-61. [CrossRef]
12. Ascanelli S, Navarra G, Tonini G, Feo C, Zerbinati A, Pozza E, Carcoforo P. Early and late outcome after surgery for colorectal cancer: Elective versus emergency surgery. Tumori 2003;89:36-41. [CrossRef]
13. Bayar B, Yılmaz KB, Akıncı M, Şahin A, Kulaçoğlu H. An evaluation of treatment results of emergency versus elective surgery in colorectal cancer patients. Ulus Cerrahi Derg 2015;32:11-7. [CrossRef]
14. Pucher PH, Carter NC, Knight BC, Toh S, Tucker V, Mercer SJ. Impact of laparoscopic approach in emergency major abdominal surgery: Single-centre analysis of 748 consecutive cases. Ann R Coll Surg Engl 2018;100:279-84. [CrossRef]
15. Golder AM, McMillan DC, Horgan PG, Roxburgh CSD. Determinants of emergency presentation in patients with colorectal cancer: A systematic review and meta-analysis. Sci Rep 2022;12:4366. [CrossRef]
16. Jeong DS, Kim YH, Kim KJ. Surgical outcomes and risk factors in patients who underwent emergency colorectal surgery. Ann Coloproctol 2017;33:239-44. [CrossRef]
17. Aicher BO, Hernandez MC, Betancourt-Ramirez A, Grossman MD, Heise H, Schroeppel TJ, et al. Colorectal resection in emergency general surgery: An EAST multicenter trial. J Trauma Acute Care Surg 2020;89:1023-31. [CrossRef]
18. Lohsiriwat V, Jitmungngan R. Enhanced recovery after surgery in emergency colorectal surgery: Review of literature and current practices. World J Gastrointest Surg 2019;11:41-52. [CrossRef]
19. Menegozzo CAM, Teixeira-Júnior F, Couto-Netto SDD, Martins-Júnior O, Bernini CO, Utiyama EM. Outcomes of elderly patients undergoing emergency surgery for complicated colorectal cancer: A retrospective cohort study. Clinics (Sao Paulo) 2019;74:e1074. [CrossRef]
20. Seeto AH, Nabi H, Burstow MJ, Lancashire RP, Grundy J, Gillespie C, et al. Perioperative outcomes of emergency and elective colorectal surgery: A bi-institutional study. ANZ J Surg 2023;93:926-31. [CrossRef]
21. Sun ZG, Chen SX, Sun BL, Zhang DK, Sun HL, Chen H, et al. Important role of lymphovascular and perineural invasion in prognosis of colorectal cancer patients with N1c disease. World J Gastroenterol 2025;31:102210. [CrossRef]
22. Cotan HT, Emilescu RA, Iaciu CI, Orlov-Slavu CM, Olaru MC, Popa AM, et al. Prognostic and predictive determinants of colorectal cancer: A comprehensive review. Cancers (Basel) 2024;16:3928. [CrossRef]
23. Sullivan J, Donohue A, Brown S. Colorectal oncologic emergen-

cies: Recognition, management, and outcomes. Surg Clin North Am 2024;104:631-46. [CrossRef]
24. Van Wyk HC, Going J, Horgan P, McMillan DC. The role of perineural invasion in predicting survival in patients with primary operable colorectal cancer: A systematic review. Crit Rev Oncol Hematol 2017;112:11-20. [CrossRef]
25. Bin Traiki TA, AlShammari SA, AlRabah RN, AlZahrani AM, Alshenaifi ST, Alhassan NS, et al. Oncological outcomes of elective versus emergency surgery for colon cancer: A tertiary academic center experience. Saudi J Gastroenterol 2023;29:316-22. [CrossRef]
26. Ghazi S, Berg E, Lindblom A, Lindforss U; Low-Risk Colorectal Cancer Study Group. Clinicopathological analysis of colorectal cancer: A comparison between emergency and elective surgical cases. World J Surg Oncol 2013;11:133. [CrossRef]
27. Zwart WH, Hotca A, Hospers GAP, Goodman KA, Garcia-Aguilar J. The multimodal management of locally advanced rectal cancer: Making sense of the new data. Am Soc Clin Oncol Educ Book 2022;42:1-14. [CrossRef]
28. Nguyen HT, Duong HQ. The molecular characteristics of colorectal cancer: Implications for diagnosis and therapy. Oncol Lett 2018;16:9-18. [CrossRef]
29. Pavlidis ET, Galanis IN, Pavlidis TE. Management of obstructed colorectal carcinoma in an emergency setting: An update. World J Gastrointest Oncol 2024;16:598-613. [CrossRef]
30. Wang H, Huo R, He K, Cheng L, Zhang S, Yu M, et al. Perineural invasion in colorectal cancer: Mechanisms of action and clinical relevance. Cell Oncol (Dordr) 2024;47:1-17. [CrossRef]
31. Kaya S, Seker A, Altın Ö, Altuntaş YE, Kaptanoğlu L, Kement M, et al. Evaluation of current therapeutic approach to obstructive and perforated colorectal cancers. Ulus Travma Acil Cerrahi Derg 2019;25:589-96. [CrossRef]
32. Dienstmann R, Vermeulen L, Guinney J, Kopetz S, Tejpar S, Tabernero J. Consensus molecular subtypes and the evolution of precision medicine in colorectal cancer. Nat Rev Cancer 2017;17:79-92. Erratum in: Nat Rev Cancer 2017;17:268. [CrossRef]
33. Lee YC, Lee YL, Chuang JP, Lee JC. Differences in survival between colon and rectal cancer from SEER data. PLoS One 2013;8:e78709. [CrossRef]
34. Shaham SH, Vij P, Tripathi MK. Advances in targeted and chemotherapeutic strategies for colorectal cancer: Current insights and future directions. Biomedicines 2025;13:642. [CrossRef]

ORİJİNAL ÇALIŞMA - *ÖZ*

Acil servis sunumunun rektosigmoid kanserinde erken cerrahi ve onkolojik sonuçlar üzerindeki etkisi: Tek merkezli retrospektif analiz

AMAÇ: Rektosigmoid bölge kanserleri, diğer kolorektal kanserlere kıyasla daha yüksek acil başvuru oranlarıyla kolorektal kanserlerin önemli bir bölümünü oluşturur. Bu çalışmanın amacı, rektosigmoid bölge kanserlerinin acil ve elektif başvurularını cerrahi ve tümör patoloji sonuçları açısından karşılaştırmaktır.
GEREÇ VE YÖNTEM: 2021 ile 2025 yılları arasında rektosigmoid bölge kanseri nedeniyle ameliyat edilen 321 hasta retrospektif olarak değerlendirildi. Hastalar hastane yatışlarına göre iki gruba ayrıldı: Acil (n=76) ve elektif (n=245). Demografik özellikler (yaş, cinsiyet, ASA skoru), cerrahi özellikler (yaklaşım, tümör yeri, operasyon türü, süre), postoperatif komplikasyonlar (Clavien Dindo sınıflandırması, hastanede kalış süresi) ve patoloji sonuçları (perinöral invazyon, lenfovasküler invazyon, T/N evresi, lenf nodu sayısı) analiz edildi.
BULGULAR: Acil grupta yaş ortalaması (67.93±13.36 yıl) elektif gruptan (64.42±11.65 yıl) daha yüksekti (p=0.027). Acil grubunda daha fazla açık cerrahi yaklaşım (p<0.001), sigmoid kanser (p<0.001) ve rezeksiyon + kolostomi operasyonu (p<0.001) vardı; elektif grupta ise daha yüksek anastomoz oranları görüldü (p<0.001). Postoperatif komplikasyonlar, operasyon süresi ve hastanede kalış süresi acil grupta anlamlı olarak daha yüksekti (p<0.001, p<0.001, p=0.018). Perinöral invazyon (p<0.001), lenfovasküler invazyon (p=0.006), T ve N evreleri (p<0.001, p=0.006) ve pozitif lenf nodu sayısı (p=0.006) acil grupta daha yüksekti; ancak, çıkarılan lenf nodu sayısında bir fark bulunmadı (p=0.323).
SONUÇ: Acil başvurularda daha kötü tümör özelliklerine rağmen, onkolojik olarak uygun cerrahi rezeksiyonlarla benzer patolojik sonuçlar elde edilebilir. Bu çalışma, acil ve elektif başvurular arasındaki cerrahi ve patolojik sonuçlardaki farklılıkları vurgulayarak, tedavi yaklaşımlarını optimize etme ihtiyacını vurgulamaktadır.

Anahtar sözcükler: Rektosigmoid kanser, acil cerrahi, lenf nodu metastazı, postoperatif morbidite, onkolojik prognoz.

Ulus Travma Acil Cerrahi Derg 2025;31(7):636-643 DOI: 10.14744/tjtes.2025.44383