



TKRCD 2025

# XX<sup>th</sup> National and III<sup>rd</sup> International Turkish Colon and Rectal Surgery Congress

XIII<sup>th</sup> National and II<sup>nd</sup> International Turkish Colon and Rectal  
Surgery Nursing Congress

**May 16-20, 2025**

**Susesi Hotel & Convention Center ANTALYA**



Selected English Abstract Book

**“Past... Present... Future!”**



Dear Colleagues,

We are honored to invite you to the **XX. National III International Turkish Colon and Rectal Surgery Congress and XIII National and II International Colorectal Surgery Nursing Congress** that will be held between 16-20 May 2025 at Susesi Convention Center.

The theme of the congress is “**Past... Present... Future!**”. The scientific program which will cover innovative technologies such as artificial intelligence (AI) and circulating tumor DNA (ctDNA) in the field of colorectal surgery, the new developments in the treatment of colon and rectum cancer as well as critical topics such as the basic principles of colon and rectum surgery, proctology, inflammatory bowel diseases, nutrition, same-day discharge after major colorectal operation and the latest developments in basic and advanced endoscopic interventions.

As in every congress the researches that will enrich the scientific content of our congress will be evaluated and rewarded in their own categories.

As always, our congress will continue to be a platform where our young colleagues can meet with national and international professors and start a fruitful atmosphere for future collaborations.

Our congress will continue to bring the medical industry and the health care professionals together and keep them up to date on the latest developments in colon and rectum surgery.

The nursing congress will be held simultaneously with a comprehensive program and will focus on the latest developments, best practices and multidisciplinary care strategies in colorectal surgery nursing. Designed specifically for nurses, these sessions will provide professional development opportunities on patient care, innovative nursing practices.

This year our congress also offers the opportunity to celebrate **19 May Commemoration of Atatürk, Youth and Sports Day**. We will celebrate this special day with a special program which will be suitable for its historical importance.

Your attendance will be an essential contribution to encourage professional knowledge and experience exchange. We would like to emphasize that it will be great pleasure to meet you all in our congress.

Look forward to meeting you in Antalya.

**Prof. Emre BALIK, M.D.**

Professor of Surgery  
Congress President



*Dear Colleagues,*

*We are pleased to invite you to the XIII. National and II. International Turkish Colon and Rectal Surgery Nursing Congress, which will be held at Antalya Susesi Convention Center between May 16-20, 2025. Our congress will be held simultaneously with the XX. National and III. International Turkish Colon and Rectal Surgery Congress. In this congress, we will once again grow stronger together with your contributions.*

*In our congress, which is organized every two years in order to develop and strengthen colorectal surgery nursing, stoma and wound care nursing, which requires in-depth knowledge and skills, we will discuss the current developments in the field of colorectal surgery nursing with courses, panels, conferences, abstract sessions and case management accompanied by Evidence-Based Practices.*

*With the support of experienced national and international participants in the field, this congress, which will be an opportunity to examine in depth the current developments in colorectal surgery nursing, stoma and wound care nursing, care packages, surgical site infections, patient outcomes, sustainable care, challenging case management, will be enriched with your participation and contributions. In addition to the scientific feast in our congress, we will also have the opportunity to experience the enthusiasm of "Commemoration of Atatürk, Youth and Sports Day on May 19" together.*

*We hope to see all our colleagues among us to share our scientific knowledge and experiences and to have a productive and enjoyable congress.*

*With love and respect.*

**Prof. İkbâl ÇAVDAR**

*XIII. National and II. International Colorectal Surgery Nursing Congress President*

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## FOREWORD

*On behalf of the Editorial Board of the Turkish Journal of Colorectal Disease (TJCD), it is my privilege to present this special supplement comprising selected abstracts that were submitted in English and presented during the **XX<sup>th</sup> National and IIIrd International Turkish Colon and Rectal Surgery Congress and the XIIIth National and IInd International Colorectal Surgery Nursing Congress**, held in Antalya between May 16–20, 2025.*

*This supplement reflects the congress theme “Past... Present... Future!” and includes a broad range of scientific contributions that represent current research trends, clinical innovations, and multidisciplinary collaborations in the field of colorectal surgery and nursing. The abstracts cover diverse topics, including oncologic surgery, minimally invasive techniques, functional outcomes, artificial intelligence applications, perioperative care, and colorectal disease management strategies. Notably, several studies are derived from national database analyses and multicenter collaborations, which enhance the scientific value and generalizability of the findings.*

*By publishing this supplement, our aim is to support the dissemination of novel scientific data and to encourage the exchange of ideas within the international surgical and academic community. We believe that the works included herein will contribute meaningfully to ongoing discussions in colorectal surgery and inspire future research endeavors.*

*I would like to express my sincere gratitude to all authors for their valuable contributions, and to the reviewers for their commitment to scientific rigor. I also extend my appreciation to the Congress Organizing and Scientific Committees of the Turkish Society of Colon and Rectal Surgery for their outstanding efforts in fostering a high-caliber academic environment. Special thanks are due to the Congress Presidents Prof. Emre Balik and Prof. Ikbal Cavdar (Nursing Congress), the Congress Secretaries Prof Cihangir Akyol and Burçin Irmak, PhD (Nursing Congress), the President of the Turkish Society of Colon and Rectal Surgery (TSCRS) Prof. Feza Yarbuğ Karakayalı, and all members of the TSCRS Board of Directors for their leadership and unwavering support throughout the planning and execution of this important scientific event.*

*It is our hope that this supplement will serve as a useful reference for researchers, clinicians, and trainees dedicated to advancing the care of patients with colorectal disease.*

*With kind regards,*

*On behalf of the TJCD Editorial Board,  
**Prof. Dr. Ayça Fatma Gültekin**  
Editor-in-Chief  
Turkish Journal of Colorectal Disease*

***Selected  
Oral Presentations***





## SSB-001

## The Impact of Immunological Markers in Ascitic Fluid on Cancer Progression in Advanced-Stage Colorectal Cancer

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 Ilhan Mutlu<sup>4</sup>, Taskin Rakici<sup>3</sup>, Erdem Kinaci<sup>2</sup>,  
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**Objective:** Malignant ascites reflects the tumor microenvironment while providing valuable insights into peritoneal metastasis. However, the role of the immune system in peritoneal metastasis is still not fully understood. This study aimed to evaluate soluble immune system-related molecules in the ascitic fluid of patients with advanced-stage colorectal cancer with peritoneal carcinomatosis and to explore potential therapeutic opportunities.

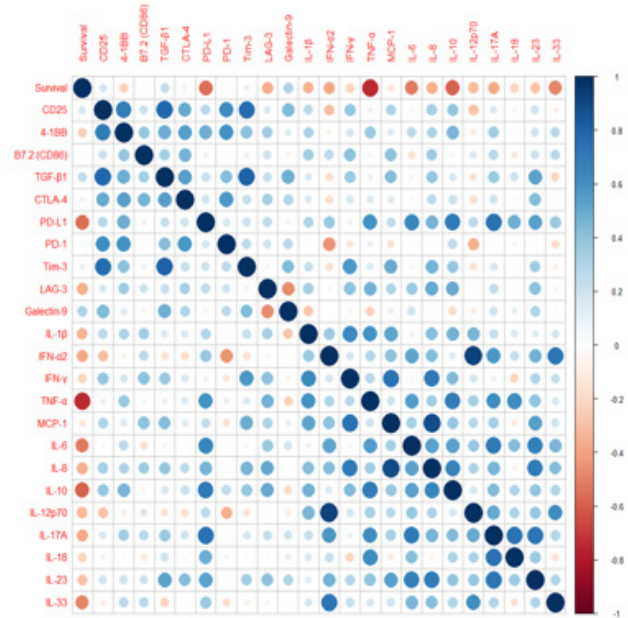
**Materials-Methods:** This multicenter, prospective cohort study included 15 patients diagnosed with colorectal adenocarcinoma and 15 control patients requiring ascites drainage due to advanced-stage heart failure. Blood samples for routine parameters and ascitic fluid for cytokine and soluble immune checkpoint analyses were collected from all patients, and the analysis results were recorded. The results obtained from cancer patients and the control group were compared, and the correlation of the evaluated parameters with survival was analyzed.

**Results:** The participants' mean age was 61.03±13.15 years, with a female-to-male ratio of 1:2. The average survival time for cancer patients was 97.47±26.73 days. In the analyses conducted between the groups, WBC, neutrophil counts, AST, ALT, TNF- $\alpha$ , IL-6, IL-10, IL-12p70, IL-18, IL-23, IFN- $\alpha$ 2, TGF- $\beta$ 1, 4-1BB, and PD-L1 levels were elevated in cancer patients, while albumin levels were lower. Survival time showed a strong negative correlation with PD-L1 and TNF- $\alpha$  and a moderate negative correlation with IL-6 and IL-10.

**Conclusion:** The immune system plays a critical role in the immunosuppressive environment of ascitic fluid in colorectal cancers. This environment is likely closely associated with cancer-related immune checkpoints and cytokines secreted in response to cancer. Modulating the tumor microenvironment based on these markers is an essential requirement for enhancing the effectiveness of immunotherapy and targeted treatments used in colorectal cancer.

**Keywords:** Colorectal Cancer, Immune Checkpoint

### Colorectal correlation diagram



A diagram showing the correlation of the immune system checkpoint markers used in our study with each other and with survival

## SSB-002

## Concomitant Urinary System Interventions in Patients Undergoing Colorectal Surgery: A Comparative Analysis of Turkish Society of Colorectal Surgery Colorectal Cancer Database

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<sup>2</sup>Turkish Society of Colon and Rectum Surgery

**Objective:** Urinary system interventions may be required during colorectal cancer surgeries due to tumor invasion or surgical complications. These interventions can increase postoperative complications and affect patient outcomes. This study compares patients undergoing urinary interventions with those who did not, analyzing perioperative and postoperative variables.

**Materials-Methods:** Data for this study were documented from prospectively maintained national colorectal database of Turkish Society of Colorectal Surgery. A total of 1,852 patients who underwent colorectal resection for cancer were retrospectively analyzed. In total 19 patients underwent partial bladder resection, 7 total bladder resection, 14 ureteral resection, 11 seminal vesicle resection, 5 partial prostatectomy, and 3 total prostatectomy for tumor invasion. Additionally, 1 patient underwent cystoscopy, 1 TUR-P, and 1 had a double-J stent inserted. Finally, 66 patients underwent urinary

system interventions (3.56%), while 1,786 patients (96.44%) did not. Variables such as demographic characteristics, tumor localization, clinical staging, surgical techniques, intraoperative findings, and postoperative complications were compared between the two groups.

**Results:** Patients requiring urinary interventions had significantly lower BMI, higher preoperative carcinoembryonic-antigen (CEA) levels, and advanced T stages. They had higher rates of nodal positivity and non-liver-non-pulmonary metastases. Rectal tumors were more common, and these patients underwent abdominoperineal resection (APR) and low anterior resection (LAR) more frequently. Conversion to open surgery was significantly higher in this group, with increased intraoperative and postoperative erythrocyte transfusion requirements. Postoperative complications such as urinary fistula and acute kidney injury were more common. These patients had longer hospital stays, more advanced pathological T stages, and higher tumor perforation rates. The results of the univariate analysis are shown in Table 1.

**Conclusion:** Urinary system interventions in colorectal cancer surgery are associated with advanced tumor stages, increased surgical complexity, higher postoperative complication rates, and longer hospital stays. These findings highlight the importance of meticulous preoperative evaluation and intraoperative strategies to optimize patient outcomes.

**Keywords:** Colorectal cancer, Urinary system intervention

### The results of the univariate analysis

	Concomitant Urinary Intervention	No Urinary Intervention	
Variable	n (%) median (min – max)	n (%) median (min – max)	p value
Sex			
Male	47 (71,21)	1091 (61,09)	0,097
Female	19 (28, 79)	695 (38,91)	
Age	62,5 (30 – 89)	65 (21 – 97)	0,24
Obesity (BMI>30)			0,0026
Obese	3 (4,55)	315 (17,76)	
Normal	63 (95,45)	1459 (82,24)	
Tumor Localization			0,12
Colon	39 (59,09)	1214 (68,01)	
Rectum	27 (40,91)	571 (31,99)	
CEA at the Time of Diagnosis	7 (1 – 2027)	3 (0 – 12362)	0,0001
Clinical T Stage			<0,0001
T1	0 (0)	115 (6,44)	
T2	8 (12,12)	279 (15,62)	
T3	22 (33,33)	1008 (56,44)	
T4	36 (54,55)	384 (21,50)	
Clinical Nodal State			0,0346
Node Negative	24 (36,36)	886 (49,61)	
Node Positive	42 (63,64)	900 (50,39)	
Extrahepatic and Extrapulmonary Metastasis at the Time of Diagnosis			<0,0001
Yes	5 (8,47)	19 (1,28)	
No	54 (91,53)	1468 (98,72)	
Comorbid Disease			0,0003
Yes	27 (40,91)	1122 (62,82)	
No	39 (59,09)	664 (37,18)	

	Concomitant Urinary Intervention	No Urinary Intervention	
Neoadjuvant RT			0,1249
Not Received	48 (72,73)	1436 (80,40)	
Received	18 (27,27)	350 (19,60)	
Surgical Conditions			0,0391
Emergency	1 (1,52)	155 (8,68)	
Elective	65 (98,48)	1630 (91,32)	
Tumor Location			0,0132
During Surgery	3 (4,55)	158 (8,85)	
Cecum	4 (6,06)	198 (11,09)	
Ascending Colon	0 (0)	93 (5,21)	
Hepatic Flexure	0 (0)	84 (4,70)	
Descending Colon	11 (16,67)	236 (13,21)	
Rectosigmoid	28 (42,42)	510 (28,56)	
Rectum	19 (28,79)	373 (20,88)	
Sigmoid	0 (0)	59 (3,30)	
Splenic Flexure	1 (1,52)	75 (4,20)	
Transverse Colon			
Performed Surgery			0,0010
APR			
Anterior Resection	10 (15,15)	92 (5,15)	
Low Anterior	20 (30,30)	439 (24,58)	
Resection	25 (37,88)	545 (30,52)	
Ext. Right	1 (1,52)	109 (6,10)	
Hemicolectomy	6 (9,09)	354 (19,82)	
Right	3 (4,55)	119 (6,66)	
Hemicolectomy	0 (0)	112 (6,27)	
Left Hemicolectomy	1 (1,52)	16 (0,90)	
Subtotal Colectomy			
Total			
Proctocolectomy			
Type of Surgery			0,0705
Open	43 (65,15)	880 (49,27)	
Hand-Assisted	0 (0)	4 (0,22)	
Laparoscopic	21 (31,82)	763 (42,72)	
Laparoscopic	2 (3,03)	139 (7,78)	
Robotic			
Conversion to Open Surgery			<0,0001
Yes	10 (43,48)	61 (6,73)	
No	13 (56,52)	845 (93,27)	
Erythrocyte Suspension (ES)			0,0268
Replacement During Surgery	8 (12,12)	100 (5,61)	
Yes	58 (87,88)	1682 (94,39)	
No			
Postoperative Erythrocyte Suspension (ES)			0,0115
Replacement	26 (39,39)	455 (25,50)	
Yes	40 (60,61)	1329 (74,50)	
No			
Urinary Fistula			<0,0001
Yes	4 (6,06)	2 (0,11)	
No	62 (93,94)	1784 (99,89)	
Acute Kidney Failure			0,0206
Develop	3 (4,55)	14 (0,78)	
Did Not Develop	63 (95,45)	1772 (99,22)	
30-Day Mortality			0,0626
Yes	3 (4,55)	23 (1,29)	
No	63 (95,45)	1763 (98,71)	
Pathological T Stage of the Tumor			<0,0001
T0	3 (4,55)	94 (5,26)	
T1	0 (0)	102 (5,71)	
T2	4 (6,06)	208 (11,65)	
T3	20 (30,30)	916 (51,29)	
T4a	15 (22,73)	374 (20,94)	
T4b	24 (36,36)	84 (4,70)	
Tis	0 (0)	8 (0,45)	
Tumor Perforation			<0,0001
Yes	10 (15,15)	78 (4,37)	
No	56 (84,85)	1706 (95,63)	

## SSB-003

## Is Neoadjuvant Chemotherapy Beneficial for Locally Advanced Colon Cancer? A Single-Center Propensity Score Matched Analysis

Sevcan Koç, İbrahim Halil Özata, Mehtap Manay, Derya Salim Uymaz, Ahmet Rencüzoğulları, Emre Balık  
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**Objective:** To evaluate the efficacy of neoadjuvant chemotherapy (NCT) in patients of locally advanced colon cancer (clinical stage T3/T4, Nany, M0) by propensity score matching (PSM) reducing confounding and to check its impact on pathological staging, lymph node yield, short-term complications, disease-free survival (DFS), and overall survival (OS).

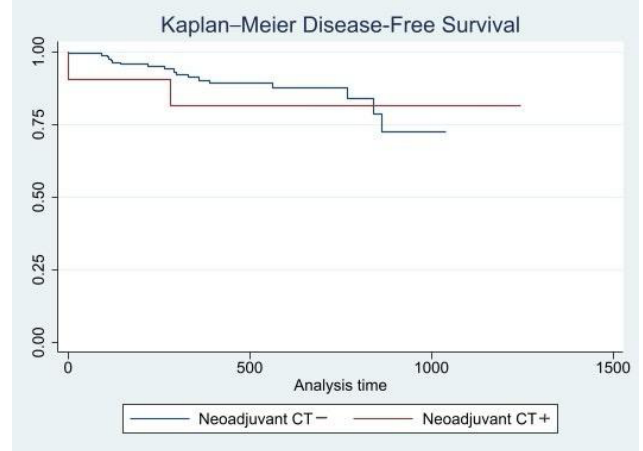
**Materials-Methods:** We retrospectively analyzed 201 clinical stage T3/T4 colon cancer (Nany, M0) patients who were curatively operated between 2018-2022. Patients were distributed into two arms: NCT (n=21) and upfront surgery (control, n=180). To minimize selection bias, PSM at a 1:3 ratio matched 21 NCT patients with 63 control patients based on age, sex, BMI, ASA score, and clinical T-stage. Primary endpoints were pathologic T and N stages, number of lymph nodes, DFS, OS, early postoperative complications. Statistical significance was considered at P<0.05.

**Results:** The pathological T (P=0.138) and N (P=0.495) stages were not significantly different between the two groups. Even though the difference in resected lymph nodes was not significant before matching (P=0.12), there were fewer lymph nodes retrieved in the NCT group after PSM (P=0.004). Pre-matching ASA scores indicated a worse baseline clinical status in NCT patients. Neither recurrence nor mortality rates correlated with the use of NCT. Complication rates during the short-term postoperative period were equivalent between the two groups.

**Conclusion:** Our findings show that NCT does not provide significant pathological downstaging benefits or superior short-term outcomes in locally advanced colon cancer, nor does it compromise surgical safety. Reduced lymph node yield in the NCT group may be the result of selection bias rather than an outcome of adverse chemotherapy effects. With the small patient population, further prospective studies are needed. The addition of immunotherapy or targeted agents to NCT may offer further survival benefit, underscoring the need for personalized treatment regimens.

**Keywords:** Neoadjuvant chemotherapy, Propensity score matching

## Kaplan-Meier Disease Free Survival



## SSB-005

## A Machine Learning Model for Prediction of Major 30-Day Morbidity Related to Rectal Cancer Surgery: A TSCRS Colorectal Cancer Database (TSCRS-CCD) Study

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<sup>7</sup>Turkish Colorectal Cancer Database Study Group\*

**Objective:** Accurate preoperative prediction of complications is crucial for patient counseling, perioperative management, and resource allocation. This study aims to evaluate the performance of machine learning (ML) algorithms for predicting major complications (Clavien-Dindo grade 3-4-5) in patients undergoing rectal cancer surgery.

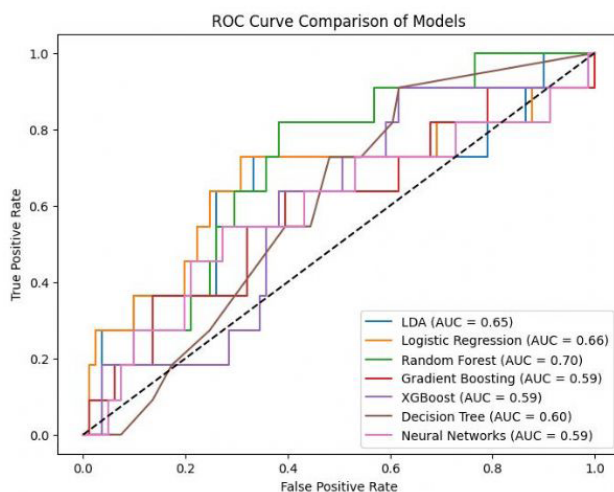
**Materials-Methods:** The study utilized the rectal cancer database of the Turkish Society of Colon and Rectal Surgery (TSCRS). The dataset was split into 70% training, 15% validation, and 15% test sets. Demographic, clinical, and operative variables were used for predictive modeling. After preprocessing steps such as missing data imputation, normalization, and categorical encoding, feature selection was performed to reduce the total number of variables. The models employed included Logistic Regression, Linear Discriminant Analysis, Random Forest, Gradient Boosting, XGBoost, Decision Tree, and Artificial Neural Networks. Model performances were assessed on the test dataset using ROC-AUC values, F1-score, and balanced accuracy as evaluation metrics.

**Results:** A total of 611 patients were included in the study, with 11.7% experiencing major complications. Feature selection reduced the number of parameters from 36 to 26. Random Forest performed well in predicting severe postoperative complications in rectal cancer surgery. It achieved the highest ROC-AUC value (0.701), indicating acceptable discriminatory ability. It was followed by Logistic Regression (0.664), LDA (0.650), Decision Tree (0.604), Gradient Boosting (0.594), Artificial Neural Networks (0.592), and XGBoost (0.590) (Figure 1). Random Forest also demonstrated the highest balanced accuracy (49.4%), while Logistic Regression achieved the highest F1-score (32.4%).

**Conclusion:** The Random Forest model is the best for predicting severe complications following rectal cancer surgery based on our national database. Our findings support the potential integration of ML-based risk prediction models into clinical practice.

**Keywords:** Machine learning, Rectal cancer

Figure 1



ROC Curves of Machine Learning Models for Complication Prediction

## SSB-006

### Machine-learning Models for Predicting Complications and Oncologic Outcomes after Cytoreduction&HIPEC for Colorectal Cancer-Peritoneal Metastasis

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<sup>2</sup>Ege University Faculty of Science, Department of Mathematics, Izmir

**Objective:** To develop and validate, using state-of-the-art machine learning (ML) approaches, classification models for the occurrence of morbi-mortality and locally recurrent disease to improve upon previous efforts of traditional statistical modeling approaches.

**Materials-Methods:** In this work, using the Dokuz Eylul University Hospital Peritoneal Surface Malignancy Center database, the performances [Area under curve(AUC) and prediction accuracy metrics] of 3 different ML approaches [C4.5(Decision Tree), Support Vector Machine(SVM), and Multi-layer Perceptron(MLP)] were used to predict the problems in morbidity, infection, local recurrence, and overall survival domains.

**Results:** The best performance for morbidity was MLP: AUC=0.9934; accuracy=0.97. SVM over performed for infective complications: AUC=0.8446; accuracy=0.89 and local recurrence: AUC=0.6797; accuracy= 0.75, respectively. For overall survival domain, while the SVM model exhibited the best AUC(0.9959), C4.5 proved the highest accuracy(0.95). Neoadjuvant chemotherapy(neoCT), CRP, albumin, BMI, and urologic complication were most influencing features for morbidity domain. neoCT, CRP, albumin, CRP, PCI score, resected organ number, anastomotic leak, urologic complication, and blood transfusion were most powerful attributes for infection. Age, neoCT, CRP, albumin, PCI, cytoreduction degree, and previous stoma creation were the major influential variables leading to recurrence. Recurrent disease, distant metastasis, CRP, albumin, co-morbidity, complication development, and neoCT were important features to predict overall survival.

**Conclusion:** Assessing clinico-pathologic features by ML models can improve risk stratification and help guide the surgical decision-making process. Morbi-mortality are significant health care problems as they can cause increased medical costs and worsens oncologic outcomes in peritoneal metastatic patients.

**Keywords:** machine-learning, colorectal cancer



## SSB-008

### Comparison of long-term outcomes of diode laser vs. crystallized phenol treatment for pilonidal sinus disease: a propensity score-matched multicenter study

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**Objective:** Although no standardized treatment approach has been established for pilonidal sinus disease(PSD), advancements in minimally invasive techniques are promising. This study compares two widely used minimally invasive techniques: laser therapy and crystallized phenol application from two tertiary care centres.

**Materials-Methods:** This study included patients who underwent laser or phenol treatment for PSD between November-2017 and September-2024. Patients were case-matched in a 1:3 ratio based on age, gender, surgical history, and year of diagnosis. A total of 897 patients were eligible for case matching (Laser:161,Phenol:483). Prospectively collected data were analysed retrospectively. Perioperative and long-term postoperative outcomes were compared between the two groups.

**Results:** A total of 644 patients were included (mean age:27 years and BMI:26.5kg/m<sup>2</sup>). The male-to-female ratio was 4:1. The mean number of pits was 2.5±1.7 in the laser group and 2.8±1.9 in the phenol group(p=0.08). The operative time was significantly longer in the laser group (p < 0.01). Postoperative complications occurred in 11 patients(6.8%) in the laser group, whereas no complications were reported in phenol group (p<0.01). Mean pain score was higher in the laser group (2.3±2.2 vs. 1.0±0.9,p=0.01). The median follow-up period was 45(26–59) months in the laser group and 40(21–58) months in the phenol group(p=0.61). The time to return to daily activities was longer in the laser group(p<0.01), complete healing time was significantly longer for the phenol group(p<0.01). Readmission and recurrence rates were comparable between the two groups(p=0.06 and p=0.47,respectively). Patient satisfaction scores were slightly higher in the laser group(p=0.01)(Table).

**Conclusion:** Although laser treatment significantly reduces complete recovery time with a single application, phenol treatment is associated with lower complication rates and a faster return to daily activities. Consequently, neither treatment can be deemed superior to the other. These minimally invasive techniques should be considered based on patient preference, the surgeon's expertise, and the resources available.

**Keywords:** minimally invasive surgery, pilonidal sinus disease

#### Patient demographics and clinical characteristics and early and late clinical outcomes of PSD laser ablation and phenol application treatments

Outcomes	Laser ablation N = 161	Phenol application N = 483	P value
Age, years	27 ± 8	27 ± 8	0.76
Sex, male	127 (79)	391 (81)	0.65
BMI, kg/m <sup>2</sup>	26 ± 4	27 ± 4	0.1
Pits or sinuses	2.5 ± 1.7	2.8 ± 1.9	0.08
Operative time, min	15.9 ± 5.6	6.8 ± 3.6	<0.01
Number of applications	1 (1)	2 (1-3)	<0.01
Postoperative pain*	2.3 ± 2.2	1 ± 0.99	0.01
Length of hospital stay			<0.01
Same-day discharge	37 (23)	363 (100)	
Discharge after 24 h	124 (77)	0 (0)	
Return to daily life, days	3.8 ± 5.2	same day	<0.01
Complications	11 (6.8)	0 (0)	<0.01
Follow-up time, median	45 (26-59)	40 (21-58)	0.61
Readmission	2 (1)	0 (0)	0.06
Complete recovery time, days	27.1 ± 15.4	58.6 ± 61.4	<0.01
Recurrence	19 (12)	70 (14)	0.47
Satisfaction—Likert scale	9.5 ± 1.1	9.2 ± 1.1	0.01

Data are expressed as number (percentage) or mean ± SD \*Numeric rating scale, BMI: body mass index, PSD pilonidal sinus disease

## SSB-010

### Retrospective Analysis on The Efficacy of Botulinum Toxin Alone Versus Combined Botulinum Toxin and Topical Diltiazem

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**Objective:** This study aims to compare the short and long-term outcomes of Botulinum Toxin (BT) alone versus BT combined with topical Diltiazem (TD) in the treatment of chronic anal fissures (CAF).

**Materials-Methods:** The study is designed as a retrospective analysis, reviewing data from 1,296 patients diagnosed with anal fissures who presented to our clinic between 2017 and 2022. A total of 217 patients who met the inclusion criteria were analyzed, with 143 receiving BT alone and 74 receiving the combination of BT + TD. BT was administered as 100 IU injected into four quadrants. TD was applied twice daily

for 10 days immediately following the BT injection. Primary outcome measures were fissure healing at 2 months and days to pain-free defecation. Secondary outcome measures were complete healing and recurrence rates at 24 months.

**Results:** There were no significant differences in demographic characteristics and symptom duration between the BT and BT + TD groups. The median time to pain-free defecation was 7 days across the entire series, with no statistical difference between groups ( $p=0.088$ ). At 2 months, complete healing was observed in 74.4% of patients, with no significant difference between groups: 74.8% for BT and 74.3% for BT+TD (0.530). During a median follow-up of 53 (22-101) months, a recurrence rate of 26.3% was observed, and TD showed no effect on complete healing and recurrence rates.

**Conclusion:** The study demonstrates that BT is an effective and safe treatment for CAF, with or without the addition of TD. The combination therapy did not show superior outcomes.

**Keywords:** anal fissure, botulinum toxin

## ***Oral Presentations***





## SB-001

# Radiological Features of Tumors in Rectal Cancer Patients with Lateral Lymph Node Involvement: A Retrospective MRI Study

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**Objective:** Malignant lateral lymph nodes (LLNs) contribute to local recurrence (LR) in rectal cancer patients, even after successful surgery. LLNs measuring  $\geq 7$  mm (short-axis, SA) detected pre-treatment via magnetic resonance imaging (MRI) correlate with increased LR rates (1). This study investigates radiological imaging characteristics of rectal tumors associated with LLNs on MRI.

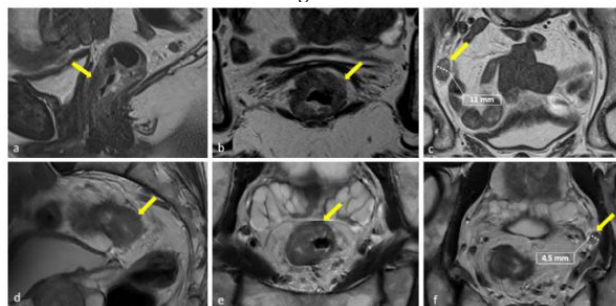
**Materials-Methods:** We retrospectively reviewed 451 pelvic MRI performed for rectal cancer staging. LLNs were defined as lymph nodes  $\geq 7$  mm (SA) located in internal iliac and obturator compartments. A control group without LLNs was selected from 223 consecutive MRI. Evaluations included LLN diameter, border irregularity, internal heterogeneity, nodularity, tumor location (distance from anal verge and anorectal junction), morphology (circular vs. semicircular), TNM staging, mesorectal fascia (MRF) involvement, extramural venous invasion (EMVI), mesorectal fat tissue extension, circumferential resection margin, and mucinous components. Statistical analyses included chi-square, t-test/Mann-Whitney U, and logistic regression.

**Results:** We analyzed 74 LLN-negative (mean age: 62.3) and 26 LLN-positive (mean age: 59.4) patients. LLNs occurred more frequently in women ( $p=0.036$ ), tumors within 8 cm from anal verge (84.6% vs. 52.7%,  $p=0.004$ ), and circular-shaped tumors (73.1% vs. 50%,  $p=0.041$ ). No significant differences emerged regarding MRF involvement, EMVI, mesorectal fat extension, mucinous components, or T and M stages ( $p>0.05$ ) (Table 1). However, N-stage was significantly higher in LLN-positive patients ( $p=0.001$ ). Logistic regression identified female gender (OR:2.74,  $p=0.048$ ), low tumor location ( $<8$  cm from anal verge, OR:5.71,  $p=0.005$ ), and circular morphology (OR:3.46,  $p=0.022$ ) as independent predictors of LLNs (Table 2).

**Conclusion:** Our results are consistent with previous studies showing LLNs correlate with female gender and low rectal tumors (2,3,4), but contradict others by finding no association between advanced tumor stage and LLN detection (4,5). Our unique finding is that circular morphology was significantly associated with LLNs. Future multidisciplinary studies integrating surgical outcomes and oncological prognosis are required to further clarify these relations.

**Keywords:** lateral lymph node, rectal cancer

Figure 1



Sagittal T2-weighted image (a) of a 73-year-old female patient demonstrates a tumor located in the distal rectum, appearing circular in morphology on axial oblique T2-weighted image without fat suppression (b), accompanied by a heterogeneous lymph node measuring 11 mm in short axis within the right obturator region on coronal oblique T2-weighted image (c). Sagittal T2-weighted image (d) of another 69-year-old male patient reveals a tumor located in the proximal rectum, showing a semicircular morphology on coronal oblique T2-weighted image without fat suppression (e), along with a small lymph node measuring 4.5 mm in short axis in the left obturator region (f).

Table 1

	Absence of nodes with SA length $\geq 7$ mm in lateral compartment on baseline MRI (n=74)	Presence of nodes with SA length $\geq 7$ mm in lateral compartment on baseline MRI (n=26)	P
Age (years) (mean $\pm$ SD)	62,3 $\pm$ 11,8	59,4 $\pm$ 13,9	0,353
Gender n(%)			0,036
Male	46 (62,2%)	10 (35,5%)	
Female	28 (37,8%)	16 (61,5%)	
Distance from anal verge on MRI (cm) n(%)			0,004
$\leq 8$ cm	39 (52,7%)	22 (84,6%)	
$>8$ cm	35 (42,3%)	4 (15,4%)	
Distance from anal verge on MRI (cm) (mean $\pm$ SD)	8,02 $\pm$ 3,3	5,92 $\pm$ 2,6	0,003
Distance from anorectal junction on MRI (cm) (mean $\pm$ SD)	3,78 $\pm$ 3,1	1,76 $\pm$ 2,2	0,002
Lesion morphology n(%)			0,041
Circular	37 (50%)	19 (73,1%)	
Semicircular	37 (50%)	7 (26,9%)	
Presence of mesorectal fascia involvement n(%)	36 (48,6%)	18 (69,2%)	0,070
Extension to mesorectal fat (mm) (mean $\pm$ SD)	6,07 $\pm$ 6,37	6,23 $\pm$ 6,81	0,855
Circumferential resection margin (mm) (mean $\pm$ SD)	6,21 $\pm$ 5,37	8 $\pm$ 5,83	0,409
Presence of extramural vascular invasion/tumor deposit n(%)	27 (36,5%)	12 (46,2%)	0,385
Presence of mucinous component n(%)	6 (8,1%)	3 (11,5%)	0,693
T stage n(%)			0,508
T1	4 (5,4)	0	
T2	8 (10,8)	2 (7,7)	
T3	31 (41,9)	9 (34,6)	
T4	31 (41,9)	15 (57,7)	
N stage n(%)			0,001
N0	14 (18,9)	0	
N1	33 (44,6)	6 (23,1)	
N2	27 (36,5)	20 (76,9)	
M stage n(%)			0,919
M0	66 (89,2)	23 (88,5)	
M1	8 (10,8)	3 (11,5)	

Demographic characteristics, TNM stage and imaging features according to the presence of lateral lymph nodes in the internal iliac or obturator compartment on baseline MRI

Table 2

	Univariable analysis				Multivariable analysis	
	Odds ratio	95% CI	p	Odds ratio	95% CI	p
Gender			0.039			0.048
Male	1.00 (reference)			1.00 (reference)		
Female	2.629	1.048-6.591		2.737	1.008-7.433	
Distance from anal verge on MRI			0.007			0.005
>8cm	1.00 (reference)			1.00 (reference)		
≤8 cm	4.936	1.549-15.729		5.708	1.685-19.339	
Lesion morphology			0.046			0.022
Semicircular	1.00 (reference)			1.00 (reference)		
Circular	2.714	1.020-7.225		3.463	1.193-10.051	
Mesorectal fascia involvement			0.074			
Absence	1.00 (reference)					
Presence	2.375	0.919-6.137				
Extramural vascular invasion/tumor deposit			0.386			
Absence	1.00 (reference)					
Presence	1.492	0.604-3.687				

Univariable and multivariable regression analyses of factors predicting the presence of a lateral lymph node with a short-axis measurement of at least 7 mm in the internal iliac or obturator compartment

## SB-002

### Comparison of Total Neoadjuvant Treatment Modalities Including Sandwich and Consolidation Method in Locally Advanced Rectal Cancer

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**Objective:** This study aims to compare the oncological outcomes of different treatment modalities applied within the scope of total neoadjuvant therapy in the treatment of locally advanced rectal cancer (LARC). The goal is to evaluate the effectiveness of various treatment approaches and determine the optimal therapeutic strategy.

**Materials-Methods:** This is a single-center retrospective study conducted at Vehbi Koç Foundation Healthcare Institutions, including patients who underwent total neoadjuvant therapy for locally advanced rectal cancer. The primary endpoint was the comparison of consolidation and sandwich regimens in terms of complete response using univariate and multivariate analyses. Secondary endpoints were disease-free survival and overall survival comparisons between the two groups.

**Results:** A total of 185 patients were included in the analysis, with 72 (39%) in the sandwich group and 113 (61%) in the consolidation group. In the sandwich group, 35 patients (48.6%) achieved a complete response, compared to 37 patients (32.4%) in the consolidation group (p = 0.031). All 35 patients in the sandwich group who achieved a complete response were managed without surgery, as were 36 patients in the consolidation group. Multivariate logistic regression analysis revealed that the sandwich regimen was associated with higher odds of achieving a complete response compared to the consolidation regimen (OR: 2.85, 95% CI: 1.19–6.65, p = 0.018).

**Conclusion:** In LARC, the TNT regimen based on the sandwich approach is associated with a higher rate of clinical complete response and a more favorable overall survival compared to consolidation therapy. Prospective, randomized controlled trials are needed for a more objective evaluation of the findings.

**Keywords:** Locally Advanced Rectal Cancer, Nonoperative Management

## SB-003

### Endoscopic Submucosal Dissection vs. Transanal Endoscopic Surgery for Rectal Neoplasia: A Prospective Observational Cohort (ESTER trial)

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**Objective:** With the increasing early detection of colorectal cancer, interest in organ-preserving treatment options has grown. Endoscopic submucosal dissection (ESD) and transanal endoscopic surgery (TES) are key techniques for local excision, each offering distinct advantages and limitations. ESD is associated with significantly shorter procedure times and hospital stays but presents technical challenges and a higher risk of perforation. TES enables deeper lesion excision, offers a higher en bloc resection rate, and, when performed in a full-thickness fashion, achieves a higher R0 resection rate, significantly reducing the need for further abdominal treatment. This study aims to conduct a prospective, multicenter comparison of ESD and TES to determine the optimal treatment approach for early-stage rectal neoplasms.

**Materials-Methods:** The ESTER trial is a prospective, multicenter observational cohort study. Patients will be assigned to ESD or TES based on physician preference, patient choice, and institutional availability. Eligible participants include adults (>=18 years) with non-pedunculated rectal lesions >=2 cm, located within 15 cm of the anal verge. The primary outcomes include the R0 resection rate and the

recurrence rate, assessed at 12 months post-procedure via follow-up endoscopy. Secondary outcomes include the en bloc resection rate, procedure time, complication rates (classified by Clavien-Dindo criteria), hospital length of stay, and patient-reported quality of life measures, including overall health-related quality of life (Short Form-36) and fecal incontinence-related quality of life, both assessed at one year. The study will be conducted in accordance with the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) guidelines to ensure methodological rigor and transparency in reporting.

**Conclusion:** By evaluating recurrence rates, en bloc and R0 resection rates, procedural time, complications, and hospital stay duration, the ESTER study aims to provide evidence on the relative benefits and limitations of ESD and TES in the treatment of early rectal neoplasms.

**Keywords:** endoscopic submucosal dissection, transanal endoscopic surgery

## SB-005

### Functional and Surgical Outcomes of Ventral Mesh Rectopexy in Males

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**Objective:** The indications and outcomes of ventral mesh rectopexy in the treatment of rectal prolapse in men have been minimally addressed in the literature. This study aims to evaluate the demographic, clinical characteristics, and surgical outcomes associated with VMR in male patients.

**Materials-Methods:** Patients from territorial centers performing pelvic floor surgery in Türkiye were included. Demographic, clinical, and surgical characteristics were obtained from prospectively maintained databases. For patients with missing prospectively recorded data, phone calls were made to inquire about recurrence, Cleveland Clinic Incontinence Score (CCIS) and Altomare scores for preoperative and postoperative periods.

**Results:** A total of 41 male patients underwent VMR (2 open, 5 robotic and 34 laparoscopic), with a mean age of 45.4

years and a mean BMI of 25.6 kg/m<sup>2</sup>. The cohort comprised 11 patients with internal rectal prolapse (IRP) and 30 with external rectal prolapse (ERP). The overall complication rate was 17.1% (2.4% related to mesh), with a recurrence rate of 12%. Median follow-up was 33 (1-127) months. The recurrence rate was 36.4% for IRP and 3.3% for ERP patients (p=0.014). Significant improvements were observed in CCIS (preoperative: 6.1 ± 4.8; postoperative: 2.8 ± 3.3, p=0.005) and Altomare scores (preoperative: 11.9 ± 4.6; postoperative: 7.26 ± 5.8, p<0.001).

**Conclusion:** VMR demonstrates favorable outcomes in male patients, with significant reductions in incontinence and improved quality of life postoperatively. Recurrence rates are higher in IRP. Sexual functions were not assessed in most patients. To better evaluate patient-reported outcomes, prospective registries are needed.

**Keywords:** Mesh rectopexy, Rectal prolapse

## SB-015

### Impact of Video Game Experience on Surgical Approach Selection Among General Surgeons: A Nationwide Survey in Turkey

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**Objective:** Minimally invasive surgery (MIS) has renovated surgical practice, but its implementation requires advance visuospatial and psychomotor skills. Video games (VGs) have been suggested as a potential tool influencing these abilities. This study investigates the effect of VG experience on surgical technique preferences among general surgeons in Turkey and its potential role in learning MIS techniques.

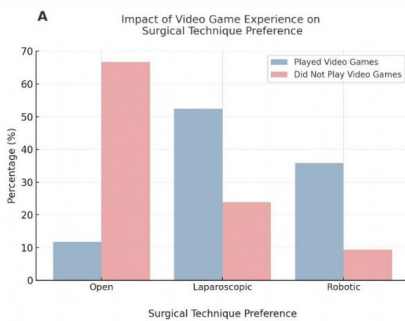
**Materials-Methods:** A national cross-sectional survey was conducted among Turkish general surgeons. Data on demographics, surgical practices, and VG experience of the participants were collected using 12-item questionnaire. The Pearson  $\chi^2$  test and Fisher's exact test were used to analyze associations, with statistical significance set at p<0.05.

**Results:** A total of 512 surgeons participated in the questionnaire, with 73% of them reporting VG experience. Laparoscopic surgery was preferred by most of the surgeons with VG experience (52.4%), while open surgery was favored by those who did not have any video gaming experience (66.7%) (p<0.001). VG players found open surgery the most challenging (55.6%), whereas non-gamers struggled with robotic surgery (44.9%) (p<0.001). Surgeons playing more than six hours per week were more tending to robotic surgery (67.5%). Younger surgeons, particularly those aged 30-39, reported higher gaming engagement and preferred laparoscopic surgery.

**Conclusion:** VG experience appears to influence surgical technique preference, favoring MIS approaches. These findings suggest that gaming may help to develop psychomotor and visuospatial skills related to laparoscopy and robotic surgery. Further research is required to see its role in surgical training.

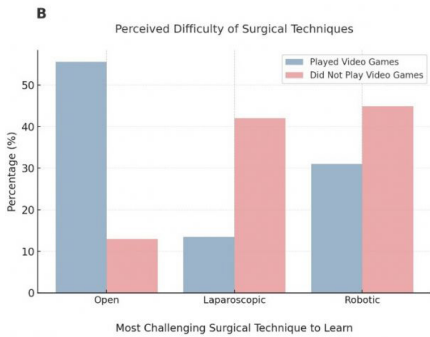
**Keywords:** Video game experience, minimally invasive surgery

Figure 1.



Impact of Video Game Experience on Surgical Technique Preference (A)

Figure 2.



Impact of Video Game Experience on Perceived Difficulty of Surgical Techniques (B)

Table 1.

Variables (n=512)		n	%
Age	30-39	241	47.1
	40-49	123	24
	50 and above	148	28.9
Gender	Male	345	67.4
	Female	167	32.6
Dominant hand	Right-hand	375	73.2
	Left-hand	137	26.8
Type of hospital	Public Service Hospital	100	19.5
	Training and Research Hospital	115	22.5
	Academic University Hospital	199	38.9
	Private University Hospital	33	6.4
	Private Practice Clinic	11	2.1
	Private Hospital	54	10.5
Surgical experience (years)	0-10	183	35.7
	11-20	218	42.6
	21 and above	111	21.7
Surgical technique that appeals most	Open	136	26.6

	Laparoscopic	229	44.7
	Robotic	147	28.7
Most challenging surgical technique to learn	Open	226	44.1
	Laparoscopic	108	21.1
	Robotic	178	34.8
Variables (n=512)		n	%
Primary case focus	Upper gastrointestinal system	112	21.9
	Hepatobiliary system	126	24.6
	Colorectal	95	18.6
	Abdominal wall	77	15
	Transplantation	37	7.2
	Breast surgery	34	6.6
	Endocrine surgery	31	6.1

Distribution of variables among participants.

## SB-016 Surgical Insight-Guided Deep Learning for Colorectal Lesion Management

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**Objective:** Colonoscopy is the gold standard for colorectal cancer (CRC) screening. Artificial intelligence (AI), particularly computer-aided detection (CADE), may enhance lesion detection, diagnostic performance, and reduce inter-observer variability. However, traditional CADE systems focus primarily on polyp detection. This study aimed to develop and evaluate a deep learning (DL) model trained on colonoscopic images linked to definitive postoperative histopathology, including lesions beyond standard polyps, to improve lesion detection and assess malignancy risk.

**Materials-Methods:** We developed a deep learning model using YOLO architecture trained on 1760 colonoscopic images from 306 colorectal surgery patients. Lesions were annotated based on postoperative histopathological data. Extensive data augmentation was employed, and the dataset was randomly divided (80% training, 20% validation). Model performance was assessed using precision, recall, mean Average Precision (mAP), sensitivity, specificity, positive predictive value (PPV), and negative predictive value (NPV) metrics on both validation and external datasets.,

**Results:** On the internal validation dataset, the DL model achieved a precision of 0.796, recall of 0.781, mAP50 of 0.832. Evaluation on a external test set (91 patients) demonstrated sensitivity of 70.73%, specificity of 92.00%, positive predictive value of 87.88%, negative predictive value of 79.31%, and an overall accuracy of 82.42%.

**Conclusion:** Our deep learning model demonstrated high accuracy and specificity for colorectal lesion detection, significantly enhancing diagnostic capabilities, especially for challenging cases such as anastomosis line lesions, atypical presentations, and intramucosal cancers. This advanced diagnostic support can effectively complement colonoscopy

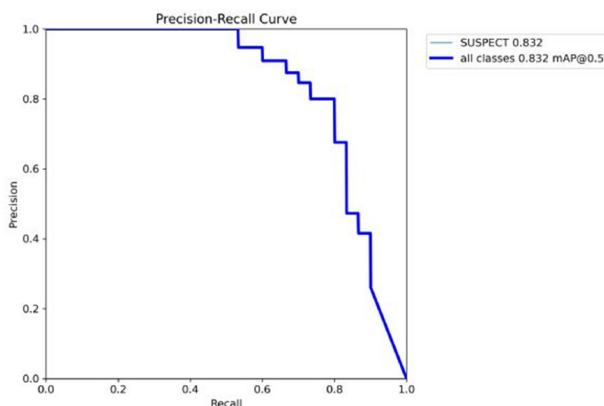


by reducing lesion detection variability and aiding in accurate malignancy risk assessment, warranting further clinical validation for integration into routine clinical practice.

**Keywords:** Artificial Intelligence, Colorectal Cancer



2



## SB-017

### Artificial Intelligence-Driven Surgical Assistant for Minimally Invasive Colon Surgery

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**Objective:** Minimally invasive right hemicolectomy is the standard treatment for right-sided colon tumors. Complete mesocolic excision (CME) requires dissection along the superior mesenteric vein (SMV), but the risk of major vascular injury poses a challenge for some surgeons. This study aims to evaluate the feasibility of an artificial intelligence-

driven surgical assistant designed to identify the SMV and intraoperative visual cues during minimally invasive surgery.

**Materials-Methods:** In this experimental feasibility study, intraoperative videos of patients who underwent minimally invasive right hemicolectomy at a tertiary academic center between 2019 and 2024 were retrospectively reviewed and analyzed for the development of an artificial intelligence model. Hundred random frames were extracted from each video, focusing on the complete mesocolic excision principles. Using the Attention U-Net deep learning model, these frames were divided into training, validation, and test sets. The AI model was trained on the images annotated by experts and was then tested on previously unseen frames without any annotations to predict the SMV along with the surgical tools and movements. Model performance was evaluated using the DICE score, positive predictive value (PPV), sensitivity, and intersection-over-union (IoU) score.

**Results:** A total of 20 different patients and videos were analyzed. The SMV was annotated in 2,000 frames by two general surgeons experienced in colorectal surgery. For model training, 1200 frames were used, with 400 for validation and 400 for testing. As a result, the average DICE score, sensitivity, positive predictive value (PPV), and mean intersection-over-union (IoU) score were obtained with high performance.

**Conclusion:** In this study, critical anatomical structures in minimally invasive right sided CME were effectively recognized by artificial intelligence using deep learning algorithms. The identification of these structures could contribute to the development of intraoperative navigation systems in the near future and may help prevent complications.

**Keywords:** Artificial intelligence, minimally invasive surgery

## SB-018

### Value of Machine Learning Algorithms in the TSCRS Colorectal Cancer Database (TSCRS-CCD) for Predicting 30-Day Major Postoperative Complications in Colon Cancer Surgery

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**Objective:** Given the limitations of traditional risk assessment tools, this study aimed to assess the performance of machine

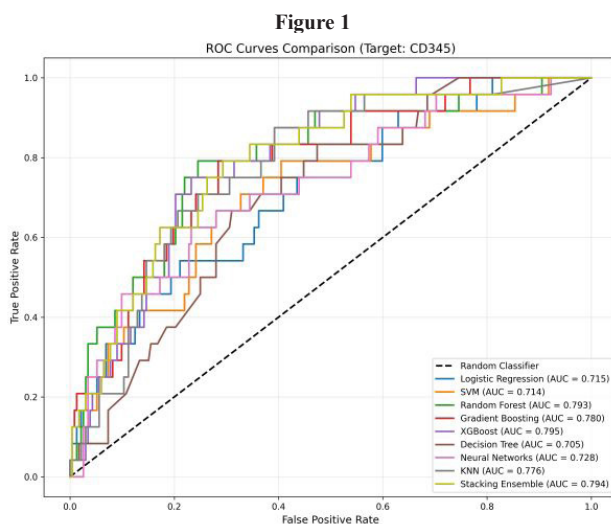
learning (ML) algorithms in predicting major postoperative complications (Clavien-Dindo 3, 4 & 5) using a large national database.

**Materials-Methods:** This retrospective study utilized data from the Turkish Society of Colon and Rectal Surgery Colorectal Cancer Database (TSCRS-CCD). Data preprocessing included missing value imputation, normalization, and categorical encoding, followed by feature selection to reduce dimensionality. The dataset was divided into training (60%), validation (20%), and test (20%) sets. Various ML models were developed, including Logistic Regression, Random Forest, Gradient Boosting, XGBoost, Decision Tree, Support Vector Machine (SVM), Neural Networks, K-Nearest Neighbors and a Stacking Ensemble. Hyperparameters were optimized using Bayesian optimization with cross-validation. Model performance was assessed based on ROC-AUC, F1-score, balanced accuracy, sensitivity, specificity, and precision.

**Results:** A total of 1277 colon cancer patients were analyzed, with 9.4% experiencing major complications. XGBoost outperformed other models with the highest ROC-AUC of 0.795, balanced accuracy of 74.2%, and F1-score of 36.6%, followed by Stacking Ensemble (AUC=0.794) and Random Forest (AUC=0.793). (Figure 1) Random Forest demonstrated the highest F1-score (0.38) and balanced accuracy (77.3%), while Gradient Boosting had the highest sensitivity (79.2%). Logistic Regression provided the highest specificity (92.2%).

**Conclusion:** The XGBoost demonstrated good performance in predicting major complications after colon cancer surgery. External validation and prospective studies are required to confirm clinical utility and generalizability.

**Keywords:** Colon Cancer, Machine Learning



ROC Curves of Machine Learning Models.

## SB-019

### Evaluation of Medical Faculty Students' Knowledge Levels on Colorectal Cancer and Screening Programs

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**Objective:** Colorectal cancer (CRC) is the third most common cancer type among both men and women worldwide, including in Turkey. Screening programs are known to be effective in reducing CRC-related mortality and morbidity. However, successful implementation requires healthcare professionals to have sufficient knowledge. This study assesses the knowledge levels of medical faculty students regarding CRC and screening programs. The findings are expected to identify gaps in the medical curriculum and contribute to educational programs aimed at increasing CRC awareness.

**Materials-Methods:** Between February and April 2024, 210 medical students from Ankara University Faculty of Medicine were randomly selected from each academic year among 2294 students. Participants completed a 20-item questionnaire covering demographic data, CRC risk factors, symptoms, screening programs, and their families' participation in CRC screening.

**Results:** It was found that 72.9% of students were unaware of CRC prevalence. Knowledge about screening methods was significantly higher among clinical internship students but notably lower among preclinical students. Similarly, correct response rates concerning CRC symptoms were higher in clinical students, whereas preclinical students demonstrated insufficient knowledge.

Many students were unaware of where CRC screenings are conducted in the Turkish healthcare system. Specifically, 43.8% did not know that CRC screening is performed at Cancer Early Diagnosis, Screening, and Training Centers (KETEM). Awareness of screenings at Community Health Centers (TSM) and family health centers was even lower. The participation rate of students' families in CRC screening programs was only 16.2%.

**Conclusion:** Medical students were found to have insufficient knowledge about CRC and screening programs, particularly among preclinical students. The study suggests that revising the medical curriculum could enhance CRC awareness and improve future healthcare professionals' competence in cancer prevention and early diagnosis.

**Keywords:** Colorectal cancer awareness, Medical education and screening programs

**SB-020****Predicting Local Regrowth with Artificial Intelligence in Non-Operatively Managed Rectal Cancer Patients**

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**Objective:** Non-operative management (NOM) in patients who underwent neoadjuvant therapy with complete clinical response is a feasible approach. Salvage surgery following local regrowth is associated with poorer outcomes; therefore, early detection of local recurrence during routine surveillance is essential for optimizing patient prognosis. In this study, we aimed to utilize artificial intelligence (AI) assisted algorithms to predict local regrowth in NOM rectal cancer patients.

**Materials-Methods:** In this experimental feasibility study, rectal cancer patients who showed complete clinical response to neoadjuvant therapy and are managed non-operatively between 2015 and 2024 in a tertiary center were included in the study. MRI and endoscopic images were extracted. Patients were divided into two groups with respect to local regrowth. Deep learning algorithms were trained to detect local regrowth and were trained with respect to patients with sustained complete clinical response. Model performance was assessed using the DICE score, positive predictive value (PPV), sensitivity, and intersection-over-union (IoU) score.

**Results:** Out of 100 patients who were included in the study, 19 developed local regrowth. Using the Attention U-Net deep learning model, images were divided into training, validation, and test sets. Expert radiologists and endoscopists annotated 1,000 frames in each category, and the AI system was trained to predict areas of potential regrowth and resulted in high performance, indicating reliable identification of early regrowth indicators.

**Conclusion:** This study demonstrates that an AI system can effectively analyze rectal MRI and endoscopic images to predict local regrowth in patients managed non-operatively. The integration of such technology into clinical practice could enable earlier interventions and potentially provide better outcomes.

**Keywords:** Artificial intelligence, local regrowth

**SB-054****An International Expert-Based Consensus on the Treatment Strategies for Early and Locally Advanced Rectal Cancer**

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**Objective:** This study aimed to establish an international expert-based consensus on the preferred treatment strategies for early and locally advanced rectal cancer, considering the evolving landscape of non-operative management and the importance of multidisciplinary treatment planning.

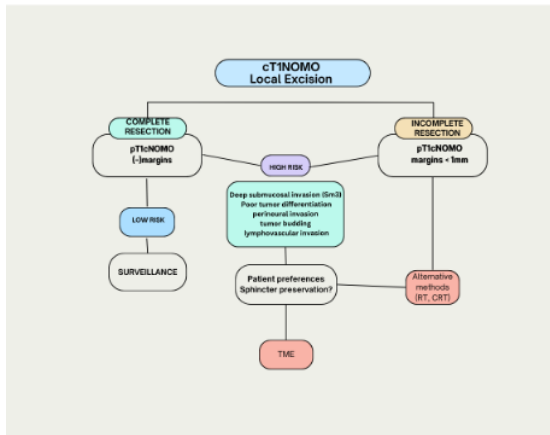
**Materials-Methods:** A Delphi study was conducted with a steering committee of 12 members who performed a literature review on treatment strategies for early and locally advanced rectal cancer and created a survey distributed to an expert panel. The survey included 49 questions, with responses informing the consensus statements. A total of 44 experts participated, providing insights and describing their current practices on multidisciplinary team involvement, what they felt the minimal rectal cancer case volume should be, the methods they use for staging, the techniques they employ for preoperative bowel preparation if they perform it, their views on partial and complete mesorectal excision techniques, when they used local excision, and their thoughts on total neoadjuvant therapy (TNT) and non-operative management (NOM).

**Results:** The consensus emphasized the importance of multidisciplinary team assessment and decision-making and surgical expertise in TME. Structured reporting of MRI staging of rectal cancer was recommended. TNT was favored for high-risk tumors, and non-operative management was recommended when clinical complete response is achieved after TNT. Surveillance protocols for NOM were defined, and the role of biopsy in near-complete clinical response was discussed.

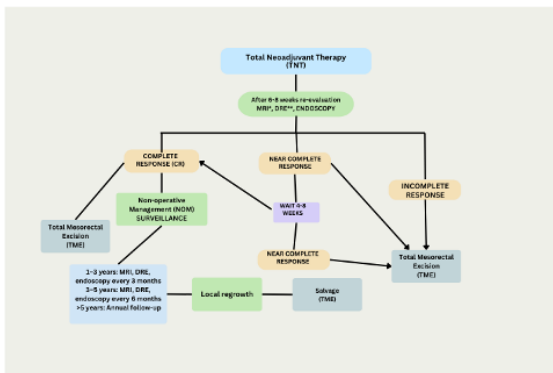
**Conclusion:** The consensus provided a comprehensive guide for the treatment of rectal cancer, highlighting the importance of multidisciplinary management, the role of TNT in achieving organ preservation, and the implementation of strict NOM surveillance protocols. The findings contribute to the optimization of patient care and standardization of treatment strategies.

**Keywords:** Rectal Cancer, Consensus

## Consensus recommendation for Local excision



## Consensus recommendation for TNT and NOM



## Consensus Summary

Topic	Consensus Statements	Agreement(%)
1. Role of Multidisciplinary Team (MDT) in Decision-Making	MDT discussion is essential for optimal treatment decisions. High-volume centers (>=40 rectal cancer cases per year) improve outcomes	97 94
2. Staging and Imaging	Standardized high-resolution MRI should be used for accurate local staging and treatment planning Thoraco-abdominal CT is recommended for metastasis evaluation	95
3. Preoperative Bowel Preparation	Mechanical bowel preparation with oral antibiotics may reduce surgical site infections	87
4. Surgical Techniques	Partial mesorectal excision is recommended for upper rectal tumors. Local excision may be used for cT1N0 tumors, provided no high-risk features exist	87 82
5. Total Neoadjuvant Therapy (TNT)	Recommended for tumors with high-risk factors Consolidation may improve organ preservation rates. Interval evaluations should be conducted during TNT	97 87 89
6. Non-Operative Management (NOM) and Clinical Response	NOM is primarily recommended for distal rectal cancers Assessment of cCR*: MRI, endoscopy, and digital rectal exam should be used. Timing: Clinical response should be assessed 6–8 weeks post-TNT. Near-complete response (ncCR): Additional 4–8 weeks of observation may improve cCR rates. Biopsy for ncCR: Not recommended due to poor predictive value.	52 100 87 85 82
7. Interval Between TNT Completion and Surgery	Surgery should be performed at least 8 weeks post-TNT for optimal regression	97
8. Non-Operative Management (NOM) Follow-Up	1–3 years: MRI, DRE, endoscopy every 3 months 3–5 years: MRI, DRE, endoscopy every 6 months >5 years: Annual follow-up	100
9. Lateral Pelvic Lymph Node Dissection (LPLND)	Recommended for persistent pathological LPLNs after neoadjuvant therapy	97



## SB-055

## Histopathological Features and Prognostic Significance of High-Risk Stage II Colon Adenocarcinomas versus Stage III Disease

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**Objective:** Clinicopathologic features linked to higher risk of colon cancer recurrence and mortality are called high risk features (HRF). According to the NCCN guidelines, HRFs include poorly differentiated tumors, lymphovascular/perineural invasion, bowel obstruction/perforation, <12 lymph node removal, T4 disease, and histologically positive margins. We hypothesized that stage II adenocarcinomas with ≥3 HRFs would have worse outcomes than stage III disease.

**Materials-Methods:** A retrospective review of 377 stage II and III colon adenocarcinoma patients between 2016 and 2020 was conducted. Patients were grouped into three groups as stage II (< 3 HRFs or ≥3 HRFs) and stage III.

**Results:** Patients with stage II ≥3 HRFs (n=88) had higher lymphatic, plexus, and perineural invasion, and 90-day mortality compared to stage III disease (n=187) (p< 0.001). Patients with stage III disease had higher vascular invasion, lower peritumoral Crohn's-like lymphoid reaction, higher preoperative CEA and CA 19-9 (p< 0.001). The 5-year OS and DFS rates were 79.4% and 74.5% in stage II <3 HRF, 58.9% and 58.9% in stage II ≥3 HRF, and 71.2% and 61.3% in stage III (p=0.037 and p=0.040, respectively). Subgroup analysis showed no significant difference in OS (p=0.126) and DFS (p=0.600) between stage II ≥3 HRF and stage III. In the Cox model multivariate analysis, according to the factors affecting OS, age ≥65 years, colostomy, <12 lymph nodes, and higher CEA were significant prognostic factors, whereas age ≥65 years, colostomy, larger tumor volume, <12 lymph nodes, higher CEA, and stage III were significant prognostic factors affecting DFS.

**Conclusion:** Patients with stage II ≥3 HRFs displayed worse survival compared to stage II <3 HRFs and stage III disease. In subgroup analysis, no significant difference in survival was observed between stage II ≥3 HRF and stage III disease. This suggests that stage II ≥3 HRFs could behave similarly to stage III disease.

**Keywords:** Colon cancer, high risk features

Table 1

Parameters n (%)	Stage II (< 3 HRF) n=102	Stage II (≥ 3 HRF) n=88	Stage III n=187	p-value
Age (yr)				
< 65	27 (26.5)	31 (35.2)	70 (37.4)	0.164 <sup>b</sup>
≥ 65	75 (73.5)	57 (64.8)	117 (62.6)	
Sex				
Male	57 (55.9)	51 (58)	93 (49.7)	0.369 <sup>b</sup>
Female	45 (44.1)	37 (42)	94 (50.3)	
Tumor Location				
Cecum	14 (13.7)	24 (27.3)	37 (19.8)	
Ascending colon	7 (6.9)	6 (6.8)	13 (7)	
Hepatic flexure	10 (9.8)	6 (6.8)	12 (6.4)	
Transverse colon	7 (6.9)	4 (4.5)	22 (11.8)	
Splenic flexure	6 (5.9)	6 (6.8)	11 (5.9)	
Descending colon	49 (48)	34 (38.6)	68 (36.4)	
Sigmoid	9 (8.8)	8 (9.1)	24 (12.8)	
Nature of operation				
Open	83 (81.4)	74 (84.1)	162 (86.6)	0.075 <sup>c</sup>
Minimal Invasive	19 (18.6)	14 (15.9)	24 (13.4)	
Operation Type				
Right hemicolectomy	17 (16.7)	29 (33)	50 (26.7)	
Extended right hemicolectomy	15 (14.7)	6 (6.8)	37 (19.8)	
Segmental	2 (2)	4 (4.5)	3 (1.6)	
Left hemicolectomy	15 (14.6)	8 (9.1)	14 (7.5)	
Extended left hemicolectomy	7 (6.9)	3 (3.4)	10 (5.3)	
Anterior resection	44 (43.1)	28 (31.8)	63 (33.8)	
Subtotal colectomy	2 (2)	7 (8)	7 (3.7)	
Hartmann procedure	0	3 (3.4)	3 (1.6)	
Colostomy				
No	88 (86.3)	73 (83)	168 (89.8)	0.262 <sup>b</sup>
Yes	14 (13.7)	15 (17)	19 (10.2)	
T				
T1	0	0	2 (1.1)	
T2	0	0	6 (3.2)	
T3	96 (94.1)	10 (11.4)	50 (26.7)	
T4	6 (5.9)	78 (88.6)	129 (69)	
N				
N0	102 (100)	88 (100)	0	
N1	0	0	123 (65.8)	
N2	0	0	64 (34.2)	
Morphology				
Expanding	3 (2.9)	3 (3.4)	2 (1.1)	0.109 <sup>c</sup>
Infiltrative	76 (74.5)	68 (77.3)	160 (85.6)	
Expanding + Infiltrative	23 (22.5)	17 (19.3)	25 (13.4)	

Table 2

Tumor volume				
≤ 30 cm <sup>3</sup>	64 (62.7)	55 (62.5)	104 (55.6)	0.383 <sup>b</sup>
> 30 cm <sup>3</sup>	38 (37.3)	33 (37.5)	83 (44.4)	
Grade				
Low	102 (100)	75 (85.2)	169 (90.4)	
High	0	13 (14.8)	18 (9.6)	
Tumor necrosis				
None	1 (1)	2 (2.3)	5 (2.7)	0.767 <sup>c</sup>
Massive	39 (38.2)	31 (35.2)	77 (41.2)	
Intraluminal	62 (60.8)	55 (62.5)	105 (56.1)	
Lymphatic invasion				
No	13 (12.7)	0	13 (7.0)	<0.001 <sup>a</sup>
Yes	89 (87.3)	88 (100)	174 (93.0)	
Vascular invasion				
No	37 (36.3)	17 (19.3)	26 (13.9)	<0.001 <sup>b</sup>
Yes	65 (63.7)	71 (80.7)	161 (86.1)	
Plexus invasion				
No	32 (31.4)	15 (17)	47 (25.1)	0.043 <sup>b</sup>
Yes	70 (68.6)	73 (83)	140 (74.9)	
Perineural invasion				
No	21 (20.6)	2 (2.3)	15 (8.0)	<0.001 <sup>b</sup>
Yes	81 (79.4)	86 (97.7)	172 (92.0)	
CLR <sup>a</sup>				
No	36 (35.3)	33 (37.5)	110 (58.8)	<0.001 <sup>b</sup>
Yes	66 (64.7)	55 (62.5)	77 (41.2)	
Harvested lymph nodes <sup>a</sup>	28.5 (18.7-36.2)	33 (18.5-42.7)	28 (20-39)	0.407 <sup>d</sup>
Metastatic lymph nodes <sup>a</sup>			2 (1-5)	
Harvested/metastatic lymph node ratio <sup>a</sup>			0.08 (0.04-0.19)	
Microsatellite instability				
Instable	84 (91.3)	68 (82.9)	141 (86.5)	0.255 <sup>b</sup>
Stable	8 (8.7)	14 (17.1)	22 (13.5)	
Margin (positive or <5 cm)				
No	102 (100)	86 (97.7)	182 (97.3)	0.280 <sup>c</sup>
Yes	0	2 (2.3)	5 (2.7)	
Preoperative CEA level <sup>a</sup>	2.31 (1.72-4.63)	2.82 (2-5.83)	4.11 (2.15-14.2)	0.001 <sup>d</sup>
Preoperative CA-19.9 level <sup>a</sup>	12.3 (5.6-20.9)	9.53 (6.2-20.6)	12.9 (7.42-29.4)	0.303 <sup>d</sup>
30-day mortality				
No	99 (97.1)	81 (92)	180 (96.3)	0.251 <sup>c</sup>
Yes	3 (2.9)	7 (8)	7 (3.7)	
90-day mortality				
No	98 (96.1)	77 (87.5)	178 (95.2)	0.026 <sup>b</sup>
Yes	4 (3.9)	11 (12.5)	9 (4.8)	

<sup>a</sup>Median (25<sup>th</sup>-75<sup>th</sup> percentile), <sup>b</sup>Pearson Chi-Square Test, <sup>c</sup>Fisher Exact test, <sup>d</sup>Kruskal Wallis Test, CLR: Peritumoral Crohn's-like lymphoid reaction, HRF: high risk factors, CEA: carcinoembryonic antigen, CA: carbohydrate antigen

**SB-056****Comparative Analysis of Hand-Sewn Versus 2- and 3-Stapled Colorectal Anastomosis During Laparoscopic Anterior Resection For Rectal Cancer**

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**Objective:** To evaluate the outcomes of laparoscopic anterior resection with hand-sewn, 2-stapled and 3-stapled anastomosis.

**Materials-Methods:** We included in our retrospective study patients with rectal cancer who underwent laparoscopic anterior resection with hand-sewn, 2- or 3-stapled anastomosis at N.N. Blokhin Russian Cancer Research Center from 2019 to 2021. Inclusion criteria were age 18 or older, a written informed consent. Exclusion criteria were synchronous and metachronous cancers, HIV, ECOG>2. The primary endpoint was anastomotic leakage rate.

**Results:** There were 103 patients in our study: 31 patients in the handsewn anastomosis group, 45 - in the 2-stapled anastomosis group, 27 - in the 3-stapled anastomosis group. There were no statistically significant differences in sex, age, BMI, ASA, disease stage, tumor location, neoadjuvant therapy. There were statistically significant differences in anastomotic leakage rate between handsewn group (6.5%, 2/31 patients) and 2-stapled group (22.2%, 10/45 patients),  $p=0.064$ . Also there were statistically significant differences between 2-stapled (22.2%, 10/45 patients) and 3-stapled (3.7%, 1/27 patient) groups,  $p=0.034$ . There were no statistically significant differences between the hand-sewn anastomosis and the 3-stapled anastomosis group,  $p=0.637$ .

**Conclusion:** Our analysis demonstrated that 3-stapled colorectal anastomosis may be associated with lower anastomotic leakage rate compared to 2-stapled anastomosis.

**Keywords:** low anterior resection, anastomosis

**SB-057****Neoadjuvant Chemotherapy Without Radiotherapy in Intermediate-Risk Rectal Cancer Patients: A Propensity-Score Matched Analysis**

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**Objective:** to compare long-term outcomes of neoadjuvant chemotherapy (NACT) and short-course preoperative radiotherapy (SCPRT) in intermediate-risk rectal cancer patients.

**Materials-Methods:** 109 patients with circumferential resection margin (CRM) negative cT2-T3cN1-2M0 middle (5-10 cm from anal verge) rectal cancer and cT2-4aN1-2M0/cT4aN0M0 upper (10-13 cm from anal verge) rectal cancer who received 4 cycles of XELOX chemotherapy and surgery were matched by sex, age, ASA score and clinical tumor location to 109 patients who received SCPRT and delayed surgery using propensity-score matching. The study endpoints included 5-year disease-free survival (DFS), 5-year overall survival (OS), pathologic complete response (pCR), toxicity, surgical morbidity, local recurrence rate, distant failure rate, chemotherapy completion rate.

**Results:** 109 patients were included in each group after propensity score matching. 104 (95.4%) patients in the NACT group completed 4 cycles of chemotherapy. In 6 (5.5%) patients primary tumor increased in size >20% after NACT and they were referred for chemoradiotherapy (CRT). 1 (0.9%) patient died of myocardial infarction during NACT. Seven (6.4%) patients in the NACT group and 4 (3.7%) patients in the control group experienced grade 3-5 toxicities ( $p=0.538$ ). pCR after NACT without CRT was observed in 11 (10.1%) cases. The median follow-up was 60,2 months. 14 (12.8%) patients in the NACT group and 20 (18.3%) patients in the control group developed distant metastases ( $p=0.607$ ), 1 (0.9%) patient in the NACT group and 2 (1.8%) patients in the control group developed local recurrences ( $p=0.5$ ). 5-year OS was 82.5% and 88% ( $p=0.119$ ) and the 5-year DFS was 75% and 78.7% ( $p=0.317$ ), accordingly.

**Conclusion:** NACT leads to comparable outcomes as SCPRT in selected rectal cancer patients. NACT is safe and may be a treatment option for intermediate risk middle and upper rectal cancer patients.

**Keywords:** neoadjuvant chemotherapy, radiotherapy

**SB-058****Results of Abdominoperineal Excision for Locally Advanced Anorectal Melanoma: A Retrospective Multi-Institutional Registry Analysis**

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**Objective:** to investigate long-term outcomes of anorectal melanoma depending on type of surgery.

**Materials-Methods:** This study was based on a retrospective analysis of the Russian Colorectal Cancer Society anorectal melanoma registry during 2000-2022. Patients with stage IIB (tumor invasion > 4 mm, no positive regional lymph nodes) and stage III (positive regional lymph nodes present) were included (based on staging system by Stefanou A. et al.). Main outcome measure was 5-year overall survival (OS). Secondary endpoints included 5-year disease-free survival (DFS), local and distant failure rates.

**Results:** 46 patients were included in the analysis: 13 (28.3%) underwent a wide local excision and 33 (71.7%) underwent an abdominoperineal excision. 12/22 (54.5%) patients with a stage IIB disease and only 1/24 (4.2%) patients with a stage III disease had a wide local excision. After a median follow-up of 69.6 months, the 5-year OS was 9.1% in the wide local excision arm and 42% in the abdominoperineal excision arm ( $p=0.490$ ), 5-year DFS was 8.1% in the wide local excision arm and 31.2% in the abdominoperineal excision arm ( $p=0.384$ ). 8 (61.5%) patients in the wide local excision arm and 13 (39.4%) patients in the abdominoperineal excision arm developed local recurrences ( $p=0.205$ ), 9 (69.2%) and 20 (60.6%) developed distant metastases ( $p=0.739$ ) accordingly. There was a trend towards better survival in patients with a stage III disease (5-year OS 44.7% vs 13.6%,  $p=0.107$ ; 5-year DFS 37% vs 6.4%,  $p=0.067$ ).

**Conclusion:** The abdominoperineal excision seems to be the only potentially curative option for patients with positive regional lymph nodes and leads to long-term survival in a significant number of patients.

**Keywords:** anorectal melanoma, abdominoperineal excision

## SB-060

### Impact of Tumor Location on Clinical Outcomes and Survival in Colorectal Cancer Patients

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**Objective:** This study aimed to assess the impact of tumor location on clinical outcomes, including inflammatory markers, tumor staging, and survival rates in colorectal cancer (CRC) patients.

**Methods:** A total of 605 patients with colorectal cancer, comprising 371 males (61.3%) and 234 females (38.7%), were retrospectively analyzed. Tumor locations were categorized as right-sided (cecum, ascending colon, and hepatic flexure) and left-sided (descending colon, sigmoid colon, and rectosigmoid colon). Clinical parameters such as neutrophil count, lymphocyte count, carcinoembryonic antigen (CEA), neutrophil-to-lymphocyte ratio (NLR), and neutrophil-to-platelet ratio (NPR) were evaluated in relation to tumor location. Survival outcomes were analyzed using the Kaplan-Meier method, and statistical comparisons were made using the Log-rank test.

**Results:** Neutrophil, lymphocyte, CEA, NLR, and NPR levels were similar between right- and left-sided tumors ( $p>0.05$ ). However, platelet count and C-reactive protein (CRP) levels were lower in left-sided tumors, while CEA levels were higher in right-sided tumors ( $p<0.05$ ). No significant differences in T stage or overall tumor staging were found ( $p>0.05$ ), but left-sided tumors had a higher frequency of N1a stage ( $p<0.05$ ). The overall 1-year, 3-year, and 5-year survival rates were 93.9%, 66.1%, and 30.9%, respectively, with no significant

differences between right- and left-sided tumors ( $p>0.05$ ).

**Conclusion:** While some differences in inflammatory markers and CEA levels were observed between right- and left-sided tumors, these did not translate into significant differences in survival outcomes. Tumor location may influence certain clinical parameters, but it appears to have limited impact on long-term survival in CRC patients.

**Keywords:** colorectal cancer, tumor location

## SB-061

### Prognostic Value of Immune Scoring System for Colorectal Cancer Patients with Peritoneal Metastasis

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**Objective:** There is no reliable immune scoring system that can help us predict the postoperative outcomes of colorectal cancer patients with peritoneal metastases after cytoreductive surgery. In this cohort, the aims were (1) to evaluate the postoperative morbidity, mortality and surgical oncological outcomes in colorectal cancer patients with peritoneal metastasis; (2) to compare oncological and postoperative outcomes of colon cancer patients with peritoneal metastasis and rectal cancer patients with peritoneal metastasis; and (3) to assess the prognostic value of the modified Glasgow Prognostic Score (mGPS) and the CRP-albumin ratio (CAR).

**Materials-Methods:** A prospectively maintained database of 258 patients who underwent cytoreductive surgery for peritoneal metastases of colorectal origin between 2007 and 2024 was analyzed. According to the anatomical location of the primary tumor, two different groups were created: rectum cancer patients with peritoneal metastasis (Group A) and colon cancer patients with peritoneal metastasis (Group B). All standard clinico-pathological characteristics, operative findings, morbi-mortality results, and final oncologic outcomes were compared between Groups A and B. We evaluated whether CAR and mGPS could predict postoperative morbi-mortality and overall survival in the two groups or not.

**Results:** No significant difference was detected between Groups A and B in terms of clinical-demographic characteristics. In both groups, the preoperative mGPS and CAR values were statistically significantly higher in those who developed postoperative high-grade complications (C-D grade III/IV) ( $p < 0.001$ ) and those who died perioperatively ( $p = 0.001$  and  $p = 0.002$ ).

**Conclusion:** In multivariate Cox analysis, the CAR was found to be an independent prognostic factor for overall survival in this cohort. CAR and mGPS predicted high-grade complications and postoperative mortality in both groups.

**Keywords:** CAR; colorectal cancer; immunoscore; mGPS; peritoneal metastases



## SB-062

# Short-Term Outcomes of Left Hemicolectomy Versus Subtotal Colectomy For Splenic Flexure Cancer: An Analysis from the Turkish Society of Colon and Rectal Surgery's (TSCRS) Colorectal Cancer Database

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**Objective:** The superiority of surgical options for splenic flexure cancer (SF) remains debated. The aim of this study was to evaluate surgical approaches for SF tumors and compare their short-term outcomes using the TSCRS's colorectal cancer database.

**Materials-Methods:** The TSCRS's database identified a total of 1,154 patients who underwent surgery for colon cancer between January 2017 and December 2024. Among these, 57 (5%) patients were identified with SF cancer. Of these 57 patients, 30 (53%) underwent left hemicolectomy (LH), 24 (42%) underwent subtotal colectomy (SC) and 3 (5%) underwent extended right colectomy. Due to insufficient data, the 3 patients who underwent extended right hemicolectomy were excluded. Preoperative clinical data, perioperative 30-day morbidity and pathology results were compared between the LH and SC groups.

**Results:** There were no significant differences in the preoperative data between the groups, except for ASA scores. The LH group had significantly higher rates of minimally invasive surgery (63% vs 33%,  $p=0.03$ ), extracorporeal anastomosis (84% vs. 0%,  $p=0.00007$ ) and midline incision for specimen extraction (68% vs 0%,  $p=0.002$ ). The SC group had significantly longer operative times ( $167\pm60$  vs  $257\pm112$  min) and greater intraoperative blood loss ( $98\pm55$  vs  $202\pm158$  mL) ( $p<0.05$ ). Intraoperative complications (3% vs 4%) and conversion rates (5.2% vs 37.5%) were similar. Postoperative data revealed no significant differences in length of stay ( $9\pm7$  vs.  $10\pm6$  days), anastomotic leak (13% vs 17%), surgical site infections, prolonged ileus (10% vs. 12.5%), reoperation rates (17% vs 13%) and mortality (3.3% vs 4.2%). Pathological analysis showed higher number of harvested lymph nodes in the SC group ( $25\pm14$  vs  $56\pm29$ ,  $p=0.00003$ ) while the ratio of metastatic lymph nodes did not differ significantly (Table 1).

**Conclusion:** In Turkey, LH and SC are the most commonly performed procedures for SF cancer. Both options have comparable short-term morbidity and surgical oncological outcomes.

**Keywords:** Splenic flexure cancer, surgery

Table 1

	Left hemicolectomy (n = 30)	Subtotal colectomy (n = 24)	P value
Age, years, mean $\pm$ SD	66 $\pm$ 10,3	62,7 $\pm$ 11,9	0.29
Gender, male / female, n (%)	18 (60,0) / 12 (40,0)	18 (75,0) / 6 (25,0)	0.38
BMI, kg/m <sup>2</sup> , mean $\pm$ SD	26,6 $\pm$ 4,0	26,1 $\pm$ 4,6	0.73
ASA score, n (%)			0.035
1	2 (6,67)	8 (33,3)	
2	22 (73,3)	13 (54,2)	
3	6 (20,0)	3 (12,5)	
T stage, n (%)			0.72
stage 1 ve 2	6 (20,0)	3 (12,5)	
stage 3 ve 4	24 (80,0)	21 (87,5)	
TNM stage, n (%)			0.26
stage 1 ve 2	17 (56,7)	9 (37,5)	
stage 3 ve 4	13 (43,3)	15 (62,5)	
Operative approach, n (%)			0.055
open	11 (36,7)	16 (66,7)	
minimally invasive	19 (63,3)	8 (33,3)	
Anastomotic approach, n (%)			0.00007
intracorporeal	3 (15,8)	8 (100)	
extracorporeal	16 (84,2)	0 (0)	
Stoma, n (%)	4 (13,3)	3 (12,5)	0.43
Intraoperative complications, n (%)	1 (3,3)	1 (4,2)	>0.99
Conversion to open surgery, n (%)	1 (5,3)	3 (37,5)	0.07
Operative time (minutes), mean $\pm$ SD	166,7 $\pm$ 59,9	257,3 $\pm$ 112,3	0.001
Estimated blood loss (mL), mean $\pm$ SD	98,2 $\pm$ 54,7	201,9 $\pm$ 158,1	0.005
Perioperative blood transfusion (units), mean $\pm$ SD	0,6 $\pm$ 1,1	1,1 $\pm$ 2,7	0.44
Anastomotic leak, n (%)	4 (13,3)	4 (16,7)	>0.99
Superficial surgical site infection, n (%)	2 (6,7)	2 (8,3)	>0.99
Deep surgical site infection, n (%)	1 (3,3)	4 (16,7)	0.16
Organ-space surgical site infection, n (%)	3 (10,0)	3 (12,5)	>0.99
Evisceration, n (%)	1 (3,3)	1 (4,2)	>0.99
Prolonged ileus, n (%)	3 (10,0)	3 (12,5)	>0.99
Non-surgical complications, n (%)	1 (3,3)	2 (8,3)	0.58
Reoperation, n (%)	5 (16,7)	3 (12,5)	0.72
Postoperative intervention, n (%)	1 (3,3)	2 (8,3)	0.58
Length of hospital stay (days), mean $\pm$ SD	9,3 $\pm$ 7,2	10,1 $\pm$ 6,3	0.66
Mortality, n (%)	1 (3,3)	1 (4,2)	>0.99
Number of lymph nodes harvested			0.00003
mean $\pm$ SD	24,9 $\pm$ 13,9	55,9 $\pm$ 28,5	
median (range)	20 (12-70)	50,5 (15-143)	
Ratio of metastatic lymph nodes, %			0.44
mean $\pm$ SD	8,7 $\pm$ 18,6	5,6 $\pm$ 9,8	
median (range)	0 (0 - 92,9)	1,8 (0 - 43,6)	
Circumferential resection margin positivity, n (%)	0 (0)	2 (8,3)	0.19

*Comparison of preoperative, intraoperative, and 30-day postoperative outcomes of left hemicolectomy versus subtotal colectomy for the surgical treatment of splenic flexure cancer*



**SB-063****The Therapeutic Potential of Ketogenic Dietary Product Beta-hydroxybutyrate in an Experimental Peritoneal Metastases Model**

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**Objective:** Hyperthermic intraperitoneal chemotherapy (HIPEC) prolongs survival in patients with colorectal cancer-induced peritoneal metastases (CRC-PM); however, novel therapeutic approaches are still needed. Beta-hydroxybutyrate (BHB), a ketogenic diet product, has been experimentally shown to have anti-tumoral effects in CRC. This study investigated the therapeutic efficacy of BHB with and without Mitomycin-C (MMC) in a PK model representing advanced CRC in nude mice. Additionally, the study examines BHB's effects on cell cycle regulation, tumor-suppressive and apoptosis-inducing molecules, and the HCAR2-HOPX signaling pathway.

**Materials-Methods:** CRC-PM model was established in nude mice using CC531 rat-derived colorectal adenocarcinoma cells. Mice were randomized into four groups (n=7) and administered 500 mg/kg BHB IP for 15 days. The synergistic effects of BHB and MMC in HIPEC treatment, along with their potential anti-tumoral properties, were assessed through RT-PCR analysis of HCAR2, HOPX, p21, PKM2, and caspase-3 gene expression levels in tumor tissues. Immunohistochemical analysis was also performed to evaluate HOPX, PKM2, and caspase-3 protein expression levels in intestinal and peritoneal tissues.

**Results:** BHB treatment significantly increased HOPX and caspase-3 expression at both gene and protein levels, reduced intestinal PKM2 expression at the protein level, and increased HCAR2 and p21 expression at the gene level compared to the control group. Although BHB alone reduced the peritoneal carcinomatosis index (PCI) and intestinal and peritoneal regression scores, these reductions were not statistically significant. In contrast, the PCI significantly decreased in the MMC, and combination groups compared to the control group. Overall, the combination of MMC and BHB did not show a synergistic effect in CRC-PM, and the observed effects determined in the combination results were largely dependent on MMC.

**Conclusion:** These findings suggest that BHB may influence tumor metabolism, cell cycle, and apoptosis-related molecules, such as HCAR2, HOPX, p21, PKM2, and caspase-3, in CRC-PM treatment.

**Keywords:** Colorectal cancer, beta hydroxybutyrate

**SB-064****Retrospective Examination of the Correlation Between Tissue Necrosis and Systemic Immune Inflammation Index in Patients Operated Due to Mesenteric Ischemia**

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Nurettin Baturalp Topbaş  
Ankara Etlik Şehir Hastanesi

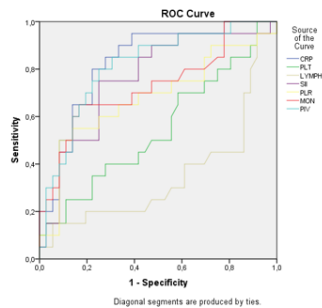
**Objective:** Acute mesenteric ischemia (AMI) is a life-threatening condition characterized by rapid progression to intestinal necrosis and sepsis. Early diagnosis is crucial for prognosis, yet conventional markers are often nonspecific. The systemic immune-inflammation index (SII), calculated as neutrophils × platelets / lymphocytes, has emerged as a potential prognostic marker in inflammatory diseases. This study aims to investigate the correlation between SII and tissue necrosis in patients undergoing surgery for mesenteric ischemia.

**Case:** A retrospective cohort study was conducted on 56 patients, 28 with mesenteric ischemia and 28 without. SII levels were significantly elevated in the mesenteric ischemia group (5712 vs. 2136,  $P < 0.05$ ). Additionally, CRP and Platelet Index Value (PIV) were notably higher, demonstrating strong diagnostic utility with Area Under the Curve (AUC) values of 0.833 and 0.813, respectively. Receiver operating characteristic (ROC) curve analysis revealed SII's good diagnostic performance (AUC = 0.760). Age was significantly higher in non-survivors (80.07 vs. 60.20 years,  $P < 0.05$ ), and elevated lymphocyte levels were linked to increased mortality. Other inflammatory markers, including PLR and MON, showed moderate predictive power, while WBC, NEU, and NLR did not differ significantly between groups.

**Conclusion:** This study highlights the potential of SII as a rapid, cost-effective, and reliable biomarker for diagnosing and predicting the severity of mesenteric ischemia. Elevated SII levels correlated with increased tissue necrosis, suggesting its utility in risk stratification and management strategies. The findings align with similar studies in other ischemic conditions, supporting SII's role in assessing inflammation and immune response.

**Keywords:** Mesenteric ischemia, Systemic Immune Inflammation Index

### ROC Curve Analysis of Laboratory Values and Their Sensitivity-Specificity in Mesenteric Ischemia Group



Area Under the Curve	
Test Result Variable(s)	Area
CRP	,833
PLT	,546
LYMPH	,347
SII	,760
PLR	,681
MON	,730
PIV	,813

CRP: Area Under the Curve (AUC) = 0.833 (excellent diagnostic performance). SII: AUC = 0.760 (good diagnostic performance). PIV: AUC = 0.813 (strong diagnostic utility). Other markers, such as PLR (AUC = 0.681) and MON (AUC = 0.730), exhibited moderate predictive power.

### Laboratory Values in Mesenteric Ischemia vs No Ischemia Group

	MESENTERIC ISCHEMIA (N=)	NO ISCHEMIA (N=)	SiG
CRP	156,7	39,4	,007
WBC	16,6	10,7	,007
NEU	14,3	8,4	,897
PLT	298,4	240,6	,036
LYMPH	1,91	1,64	,045
SII	5712	2136	,028
PIV	6904	1819	,045
PLR	340,9	198,4	,049
MON	1,03	0,69	,019

Patients with mesenteric ischemia had significantly higher CRP levels (156.7 vs. 39.4,  $P < 0,05$ ). Also, elevated platelet counts were observed in the mesenteric ischemia group (298.4 vs. 240.6,  $P < 0,05$ ). A slight but significant increase in lymphocyte count was noted (1.91 vs. 1.64,  $P < 0,05$ ). SII was markedly elevated in the ischemia group (5712 vs. 2136,  $P < 0,05$ ).  $SII = P \times N/L$  where P, N and L are the cell counts per liter of peripheral blood for platelets, neutrophils and lymphocytes. [8] Hence, Platelet-to-Lymphocyte Ratio (PLR) significantly higher in patients with ischemia (340.9 vs. 198.4,  $P < 0,05$ ). Monocyte Count (MON) levels were elevated in the ischemia group (1.03 vs. 0.69,  $P < 0,05$ ). Platelet Index Value (PIV) showed a significant increase in mesenteric ischemia cases (6904 vs. 1819,  $P < 0,05$ ).

### SB-065

### The Role of Apocynin in Preventing Intestinal Ischemia-Reperfusion Injury in Rats

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**Objective:** Apocynin (APO) is a naturally occurring acetophenone with antioxidant properties, found in Apocynum cannabinum and Picrorhiza kurroa roots. It inhibits NADPH oxidase, a key enzyme responsible for reactive oxygen species (ROS) production during reperfusion, thereby potentially mitigating ischemia-reperfusion (I-R) injury. While apocynin has demonstrated protective effects in various organs, its role in mesenteric ischemia remains unclear. This study investigates the impact of apocynin on experimental intestinal I-R injury in rats.

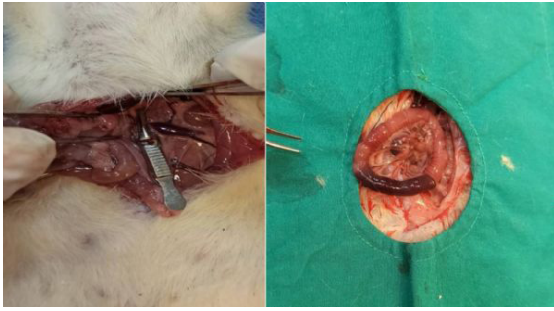
**Materials-Methods:** A total of 32 Wistar Albino rats were divided into four groups (n=8): Sham, I-R, APO, and APO+I-R. The I-R group underwent 60 minutes of ischemia followed by 60 minutes of reperfusion. In the APO+I-R group, apocynin (30 mg/kg, oral) was administered post-ischemia. Blood samples and intestinal tissue were collected for biochemical, molecular, and histopathological analyses. Key oxidative stress markers, including catalase, glutathione peroxidase (GPX-1), superoxide dismutase (SOD), myeloperoxidase (MPO), monoamine oxidase (MAO-A), total antioxidant status (TAS), total oxidant status (TOS), lactate dehydrogenase (LDH), and uric acid, were measured. Tissue samples were histologically examined and scored using Chiu's grading system.

**Results:** Biochemical analysis revealed significant differences in MPO ( $p=0.012$ ), TOS ( $p=0.017$ ), and LDH ( $p=0.004$ ) levels between groups. Post hoc analysis showed that apocynin administration significantly reduced oxidative stress markers compared to the I-R group. Histopathological evaluation demonstrated severe villus damage, epithelial detachment, and inflammatory cell infiltration in the I-R group. In contrast, the APO+I-R group exhibited reduced mucosal injury and inflammation, with preserved intestinal architecture. Chiu's scoring confirmed a significant reduction in injury severity in the APO+I-R group compared to the I-R group ( $p < 0.05$ ).

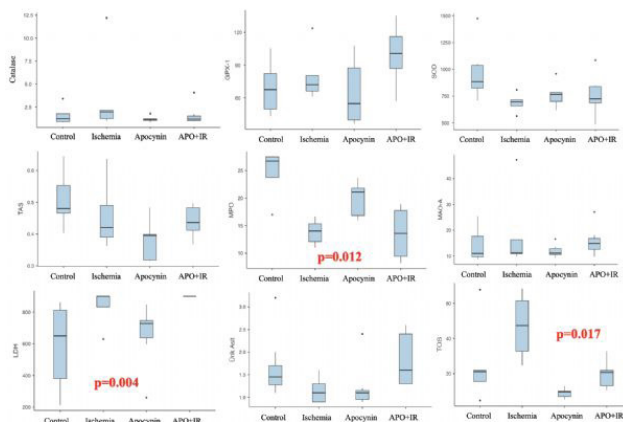
**Conclusion:** Apocynin administration mitigates intestinal I-R injury by reducing oxidative stress and preserving mucosal integrity, suggesting its potential therapeutic role in mesenteric ischemia.

**Keywords:** Apocynin, Intestinal Ischemia

**Figure 1: Superior mesenteric artery clamping and intestinal ischemia**



**Figure 2: Box-plot diagram of oxidative stress markers**



**Materials-Methods:** Wistar Albino rats were randomly assigned to four experimental groups: Sham, Ischemia-Reperfusion (I-R), PRP, and I-R + PRP. The I-R model was established by clamping the superior mesenteric artery (SMA) for 45 minutes, followed by 120 minutes of reperfusion (**Figure 1**). In the PRP and I-R + PRP groups, 0.3 mL of PRP was administered intra-arterially prior to reperfusion. At the end of the experiment, whole blood samples were analyzed for white blood cell (WBC) count, neutrophil count, hemoglobin (Hb), hematocrit (Htc), and lactate dehydrogenase (LDH) levels. Plasma samples were assessed for oxidative stress and antioxidant markers, including superoxide dismutase (SOD), myeloperoxidase (MPO), malondialdehyde (MDA), total antioxidant status (TAS), total oxidant status (TOS), and oxidative stress index (OSI). Histological examination of intestinal tissue was performed using Chiu's grading system to assess mucosal injury.

**Results:** Each group consisted of eight rats. Post hoc analysis demonstrated a reduction in neutrophil count, OSI, and MDA levels in the I-R + PRP group compared to the I-R group, without statistical significance (**Figure 2**). Histopathological evaluation showed better preservation of mucosal integrity in the PRP-treated group; however, PRP did not result in a statistically significant improvement in I-R-induced tissue damage.

**Conclusion:** Despite the beneficial effects of PRP on tissue healing, oxidative stress, and the inflammatory response, its efficacy in attenuating acute intestinal I-R injury could not be demonstrated.

**Keywords:** PRP, mesenteric ischemia

## SB-067

### A Preclinical Investigation of Platelet-Rich Plasma in a Rat Model of Intestinal Ischemia-Reperfusion Injury

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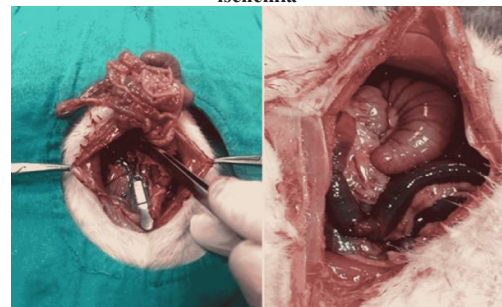
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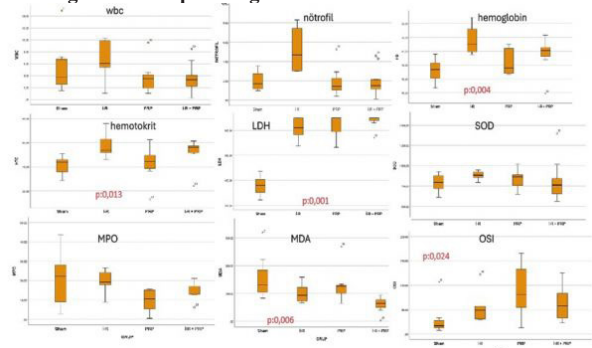
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**Objective:** Platelet-rich plasma (PRP) is a biological product enriched with growth factors and immunomodulatory components that promote tissue regeneration and modulate inflammation. These properties suggest a potential role for PRP in mitigating ischemia-reperfusion (I-R) injury. However, limited scientific evidence exists regarding its effectiveness in preventing intestinal I-R injury. This study aimed to evaluate the biochemical, histological, and immunohistochemical effects of PRP in a rat model of intestinal I-R injury.

**Figure 1: Superior mesenteric artery clamping and intestinal ischemia**



**Figure 2: Box-plot diagram of oxidative stress markers**





## SB-079

## Publication Rates of General Surgery Specialization Theses: A Comparative Analysis of Colorectal Surgery and Other Subspecialties

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**Objective:** In Türkiye, general surgery residents must complete a specialization thesis; however, publication is not mandatory. Despite this, publishing theses enhances academic impact and career advancement. The Turkish Society of Colon and Rectal Surgery (TSCRS) organizes one of the largest national surgical congresses rather than other organ-specific societies, emphasizing the significance of research. Additionally, TSCRS members serving as thesis advisors may influence the likelihood of publication. This study evaluates the publication rates of general surgery specialization theses, comparing those in colorectal surgery with other subspecialties.

**Materials-Methods:** This retrospective study analyzed general surgery specialization theses submitted between 2018 and 2023, retrieved from the Council of Higher Education Thesis Center. Collected data included author details, submission year, institution, region, study design, study type, and the academic rank of the thesis advisor. The primary outcome was the publication rate, comparing colorectal surgery theses with those from other subspecialties.

**Results:** Among 775 theses, the overall publication rate was 20.5% ( $n=159$ ), with significant variation by year ( $p<0.001$ ) (Table 1). Colorectal surgery theses ( $n=159$ ) had a publication rate of 16.4%, compared to 21.6% for other subspecialties ( $p=0.14$ ). Major cities, particularly Istanbul and Ankara, had the highest publication rates for colorectal surgery theses (33% and 18%, respectively;  $p=0.44$ ). Retrospective and experimental studies in colorectal surgery were more frequently published than prospective and clinical studies ( $p=0.047$  and  $p=0.035$ , respectively). There were no significant differences between groups in terms of journal indexing or quartile ranking ( $p=0.23$  and  $p=0.83$ , respectively) (Table 2).

**Conclusion:** The overall publication rate of general surgery specialization theses remains low. Although colorectal surgery theses had a slightly lower but statistically insignificant publication rate, study design and submission year were significant factors influencing publication. These findings underscore the need for enhanced research dissemination strategies to improve publication outcomes.

**Keywords:** General surgery theses, publication rate

Table 1: Comparison of publication rates of general surgery specialization theses

	Unpublished (n=616)	Published (n=159)	p-value
<b>Author sex</b>			
Male	511 (83%)	142 (89.3)	0.05
Female	105 (17%)	17 (10.7)	
<b>Year</b>			
2018	78 (12.7%)	14 (8.8%)	<0.001
2019	56 (9.1%)	31 (19.5%)	
2020	87 (14.1%)	29 (18.2%)	
2021	99 (16.1%)	40 (25.2%)	
2022	128 (20.8%)	32 (20.1%)	
2023	168 (27.3%)	13 (8.2%)	
<b>Hospital</b>			
University	330 (53.6%)	80 (50.3%)	0.50
Teaching and Research	276 (44.8%)	78 (49.1%)	
Foundation University	10 (1.6%)	1 (0.6%)	
<b>City</b>			
Istanbul	177 (28.7%)	53 (33.3%)	0.44
Ankara	128 (20.8%)	29 (18.2%)	
Izmir	41 (6.7%)	14 (8.8%)	
Other	270 (43.2%)	63 (39.6%)	
<b>Region</b>			
Marmara	230 (37.3%)	58 (36.5%)	0.28
Aegean	59 (9.6%)	19 (11.9%)	
Central Anatolia	182 (29.5%)	42 (26.4%)	
Black Sea	27 (4.4%)	11 (6.9%)	
Mediterranean	57 (9.3%)	14 (8.8%)	
Eastern Anatolia	49 (8%)	8 (5%)	
Southeastern Anatolia	12 (1.9%)	7 (4.4%)	
<b>Advisor title</b>			
Professor	278 (45.1%)	72 (45.3%)	0.25
Associate Professor	235 (38.1%)	70 (44%)	
Assistant Professor	66 (10.7%)	11 (6.9%)	
Specialist	37 (6%)	6 (3.8%)	
<b>Study design</b>			
Retrospective	296 (48.1%)	88 (55.3%)	0.10
Prospective	320 (51.9%)	71 (44.7%)	
<b>Study type</b>			
Clinical	478 (77.6%)	123 (77.4%)	0.94
Experimental	138 (22.4%)	36 (22.6%)	
<b>Subspecialty</b>			
Upper GI	66 (10.7%)	11 (6.9%)	0.12
Bariatric	44 (7.1%)	20 (12.6%)	
HPB	107 (17.4%)	35 (22%)	
Endocrine	75 (12.2%)	19 (11.9%)	
Breast	76 (12.3%)	28 (17.6%)	
Emergency	46 (7.5%)	9 (5.7%)	
Hernia	4 (0.6%)	0 (0%)	
Transplantation	16 (2.6%)	4 (2.5%)	
CRS	2 (0.3%)	1 (0.6%)	
Burn	18 (2.9%)	3 (1.9%)	
Trauma	5 (0.8%)	2 (1.3%)	
Epidemiology	2 (0.3%)	0 (0%)	
Other/Mix	22 (3.6%)	1 (0.6%)	
Colorectal	133 (21.6%)	26 (16.4%)	
<b>Subspecialty-group</b>			
Colorectal	133 (83.6%)	26 (16.4%)	0.14
Other	483 (78.4%)	133 (21.6%)	

GI: Gastrointestinal, HPB: Hepatopancreatobiliary, CRS: Cyto-reductive surgery

**Table**  
**2: Comparison of thesis publication rates in colorectal surgery and other general surgery subspecialties**

	Other (n=133)	Colorectal (n=26)	p-value
<b>Author sex</b>			
Male	119 (89.5%)	23 (88.5%)	1.00
Female	14 (14%)	3 (11.5%)	
<b>Year</b>			
2018	13 (9.8%)	1 (3.8%)	
2019	27 (20.3%)	4 (15.4%)	
2020	25 (18.8%)	4 (15.4%)	0.12
2021	35 (26.3%)	5 (19.2%)	
2022	26 (19.5%)	6 (23.1%)	
2023	7 (5.3%)	6 (23.1%)	
<b>Hospital</b>			
University	70 (52.6%)	10 (38.5%)	
Teaching and Research	62 (46.6%)	16 (61.5%)	0.33
Foundation University	1 (0.8%)	0 (0%)	
<b>City</b>			
Istanbul	45 (33.8%)	8 (30.8%)	
Ankara	19 (14.3%)	10 (38.5%)	0.043
Izmir	13 (9.8%)	1 (3.8%)	
Other	56 (42.1%)	7 (26.9%)	
<b>Region</b>			
Marmara	49 (36.8%)	9 (34.6%)	
Aegean	16 (12%)	3 (11.5%)	0.09
Central Anatolia	29 (21.8%)	13 (50%)	
Black Sea	11 (8.3%)	0 (0%)	
Mediterranean	13 (9.8%)	1 (3.8%)	
Eastern Anatolia	8 (6%)	0 (0%)	
Southeastern Anatolia	7 (5.3%)	0 (0%)	
<b>Advisor title</b>			
Professor	61 (45.9%)	11 (42.3%)	
Associate Professor	58 (43.6%)	12 (46.2%)	0.95
Asistant Professor	9 (6.8%)	2 (7.7%)	
Specialist	5 (3.8%)	1 (3.8%)	
<b>Study design</b>			
Retrospective	69 (51.9%)	19 (73.1%)	0.047
Prospective	64 (48.1%)	7 (26.9%)	
<b>Study type</b>			
Clinical	107 (80.5%)	16 (61.5%)	0.035
Experimental	26 (19.5%)	10 (38.5%)	
<b>Index</b>			
SCI-e	109 (82%)	22 (84.6%)	
ESCI	17 (12.8%)	1 (3.8%)	0.23
TR-Other	7 (5.3%)	3 (11.5%)	
<b>Quartile Ranking</b>			
Q1	16 (12.8%)	2 (8.7%)	
Q2	33 (26.4%)	5 (21.7%)	0.83
Q3	33 (26.4%)	6 (26.1%)	
Q4	43 (34.4%)	10 (43.5%)	

SCI-e: Science Citation Index Expanded (SCIE), ESCI: Emerging Sources Citation Index, TR: Turkish indexes, Q: Quartile

## SB-080

### Quality of Online Surgical Education Videos: Comparative Analysis of Right Hemicolectomy with Complete Mesocolic Excision Videos

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**Objective:** The quality of online surgical education videos varies. This study compares the educational quality of videos on complete mesocolic excision (CME) for right colon cancer across multiple internet platforms.

**Materials-Methods:** Right hemicolectomy CME videos were systematically reviewed from YouTube, WebSurg, American Society of Colon and Rectal Surgeons, European Society of Coloproctology, Colorectal Disease Journal, Diseases of the Colon & Rectum, Society of American Gastrointestinal and Endoscopic Surgeons, and Virtual Academy of the Turkish Society of Colon and Rectal Surgery. Videos were included if they addressed a cancer indication, were published after 2010, had a duration between 4 and 60 minutes, and featured narrated commentary. Educational quality was assessed using the Essential Lap-Vegas (LV) score and the Right Study (R) score, which were specifically developed for evaluating the CME right hemicolectomy technique. YouTube popularity was further assessed using view counts and the Video Power Index (VPI).

**Results:** Of the 1683 videos assessed, 191 met the inclusion criteria. Of these, 52.4% were hosted on YouTube, and 47.6% were on professional platforms. Laparoscopic techniques were employed in 76.4% of the videos, robotic techniques in 20.4%, and open techniques in 3.1%. Videos hosted on professional platforms had significantly higher LV scores compared to those on YouTube (median: 8 [IQR: 7–12] vs. 8 [IQR: 5–10];  $p = 0.001$ ). Professional platforms also outperformed YouTube in terms of key technical steps: • Submesenteric dissection (R2: median 13 [12–16] vs. 13 [11–15];  $p = 0.021$ ), • Superior mesenteric vein (SMV) dissection and ligation of the ileocolic vessels (R3: median 14 [12–16] vs. 12 [10–15];  $p = 0.002$ ), • Proximal dissection of the SMV and the gastrocolic trunk of Henle (R4: median 12 [8–15] vs. 10 [6–13];  $p = 0.040$ ). A significant correlation was found between LV and R scores, whereas video duration and YouTube popularity metrics did not correlate with educational quality.

**Conclusion:** Videos hosted on professional platforms demonstrate superior educational and technical quality compared to those on YouTube, emphasizing the importance of using professional sources for surgical training.

**Keywords:** Surgical Procedures, Medical Education

**SB-090****Impact of Robotic-Assisted Surgery vs. Laparoscopy on Low Anterior Resection Syndrome and Quality of Life in Low Rectal Cancer**

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**Objective:** Low anterior resection syndrome (LARS) is a common bowel dysfunction following sphincter-preserving rectal resection (SPRR) for low rectal cancer (LRC), which impacts patients' quality of life (QoL). Robotic-assisted surgery is associated with precise dissection in rectal cancer surgery and might result in improved functional outcomes. This study evaluates LARS and QoL in patients undergoing either laparoscopic or robotic-assisted SPRR.

**Materials-Methods:** Patients who underwent curative-intent minimally invasive SPRR for LRC between 2013 and 2023 were retrospectively analyzed. Deceased patients or those lost follow-up were excluded. Bowel dysfunction was assessed using the LARS Score Tool, and QoL was measured using the EQ-5D-3L scale. Patients were categorized into robotic-assisted (RG) and laparoscopic (LG) groups for comparison.

**Results:** Among 125 patients, 49 met the inclusion criteria. The mean age was 59.7±12.3 years, with 33 (66.7%) being male. No significant difference in QoL was observed between RG and LG. LARS scores showed that in the LG, 25 (75.8%) patients had no LARS, 5 (15.2%) had minor LARS, and 3 (9.1%) had major LARS. In the RG, 12 (75.0%) patients had no LARS, while 4 (25.0%) experienced major LARS. There was no significant difference between the operative approaches in LARS development ( $p=0.460$ ).

**Conclusion:** Robotic-assisted surgery did not significantly alter LARS incidence or QoL compared to laparoscopic surgery. However, its role in optimizing surgical precision and potentially mitigating factors contributing to LARS warrants further investigation.

**Keywords:** Robotic-assisted, LARS

**SB-091****Safety and Feasibility of Robotic Surgery in Geriatric Patients with Rectal Cancer**

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**Objective:** The increasing incidence of rectal cancer in the elderly makes surgical management a debated topic. This study aimed to evaluate the safety and short-term outcomes of robotic surgery in geriatric ( $\geq 70$  years) patients.

**Materials-Methods:** Patients diagnosed with rectal cancer who underwent robotic surgery at our hospital between March 2021 and September 2023 were included. They were divided into two groups: elderly ( $\geq 70$  years) and younger ( $< 70$  years). Demographics, operative details, and postoperative outcomes were compared.

**Results:** A total of 108 patients were included, with 80 in the younger group and 28 in the elderly group. Gender distribution was similar ( $p=0.94$ ). The elderly group had a significantly higher proportion of ASA 3 patients (46% vs. 13.7%,  $p=0.001$ ). Albumin levels were lower (39.57 vs. 41.3 g/L,  $p=0.01$ ), while CEA levels were higher (4.3 vs. 2.6 ng/mL,  $p=0.1$ ) in the elderly. The Miles procedure was performed more frequently in elderly patients (39.2% vs. 13.7%,  $p<0.001$ ), and stoma rates were higher (64.3% vs. 42.5%,  $p<0.0001$ ). Operative time was similar (195.1 vs. 202.9 min,  $p=0.524$ ). Tumor diameter ( $p=0.72$ ), lymph node dissection ( $p=0.73$ ,  $p=0.41$ ), pathological stage, and histopathological features were comparable ( $p>0.05$ ). Hospital stay was slightly longer in the elderly (5 vs. 4 days,  $p=0.41$ ), but complication rates ( $p=0.98$ ), anastomotic leakage ( $p=0.29$ ), reoperation ( $p=0.76$ ), 90-day readmission ( $p=0.75$ ), and mortality ( $p=0.39$ ) showed no significant differences.

**Conclusion:** Robotic surgery for rectal cancer is feasible and safe in elderly patients. Advanced age should not be a limiting factor for robotic surgery, nor should it be considered an independent risk factor for postoperative complications. Careful preoperative evaluation and perioperative management remain essential in optimizing outcomes for this population.

**Keywords:** Rectal Cancer, Robotic Surgery



## SB-092

## Laparoscopic Sigmoid Colon Vaginoplasty: Analysis of Surgical Techniques, Clinical Outcomes, and Patient Satisfaction in 35 Patients

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**Objective:** This study aims to present the surgical technique and outcomes of laparoscopic sigmoid colon vaginoplasty in cisgender women with congenital vaginal absence and transgender individuals. Laparoscopic sigmoid vaginoplasty is a preferred option for vaginal reconstruction in these patients due to its ability to provide adequate depth, natural lubrication, and low rates of shrinkage.

**Methods:** A retrospective analysis was conducted on 35 patients who underwent laparoscopic sigmoid colon vaginoplasty between July 2016 and December 2023. Patient demographics, surgical details, intraoperative and postoperative complications and satisfaction levels were recorded.

**Results:** The mean age of the patients was 32.3 years, with 92% identifying as transgender individuals and 66% undergoing revision surgery. After an average follow-up of 49.9 months, the overall satisfaction percentage among patients was 82.34%. Among the cohort, 22 patients with the potential for a short sigmoid colon flap were treated using the end-to-side anastomosis technique, while the remaining 13 patients underwent the side-to-side anastomosis technique. Postoperative complications were observed in 11% of cases. Additionally, a higher body mass index was significantly associated with longer surgical durations, increased complication rates, and lower patient satisfaction ( $p < 0.05$ ).

**Conclusion:** Laparoscopic sigmoid colonic vaginoplasty provides reliable results with minimal shrinkage and natural lubrication. The end-to-side technique was useful for shorter mesenteries, while side-to-side anastomosis improved cosmetic outcomes with fewer incisions. Preoperative weight management and careful technique selection are crucial for improving patient outcomes. Larger multi-center studies are needed to confirm these findings.

**Keywords:** Vaginoplasty, Transgender Surgery

Figure 1

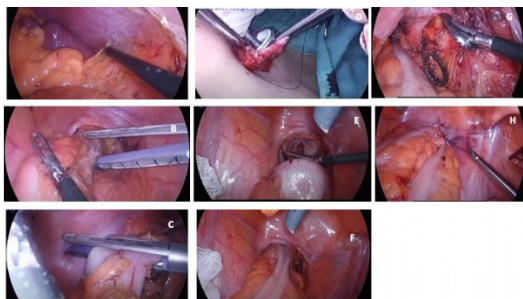


Figure1: Vaginoplasty technique with end-to-side anastomosis using an intraluminal stapler: A: Mobilization of the entire sigmoid colon and descending colon up to the splenic flexure. B: Resection between the mid-rectum and upper rectum using a tri-stapler. C: Resection of the proximal part of the sigmoid colon to prepare a sigmoid colonic flap approximately 20-30 cm in length. D: Exteriorization of the proximal end of the colon by enlarging the trocar incision over the pubic symphysis and placing the stapler anvil into the proximal end of the colon. E: Performing colorectal anastomosis using an intraluminal stapler. F: Bringing down the colonic flap. G: Fixation of the flap used for vaginoplasty.

Figure 2



Figure 3: Vaginoplasty technique with side-to-side anastomosis using a tri-stapler: A: Mobilization of the splenic flexure and complete mobilization of the descending colon along with the sigmoid colon. B: Resection of the distal end of the flap from the rectosigmoid junction. C: Preparation of the sigmoid colonic flap by cutting the proximal part of the sigmoid colon to include approximately 20-30 cm of the sigmoid colon. D: Creation of a space between the rectum and bladder for the vaginal canal. E: Pulling down the distal end of the sigmoid colon flap. F: Fixation of the proximal end of the sigmoid colon flap to the promontory. G: Performing side-to-side colorectal anastomosis using a tri-stapler. H: Reinforcement of the anastomosis line with additional sutures. I: Final appearance of the vaginoplasty attached to the promontory.

Table 1

Age (years) (mean ± SD) (Min-Max)	32.3 SD7.7 (21-55)
BMI (kg/m2) (mean ± SD) (Min-Max)	24.8 SD3.9 (19-33)
Female cisgender and transgender patients' number (percentage)	Female cisgender:3 (8%) Transgender re-do Surgery:23 (66%) Transgender de novo surgery:9 (26%)
ASA score	ASA I:30(86%) ASAII:5 (14%)
Previous abdominal surgeries percentage (%)	8 (22%)
Duration of the operation time (minutes) (mean ± SD) (min-Max)	302.2 SD84.1 (200-510)
Problems experienced during surgery	Rectum injury 3 (One of these patients developed a fistula) Bladder injury 2, Ureteral injury 1
Complications: Five complications were observed in four patients.	One patient: Distal end necrosis of the flap. One patient: Distal end necrosis of the flap + Stenosis One patient: Stenosis One patient: Fistula
Length of hospital stay days (mean ± SD) (Min-Max)	5.3 SD1.6 (3-11)
Surgical technique	End-to-side anastomosis performed to 22 patients Side-to-side anastomosis performed to 13 patients
Follow up time (Month) (Min-Max)	49.9 SD26.9 (12-95)
Percentage of patient satisfaction (%)	82.34% SD22.81 (0-100)

Table 1: Preoperative demographic data of the patients, as well as intraoperative and postoperative data.

**SB-093****Left Colic Artery Preservation During A Laparoscopic Low Anterior Resection for Rectal Cancer: A Case-Match Study**

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**Objective:** To evaluate the anastomotic leakage rate depending on left colic artery (LCA) preservation.

**Materials-Methods:** We included in our retrospective study patients with rectal cancer who underwent laparoscopic anterior resection during 2014-2020. Inclusion criteria were age 18 or older, a written informed consent. Exclusion criteria were synchronous and metachronous cancers, HIV, ECOG>2. Patients were case-matched (1:2) by age, sex, previous radiotherapy and BMI in the preserved LCA (study) and high ligation of the inferior mesenteric artery group (control). The primary endpoint was anastomotic leakage rate.

**Results:** There were 153 patients in our study: 51 patients in the LCA preserved group and 102 patients in the control group. There were no statistically significant differences in sex, age, BMI, ASA, disease stage, tumor location, previous radiotherapy. Anastomotic leakage rate was 7.8% (4/51 patients) in the LCA preserved group and 17.6% (18/102 patients) in the control group, p=0.079. Grade 3b and higher morbidity rate was 7.8% (4/51 patients) in the LCA preserved group and 15.7% (16/102 patients) in the control group, p=0.134.

**Conclusion:** There's a tendency towards lower anastomotic leakage rate in patients with preserved LCA after low anterior resection. Stratification according to LCA anatomy may be the key to choosing artery ligation level. Smoking cessation counseling and risk reduction concept should be offered to patients to further reduce the risk of leakage.

**Keywords:** left colic artery, low anterior resection

**SB-094****Transanal Minimally Invasive Surgery (TAMIS): Our Clinical Experiences and Follow-Up Results**

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**Objective:** Total mesorectal excision is the gold standard for rectal cancer treatment, improving oncological outcomes by reducing local recurrence. However, due to high postoperative morbidity and mortality, local excision is an alternative for early-stage patients. Transanal minimally invasive surgery (TAMIS) offers advantages with its short learning curve and low complication rates. This study aims to present TAMIS cases performed in our clinic and patient outcomes.

**Materials-Methods:** This retrospective study analyzed TAMIS cases at our hospital between 2021 and 2025. Demographic characteristics, intraoperative findings, postoperative outcomes, and follow-up data were evaluated.

**Results:** A total of 26 patients were included. The mean age was 69.6 years ( 51–86), and 70.8% were male. The mean lesion distance from the dentate line was 8.1 cm (2–15), and the mean operative time was 110 minutes ( 70–300). Diagnostic laparoscopy was performed in four cases due to suspected peritoneal entry, confirmed in two cases. One patient required conversion to abdominal surgery. Pathology revealed benign lesions in 69.2% and malignant lesions in 30.8%. The mean lesion size was 47 mm (11–95). Among malignant cases, one was malignant melanoma, and rectal cancer stages were Tis in one, T1 in four, and T2 in two patients. Fragmentation was observed in two cases (8.3%). The mean hospital stay was 6.5 days ( 2–17). During a mean follow-up of 62 months ( 1–102), no recurrence, additional surgery, or early/late complications were observed.

**Conclusion:** TAMIS is a safe and effective treatment for benign and early-stage malignant rectal lesions. Its minimally invasive nature and low complication rates provide advantages for patients. No recurrence or need for additional surgery was noted during follow-up. TAMIS offers successful outcomes with appropriate patient selection. Further prospective studies with larger patient series are needed to evaluate long-term oncological outcomes.

**Keywords:** Rectal Cancer, Transanal Minimally Invasive Surgery



**Demographic, Preoperative, Pathological Evaluations, and Postoperative Follow-Up Results of Patients Undergoing TAMIS for Rectal Mass**

Variable	n = 26
Age (years)	69.6 (51–86)
Male, n (%)	18 (69.2%)
Female, n (%)	8 (30.8%)
ASA 1	6 (23.1%)
ASA 2	15 (57.7%)
ASA 3	5 (19.2%)
Body Mass Index (kg/m <sup>2</sup> )	25.9 (19–35.3)
Preoperative Staging, n (%)	
Colonoscopy	26 (100%)
CT	9 (34.6%)
MRI	19 (73.1%)
Distance from Dentate Line (cm)	8.1 (2–15)
Operation Time (min)	110 (60–300)
Peritoneal Cavity Entry, n (%)	2 (7.7%)
Diagnostic Laparoscopy, n (%)	4 (15.4%)
Conversion to Abdominal Surgery, n (%)	1 (3.8%)
Protective Loop Ileostomy, n (%)	1 (3.8%)
Disease Status, n (%)	
Benign	18 (69.2%)
Malignant	8 (30.8%)
Malignant Tumor Staging, n (%)*	
Tis (Carcinoma in situ)	1 (12.5%)
T1	4 (50%)
T2	2 (25%)
Malignant Melanoma	1 (12.5%)
Tumor Size (mm)	47 (11–95)
Fragmentation, n (%)	3 (11.5%)
Hospital Stay (days)	6.5 (2–17)
Postoperative Complications	
Fistula	0 (0%)
Bleeding	0 (0%)
Stricture	0 (0%)
Follow-Up Period (months)	62 (1–102)
Recurrence, n (%)*	0 (0%)
Mortality	0 (0%)

\* Only malignant tumors were considered in the evaluation.

**SB-095****Impact of Previous Abdominal Surgery on The Outcomes of Robotic Colorectal Cancer Surgery: A Single Institution's Experience with 517 Patients**

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**Objective:** Although the advantages of robotic colorectal surgery have been confirmed, limited data exist regarding the safety of robotic approach in patients with a history of previous abdominal surgery (PAS). The aim of this study was to investigate the impact of robotic colorectal cancer surgery in patients with PAS.

**Materials-Methods:** A total of 517 patients with colon or rectal cancer who underwent robotic resection between November 2014 and May 2024 in three hospitals were included. Patients were categorized into two groups; those with PAS (n=158) and those without PAS (noPAS, n=359). The PAS group was further divided into minor PAS (minPAS) (n=126) and major PAS (majPAS) (n=32). Minor abdominal surgery was defined as previous procedures involving only one abdominal quadrant whereas major abdominal surgery involved  $\geq 2$  quadrants. Data on demographics and perioperative 30-day outcomes were compared between the groups.

**Results:** There were statistically no significant differences between the PAS and noPAS groups with respect to demographics, preoperative co-morbidities, tumor location, disease stages and other clinical characteristics except for gender (males;66%vs43%,  $p<0.001$ ). The rate of operative procedure types, stoma creation, intraoperative complications (2,2%vs2,5%), conversion (1,1%vs0,6%), operative time (293 $\pm$ 93vs201 $\pm$ 95 min), operative blood loss (139 $\pm$ 91vs129 $\pm$ 109 ml) were similar (Table 1). The number of harvested lymph nodes (33 $\pm$ 17,1vs33 $\pm$ 17,4), surgical margin positivity (0,6%vs2,5%), completeness of mesocolic/mesorectal fascia, time to first bowel movement (2,7 $\pm$ 1,5vs2,7 $\pm$ 1,3 days), anastomotic leak (6,1%vs3,8%), prolonged ileus (11,7%vs8,9%) other complications and hospital stay (6,6 $\pm$ 4,3vs5,8 $\pm$ 2,6 days) were similar. Comparison of the minPAS versus noPAS and majPAS versus noPAS groups revealed no significant differences regarding all the perioperative characteristics and postoperative outcome except hospital stay was shorter in the minPAS and majPAS groups (5,9 $\pm$ 2,6 and 5,3 $\pm$ 2,3vs6,6 $\pm$ 4,3 days,  $p<0.05$ ) (Table 2).

**Conclusion:** Robotic colorectal cancer surgery can be performed safely with comparable short term outcomes in patients with previous minor or major abdominal surgery.

**Keywords:** Previous abdominal surgery, robotic surgery

**Table 1. Comparison of perioperative characteristics between the PAS and no-PAS groups**

	no PAS (n=359)	PAS (n=158)	P
Age, years, mean $\pm$ SD	61,0 $\pm$ 12,1	60,8 $\pm$ 12,6	0.83
Gender, male / female, n (%)	236 (65,7) / 123 (34,3)	68 (43,0) / 90 (57,0)	<0.001
ASA, n (%)			0.07
1	102 (28,4)	39 (24,7)	
2	221 (61,6)	113 (71,5)	
3	36 (10,0)	6 (3,8)	
Body mass index, kg/m <sup>2</sup>	26,9 $\pm$ 4,4	27,0 $\pm$ 5,6	0.77
Tumor localization, n (%)			0.27
right-sided colon	59 (16,4)	35 (22,3)	
transverse colon	11 (3,1)	7 (4,5)	
left-sided colon	115 (32,0)	50 (31,9)	
rectum	161 (44,9)	63 (40,1)	
synchronous tm	13 (3,6)	2 (1,3)	
pTNM stage, n (%)			0.75
0 + 1 + 2	211 (58,8)	95 (61,1)	
3 + 4	148 (41,2)	63 (39,9)	
Neoadjuvant chemoradiotherapy, n (%)	132 (36,8)	56 (35,4)	0.85
Surgical procedure, n (%)			0.64
right hemicolectomy & extended right hemicolectomy	66 (18,4)	40 (25,3)	
left colectomy & extended left colectomy	21 (5,9)	8 (5,1)	
subtotal colectomy & total colectomy	14 (3,9)	4 (2,5)	
anterior resection	81 (22,6)	35 (22,2)	
low anterior resection & very low anterior resection	160 (44,6)	64 (40,5)	
abdominoperineal resection	15 (4,2)	7 (4,4)	
total proctocolectomy	2 (0,6)	0 (0)	
Intraoperative complication, n (%)	8 (2,2)	4 (2,5)	0.76
Conversion, n (%)	4 (1,1)	1 (0,6)	> 0.99
Reason for conversion, n (%)			> 0.99
bleeding	3 (75,0)	1 (100)	
liver metastasectomy	1 (25,0)	0 (0)	
Operative time, mins, mean $\pm$ SD	293,3 $\pm$ 92,5	200,5 $\pm$ 94,8	0.50
Intraoperative blood loss, ml, mean $\pm$ SD	139,1 $\pm$ 91,9	129,2 $\pm$ 108,9	0.37
Perioperative blood transfusion, n (%)	47 (13,1)	19 (12,0)	0.85
Number of lymph nodes harvested, n, mean $\pm$ SD	32,5 $\pm$ 17,1	32,5 $\pm$ 17,4	0,98
Surgical margin positivity, n (%)	2 (0,6)	4 (2,5)	0.07
Completeness of mesocolic / mesorectal fascia, n (%)			0.65
complete	204 (67,8)	99 (70,2)	
near-complete	85 (28,2)	39 (27,7)	
incomplete	12 (4,0)	3 (2,1)	
Time to first bowel movement, days, mean $\pm$ SD	2,7 $\pm$ 1,5	2,7 $\pm$ 1,3	0.81
Anastomotic leak, n (%)	22 (6,1)	6 (3,8)	0.39
Clavien - Dindo classification, n (%)			0.27
1	39 (35,8)	22 (51,2)	
2	34 (31,2)	14 (32,6)	
3	30 (27,5)	6 (14,0)	
4	5 (4,6)	1 (2,3)	
5	1 (0,9)	0 (0)	
Reoperation within postoperative 30 days, n(%)	26 (7,2)	8 (5,1)	0.47
Mortality within postoperative 30 days, n(%)	1 (0,3)	0 (0)	> 0.99

**Table 2. Comparison of perioperative characteristics between the minor PAS versus no-PAS and major PAS versus no-PAS groups**

	no PAS (n=359)	Minor PAS (n=126)	P (minor PAS vs no-PAS)	Major PAS (n=32)	P (major PAS vs no-PAS)
Intraoperative complication, n (%)	8 (2,2)	4 (3,2)	0.52	0 (0)	> 0.99
Conversion, n (%)	4 (1,1)	1 (0,8)	> 0.99	0 (0)	> 0.99
Operative time, mins, mean $\pm$ SD	293,3 $\pm$ 92,5	300,3 $\pm$ 96,0	0.48	296,09 $\pm$ 91,4	0.87
Intraoperative blood loss, ml, mean $\pm$ SD	139,1 $\pm$ 91,9	131,9 $\pm$ 115,9		115,7 $\pm$ 63,5	0.13
Perioperative blood transfusion, n (%)	47 (13,1)	15 (11,9)	0.85	4 (12,5)	> 0.99
Number of lymph nodes harvested, n, mean $\pm$ SD	32,5 $\pm$ 17,1	32,6 $\pm$ 16,6	0.94	31,8 $\pm$ 20,6	0.85
Surgical margin positivity, n (%)	2 (0,6)	4 (3,2)	0.042	0 (0)	>.99
Completeness of mesocolic / mesorectal fascia, n (%)			0.69		0.57
complete	204 (67,8)	81 (71,7)		18 (64,3)	
near-complete	85 (28,2)	29 (25,7)		10 (35,7)	
incomplete	12 (4,0)	3 (2,7)		0 (0)	
Time to first bowel movement, days, mean $\pm$ SD	2,7 $\pm$ 1,5	2,6 $\pm$ 1,3	0.66	2,8 $\pm$ 1,4	0.74
Anastomotic leak, n (%)	22 (6,1)	3 (2,4)	0.16	3 (9,4)	0.45
Clavien - Dindo classification, n (%)			0.056		0.46
1	39 (35,8)	21 (56,8)		1 (16,7)	
2	34 (31,2)	12 (32,4)		2 (33,3)	
3	30 (27,5)	4 (10,8)		2 (33,3)	
4	5 (4,6)	0 (0)		1 (16,7)	
5	1 (0,9)	0 (0)		0 (0)	
Reoperation within postoperative 30 days, n(%)	26 (7,2)	6 (4,8)	0.45	2 (6,3)	> 0.99

**SB-096****Comparison of single-port laparoscopic versus open reversal of Hartmann's procedure: A single-center study**

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**Objective:** Comparative studies between minimally invasive and open techniques of Hartmann's reversal showed the benefits of minimally invasive techniques, which include faster recovery time, less blood loss, and shorter hospital stay. This study aims to compare the intraoperative and postoperative outcomes of single-port laparoscopic and open Hartmann's reversal.

**Materials-Methods:** Patients who underwent open Hartmann's reversal (OHR) and laparoscopic Hartmann's reversal (LHR) between 2019 and 2021 at a single center were assessed retrospectively. Patient characteristics and perioperative data were collected and evaluated from the medical and surgical records.

**Results:** Forty-seven patients underwent Hartmann's reversal operation and were divided into two groups: single-port laparoscopic Hartmann's reversal (SPLHR) (n=23) and

open Hartmann's reversal (OHR) (n=24). The median age, gender, body mass index (BMI), the American Society of Anesthesiologists physical status (ASA-PS) scores, and comorbidities did not significantly differ between the two groups. Additionally, the median rectal stump length was significantly longer in the SPLHR group (20 cm, IQR: 15-30) compared to the OHR group (13.5 cm, IQR: 10-20). The median estimated blood loss was significantly lower (100 ml, IQR: 45-145) and also the median operation time was shorter in the SPLHR group (92 minutes, IQR: 75-118) compared to the OHR group (120 minutes, IQR: 90-158). Overall postoperative complications did not differ significantly between groups, while wound infections were significantly more common in the OHR group [n=8 (33.3%) vs n=1 (4.3%)]. The SPLHR group (median 1 day, IQR: 0-1) experienced a shorter time to liquid diet intake, also resumed soft diet in a shorter time (median 2 days, IQR: 2-3), and had shorter hospital stay compared to the OHR group.

**Conclusion:** The SPLHR technique is a reliable and efficient method that is easy to perform. It has several advantages in selected patients compared to the OHR

**Keywords:** Hartmann's reversal, single-port laparoscopy

## SB-097

### Gender Specific Cancer-Specific Survival Analysis of Robotic versus Laparoscopic Low Anterior Resection in Rectal Adenocarcinoma: A Multicenter Study from Two Tertiary Care Centers

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**Objective:** Gender-based differences in surgical and oncological outcomes have been increasingly recognized in colorectal cancer treatment, necessitating further investigation into their potential impact on minimally invasive approaches. This study aimed to compare short- and long-term outcomes of robotic and laparoscopic sphincter-saving low anterior resection (LAR) in male and female patients with rectal adenocarcinoma. The analysis was conducted as a multicenter study from two tertiary care centers.

**Materials-Methods:** Patients who underwent elective robotic or laparoscopic LAR for rectal cancer were included between October 2010 and December 2023. Perioperative clinical characteristics, postoperative short-term outcomes, and long-term oncological results were compared between the two surgical approaches. The study utilized a retrospective review of a prospectively maintained database. To minimize

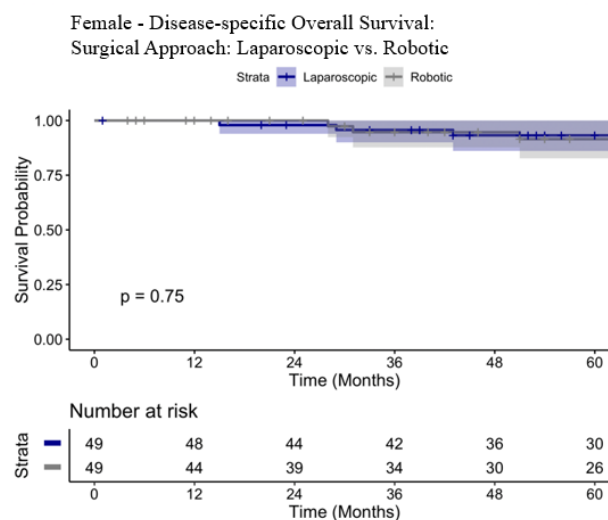
selection bias, groups were matched based on age, body mass index (BMI), American Society of Anesthesiologists (ASA) score, and type of resection.

**Results:** A total of 364 patients whom 147 were female were included (mean age: 57 years and BMI: 26.1 kg/m<sup>2</sup>). Laparoscopic and robotic cases in male group were 118 and 99, and in female group 82 and 65 respectively. Having neoadjuvant therapy, resection types, TNM stages, tumor location, stoma opening ratio, harvested lymph nodes were comparable in both female and male groups (p>0.05). After matching, in male subgroup, the mortality rates were 4 patients (5.5%) in the laparoscopic group and 5 patients (6.8%) in the robotic group. In female subgroup, both laparoscopy and robotic groups had 4 cause-specific deaths each (8.2%). There were no significant difference in 5-year cause-specific survival between robotic and laparoscopic approaches in both male and female cohorts (Figure).

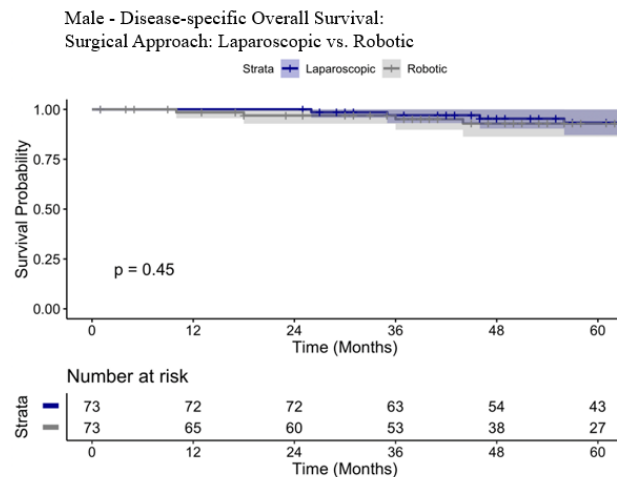
**Conclusion:** This multicenter analysis suggests that both robotic and laparoscopic LAR are feasible and effective approaches for rectal cancer. However, gender-specific variations in outcomes may influence surgical decision-making. Further prospective studies are warranted to validate these findings and optimize individualized treatment strategies in rectal cancer management.

**Keywords:** rectal adenocarcinoma, minimally invasive surgery

**Figure 1. Kaplan-meier survival curve comparing surgical approach in a matched cohort using propensity score matching groups - Female**



49 patients in each group (5-Year Disease-specific Overall Survival: Laparoscopic 93.3%, Robotic 92.9%; p = 0.75)

**Figure 2. Kaplan-meier survival curve comparing surgical approach in a matched cohort using propensity score matching groups - Male**

73 patients in each group (5-Year Disease-specific Overall Survival: Laparoscopic 93.2%, Robotic 91.5%; p = 0.45)

## SB-098

### Factors Associated to Textbook Outcome Failure in A Turkish Robotic Rectal Cancer Surgery Cohort

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**Objective:** Colorectal cancer (CRC) is the third most prevalent cancer worldwide, with an incidence of 2 approximately 2 million new cases. TO is a composite measure for assessing the quality of surgical care in a multi-dimensional way, popularised in the last decade. It is an effective predictor of survival and is also considered an indicator of the quality of care provided by hospitals. The aim of our study is to investigate factors associated with TO failure in robotic rectal cancer surgery.

**Materials-Methods:** The results of patients who underwent robotic rectal cancer surgery were evaluated by retrospectively reviewing 5-year data from a single center. Age, sex, ASA and CCI scores, BMI values, duration of surgery, length of stay, and postoperative complications of the cases were examined. Textbook Outcome (TO) criteria were: no conversion to open, no complication with a Clavien–Dindo  $\geq 3$ , length of hospital stay  $\leq 14$ , no 30-day readmission, no 30-day mortality, and R0 resection.

**Results:** Our study was conducted with 84 patients, 58.3% (n=49) of whom were male. While the morbidity rate was 5.9%, no mortality was observed. TO achievement rate in our study was % 66. Length of hospital stay was the only factor related to TO failure in univariate analysis. In multivariate logistic regression analysis total harvested lymph node count was the most significantly related variable with textbook outcome.

**Conclusion:** Length of hospital stay and total lymph node count were the most related factors with textbook outcome. TO is an opportunity for multidimensional evaluation of quality of colorectal cancer surgery. Larger studies will contribute the international consensus and improve quality of surgical care

**Keywords:** Robotic Surgery, Colorectal Cancer

## SB-099

### Oral Antibiotic Therapy without Hospitalization in Uncomplicated Acute Appendicitis: Long-Term Results from A Retrospective Cohort Study

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**Objective:** Appendicitis has traditionally been managed surgically, but antibiotics are emerging as a potential alternative. However, high recurrence rates and the need for later appendectomy remain concerns. This study aimed to assess the long-term success of oral antibiotic therapy in uncomplicated appendicitis without hospitalization.

**Materials-Methods:** This retrospective cohort study analyzed patients diagnosed with uncomplicated appendicitis at a university hospital between December 2020 and December 2022. Adults discharged with oral antibiotics were included, while those requiring hospitalization, having inflammatory bowel disease, or being pregnant were excluded. Data on demographics, laboratory results, and appendix diameter were collected. Follow-up was conducted via telephone to assess symptoms and appendectomy status. The primary outcome was treatment success (no appendectomy), with secondary analyses examining factors influencing surgery.

**Results:** Out of 518 acute appendicitis patients diagnosed during the study period, 99 were discharged with oral antibiotics and included. The median age was 35 years, and follow-up was 34 months (Table 1). Treatment success (no appendectomy) was 70%, increasing to 79% when early appendectomies ( $<7$  days) were excluded (Table 2). Most surgeries (80%) occurred within 10 months. No significant predictors of appendectomy were identified ( $p > 0.05$ ).

**Conclusion:** In the treatment of uncomplicated appendicitis, oral antibiotic therapy allows a significant portion of patients to avoid appendectomy in the long term, thereby benefiting from an organ-preserving approach. Our findings failed to identify risk factors for treatment success.

**Keywords:** Oral antibiotics, uncomplicated appendicitis



**Table 1. Baseline Characteristics of the Study Population (n = 99)**

Parameter	Value (Median [IQR] / Mean ± SD / n (%))	Missing Data(n)
Age (years)	35 (23)	0
Sex	Female: 38 (38%) Male: 61 (62%)	0
WBC count (×10 <sup>3</sup> /μL)	12.1 ± 3.84	1
Neutrophil-to-Lymphocyte Ratio	4.21 (3.71)	3
CRP (mg/L)	12.6 (26)	5
Appendix diameter (cm)	9 (2)	7
Follow-up (months)	34 (12)	0

**Table 2. Clinical Outcomes**

Parameter	n (%) / Median (IQR)
Appendectomy 1st year	Yes: 24 (24%) (95% CI: 16% - 33%) No: 75 (76%) (95% CI: 66% - 83%)
Appendectomy after total follow-up	Yes: 30 (30%) (95% CI: 21% - 40%) No: 69 (70%) (95% CI: 60% - 78%)
Appendectomy within the first 7 days were excluded	Yes: 18 (21%) (95% CI: 12% - 30%) No: 69 (79%) (95% CI: 69% - 87%)

## SB-100

### Optimizing Management of Sigmoid Volvulus: Predictors of Surgical Intervention and Recurrence

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**Objective:** Sigmoid volvulus is a life-threatening condition requiring urgent intervention. Endoscopic detorsion is the preferred initial treatment; however, delayed surgical management in emergent cases may increase complications and mortality. Additionally, recurrence following successful detorsion remains a significant challenge. This study aims to identify predictors of emergency surgery and recurrence in patients with sigmoid volvulus.

**Materials-Methods:** A retrospective analysis was conducted on patients with sigmoid volvulus treated between January 2015 and January 2025. Patients were stratified based on the need for emergency surgery. Demographic data, clinical presentation, laboratory parameters, radiologic findings, and treatment modalities were analyzed. The primary outcomes were the need for emergency surgery and recurrence, while short-term postoperative outcomes were assessed as secondary outcome.

**Results:** A total of 62 patients were included, with a median age of 77 years. Emergency surgery was required in 34 patients (53.2%). Higher C-reactive protein and lactate levels were associated with emergency surgery. The presence of

ischemia on CT or colonoscopy, increased transverse colon diameter, a longer distance from the vascular origin to the obstructed bowel segment, and volvulus rotation $\geq 360^\circ$  were significant predictors of emergency surgical intervention (**Table1**). Multivariate analysis confirmed all predictors except lactate level and transverse colon diameter. Emergency surgery resulted in higher complication and ostomy rates compared to elective surgery following successful detorsion. Recurrence occurred in 13 patients (44.8%), but no significant predictors were identified. However, ostomy rates were higher in the recurrence group without an associated increase in complications (**Table2**).

**Conclusion:** Predictors of emergency surgery in sigmoid volvulus include a longer distance from the vascular origin to the obstructed segment, ischemia on imaging, elevated CRP levels, and volvulus rotation $\geq 360^\circ$ . Early recognition of these factors may facilitate timely surgical decision-making and improve patient outcomes. Further studies are needed to assess recurrence predictors and optimize management strategies.

**Keywords:** Sigmoid volvulus, Surgery predictors

**Table 1: Univariate and logistic regression analysis of detorsion vs. emergency surgery**

Table 1: Univariate and logistic regression analysis of detorsion vs. emergency surgery				
Univariate Analysis		Detorsion (n=29)	Emergency operation (n=33)	p-value
Demographics	Age, years (IQR)	76 (17)	78 (18)	0.20
	Male sex, n (%)	21 (72.4%)	26 (78.8%)	0.55
	Overweight patients, n (%)	6 (20.7%)	1 (3%)	0.11
	Diabetes mellitus, n (%)	6 (20.7%)	8 (24.2%)	0.73
	Neurological comorbidity, n (%)	2 (6.9%)	2 (6.1%)	1.00
	ASA score $\geq$ III, n (%)	14 (48.3%)	21 (63.6%)	0.22
Clinical	Abdominal surgical history, n (%)	8 (27.6%)	9 (27.3%)	0.97
	Duration of symptom presentation, day (IQR)	4 (4.7)	4 (5)	0.60
	Obstruction $>24$ h, n (%)	21 (72.4%)	26 (78.8%)	0.55
	Abdominal distention, n (%)	29 (100%)	30 (90.9%)	0.24
	Rebound tenderness, n (%)	3 (10.3%)	8 (24.2%)	0.19
Biochemistry	WBC, (IQR)	10.5 (6.4)	12.2 (8.7)	0.25
	Neutrophile, (IQR)	8.1 (5.6)	9.4 (7.9)	0.15
	CRP, (IQR)	7 (20.6)	32 (86)	0.013
	LDH, (IQR)	225 (107)	247 (90)	0.22
	Lactate level, (IQR)	1.2 (1.2)	2.4 (1.8)	0.024
Imaging	Coffee bean sign, n (%)	22 (78.6%)	21 (67.7%)	0.35
	Ischemia on CT, n (%)	3 (12.5%)	12 (46.2%)	0.014
	Perforation on CT, n (%)	0 (0%)	2 (6.1%)	0.49
	Rotation $\geq 360^\circ$ , n (%)	7 (29.2%)	14 (58.3%)	0.042
	Clockwise rotation, n (%)	13 (54.2%)	10 (41.7%)	0.38
	Dis from vascular origin to obstruction, cm ( $\pm$ SD)	5.2 (2.1)	7.6 (1.8)	<0.001
	Length of obstructed bowel segment, cm ( $\pm$ SD)	5.2 (2.2)	5.4 (1.8)	0.71
	Transvers colon diameter, cm ( $\pm$ SD)	5.1 (1.6)	6.6 (1.9)	0.005
	Sigmoid colon diameter, cm ( $\pm$ SD)	9.7 (2.1)	9.7 (2.2)	0.99
	Organoaxial rotation, n (%)	16 (66.7%)	14 (58.3%)	0.55
Ischemia on colonoscopy, n (%)	2 (6.9%)	10 (45.5%)	0.002	
<b>Short-term postoperative outcomes</b>				
LOS, day (IQR)		14 (11)	8 (5)	0.05
Elective surgery, n (%)		16 (72.7%)	-	n/a
Resulted in ostomy, n (%)		11 (42.3%)	29 (87.9%)	<0.001
Clavien-Dindo score $\geq$ , n (%)		4 (14.8%)	13 (39.4%)	0.046
Mortality (30-day), n (%)		2 (6.9%)	7 (21.2%)	0.15
Logistic regression		OR (CI)	p-value	
<b>Biochemical variables</b>				
CRP, (IQR)		1.04 (0.01-0.09)	0.032	
Lactate level, (IQR)		2.13 (-0.03-1.55)	0.06	
<b>CT scan</b>				
Presence of ischemia on CT		12.2 (0.41-4.60)	0.019	
Presence of rotation $\geq 360^\circ$		14.1 (0.52-4.76)	0.015	
Dis from vascular origin to obstruction, cm ( $\pm$ SD)		1.93 (0.16-1.15)	0.009	
Transvers colon diameter, cm ( $\pm$ SD)		1.31 (-0.31-0.85)	0.36	
<b>Colonoscopy</b>				
Presence of ischemia on colonoscopy		11.2 (0.75-4.08)	0.004	

Table 2: Predictors of Volvulus Recurrence (Univariate analysis)

Univariate Analysis		Non-recurrence (n=16)	Recurrence (n=13)	p-value
Demographics	Age, years (IQR)	77 (16.3)	73 (25)	0.70
	Male sex, n (%)	11 (64.7%)	10 (83.3%)	0.69
	Overweight patients, n (%)	4 (25%)	2 (15.4%)	0.66
	Diabetes mellitus, n (%)	5 (31.3%)	1 (7.7%)	0.18
	Neurological comorbidity, n (%)	1 (6.3%)	1 (7.7%)	1.00
	ASA score ≥III, n (%)	6 (37.5%)	8 (61.5%)	0.19
Clinical	Abdominal surgical history, n (%)	5 (31.3%)	3 (23.1%)	0.69
	Duration of Symptom Presentation, day (IQR)	4 (5.2)	3 (3.2)	0.24
	Obstruction >24 h, n (%)	11 (68.8%)	10 (76.9%)	0.69
Biochemistry	Abdominal distention, n (%)	16 (100%)	13 (100%)	1.00
	Rebound tenderness, n (%)	2 (12.5%)	1 (7.7%)	1.00
	WBC, (IQR)	11 (7.6)	10.4 (4.7)	0.35
	Neutrophile, (IQR)	8.8 (5.7)	7.6 (4.8)	0.36
	CRP, (IQR)	12.6 (33.5)	5 (14.7)	0.29
	LDH, (IQR)	209 (77.5)	256 (123)	0.54
Imaging	Lactate level, (IQR)	1.1 (0.9)	1.6 (1.2)	0.36
	Coffee bean sign, n (%)	13 (86.7%)	9 (69.2%)	0.37
	Ischemia on CT, n (%)	0 (0%)	3 (23.1%)	0.22
	Perforation on CT, n (%)	0 (0%)	0 (0%)	1.00
	Rotation≥360°, n (%)	2 (18.2%)	5 (38.5%)	0.38
	Clockwise rotation, n (%)	5 (45.5%)	8 (61.5%)	0.43
	Dis from vascular origin to obstruction, cm (±SD)	5.8 (2.6)	4.6 (1.5)	0.22
	Length of obstructed bowel segment, cm (±SD)	4.5 (1.9)	5.8 (2.4)	0.15
	Transvers colon diameter, cm (±SD)	5.2 (1.9)	5 (1.4)	0.71
	Sigmoid colon diameter, cm (±SD)	9.8 (2.3)	9.7 (2)	0.90
Organooxial rotation, n (%)		6 (54.5%)	10 (76.9%)	0.39
Ischemia on colonoscopy, n (%)		2 (12.5%)	0 (0%)	0.48
Short-term postoperative outcomes				
Time to recurrence, day (IQR)		-	8 (24)	n/a
Surgery performed, n (%)		13 (81.3%)	13 (100%)	0.23
Time to surgery, day (IQR)		7 (5)	23 (106)	0.23
Emergency surgery, n (%)		0 (0%)	10 (76.9%)	<0.001
Resulted in ostomy, n (%)		1 (7.7%)	10 (76.9%)	<0.001
LOS following surgery, day (IQR)		8 (2)	8 (3.5)	0.86
Clavien-Dindo score ≥ 2, n (%)		4 (28.6%)	0 (0%)	0.09
Mortality (30-day), n (%)		2 (12.5%)	0 (0%)	0.48

## SB-101

### The Impact of Etiology on Patient Outcomes in Patients Undergoing Hartman Closure

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**Objective:** Hartmann’s reversal surgery remains challenging, with controversy regarding optimal timing and patient selection. This study aimed to evaluate the relationship between disease etiology and outcomes in patients undergoing Hartmann’s reversal, with a focus on timing and postoperative complications.

**Materials-Methods:** This retrospective case-control study analyzed 45 patients who underwent Hartmann’s reversal at Mersin University Hospital between January 2015 and August 2024. Patients were categorized by etiology and outcomes were compared. Data were collected from medical records and included demographics, surgical characteristics, and postoperative outcomes. The primary outcome measure was the time interval between the initial Hartmann procedure and surgery, with a particular focus on differences between malignant and benign disease. Secondary outcomes included mortality (30-day) and morbidity measures such as hospital length of stay, intensive care unit requirement, early and late complications, and reoperation rates.

**Results:** Among 45 patients, 21 (46.7%) had malignant and 24 (53.3%) had benign pathology. Time to reversal was significantly longer in malignant cases (11.0±4.5 vs. 6.5±5.1 months, p=0.003). Emergency surgery was more common in

benign cases (100% vs. 57.1%, p<0.001). Stapled anastomosis was predominant (93.3%), with no significant difference between groups. Early complications occurred in 31.1% of patients, with higher rates in malignant cases (42.9% vs. 20.8%, p=0.115). Anatomically, the most common location was the sigmoid colon (44.4%), followed by rectum (31.1%). Hospital stays were similar between groups (9.0±5.6 vs. 9.3±5.3 days, p=0.861).

**Conclusion:** Disease etiology significantly influences the timing of Hartmann’s reversal, with malignant disease associated with longer intervals to reversal. While overall complication rates were similar between groups, the trend toward higher complications in malignant cases suggests the need for careful patient selection and timing optimization based on underlying pathology.

**Keywords:** Hartman closure, etiology

## SB-102

### Associations of Neutrophil-To-Lymphocyte, Platelet-To-Lymphocyte, And Lymphocyte-To-Monocyte Ratios With Postoperative Mortality And Morbidity In Patients Operated For Sigmoid Volvulus

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**Objective:** Sigmoid volvulus is one of the three most common causes of acute colonic obstruction, accounting for 50-90% of all colonic volvuluses. The aim of the study was to find out whether NLR and PLR values are prognostic indicators in the postoperative period.

**Materials-Methods:** Patients that underwent emergency surgery for sigmoid volvulus between 2023-2025 were analyzed retrospectively. After analyses of demographic characteristics of the cases preoperative and postoperative lab findings, platelet lymphocyte ratio, neutrophil lymphocyte ratio were compared between groups with and without morbidity and mortality.

**Results:** A total of twenty patients were detected. Mean age was 73±13.9 years and 14 (70%) of the patients were male. Sixteen of the patient underwent Hartmann procedure and 4 of the patients underwent anterior resection. Three (15%) patients died and 6 (30%) patients had postoperative morbidity. 13(65%) of the patients needed intensive care unit stay after operation. Surgical site infection was detected in 6 (30%) patients and 8 (40%) patients had pulmonary complications after the operation. Median postoperative hospital stay was 10 (6-12) days (Table 1). While only high preoperative PLR value was found associated with mortality; high preoperative NLR, PLR, LMR values were all found associated with morbidity. On the other hand both in postoperative day 1 and 3 high NLR and PLR values were found associated with mortality and morbidity (Table 2). We also observed that these ratios,



which are associated with both mortality and morbidity in the postoperative period, were higher in patients with mortality.

**Conclusion:** While preoperative PLR is associated with postoperative mortality; preoperative NLR, PLR and LMR are associated with postoperative morbidity. Both in postoperative day 1 and 3 high NLR and PLR values are associated with mortality and morbidity.

**Keywords:** sigmoid volvulus

### SB-103

#### Iatrogenic Colonoscopy Perforation (ICP): A Single Centre Experience

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**Objective:** Colonoscopy is an invasive procedure that serves both diagnostic or therapeutic purposes to assess colorectal patients. Incidence of iatrogenic colonoscopy perforation (ICP) is a serious complication with a reported incidence of 0.03% to 0.2%. ICP is reported in 1/923 (diagnostic), 1/460 (polypectomy) & 7/100 (stenting) procedures, 3/100 (Chron's stricture) (ESGE/BSG 2020). The aim of the study is to assess ICP at a single institution.

**Materials-Methods:** Colonoscopy is undertaken on patients with colorectal symptoms, family history screening, colorectal cancer & polyp surveillance. This is cohort study carried out from 2010 to January 2023 on all ICP's. Colonoscopy is usually carried out under conscious sedation (default) & rarely under GA (special circumstances) using Olympus stack system with ScopeGuide in endoscopy suite at our centre.

**Results:** (see table)

**Conclusion:** ICP occurs as a result of mechanical colonoscopy trauma, therapeutic interventions and patient related risk factors. The crude ICP rate was 0.06% (1/1579) at our centre, but only 52% (13/25) underwent surgery. ICP was more prevalent in high risk cases: IBD (3/25), diseased bowel (11/25), strictures and therapeutic endoscopy procedures (8/25) (EMR/ESD for large polyps). ICP usually presents clinically with exaggerated abdominal pain, peritoneal signs & features of sepsis. Diagnosis is made on clinical assessment (clinical suspicion) with radiological assessment (CT scans). Management of ICP should be undertaken on an individual case basis but depends on perforation size and location & patient's condition. A minor ICP (<1cm) can be safely treated non-operatively in the presence of good bowel preparation, which reduces contamination. Surgical options include primary repair (if localized perforation), segmental resection (primary anastomosis) & defunctioning colostomy (unstable patient with severe contamination). Delays in presentation & diagnosis can adversely affect patients' morbidity & lead to mortality.

**Keywords:** Colonoscopy perforation

#### Results

	N = 25 (ICP) (Total colonoscopy = 39476)
Age (yrs)	70.8 ± 3.0
Sex (M:F)	6: 19
ASA	25.3 ± 1.8
BMI (kg/m2)	2
Sigmoid Perf site (n)	14
Length-Of-Stay (days)	6 ± 6.5
90 Day Deaths (n)	3
IBD (n)	3
Diverticulosis (n)	11
WCC (x109/L)	11.6 ± 1.3
CRP (mg/L)	94.0 ± 22.5
Lactate (mmol/L)	1.3 ± 0.3
Conservative (n)	12
Surgery (n)	13
Laparoscopic (n)	4
Open (n)	9
Operation time (mins)	119.0 ± 15.3
Biopsy (n)	6
Polypectomy (n)	8
Colonoscopy (n)	24 (13 complete)
Flexible sigmoidoscopy (n)	1
X ray (n)	10
CT scan (n)	25

### SB-104

#### Anastomotic Leaks in Colorectal Cancer Resections: A Cohort Study

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**Objective:** Anastomotic leaks (AL) is a serious complication with reported incidence of 3-25 % in restorative colorectal cancer resections. International Study Group of Rectal Cancer (ISREC 2010) published a radiological classification of AL (minor & major leaks). AL is believed to have a negative impact on patient's morbidity & prognosis. The aim of the study is to assess management of AL leaks at a single centre.

**Materials-Methods:** A cohort study was carried out at from Jan'2007 to April'2025. Descriptive characteristics and post-operative outcomes were evaluated for colorectal cancer resections with AL (n=74), with non-AL (n=1806) recruited as controls.

**Results:** (see table)

**Conclusion:** The crude AL rate was 3.9 % of all CRC resections, with 41.9% (31/74) undergoing surgery. Acute rises in WCC & CRP raise concerns for AL, whilst CT scan identifies & guides management of AL type (type A 43.2 %, type B 14.9 % & type C 41.9 %). AL resulted in longer hospital stay, but short & long term survival was unaffected. Risk of AL are characterized into patient, tumour & surgical factors. Early diagnosis is key to reducing morbidity & mortality which involves; clinical, serological & radiological. Minor AL (type A & B) can be managed non operatively, whilst major AL (type C) remains source control (laparoscopy/laparotomy), with a defunctioning stoma to stabilize patients.

**Keywords:** anastomotic leaks, colorectal cancer resection

resections (n=1487) carried out since 2007 were recruited as controls.

Results			
	AL (n=74)	Non AL (n=1806)	Mann Whitney U (p value)
Age(yrs)	67.6 ± 1.3	70.3 ± 0.3	NS
Sex(M:F)	47: 27	988: 818	NS
ASA(median)	2	2	NS
Body-Mass-Index(kg/m2)	27.0 ± 0.6	26.5 ± 0.1	NS
Emergency(n)	8	391	NS
Laparoscopic(n)	39	1068	NS
LN-harvest(n)	16 ± 4	17 ± 6	NS
Leaks(n)	32		
Type-A(antibiotics)	11		
Type-B(drainage)	31		
Type-C(surgery)			
Intensive-Therapy-Unit stay(n)	22	417	NS
Direct-ITU transfer(n)	11	353	NS
ITU stay (days)	2.5 ± 3.5	1 ± 1	<0.05
Recurrence(n)	10	375	NS
Days-to-Leak	6 ± 3		
WCC(10x9/L)	14.7 ± 1.7	Day 6 9.5 ± 0.2	<0.0001
CRP(mg/L)	224.0 ± 13.9	116.9 ± 3.5	<0.0001
Stage 1(n)	25	412	
Stage 2(n)	22	588	
Stage 3(n)	24	626	
Stage 4(n)	0	124	
Others(n)	3	56	
Operation-time(mins)	186.8 ± 10.8	176.0 ± 2.1	NS
Length-Of-Stay(days)	14 ± 8	8 ± 4	<0.0001
Complications(n)	16	275	NS
Ileus	8	187	NS
Hospital-Acquired-Pneumonia	5	158	NS
Wound-infections	36	76	NS
Collections	15	90	NS
Sepsis			
90-Day mortality(n)	4	108	NS
Survival-rates(%)			
1st-year	88.3	88.7	Logrank p=NS (uncensored)
5th-year	77.6	69.8	
10th-year	64.3	56.5	
15th-year	50.0	45.2	

**Results:** (see table)

**Conclusion:** Emergency CRC accounted for 21.0 % of all CRC resections at our centre. EmCRC patients had more co-morbidities & frailty (ASA 3), prolonged hospitalization, advanced & recurrent disease, greater 90 day mortality rate and thus poorer survival rate. Perforation is an adverse feature to CRC survival. The inflammatory response to surgery, as reflected by WCC & CRP is greater for emergency CRC resections (p < 0.0001), but results merge together after day 10 post operative. Surgical approach in EmCRC depends on patient's condition (stable versus unstable patient), tumour location (left versus right tumours) and degree of sepsis (presence of faecal contamination). Post-operative complications of EmCRC include high rates of morbidity & mortality, stoma complications and oncological outcomes. Early diagnosis and surgery is crucial to offset the poor morbidity and survival.

**Keywords:** Emergency colorectal cancer resections

Results			
	Emergency (n = 395)	Elective (n = 1487)	Mann Whitney U test (p value)
Age (yrs)	69.8 ± 0.8	70.4 ± 0.3	NS
Sex (M:F)	202: 193	835: 652	NS
Body-Mass-Index (kg/m2)	25.6 ± 0.4	26.8 ± 0.1	NS
ASA (median)	3 (restrictive disease)	2 (relevant disease)	< 0.0001
Perforation(n)	92		
Obstruction(n)	273		
Others(n)	30		
90-Day mortality (n)	62	50	0.0001
Laparoscopic (n)	94	1014	< 0.0001
LN harvest (n)	16 ± 6.5	17 ± 5.5	NS
Operation time (mins)	132.2 ± 3.1	188.5 ± 2.3	< 0.0001
Intensive Therapy Unit (n)	140	300	< 0.0001
Length-Of-Stay (days)	10 ± 6	7 ± 3.5	< 0.0001
Recurrence (n)	134	251	< 0.0001
Stage 4 disease (n)	63	63	0.0014
Anastomotic Leaks(n)	8	66	NS
Ileus(n)	65	227	NS
Hospital-Acquired-Pneumonia(n)	54	141	NS
Wound (n)	39	124	NS
Collection (n)	30	83	NS
Sepsis (n)	36	71	NS
WCC(x109/L)			
Day-1	12.6 ± 0.3	11.2 ± 0.1	< 0.0001
Day-3	11.1 ± 0.3	9.1 ± 0.2	< 0.0001
Day-5	10.6 ± 0.4	8.1 ± 0.1	< 0.0001
Day-7	12.8 ± 0.5	9.6 ± 0.2	< 0.0001
Day-9	13.2 ± 0.6	11.4 ± 0.3	< 0.0005
CRP(mg/L)			
Day-1	151.6 ± 5.4	91.0 ± 1.8	< 0.0001
Day-3	186.2 ± 6.5	146.6 ± 3.8	< 0.0001
Day-5	132.9 ± 6.7	123.4 ± 3.8	NS
Day-7	116.2 ± 6.6	113.2 ± 4.4	NS
Day-9	107.2 ± 6.8	103.3 ± 5.0	< 0.0001
Survival rates (%)			
1st year	73.8	91.4	Logrank p < 0.0001 (uncensored)
5th year	48.3	71.9	
10th year	39.1	55.4	
15th year	30.9	41.8	

## SB-105

### Emergency Colorectal Cancer Resection: A Cohort Study

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**Objective:** Emergency colorectal cancers (EmCRC) remains a continual burden to the National Health Service (UK) still accounting for 20% of colorectal cancer (CRC) resections in last decade (NBOCA 2024 report). EmCRC frequently presents as obstruction, perforation & less commonly constitutional symptoms (abdominal pain, rectal bleeding & sepsis). EmCRC are associated with high rates of post-operative morbidity & mortality. The aim of the study is to assess surgical outcomes in EmCRC resections at a single institution.

**Materials-Methods:** A cohort study was carried out from Jan'2007 to April'2025. Descriptive demographics, post-operative outcomes, and serological tests (WCC, CRP) were analysed in all EmCRC resections (n=195). All elective CRC

## SB-106

**Neutrophil-to-Lymphocyte Ratio: Is It More Valuable Than CRP in Determining The Severity of Acute Diverticulitis in Initial Presentaiton? A Single-Center Retrospective Cohort Study**

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**Objective:** Determining the severity of acute diverticulitis is important for treatment and clinical course of the disease. We aim to evaluate the effectiveness of cheap, easily accessible and simple biomarkers in determining the severity of diverticulitis according to the modified Hinchey classification.

**Materials-Methods:** Patients were divided into two groups as complicated and uncomplicated diverticulitis. Laboratory test results of the two groups were compared. The same patients were divided into two groups as operated and non-operated patients. Laboratory test results of these two groups were compared.

**Results:** The study included 335 patients. Two hundred twenty patients (65.7%) were classified as having uncomplicated diverticulitis and 115 patients (34.3%) were classified as having complicated diverticulitis. For CRP, the sensitivity was 53.9% and the specificity was 69.1% in distinguishing between complicated and uncomplicated diverticulitis patients. For NLR, the sensitivity was 80.9% and the specificity was 58.6%. Forty-nine patients (14.6%) were classified as having operated diverticulitis and 286 patients (85.4%) were classified as having non-operated diverticulitis. For NLR, the sensitivity was 84.5% and the specificity was 65.0% in distinguishing between operated and non-operated diverticulitis patients. For CLR, the sensitivity was 85.7% and the specificity was 53.5%.

**Conclusion:** In patients with acute diverticulitis, the NLR value is more successful than the CRP value in distinguishing between complicated and uncomplicated diverticulitis. Similarly, it can effectively predict whether patients with acute diverticulitis will require surgery. In addition, the CLR value predicts the need for surgery in patients with acute diverticulitis with high sensitivity.

**Keywords:** acute diverticulitis, biomarkers

## SB-107

**Differentiating Cecal Diverticulitis from Acute Appendicitis: A Retrospective Analysis of Clinical and Biochemical Markers**

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**Objective:** Patients presenting with right lower quadrant (RLQ) pain are commonly evaluated for acute appendicitis.

However, cecal diverticulitis, a rare condition with similar clinical manifestations, is often overlooked, leading to delayed or incorrect diagnoses and potentially unnecessary laparotomies. This study aims to identify clinical and biochemical parameters that differentiate cecal diverticulitis from acute appendicitis in patients presenting to the emergency department with RLQ.

**Materials-Methods:** A retrospective analysis was conducted on patients who presented to the emergency department with RLQ abdominal pain and were diagnosed with either acute appendicitis or cecal diverticulitis between 2018 and 2024. Propensity score matching was applied in a 1:2 ratio based on patient age, sex, and comorbidities. The primary outcomes were based on clinical presentation and inflammatory markers, including the neutrophil-to-lymphocyte ratio (NLR), CRP/albumin ratio, lymphocyte-to-CRP ratio (LCR), the hemoglobin, albumin, lymphocyte and platelet (HALP) score, and systemic immune-inflammation index (SII) index.

**Results:** The study included 93 matched patients (31->31 cecal diverticulitis, 1889->62 acute appendicitis) with a median age of 39 years (IQR17). Female representation was 45.2%. Nausea and vomiting were more common in acute appendicitis (32.3% vs. 12.9%;  $p=0.049$ ). The absence of RLQ tenderness and rebound tenderness was significantly associated with cecal diverticulitis ( $p=0.03$  and  $p=0.004$ , respectively). Inflammatory markers were significantly higher in acute appendicitis, while albumin levels were lower in cecal diverticulitis (Table 1).

**Conclusion:** Cecal diverticulitis should be considered as a differential diagnosis in patients with atypical abdominal findings and lower inflammatory scores, along with decreased lymphocyte and albumin level. These findings enhance diagnostic accuracy and distinguishing between these two conditions in clinical practice.

**Keywords:** Cecal diverticulitis, acute apandicitis

**Table 1: Comparison of demographics, clinical characteristics and inflammatory markers**

Variables	Acute appendicitis (n=62)	Cecal Diverticulitis (n=31)	p-value
Age at diagnosis, year (IQR)	35.5 (30)	44 (25)	0.53
Female sex, n (%)	27 (43.5%)	15 (48.4%)	0.65
Comorbidities, n (%)	19 (30.6%)	10 (32.3%)	0.74
Duration of symptom presentation, day (IQR)	1 (1)	2 (2)	0.16
Fever > 38.3°, n (%)	2 (3.2%)	0 (0%)	0.55
Anorexia, n (%)	59 (95.2%)	29 (93.5%)	1.00
Nausea-Vomiting, n (%)	20 (32.3%)	4 (12.9%)	0.049
No RLQ tenderness, n (%)	0 (0%)	3 (9.7%)	0.035
Rebound, n (%)	24 (38.7%)	3 (9.7%)	0.004
History of chronic constipation, n (%)	0 (0%)	0 (0%)	n/a
CT scan performed, n (%)	62 (100%)	30 (96.6%)	0.33
CT confirmed the diagnosis, n (%)	59 (95.2%)	27 (90%)	0.38
Surgical approach, (%)			
• McBurney/Rocky-Davis laparotomy	23 (37%)	1 (3.2%)	
• Median/Paramedian laparotomy	6 (9.6%)	1 (3.2%)	
• Laparoscopy	33 (53.4%)	1 (3.2%)	
• Colon resection	0 (0%)	2 (6.4%)	
Laboratories, (±SD)			
• Hemoglobin, g/dl	13.7 (1.6)	11.8 (2.9)	0.001
• Hematocrit, g/dl	40.8 (4)	34.5 (8.9)	0.001
• Platelet, count*10 <sup>3</sup> /ml	247 (69)	236 (87)	0.51
• Neutrophil, 10 <sup>9</sup> /L	10.5 (3.6)	8.6 (2.4)	0.013
• Lymphocyte, 10 <sup>9</sup> /L	1.6 (0.9)	1.4 (0.6)	0.78
• Albumin, g/dL	42.9 (5.2)	32.6 (8.1)	0.001
• CRP, mg/L	78 (92)	65 (83)	0.73
• RDW, %	13.2 (1.4)	18.5 (4.5)	0.001
• WBC, 10e3/ul	13.3 (3.7)	11.6 (4)	0.41
HALP score, (±SD)	41.1 (29)	29.6 (19)	0.043
LCR, (±SD)	2.6 (7.2)	1.5 (4.1)	0.046
CRP/Albumin ratio, (±SD)	1.7 (2.8)	2.2 (2.4)	0.041
NLR, (±SD)	8.7 (5.9)	6.7 (4.4)	0.048
d-NLR, (±SD)	4.3 (2.5)	1.5 (6.9)	0.005
PLR, (±SD)	224 (233)	186 (124)	0.39
SII index, (±SD)	2147 (1563)	1596 (1359)	0.048

## SB-117

## Impact of Inflammatory Markers on Survival in Stage III Colorectal Cancer

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**Objective:** Chronic inflammation plays a critical role in oncogenesis and can influence cancer prognosis. Several inflammatory markers, including C-reactive protein (CRP), neutrophil-to-lymphocyte ratio (NLR), and thrombocyte-to-lymphocyte ratio (TLR), have been identified as prognostic indicators in various solid tumors, including colorectal cancer (CRC). However, data on their prognostic significance in stage III CRC, characterized by lymph node metastasis, remain limited. This study aims to evaluate the impact of inflammatory markers on 5-year overall survival (OS) and disease-free survival (DFS) in patients with stage III CRC.

**Materials-Methods:** A retrospective analysis was conducted on patients diagnosed with stage III colorectal adenocarcinoma who underwent curative-intent surgery at our institution between April 2006 and June 2017. Preoperative blood samples collected within one week before elective surgery were analyzed. Patients were stratified based on CRP levels ( $\geq 2$  mg/dL vs.  $< 2$  mg/dL), NLR ( $\geq 5$  vs.  $< 5$ ), and TLR ( $< 150$ , 150–300, and  $> 300$ ). Five-year OS and DFS rates were compared across these groups.

**Results:** A total of 313 patients were included, with a mean age of 61.4 ( $\pm 12.4$ ) years; 52.4% were male. The cohort included 182 rectal and 131 colonic tumors, with a median follow-up of 90.6 months. Univariate analysis identified significant associations between 5-year OS and sex, age, histologic subtype, T stage, N stage, CRP, and NLR. Histologic subtype and N stage were also significant predictors of DFS (Table 1). However, multivariate analysis did not confirm inflammatory markers as independent prognostic factors for survival (Table 2).

**Conclusion:** Inflammatory markers, including CRP, NLR, and TLR, were not independent predictors of survival in stage III CRC. Tumor histology and nodal stage were the primary prognostic determinants of survival outcomes.

**Keywords:** Inflammatory markers, Stage III Colorectal Cancer

Table 1: Univariate analysis

Variable	n (%)	5-y DFS (%)	p value	5-year OS (%)	p value
<b>Sex</b>					
Male	164	49	<b>0,005</b>	59	<b>0,006</b>
Female	149	63		73	
<b>Age</b>					
<60	145	64	<b>0,025</b>	73	<b>0,011</b>
$\geq 60$	168	49		58	
<b>Tumor location</b>					
Colon	182	53	0,452	68	0,398
Rectum	131	59		63	
<b>Histologic subtype</b>					
Well-differentiated	19	68		73	
Moderately differentiated	239	58	<b>0,015</b>	69	<b>0,001</b>
Poorly differentiated	30	40		43	
Mucinous	25	48		52	
<b>T stage</b>					
T0	22	72		81	
T1	8	87		87	
T2	25	64	<b>0,043</b>	80	<b>0,005</b>
T3	191	55		66	
T4	67	46		50	
<b>N stage</b>					
N0	82	68		76	
N1	156	64	<b>&lt;0,001</b>	75	<b>&lt;0,001</b>
N2	65	27		36	
N3	10	20		20	
<b>CRP (mg/dl)</b>					
<2	151	59	<b>0,004</b>	67	<b>0,003</b>
$\geq 2$	42	40		46	
<b>NLR</b>					
<5	235	57	0,471	68	<b>0,032</b>
$\geq 5$	78	53		56	
<b>TLR</b>					
<150	75	58		69	
150-300	149	54	0,895	67	0,501
$\geq 300$	89	57		60	

DFS: Disease-free survival, OS: Overall survival, CRP: C-reactive protein, NLR: neutrophil-to-lymphocyte ratio, TLR: thrombocyte-to-lymphocyte ratio

Table 2: Cox regression analysis

Variable	ref.	DFS		OS	
		HR (CI)	p value	HR (CI)	p value
<b>Sex</b>	female	0,49 (0,30-0,79)	<b>0,004</b>	0,64 (0,38-1,08)	0,099
<b>Age</b>	-	0,71 (0,45-1,13)	0,155	0,61 (0,36-1,02)	0,063
<b>Histologic subtype</b>	poor	2,17 (0,92-5,10)	<b>0,011</b>	1,76 (0,74-4,14)	<b>0,007</b>
<b>T stage</b>	T0	0,82 (0,23-2,88)	0,884	0,78 (0,43-1,39)	0,687
<b>N stage</b>	N3	1,25 (0,48-3,21)	<b>0,002</b>	1,21 (0,46-3,12)	<b>0,003</b>
<b>CRP (mg/dl)</b>	< 2	0,64 (0,37-1,10)	0,107	0,68 (0,36-1,29)	0,249
<b>NLR</b>	<5	-	-	0,85 (0,47-1,53)	0,593

DFS: Disease-free survival, OS: Overall survival, CRP: C-reactive protein, NLR: neutrophil-to-lymphocyte ratio, TLR: thrombocyte-to-lymphocyte ratio, HR: Hazard ratio, CI: Confidence interval, ref.: reference



## SB-118

## Prognostic Impact of Pathologic Complete Response on Long-Term Survival in Locally Advanced Rectal Cancer Following Neoadjuvant Treatment

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**Objective:** While total neoadjuvant therapy is increasingly adopted, conventionally fractionated neoadjuvant chemoradiotherapy followed by surgery remains the standard approach for many patients with locally advanced rectal cancer (LARC). Tumor regression following neoadjuvant therapy varies, potentially influencing oncologic outcomes. This study evaluates the prognostic impact of pathological complete response (pCR) on overall survival (OS) and disease-free survival (DFS) in LARC patients undergoing neoadjuvant therapy and surgery.

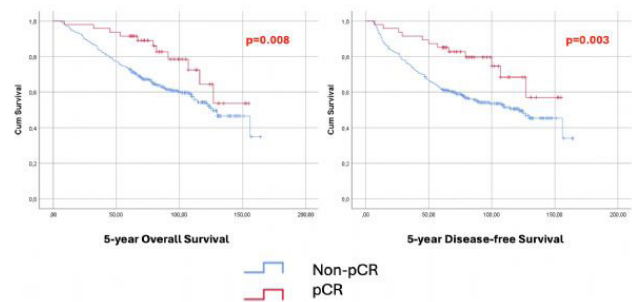
**Materials-Methods:** This retrospective study included patients who received long-course radiotherapy with concurrent capecitabine, followed by curative-intent surgery between January 2006 and January 2017. Patients were stratified based on the presence or absence of pCR. Primary outcomes were 5-year OS and DFS; secondary outcomes included local recurrence and distant metastasis rates.

**Results:** Among 327 patients, 47 (14.3%) achieved pCR with a median follow-up of 80.5 months. pCR patients were older (61.5 vs. 58.5 years), predominantly male (59.6%), and had a higher prevalence of lower rectal tumors (72.3%), though these differences were not statistically significant. Clinical T stage, clinical N stage, and mesorectal excision quality differed significantly between groups. Local recurrence (6.6% vs. 9.8%,  $p=0.21$ ) and distant metastasis (9.6% vs. 20.0%,  $p=0.08$ ) rates were lower in the pCR group, though not statistically significant (**Table 1**). OS was significantly longer in pCR patients (126.15 vs. 110.23 months,  $p=0.027$ ), with a 5-year OS of 89.0% versus 78.2% ( $p=0.008$ ). Similarly, DFS was prolonged in the pCR group (123.36 vs. 100.51 months,  $p=0.009$ ), with a 5-year DFS of 85.1% versus 61.4% ( $p=0.003$ ) (**Figure 1**).

**Conclusion:** pCR following neoadjuvant therapy in LARC is a strong prognostic indicator of improved OS and DFS. However, recurrence and distant metastases remain risks, underscoring the need for ongoing surveillance and tailored postoperative management.

**Keywords:** pathologic complete response, survival

**Figure 1: Overall and Disease-free survival between patients with and without pathological complete response**



**Table 1: Comparison of demographic, clinical, histopathological, and long-term oncological outcomes between patients with and without pathological complete response**

	pCR (n=47)	non-pCR (n=280)	p value
Age, year	58.5 (± 1.6)	61.5 (± 11.9)	0.10
Male sex, n (%)	28 (59.6%)	163 (58.2%)	0.86
Lower rectal tumor, n (%)	34 (72.3%)	163 (41.8%)	0.06
Clinical T stage, n (%)			
T2	2 (4.3%)	10 (3.6%)	0.033
T3	37 (78.7%)	168 (60%)	
T4	8 (17%)	102 (36.4%)	
Clinical N stage, n (%)			
N0	26 (55.3%)	112 (40%)	0.049
N1	17 (36.2%)	106 (37.9%)	
N2	3 (8.5%)	62 (22.1%)	
Clinical stage, n (%)			
Stage II	26 (55.3%)	112 (40%)	0.049
Stage III	21 (44.7%)	168 (60%)	
Histologic subtype, n (%)			
Well-differentiated	2 (4.3%)	19 (6.8%)	0.77
Moderately differentiated	396 (83%)	226 (80.7%)	
Poorly differentiated	2 (4.3%)	18 (6.4%)	
Mucinous adenocarcinoma	4 (8.5%)	17 (6.1%)	
Mesorectal excision quality, n (%)			
Complete	46 (97.6%)	247 (88.2%)	0.044
Near complete	1 (2.1%)	20 (7.1%)	
Incomplete	0 (0%)	13 (4.6%)	
Adjuvant chemotherapy, n (%)			
Fully tolerant	36 (78.3%)	170 (60.7%)	0.06
Intolerant	4 (8.7%)	34 (12.2%)	
Not Administered	6 (13.0%)	76 (27.1%)	
Locoregional recurrence, n (%)	3 (6.5%)	27 (9.8%)	0.08
Distant metastasis, n (%)	5 (9.6%)	55 (20%)	0.21
5-year Overall survival (OS), (%)	89%	78%	0.008
5-year OS, month	126	110	0.027
5-year Disease-free survival (DFS), (%)	85%	61%	0.003
5-year DFS, month	123	100	0.009

pCR: pathological complete response

## SB-119

## Analysis of Prognostic Factors on Early and Late Mortality in Geriatric Colorectal Cancer Patients

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**Objective:** Colorectal cancer (CRC) predominantly affects elderly individuals, and as life expectancy increases, data on geriatric CRC remain limited. There is a critical need for further research to understand the factors contributing to high morbidity and mortality in this population. This study aimed to evaluate the impact of laboratory parameters, type of surgical



intervention, and surgical approach (open or laparoscopic) on morbidity and mortality in patients aged 80 and older who underwent surgical treatment for CRC.

**Materials-Methods:** This retrospective observational study examined the relationships between independent variables (age, type of surgery, albumin, creatinine, MCV, replacement therapy, intensive care unit admission) and surgical parameters (surgical intervention type, approach) with target outcomes (morbidity, early mortality, late mortality) in 72 CRC patients aged over 80 who underwent surgery at Kayseri City Hospital between 2018 and 2024.

**Results:** The study found no statistically significant differences between independent variables and outcomes such as morbidity, early mortality, or late mortality. The relationship between emergency and elective surgeries was also assessed. Patients undergoing emergency surgery experienced significantly higher morbidity compared to those undergoing elective surgery (52.94% vs. 21.05%; chi-square  $p = 0.001$ ). However, the  $p$ -values for the relationship between surgical type and early mortality (0.065), late mortality (0.160), and morbidity (0.224) did not reach statistical significance.

**Conclusion:** In geriatric colorectal cancer patients, laboratory parameters and surgical parameters (surgical intervention type, approach) did not show a statistically significant impact on morbidity, early mortality, or late mortality but morbidity was significantly higher among patients who underwent emergency surgery. However, due to the study's single-center design and small sample size, larger, multicenter studies are needed to confirm and generalize these findings.

**Keywords:** colorectal cancer, elderly patients

## SB-120

### Prognostic Significance of CEA Levels in Rectal Cancer Patients

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**Objective:** This study evaluates the prognostic significance of preoperative and postoperative carcino-embryogenic antigen (CEA) levels in rectal cancer patients, focusing on their association with recurrence, disease-free survival (DFS) and overall survival (OS).

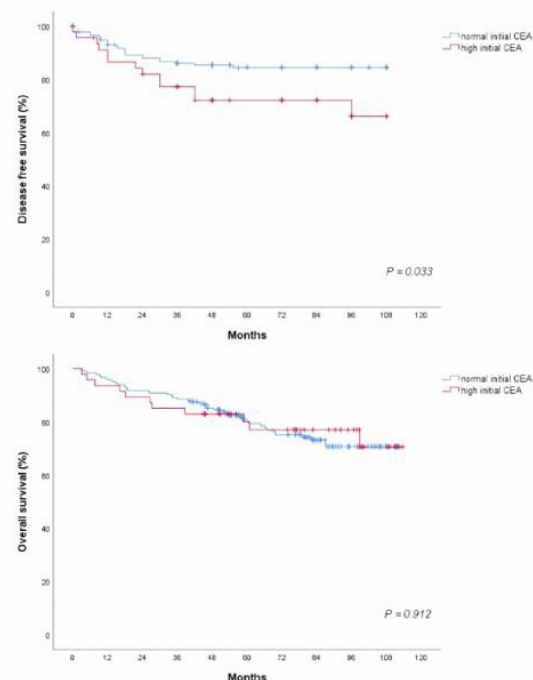
**Materials-Methods:** A retrospective analysis was performed on patients who underwent rectal cancer surgery at Ankara University Hospitals between January 2015 and December 2020. Patients with stage 4 disease or missing data were excluded from the study. CEA levels were collected preoperatively and at 3 to 6 months postoperatively. Patients were divided into two groups according to preoperative CEA levels ( $<5$  vs.  $\geq 5$  ng/mL) and OS and DFS rates were analyzed. In cases of recurrence, OS rates were analyzed according to CEA levels at recurrence ( $<5$  vs.  $\geq 5$  ng/mL).

**Results:** Evaluation of 231 patients (141 males, median age 62 years) showed no significant difference in OS rates among groups based on preoperative initial CEA levels ( $p=0.912$ ). However, DFS rates were significantly higher in patients with normal initial CEA levels ( $p=0.033$ ). In patients with recurrence, OS rates were significantly improved in those with CEA levels  $<5$  ng/mL at the time of recurrence ( $p=0.008$ ).

**Conclusion:** CEA is particularly valuable for monitoring recurrence and prognosis in rectal cancer patients. It should not be overlooked that high CEA levels in the preoperative period may be associated with recurrence and therefore worse DFS, while high CEA levels in the postoperative period may be associated with worse OS.

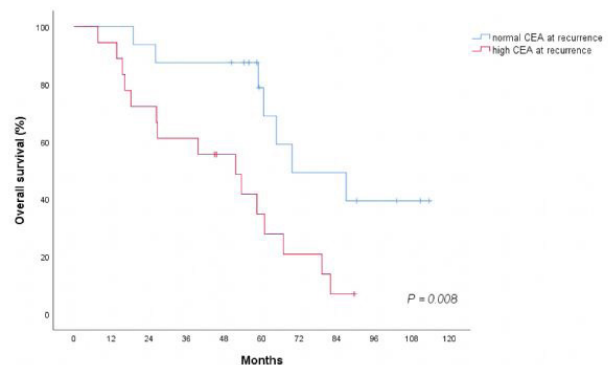
**Keywords:** Carcino-embryogenic antigen, rectal cancer

Figure 1.



Impact of Preoperative CEA Levels on Disease-Free and Overall Survival in Rectal Cancer Patients

Figure 2.



Impact of CEA Levels at Recurrence on Overall Survival in Rectal Cancer Patients

## SB-121

## The Role of Pressurized Intraperitoneal Aerosol Chemotherapy in Colorectal Peritoneal Carcinomatosis

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**Objective:** Pressurized intraperitoneal aerosol chemotherapy (PIPAC) is a method of delivering chemotherapy in aerosol form into the abdominal cavity of patients with peritoneal carcinomatosis. This study aimed to evaluate whether the use of PIPAC as a neoadjuvant treatment in combination with systemic chemotherapy is an effective therapeutic option.

**Materials-Methods:** Data from cases undergoing PIPAC for peritoneal carcinomatosis between January 2015 and 2020 were retrospectively analyzed. Cases treated with PIPAC due to colorectal peritoneal carcinomatosis were included in the study. Demographic data, tumor origins, number of PIPAC cycles, peritoneal carcinomatosis index (PCI) scores and conversion rates to cytoreductive surgery and hyperthermic intraperitoneal chemotherapy (HIPEC) were collected.

**Results:** A total of 12 patients received PIPAC treatment for colorectal cancer-associated peritoneal carcinomatosis. Of these, 8 cases originated from the colon, 3 from the rectum, and 1 from the appendix. The mean PCI score was 22 (range 18-30). A complete PIPAC protocol consisting of three sessions was completed in 2 of the 12 cases, while 3 cases received two sessions and 7 cases underwent a single PIPAC session. Most postoperative adverse events were recorded as mild to moderate, with no intraoperative complications observed. A decrease in the mean PCI score was observed in 8 patients (66%), and a reduction in ascitic fluid volume was noted in patients who underwent two or more PIPAC procedures. Following combined treatment, cytoreductive surgery and HIPEC were performed in 2 cases (16.6%). The median overall survival was found to be 18 months (range 10-36 months).

**Conclusion:** PIPAC is a feasible, safe, and well-tolerated novel treatment method for patients with colorectal peritoneal carcinomatosis. When combined with systemic oncologic treatments in cases with high PCI scores, it reduces ascitic fluid production and may render up to 20% of patients eligible for surgery.

**Keywords:** Pressurized intraperitoneal aerosol chemotherapy

## SB-122

## Can Neoadjuvant Chemoradiotherapy Be Omitted in cT2N+ and cT3 Mid-Rectal Cancer: Protocol for A Prospective, Observational, Non-Inferiority Trial (CANO)

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**Objective:** Neoadjuvant chemoradiotherapy (nCRT) followed by total mesorectal excision (TME) is the standard treatment for locally advanced rectal cancer. However, nCRT is associated with significant morbidity, impacting patients' quality of life. Recent advancements in MRI-based risk stratification have raised the possibility of omitting nCRT in selected patients without compromising oncologic outcomes. This study aims to evaluate whether upfront TME alone achieves non-inferior 3-year disease-free survival compared to the standard approach of nCRT followed by TME in patients with cT2N+ and cT3Nx mid-rectal cancer without mesorectal fascia involvement.

**Materials-Methods:** The CANO trial is a prospective, multicenter, observational non-inferiority study involving 1992 patients across Türkiye. Eligible patients will be classified into two groups: those undergoing direct TME and those receiving nCRT followed by TME. The primary endpoint is 3-year disease-free survival (DFS), with secondary outcomes including 5-year DFS, overall survival, local recurrence rates, and quality of life assessments using validated questionnaires. Data will be prospectively collected and monitored by the steering committee with predefined interim analyses.

**Conclusion:** The CANO trial addresses the ongoing debate regarding selective omission of nCRT in low-risk mid-rectal cancer. By leveraging MRI-based risk stratification and a collaborative national network, the study aims to provide high-quality evidence supporting a more personalized treatment approach. The findings have the potential to reduce treatment-related morbidity without compromising oncologic safety, contributing to the refinement of current guidelines.

*Trial registration:* NCT06823297 [ClinicalTrials.gov] [registered before starting inclusion; Version 3, 03.02.2025].

**Keywords:** Mid-rectal cancer, total mesorectal excision

Figure 1



Anticipated time-line of the study

## SB-123

## Retrospective Study on the Relationship Between Prognostic Factors of Colorectal Cancer and Tumor Markers

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**Objective:** Colorectal cancer (CRC) is a major cause of morbidity and mortality worldwide. Prognosis is influenced by tumor biology and systemic metabolic status. This study aims to evaluate the relationship between tumor markers (CEA, CA 19-9) and lipid profile (total cholesterol, triglycerides, LDL, HDL) in CRC patients and assess their prognostic value.

**Materials-Methods:** A retrospective analysis was conducted on patients diagnosed with CRC at the Departments of General Surgery and Medical Oncology of Ankara University between 2019 and 2023. Clinical data, tumor markers (CEA, CA 19-9), and lipid profile were recorded. Prognostic factors such as lymphovascular invasion, perineural invasion, microsatellite instability (MSI), and staging were evaluated. Pearson correlation test and Chi-square test were used for statistical analysis.

**Results:** Lymphovascular invasion was present in 49%, perineural invasion in 33.1%, and MSI in 11% of patients. Total cholesterol levels showed a weak but significant positive correlation with CEA ( $r=0.059$ ,  $p=0.023$ ) and CA 19-9 ( $r=0.053$ ,  $p=0.045$ ). LDL levels had a stronger positive correlation with CEA ( $r=0.139$ ,  $p<0.001$ ) and CA 19-9 ( $r=0.111$ ,  $p<0.001$ ). In contrast, HDL levels were weakly but negatively correlated with CEA ( $r=-0.062$ ,  $p=0.017$ ) and CA 19-9 ( $r=-0.056$ ,  $p=0.032$ ). In MSI patients, total cholesterol ( $p=0.017$ ) and LDL ( $p=0.007$ ) levels were significantly lower compared to microsatellite stable (MSS) patients. No significant relationship was found between lipid parameters and lymphovascular or perineural invasion.

**Conclusion:** This study demonstrates significant relationships between tumor markers and lipid profiles in CRC patients. The correlation between LDL and total cholesterol with tumor markers suggests a possible role of lipid metabolism in CRC progression. Lower lipid levels in MSI patients suggest a distinct metabolic profile. Further prospective studies are needed to evaluate the role of lipid parameters in CRC prognosis.

**Keywords:** Colorectal Cancer, Tumor Marker

**Table 1. Correlation Results Between CEA and CA 19-9 Levels and Laboratory Parameters**

**Table 1. Correlation Results Between CEA and CA 19-9 Levels and Laboratory Parameters**

		CEA	CA 19-9
Total Cholesterol	r	.059*	.053*
	p	0.023	0.045
Triglycerides	r	-0.039	-0.008
	p	0.137	0.765
LDL	r	.139**	.111**
	p	<0.001	<0.001
HDL	r	-.062*	-.056*
	p	0.017	0.032
VLDL	r	-0.038	0.599
	p	0.15	0.993

\* Correlation is significant at the 0.05 level (Pearson correlation test)

\*\* Correlation is significant at the 0.01 level (Pearson correlation test)

**Table 2. Comparison of Microsatellite Instability with Various Clinical Parameters**

**Table 2. Comparison of Microsatellite Instability with Various Clinical Parameters**

Variables, n (%)	Microsatellite Instability		p
	MSS N=584	MSI N=72	
Total Cholesterol			
Low	345 (59.1)	53 (73.6)	0.017
High	239 (40.9)	19 (26.4)	
Triglycerides			
Low	369 (63.6)	46 (63.9)	0.964
High	211 (36.4)	26 (36.1)	
LDL			
Low	211 (36.3)	38 (52.8)	0.007
High	370 (63.7)	34 (47.2)	
HDL			
Low	189 (32.6)	29 (40.3)	0.195
High	390 (67.4)	43 (59.7)	

Pearson Chi-Square Test,  $p<0.05$  Statistically Significant

**Table 3. Comparison of Lymphovascular Invasion with Various Clinical Parameters**

	Lymphovascular Invasion	Lymphovascular Invasion	p
Variables, n (%)	Absent N=309	Present N=297	
Total Cholesterol			
Low	190 (61.5)	178 (59.9)	0.695
High	119 (38.5)	119 (40.1)	
Triglycerides			
Low	185 (60.3)	182 (62.1)	0.641
High	122 (39.7)	111 (37.9)	
LDL			
Low	126 (40.9)	105 (35.7)	0.190
High	182 (59.1)	189 (64.3)	
HDL			
Low	109 (35.5)	108 (37)	0.706
High	198 (64.5)	184 (63)	

Pearson Chi-Square Test,  $p<0.05$  Statistically Significant

**Table 4. Comparison of Perineural Invasion with Various Clinical Parameters**

	Perineural Invasion	Perineural Invasion	
Variables, n (%)	Absent N=360	Present N=178	p
Total Cholesterol			
Low	218 (60.6)	108 (60.7)	0.979
High	142 (39.4)	70 (39.3)	
Triglycerides			
Low	216 (60.8)	112 (63.3)	0.587
High	139 (39.2)	65 (36.7)	
LDL			
Low	138 (38.7)	65 (36.7)	0.665
High	219 (61.3)	112 (63.3)	
HDL			
Low	122 (34.1)	72 (41.1)	0.111
High	236 (65.9)	103 (58.9)	

Pearson Chi-Square Test,  $p<0.05$  Statistically Significant

**SB-124****Incidence, Mortality and Survival of the Rectal Cancer: A Nationwide Population-based Study in Türkiye**

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<sup>3</sup>Genel Cerrahi, Başkent Üniversitesi Tıp Fakültesi İstanbul Hastanesi, İstanbul

<sup>4</sup>Deputy Minister of Health, Ankara

**Objective:** To demonstrate the incidence, disease-free and overall survival rates of rectal cancer by examining the nationwide population in Türkiye.

**Materials-Methods:** A population-based cohort study was carried out including all adults above 18 years of age and diagnosed with rectal cancer in Türkiye between 2020 and 2024. All related data were collected from the Turkish Health Ministry Database using disease-specific ICD codes.

**Results:** A total of 24.312 newly diagnosed patients were included in this study. The incidence of rectal cancer under 50 years of age was found to be 13.3% with a male predominance. The number of patients 40-49 years of age have significantly risen over the years. The 1-year and 3-year disease-free survival rates were 72.9% and 45.7% (95% CI 34.1-39%). The 1-year and 3-year overall survival rates defined as cancer-related mortality were 90.1% and 74.8% (95% CI 43.5-44.8). The overall mortality rate in the study population was 26.9%.

**Conclusion:** The goal of this nationwide population-based study is to provide a comprehensive overview of the incidence, disease-free and overall survival rates, and colorectal cancer-related mortality in Türkiye.

**Keywords:** Rectal cancer; Nationwide Population-based

**SB-125****Predictors of Postoperative Complications in Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemotherapy: A Retrospective Cohort Study**

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<sup>2</sup>KRC Private Center for Colorectal Surgery and Peritoneal Surface Malignancies, İzmir, Turkey

**Objective:** Cytoreductive surgery (CRS) plus hyperthermic intraperitoneal chemotherapy (HIPEC) is a complex procedure for managing peritoneal surface malignancies. Despite its potential benefits, it is associated with significant morbidity and mortality rates. This study aims to evaluate the morbidity and predictors of postoperative complications in patients who underwent CRS plus HIPEC.

**Materials-Methods:** A retrospective analysis of 234 patients who underwent CRS plus HIPEC for peritoneal carcinomatosis between 2019 and 2023 was conducted. Patients were selected based on histologically confirmed peritoneal carcinomatosis, absence of distant metastases, and adequate performance status (ECOG  $\leq$  2). Data on patient demographics, operative details, and postoperative outcomes were collected. Statistical analysis was performed to identify predictors of morbidity.

**Results:** The overall morbidity rate was 10.7% (25/234). The most common complications were surgical site infections (8.1%) and ileus (6.4%). Mortality occurred in 0.4% (1/234) of patients. Multivariate analysis identified age ( $p=0.03$ ), operation time ( $p=0.01$ ), and length of hospital stay ( $p=0.02$ ) as significant predictors of morbidity.

**Conclusion:** CRS plus HIPEC is associated with significant morbidity, with age and operation time being key predictors. These findings underscore the need for careful patient selection and perioperative management to minimize complications.

**Keywords:** cytoreductive surgery, hyperthermic intraperitoneal chemotherapy

**SB-135****Can Patients with Low Rectal Cancer and Sphincter Involvement Avoid Permanent Ostomy?**

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**Objective:** Neoadjuvant treatment can lead to significant tumor response and downstaging, potentially enabling sphincter-preserving procedures such as intersphincteric resection (ISR) or ultra-low anterior resection (u-LAR) in patients with low rectal cancer involving the sphincter complex. However, studies revealed that sphincter preservation decisions are often based on pre-treatment tumor characteristics and MRI findings rather than post-treatment assessments, leading to its underutilization. This study aims to evaluate the rate of post-treatment MRI utilization and subsequent sphincter-preserving surgery in patients with sphincter-invading low rectal cancer following neoadjuvant therapy.

**Materials-Methods:** A retrospective review was conducted on patients who underwent neoadjuvant therapy for locally advanced low rectal cancer with sphincter involvement between 2014 and 2024. MRI was used to assess sphincter invasion before and after treatment. The primary outcomes included post-treatment MRI utilization and the surgical approach performed.

**Results:** A total of 30 patients (43.3% female) with a median age of 58.5 years were included. Two patients underwent total neoadjuvant therapy, while the remaining received standard long-course chemoradiation (**Table 1**). Post-treatment MRI was performed in only 10 patients (33.3%), demonstrating persistent sphincter involvement in 6 cases (20%) and tumor



regression in 4 cases (13.3%). Despite this, only 2 patients underwent ISR, and no u-LAR procedures were performed. The majority (28/30) underwent abdominoperineal resection with permanent colostomy.

**Conclusion:** Post-treatment MRI assessment of tumor response is underutilized in patients with low rectal cancer involving the sphincter complex. Increased awareness of tumor downstaging following neoadjuvant therapy may facilitate greater consideration of sphincter-preserving approaches, potentially reducing the need for permanent ostomy.

**Keywords:** Overlook intersphincteric resection, permanent ostomy

Figure 1: Descriptives of cohort

	Descriptive
Age, year (IQR)	58.5 (16)
Female gender, n (%)	13 (43.3%)
BMI, kg/m <sup>2</sup> (IQR)	28 (5.5)
ASA score	
I	17 (56.7%)
II	13 (43.3%)
Abdominal surgical hx, n (%)	9 (30%)
Diversion before neoadjuvant treatment, n (%)	1 (3.3%)
TNT, n (%)	2 (6.7%)
Post-treatment MRI utilization, n (%)	10 (33.3%)
Sphincter involvement in Post-treatment MRI, n (%)	4 (13.3%)
ISR, n (%)	2 (6.7%)
Surgical approach, n (%)	
Open	22 (73.3%)
Laparoscopic	7 (23.3%)
Robotic assisted	1 (3.3%)
pT stage	
T0	3 (10%)
T2	5 (16.7%)
T3	20 (66.7%)
T4	2 (6.7%)
pN stage	
N0	16 (53.3%)
N1	11 (36.7%)
N2	3 (10%)
Adjuvant chemotherapy, n (%)	17 (56.7%)
Follow-up time, month (IQR)	29 (34)
Local recurrence, n (%)	3 (10%)
Distant metastasis, n (%)	6 (20%)
Mortality, n (%)	8 (26.7%)
DFS, month (IQR)	24.5 (34)
OS, month (IQR)	35.5 (41)

## SB-136

### Oncologic and Functional Outcomes of Sacrectomy vs. Non-Sacrectomy in Patients with Retrorectal Tumors

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**Objective:** Retrorectal tumors are rare, with most published series consisting of case reports or small patient cohorts. Additionally, decision on sacrectomy remains debatable thus some surgeons advise sacrectomy due to a recurrence risk while others against it to protect functions. This study aimed to compare oncologic and functional outcomes in patients undergoing resection with or without sacrectomy for retrorectal tumors.

**Materials-Methods:** A retrospective analysis was conducted on patients who underwent surgery for retrorectal tumors between 2013 and 2024. Reoperations for recurrence were excluded. Patients with sacral invasion underwent sacrectomy, while patients without invasion underwent resection alone. Primary outcomes included long-term oncologic and functional outcomes. Functional outcomes were assessed using validated questionnaires, including Fecal Incontinence Severity Index (FISI), Revised Urinary Incontinence Scale (RUIS), Female Sexual Function Index (FSFI), International Index of Erectile Function-5 (IIEF-5), and Short Form-36 (SF-36).

**Results:** A total of 30 patients were included (17 without sacrectomy, 13 with sacrectomy) with a mean age of 52.1 years. Among patients who underwent sacrectomy, the primary pathological diagnosis was chordoma, observed in

all cases (100%, 14/14). In contrast, the majority of benign pathological diagnoses were tailgut cysts, identified in 11 out of 16 (68%) cases without sacrectomy. Nerve injury rate was higher in sacrectomy group (n=1, 5.9% vs. n=11, 84.6%,  $p<0.001$ ). Local recurrence and mortality observed similar in both groups (23% vs. 30%,  $p=0.65$  and 11% vs. 7%,  $p=1.00$ , respectively). However, functional outcomes and quality of life were significantly worse in the sacrectomy group (Table 1).

**Conclusion:** Oncologic outcomes in retrorectal tumors are favorable, but recurrence risk warrants close follow-up. Sacrectomy is associated with significantly worse functional outcomes, likely due to nerve injury. As sacrectomy was only performed when necessary due to invasion, preserving the sacrum and/or nerves when feasible may prevent functional impairment without compromising oncologic results.

**Keywords:** Retrorectal tumors, sacrectomy

**Table 1: Comparison of demographics, tumor characteristics, functional and long-term oncological outcomes**

Variables	Descriptives	Resection without sacrectomy (n=17)	Resection with sacrectomy (n=13)	p-value
<b>Demographics and Tumor Characteristics</b>				
Age, year (±SD)	52.1 (14.2)	47.4 (13.4)	58.1 (13.3)	0.05
Male gender, n (%)	14 (46.7%)	8 (47.1%)	6 (46.2%)	0.96
Comorbidities, n (%)	11 (40.7%)	4 (23.5%)	7 (53.8%)	0.08
Tumor located <S3, n (%)	13 (48.1%)	9 (52.9%)	5 (38.5%)	0.43
Biopsy, n (%)	15 (55.6%)	5 (29.4%)	12 (92.3%)	<0.001
Tumor size, cm (±SD)	7.56 (14.2)	6.7 (3)	8.5 (1.9)	0.09
<b>Short-term outcomes</b>				
Approach, n (%)				
Abdominal	8 (29.6%)	8 (47.1%)	0 (0%)	0.011
Posterior	13 (48.1%)	5 (29.4%)	8 (61.5%)	
Combine	6 (22.3%)	4 (23.5%)	5 (38.5%)	
Nerve injury, n (%)	10 (37%)	1 (5.9%)	11 (84.6%)	<0.001
Positive margins, n (%)	4 (14.8%)	0 (0%)	4 (30.8%)	0.028
En bloc resection, n (%)	30 (100%)	17 (100%)	13 (100%)	1.00
LOS, day (IQR)	7 (6)	6 (4)	9.5 (5.2)	0.027
Clavien-Dindo ≥3, n (%)	8 (29.6%)	3 (17.6%)	5 (38.5%)	0.24
Readmission (30day), n (%)	0 (0%)	0 (0%)	0 (0%)	1.00
Mortality (30day), n (%)	1 (3.7%)	1 (5.9%)	0 (0%)	1.00
<b>Long-term outcomes</b>				
Local recurrence, n (%)	8 (26.7%)	4 (23.5%)	4 (30.8%)	0.65
Mortality, n (%)	3 (10%)	2 (11.8%)	1 (7.7%)	1.00
Follow-up, month (IQR)	65.3 (49)	28 (87)	73 (83)	0.80
5-year DFS, %	71.8%	72%	70%	0.84
5-year OS, %	90.6%	80.7%	100%	0.51
<b>Functional outcomes and QoL</b>				
FISL score (IQR)	5 (15)	0 (7)	14 (17)	0.012
RUIS score (IQR)	4 (7)	3 (4.5)	8.5 (7.5)	0.005
FSFI score (IQR)	24.1 (8.3)	27.8 (3)	18.5 (17.9)	0.002
IEEF score (IQR)	25 (10.5)	28.5 (2.5)	17 (13)	0.008
SF-36, scores (IQR)				
Physical functioning	75 (30)	85 (17.5)	55 (22.5)	0.005
Limitations due to physical health	100 (100)	100 (0)	0 (0%)	<0.001
Limitations due to emotional problems	100 (83.5)	100 (0)	16.5 (75.3)	<0.001
Energy/fatigue	60 (32.5)	70 (22.5)	45 (27.5)	0.008
Emotional well-being	68 (20)	68 (16)	62 (12)	0.06
Social functioning	75 (38)	88 (26)	50 (40.3)	0.003
Pain	78 (55)	90 (27)	45 (45)	0.017
General health	65 (27.5)	75 (20)	52.5 (27.5)	0.017

## SB-137

### Good Response or Poor Response to Neoadjuvant Chemotherapy? Predictive Parameters in Locally Advanced Rectal Cancer

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**Objective:** Neoadjuvant chemotherapy (NACT) has almost become the standard treatment approach for patients with locally advanced rectal cancer (LARC). However, not every patient responds to NACT in a similar way. In this study, we aimed to determine which clinical, biological and imaging tools can predict “good response” and “poor response” to NACT.

**Materials-Methods:** Patients diagnosed with rectal cancer in the Department of General Surgery of Mersin University Hospital between January 2016 and January 2024 were retrospectively examined and those with locally advanced

disease and those who received NACT were recorded. ypT1-2N0 were grouped as “good response”, ypT3-4,N0-1 as “poor response”. Tumor factors such as max. Tm diameter, tumor distance from anus, tumor distance from mesorectal fascia, histopathological grade and type of tumor, tumor budding, blood tests such as CA19-9, CEA, ALB, SUV max values in Pet/CT and NACT interval, survival rates were analyzed by comparing the two groups before and after NACT.

**Results:** Of the 69 patients included in the study with a median age of 64 (55-70), 23 (33.3%) were in the “good response” group and 46 (66.7%) were in the “poor response” group after NACT, while only 8 (11.6%) patients achieved pCR. In the “good response” group, CA19-9 (mean 15.04 vs. 21.84 U/ml,  $p=285$ ) and CEA (mean 7.64 vs. 15.25 ng/ml,  $p=0.583$ ) were lower, while Albumin (mean 5.5 vs. 3.9 g/dl,  $p=0.299$ ) was higher. In the “Poor Response” group, the mean value differences in tumor diameter (33.5 mm vs. 27.4 mm) and distance from the mesorectal fascia (17.49 mm vs. 24.35 mm) were similar and statistically insignificant in both groups in terms of distance to the anus, NACT interval, SUVmax and SUVmax change.

**Conclusion:** This study highlights the challenge of identifying reliable predictive factors for pCR. Despite extensive evaluation, none of the assessed clinical, biochemical, or imaging parameters demonstrated significant predictive value.

**Keywords:** Rectal cancer, Neoadjuvant therapy

## SB-138

### Stoma Creation Tendency and Short-Term Surgical Outcomes in Low Anterior Resection for Rectal Cancer: Analysis from the TSCRS Colorectal Cancer Database (T-CCD)

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**Objective:** Anastomotic leakage (AL) is a major complication following low anterior resection (LAR), leading to significant morbidity. While diverting stomas have been shown to reduce both the incidence and severity of AL, data on stoma creation practices and their impact on short-term surgical outcomes in the Turkish population remain limited. This study aims to evaluate the trends in ostomy creation and its impact on postoperative outcomes in rectal cancer patients undergoing LAR.

**Materials-Methods:** We retrospectively analyzed prospectively collected data from the TSCRS-CCD (2018–2024) for patients who underwent curative-intent LAR for rectal cancer located ≤12 cm from the anal verge. Patients with synchronous tumors, inflammatory bowel disease, hereditary colorectal cancer, or those undergoing emergency surgery were excluded. Patients were stratified into stoma and no-stoma groups. The primary outcome was AL, while secondary outcomes included 30-day readmission, reoperation, and mortality rates.

**Results:** Among 313 patients (37.1%female, median age:62), 260 (83%) underwent stoma creation. Patients without a stoma had lower tumor stages (T1–T2:64.2% vs. 29.3%;  $p<0.001$ ) and a lower incidence of lymph node metastasis (50.9% vs. 67.3%;  $p=0.023$ ). Additionally, tumors and anastomoses were located higher in patients without an ostomy (9vs.7cm,  $p<0.001$ , 4vs.3cm,  $p<0.001$ , respectively). Patients with an ostomy were more likely to undergo neoadjuvant treatment (56.5% vs. 88.5%,  $p<0.001$ ). Partial mesorectal excision was more common in the no-stoma group (35.8% vs. 11.5%,  $p<0.001$ ) (**Table1**). AL occurred at a significantly higher rate in the no-stoma group (11.3% vs. 4.2%,  $p=0.038$ ), leading to an increased reoperation rate (5.1% vs.4.2%;  $p=0.003$ ), though other complications did not significantly differ (**Table2**).

**Conclusion:** Despite having earlier-stage tumors and relatively higher tumor and anastomosis levels, patients without a stoma exhibited a higher incidence of AL with increased reoperation rates. These findings highlight the importance of carefully considering stoma creation, even in select low-risk patients undergoing LAR for rectal cancer.

**Keywords:** Stoma creation, anastomotic leakage

**Table 1: Demographics, tumor characteristics and surgical details**

	All (n=313)	No stoma (n=53)	Stoma (n=260)	p-value
Age, year (IQR)	62 (18)	60 (14)	62.5 (19)	0.51
Female sex, n (%)	116 (37.1%)	20 (37.7%)	96 (36.9%)	0.91
BMI, kg/m <sup>2</sup> (IQR)	25.5 (4.2)	26 (3.8)	25.4 (4.3)	0.86
Symptoms, n (%)				
Bleeding	205 (65.5%)	32 (60.4%)	173 (66.5%)	0.39
Constipation	96 (30.4%)	9 (17%)	86 (33.1%)	<b>0.020</b>
Abdominal pain	93 (29.7%)	16 (30.2%)	77 (29.6%)	0.93
Anemia	18 (5.8%)	1 (1.9%)	17 (6.5%)	0.32
Screening	22 (7%)	7 (13.2%)	15 (5.8%)	0.06
Incidental	10 (3.2%)	4 (7.5%)	6 (2.3%)	0.07
ASA score, n (%)				0.46
I	82 (26.2%)	15 (28.3%)	67 (25.8%)	
II	190 (60.7%)	34 (64.2%)	156 (60%)	
III	41 (13.1%)	4 (7.5%)	37 (14.2%)	
Abdominal surgical history, n (%)	60 (19.2%)	7 (13.2%)	53 (20.4%)	0.22
Non-smoker, n (%)	202 (64.5%)	37 (69.8%)	165 (63.5%)	0.65
CRC family history, n (%)	43 (13.8%)	10 (19.2%)	33 (12.7%)	0.21
Preoperative CEA level, (IQR)	3 (9)	2 (4)	3 (9)	0.50
Preoperative CA19-9 level, (IQR)	9 (16)	10 (15)	9 (16)	<b>&lt;0.001</b>
cT stage				
T1	16 (5.1%)	7 (13.2%)	9 (3.5%)	
T2	54 (17.3%)	16 (30.2%)	38 (14.6%)	
T3	209 (66.8%)	27 (50.9%)	182 (70%)	
T4	34 (10.9%)	3 (5.7%)	31 (11.9%)	
Positive nodal status, n (%)	202 (64.5%)	27 (50.9%)	175 (67.3%)	<b>0.023</b>
Stage at the time of diagnosis, n (%)				<b>0.016</b>
I	37 (11.8%)	11 (20.7%)	26 (10.0%)	
II	96 (30.7%)	7 (13.2%)	89 (33.8%)	
III	164 (52.5%)	19 (35.8%)	145 (55.9%)	
MRI utilization, n (%)	265 (84.7%)	46 (86.8%)	219 (84.2%)	0.63
MRI T stage, n (%)				<b>&lt;0.001</b>
T1	9 (3.4%)	5 (10.9%)	4 (1.8%)	
T2	43 (16.2%)	16 (30.2%)	27 (12.3%)	
T3	170 (67.8%)	22 (47.8%)	148 (71.7%)	
T4	34 (12.8%)	3 (6.5%)	31 (14.2%)	
MRI positive nodal status, n (%)	187 (70.6%)	25 (54.3%)	162 (74%)	<b>0.008</b>
Tumor distance to anal verge, cm (IQR)	7 (4)	9 (3)	7 (3)	<b>&lt;0.001</b>
Neoadjuvant treatment, n (%)	261 (83.1%)	30 (56.5%)	231 (88.5%)	<b>&lt;0.001</b>
Time to surgery, week (IQR)	10 (4)	8 (6)	10 (4)	0.12
Surgical approach, n (%)				0.75
Open	129 (41.2%)	19 (35.8%)	110 (42.3%)	
Hand-assisted	1 (0.3%)	0 (0%)	1 (0.4%)	
Laparoscopic	169 (54%)	32 (60.4%)	137 (52.7%)	
Robotic assisted	14 (4.5%)	2 (3.8%)	12 (4.6%)	
Conversion, n (%)	16 (5.1%)	3 (5.7%)	13 (5.0%)	1.00
Total mesorectal excision, n (%)	271 (86.6%)	34 (64.2%)	237 (91.2%)	<b>&lt;0.001</b>
Staple anastomosis, n (%)	278 (88.8%)	45 (84.9%)	233 (89.6%)	0.32
Intracorporeal anastomosis, n (%)	114 (36.4%)	21 (39.6%)	93 (35.8%)	0.97
Anastomosis distance to anal verge, cm (IQR)	3 (2)	4 (3)	3 (2)	<b>&lt;0.001</b>
Intraoperative complication, n (%)	11 (3.5%)	1 (1.9%)	10 (3.8%)	0.69
Operative time, min (IQR)	200 (92.5)	200 (90)	200 (88)	0.61
EBL, ml (IQR)	100 (95)	85 (100)	100 (90)	0.35
Intraoperative blood transfusion	9 (2.9%)	0 (0%)	9 (3.5%)	0.36

**Table 2: Postoperative short-term surgical outcomes**

	All (n=313)
Surgical site infection, n (%)	37 (11.8%)
Deep surgical site infection, n (%)	7 (2.2%)
Evisceration, n (%)	3 (1%)
Postoperative ileus, n (%)	28 (8.9%)
Anastomotic leakage, n (%)	17 (5.4%)
Urinary leakage, n (%)	3 (1%)
Urinary retention, n (%)	10 (3.2%)
Urinary incontinence, n (%)	2 (0.6%)

## SB-139

### Total Neoadjuvant Therapy Is Associated with a Higher Complete Response Rate in Locally Advanced Rectal Cancer

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**Objective:** Pathological complete response (pCR) in patients with locally advanced rectal cancer (LARC) is associated with better survival compared to non-pCR. Total neoadjuvant therapy (TNT) has been shown to improve pCR rates. This study aims to compare the complete response (CR) rates between TNT and chemoradiation therapy (CRT).

**Materials-Methods:** Patients with LARC treated consecutively over the last two years at two different centers (Center1 and Center2) were included in this study. All surgeries were performed by four colorectal surgeons trained at the same institution (Center2). Center1 adopted the TNT approach, while CRT followed by consolidation chemotherapy was the protocol at Center2. In Center1, patients with a complete clinical response were followed using the watch-and-wait protocol. Patients with distant metastases, T4 tumors, recurrent rectal cancer, prior pelvic radiation, or familial colorectal cancers were excluded. The primary endpoint was the complete response rate; secondary endpoints included the rectum preservation rate, the rate of abdominal surgery avoidance, and the percentage of patients managed with the watch-and-wait protocol.

**Results:** A total of 74 patients at Center1 underwent TNT, and 36 patients at Center2 underwent CRT. Demographics, tumor localization, and stage were comparable between the groups. The complete response rate was 52% in the TNT group, compared to 11% in the CRT group ( $p<0.001$ ). A permanent colostomy was avoided in 13 of 25 patients who would have undergone abdominoperineal resection in Center1, compared to only 1 patient in Center2 ( $p=0.027$ ). Thirty-five patients were managed with the watch-and-wait protocol, all treated at Center1. During the study period, five patients in the watch-and-wait group experienced tumor regrowth, and one patient developed liver metastases. None of the patients with regrowth required a permanent colostomy. In total, 46% of patients with LARC achieved CR and were managed without surgery or further intervention.

**Conclusion:** TNT using the sandwich regimen resulted in a significantly higher CR rate in patients with LARC, leading to a higher rate of rectal preservation in a substantial proportion of patients.

**Keywords:** colorectal, neoadjuvant



## SB-140

## Is Nonoperative Management Justified in Young-Onset Locally Advanced Rectal Cancer After Complete Response to Total Neoadjuvant Therapy?

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**Objective:** The incidence of young-onset rectal cancer (YORC) is rising, with increasing recognition of its distinct molecular and histological characteristics compared to late-onset rectal cancer. While nonoperative management (NOM) following total neoadjuvant therapy (TNT) is an accepted strategy for select patients achieving clinical complete response (cCR), surgeons may be more reluctant to apply this approach in younger patients due to concerns about higher biological aggressiveness and local regrowth rates. This study compares oncologic outcomes and treatment response between young-onset and late-onset rectal cancer patients following TNT.

**Materials-Methods:** A retrospective analysis of 185 rectal cancer patients stratified into young-onset ( $\leq 50$  years,  $n=52$ ) and late-onset ( $>50$  years,  $n=133$ ) groups was performed. Kaplan-Meier survival analysis assessed overall total mesorectal excision (TME)-free, disease-free (DFS), distant metastasis-free (DMFS), and overall survival (OS).

**Results:** The two groups were clinically comparable. Although the complete response rates were similar (YOCRC: 36.5%, late-onset: 39.8%,  $p=0.804$ ), which managed nonoperatively, local regrowth rates were higher in YORC but did not reach statistical significance (YORC: 32%, late-onset: 17%,  $p=0.09552$ ). One patient from each group who underwent surgery due to a non-complete response was ultimately found to have a pathological complete response. With a median follow-up of 48 months, although TME-free survival was significantly lower in YOCRC, DMFS (YORC 100% vs late-onset 95%,  $p=0.45$ ), DFS (YOCRC 59.3% vs. late-onset 69.7%,  $p=0.3$ ) and OS (YOCRC 88.2% vs. late-onset 93.8%,  $p=0.3$ ) remained comparable between non-operatively managed YORC and late-onset rectal cancer patients.

**Conclusion:** Despite higher local regrowth and lower TME-free survival, NOM in YOCRC does not compromise oncologic outcomes. Given the comparable OS and DFS, concerns about NOM in young patients may be unwarranted. However, more intensive surveillance is recommended, and prospective studies are needed to refine treatment strategies.

**Keywords:** Young Onset Rectal Cancer, Nonoperative management

Figure 1. TME Free Survival

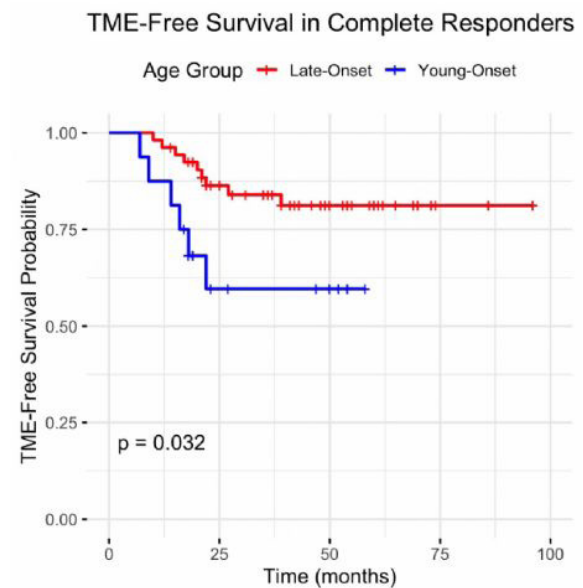


Table 1. Clinical and Demographic characteristics

		Late-Onset (n=133)	Young-Onset (n=52)	p value
Mean BMI (SD)		27.37 (4.55)	25.59 (4.01)	0.017
Gender (percentage)	Male	77 (57.9)	34 (65.4)	0.443
	Female	56 (42.1)	18 (34.6)	
ASA Score (percentage)	1	12 (9.0%)	20 (38.5%)	<0.001
	2	98 (73.7%)	27 (51.9%)	
	3	23 (17.3%)	5 (9.6%)	
T stage (percentage)	2	12 (9.0%)	3 (5.8%)	0.308
	3	108 (81.2%)	40 (76.9%)	
	4	13 (9.8%)	9 (17.3%)	
N stage (percentage)	0	23 (17.3%)	4 (7.7%)	0.152
	1	110 (82.7%)	48 (92.3%)	
CRM (percentage)	0	77 (57.9%)	25 (48.1%)	0.476
	1	28 (21.1%)	14 (26.9%)	
	NA	28 (21.1%)	13 (25.0%)	
EMVI (percentage)	0	47 (35.3%)	15 (28.8%)	0.653
	1	48 (36.1%)	22 (42.3%)	
	NA	38 (28.6%)	15 (28.8%)	
Pelvic Side Wall Lymph Node (percentage)		110 (75.2%)	41 (65.4%)	0.327
		23 (17.3%)	11 (21.2%)	

Table 2. Response Rates

Response	Late-Onset (n=133)	Young-Onset (n=52)	Total
Incomplete Response	80 (60.2%)	33 (63.5%)	113 (61.1%)
Clinical Complete Response	53 (39.8%)	19 (36.5%)	72 (38.9%)



## SB-141

# Impact of Concurrent Splenectomy on The Short-Term Outcomes of Surgery for Colorectal Cancer: An Assessment from TSCRS Colorectal Cancer Database

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**Objective:** Splenectomy may be necessary in cases of splenic injury or tumor invasion during colorectal cancer surgery. Previous studies have demonstrated that splenectomy can lead to increased perioperative risks and adverse oncologic outcomes. This study aims to evaluate impact of splenectomy on short-term outcomes during colorectal cancer surgery.

**Materials-Methods:** Data for this study were documented from prospectively maintained national colorectal database of Turkish Society of Colorectal Surgery. A total of 1,852 patients underwent curative resection for colorectal cancer were analyzed, of whom 16 (0.86%) underwent splenectomy, while 1,836 (99.14%) did not. Among these, intraoperative splenic injury occurred in 15 patients, requiring splenectomy in 5 cases, whereas injury was controlled without splenectomy in 10 cases. Demographic data, surgical, and pathological outcomes were compared between these two groups.

**Results:** Patients who underwent splenectomy were significantly older and had higher baseline carcinoembryonic antigen (CEA) levels. The clinical T stage was significantly more advanced in the splenectomy group. The rate of non-liver and non-pulmonary metastases at the time of diagnosis was significantly lower in the splenectomy group. Patients requiring splenectomy had higher ASA score. Tumors in the splenectomy group were more commonly located in the left colon, and left hemicolectomy was performed more frequently. The need for intraoperative and postoperative erythrocyte suspension transfusion was significantly higher in splenectomized patients. These patients also had higher incidence of pancreatic fistula, longer length of hospital stay, and increased 30-day mortality. Pathological T stage was significantly more advanced in the splenectomy group. The summary of results are shown in Table 1.

**Conclusion:** Concurrent splenectomy was mostly performed during left colectomy procedures for advanced T stage tumors and it is associated with worse short-term outcomes.

**Keywords:** Colorectal cancer surgery, Splenectomy

Table 1: The results of the univariate analysis

	Concomitant Splenectomy	No Splenectomy	
Variable	n (%) median (min – max)	n (%) median (min – max)	p value
Sex			
Male	11 (68,75)	1127 (61,38)	0,5467
Female	5 (31,25)	709 (38,62)	
Age	69 (45 – 83)	64,5 (21 – 97)	0,0429
CEA at the Time of Diagnosis	21 (1 – 1369)	3 (0 – 12362)	0,0076
Clinical T Stage			
T1	0 (0,)	115 (6,26)	<0,0001
T2	1 (6,25)	286 (15,58)	
T3	3 (18,75)	1027 (55,94)	
T4	12 (75,0)	408 (22,22)	
Extrahepatic and Extrapulmonary Metastasis at the Time of Diagnosis			
Yes	4 (26,67)	20 (1,31)	<0,0001
No	11 (73,33)	1511 (98,69)	
ASA Score			
ASA 1	2 (12,50)	379 (20,64)	0,0005
ASA 2	9 (56,25)	1072 (58,39)	
ASA 3	3 (18,75)	364 (19,83)	
ASA 4	2 (12,50)	18 (0,98)	
ASA 5	0 (0)	3 (0,16)	
Tumor Location During Surgery			
Rectum	2 (12,50)	783 (42,65)	0,0002
Right Colon	2 (12,50)	530 (28,87)	
Left Colon	12 (75,0)	523 (28,49)	
Performed Surgery			
Rectum Resection	3 (18,75)	686 (37,36)	0,0071
Right Colon Resection	1 (6,25)	469 (25,54)	
Left Colon Resection	12 (75,0)	681 (37,09)	
Type of Surgery			
Open	11 (68,75)	912 (49,67)	0,4089
Hand-Assisted Laparoscopic	0 (0)	4 (0,22)	
Laparoscopic	5 (31,25)	779 (42,43)	
Robotic	0 (0)	141 (7,68)	
Erythrocyte Suspension (ES) Replacement During Surgery			
Yes	6 (37,50)	102 (5,57)	<0,001
No	10 (62,50)	1730 (94,43)	
Postoperative Erythrocyte Suspension (ES) Replacement			
Yes	10 (62,20)	471 (25,68)	0,0008
No	6 (37,50)	1363 (74,32)	
Pancreatic Fistula			
Yes	1 (6,25)	0 (0)	0,0086
No	15 (93,75)	1836 (100)	
Postoperative Length of Hospital Stay	10 (1 – 29)	7 (0 – 120)	0,0136
30-Day Mortality			
Yes	2 (12,50)	24 (1,31)	0,0202
No	14 (87,50)	1812 (98,69)	
Pathological T Stage of the Tumor			
T0	0 (0)	97 (5,28)	0,0042
T1	0 (0)	102 (5,56)	
T2	0 (0)	212 (11,55)	
T3	5 (31,25)	931 (50,71)	
T4	7 (43,75)	382 (20,81)	
T4a	4 (25,00)	104 (5,66)	
T4b	0 (0)	8 (0,44)	
Tis			

## SB-142

## Prognostic Significance of Pulmonary Nodules in Preoperative Thoracic CT of Colorectal Cancer Patients Undergoing Surgery

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**Objective:** Pulmonary nodules detected in preoperative thoracic CT of colorectal cancer (CRC) patients present a diagnostic challenge regarding their metastatic potential. This study evaluates the characteristics, progression, and prognostic impact of preoperative pulmonary nodules in CRC patients undergoing surgery.

**Materials-Methods:** A retrospective analysis was conducted on 358 CRC patients (2014–24). After excluding 92 patients without preoperative thoracic CT data, 266 remained. Pulmonary nodules were detected in 135 patients, but follow-up data were available for 110, who were included in the study. Clinical, radiological, and pathological factors were analyzed, comparing those with and without pulmonary metastases.

**Results:** Among the 110 patients, 79(71.82%) were female and mean age was 67,1. COPD was present in 6(6.67%), and 18(20.46%) were active smokers. Preoperative CT revealed a single pulmonary nodule in 31(28.18%), two nodules in 7(6.36%), and multiple nodules in 72 patients(65.46%). Nodule size progression was observed in 26 patients (23.64%) during follow-up. Among them, 14 underwent wedge resection. Histopathological examination of the 14 resected nodules revealed primary lung cancer in 1(7.14%), benign in 4(28.57%), and metastatic colorectal cancer in 9 cases(64.29%). In 8 patients the diagnosis for pulmonary metastasis was based on clinical decision. A total of 17 patients were diagnosed with pulmonary metastases, either-through histopathology or clinical-radiological criteria. No significant differences were found in gender, age, smoking-status, tumor localization or surgical approach between metastatic and non-metastatic groups. However, several factors were significantly different in pulmonary metastasis group: larger nodule size in preoperative CT, higher rate of distant organ metastases, frequent perineural invasion rate, higher rate of adjuvant chemotherapy administration, higher mortality rate (Table 1). Multivariate logistic regression analysis revealed that preoperative pulmonary nodules larger than 4 mm significantly increased the likelihood of pulmonary metastases (OR: 1.5, 83, CI%95: p=0.0248).

**Conclusion:** Pulmonary nodules in preoperative thoracic CT of CRC patients have prognostic significance. Nodule size is a key predictor, with nodules >4 mm strongly associated with pulmonary metastases.

**Keywords:** Colorectal cancer surgery, Pulmonary nodules

Table 1: The results of the univariate analysis

	Pulmoner Metastatis (Yes)	Pulmoner Metastasis (No)	
Variable	n (%) median (min – max)	n (%) median (min – max)	p value
Sex			
Male	5 (29,41)	26 (28,26)	0,9230
Female	12 (70,59)	66 (71,74)	
Age	68 (43 – 85)	69 (40 – 85)	0,7445
Smoker			
Yes	2 (16,67)	15 (20,0)	1,000
No	10 (83,33)	60 (80,0)	
Tumor Localization			
Colon	9 (53,94)	56 (60,87)	0,5405
Rectum	8 (47,06)	36 (39,13)	
Number of Nodules in Preoperative Thoracic CT			
One	4 (23,53)	26 (28,26)	0,9101
Two	1 (5,88)	6 (6,52)	
Multiple	12 (70,59)	60 (65,22)	
Nodule Size in Preoperative Thoracic CT (millimeters)	5 (2 – 30)	3 (1 – 17)	0,0021
Distant organ metastasis			
Yes (Liver)	5 (31,25)	11 (11,96)	0,0450
No	11 (68,75)	81 (88,04)	
Neoadjuvant Chemotherapy			
Yes	1 (5,88)	13 (14,13)	0,6922
No	16 (94,12)	79 (85,87)	
Mucinous component in the tumor			
Yes	3 (17,65)	17 (18,68)	0,9197
No	14 (82,35)	74 (81,32)	
Pathological T Stage of the Tumor			
T0	1 (5,88)	7 (7,61)	0,8132
T1	0 (0)	6 (6,52)	
T2	2 (11,76)	14 (15,22)	
T3	13 (76,48)	61 (66,30)	
T4	1 (5,88)	4 (4,35)	
Perineural Invasion			
Positive	8 (50,0)	15 (17,24)	0,0038
Negative	8 (50,0)	72 (82,76)	

## SB-143

## Patterns of Recurrence and Metastasis during Watch-and-Wait Strategy after Neoadjuvant Therapy: Insights from a Single-Institution Cohort of Over 100 Patients

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**Background:** The watch-and-wait (W&W) strategy serves as an alternative to total mesorectal excision for rectal cancer patients achieving a clinical complete response (cCR) after

neoadjuvant therapy (NAT). This study evaluates oncological outcomes, including overall survival (OS), disease-free survival (DFS), local recurrence, successful salvage surgery, organ preservation, and distant metastasis in WW patients.

**Methods:** We retrospectively analyzed 114 patients with post-NAT cCR managed with W&W at Vehbi Koç Foundation Healthcare Group between January 2016 and March 2024. Clinical and demographic characteristics were summarized using descriptive statistics. Kaplan-Meier methods were used to estimate OS, DFS, local recurrence, and organ preservation rates. The log-rank test was used to compare survival distributions, and the chi-squared test was employed for categorical comparisons.

**Results:** Total neoadjuvant therapy (TNT) was received by 100 patients (87.72%), including 68 (59.65%) with consolidation-based TNT and 32 (28.07%) with TNT with sandwich technique. Fourteen patients (12.28%) received standard neoadjuvant chemoradiotherapy. After a median follow-up of 27 months (IQR: 13–47), 26 patients (21.9%, 95%CI: 14.9%-31.4%) developed local recurrence, with a median recurrence time of 13 months (IQR: 9–18). Salvage surgery was performed in 23 cases, 21 (91.30%) had sphincter-sparing procedures. Median time to distant metastasis was 29 months (IQR: 22–45), with 3-year and 5-year metastasis-free survival rates of 92.27% (95% CI: 84.01%-96.36%) and 89.71% (95%CI:79.17%-95.08%), respectively. The 5-year DFS rate was 73.94% (95%CI: 63.35%-81.91%) and OS was 97.32% (95%CI: 88.98%-99.37%). Nine patients developed distant metastases, with higher rates among those with local recurrence (23.1%vs.3.4%,  $P=0.001$ ). Six patients had both local regrowth and distant metastases, 1 (16.67%) synchronous and 5 (83.33%) metachronous.

**Conclusion:** The (W&W) strategy demonstrated favorable oncologic outcomes, achieving a high rate of long-term organ preservation (78.1%) and excellent 5-year overall survival (OS). Patients who experienced local regrowth may benefit from intense monitoring for early detection and management of distant metastasis.

**Keywords:** Watch-and-Wait (W&W), Rectal Cancer

### Figures

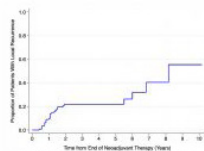


Figure 1. Local recurrence amongst Watch-and-Wait patients.

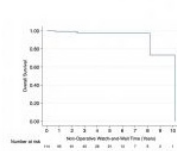


Figure 2. Overall survival (OS) of Watch-and-Wait patients.

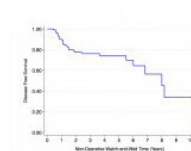


Figure 3. Disease-Free Survival (DFS) of Watch-and-Wait Patients.

Figure 1. Local recurrence amongst Watch-and-Wait patients. Figure 2. Overall survival (OS) of Watch-and-Wait patients. Figure 3. Disease-Free Survival (DFS) of Watch-and-Wait Patients

Table 1. Patient demographic characteristics

Table 1. Patient demographic characteristics

Age (Mean $\pm$ SD)	58,70 ( $\pm$ 12,42)
Gender	
Male	72 (63.2%)
Female	42 (36.84%)
Tumor Location	
Proximal Rectum	7 (6.14%)
Middle Rectum	33 (28.95%)
Distal Rectum	74 (64.91%)
Type of Neoadjuvant Therapy	
TNT with Sandwich Technique	32 (28.07%)
TNT with Consolidation Technique	68 (59.65%)
Standard Neoadjuvant Chemoradiotherapy (nCRT)	14 (12.28%)
Local Recurrence	26 (22.81%)
Distant Metastasis	9 (7.89%)
Distant Metastasis	1 (16.67%)
Metachronous Tumors	5 (83.33%)
Mortality	4 (3.51%)
Non-operative wait time (mo) (median)	27 (IQR:13-47)

### SB-163

#### Comparison of Lateral and Posterolateral Internal Sphincterotomy for Chronic Anal Fissure: A Prospective Study

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**Objective:** Anal fissure is a common condition affecting all age groups, which often requires surgical intervention when chronic. This study compared the outcomes of lateral internal sphincterotomy (LIS) and posterolateral internal sphincterotomy (PLIS) in the treatment of chronic anal fissure.

**Materials-Methods:** This prospective randomized controlled trial included 46 patients diagnosed with chronic anal fissure at the General Surgery Clinic of Hitit University between January 2022 and June 2024. Twenty-six patients underwent LIS, and twenty patients underwent PLIS. Postoperative healing time, pain scores (assessed by VAS), and complications (including fecal incontinence [FI]) were evaluated.

**Results:** At three months of follow-up, all patients in both groups achieved complete healing of the surgical wounds. The average duration of healing was significantly shorter in the PLIS group compared to the LIS group ( $3.9 \pm 1.5$  weeks vs  $5.6 \pm 1.3$  weeks;  $p < 0.001$ ). The PLIS group also had significantly lower pain scores at one month postoperatively compared to the LIS group ( $1.0 \pm 0.8$  vs  $1.8 \pm 1.0$ ;  $p = 0.004$ ). The incidence of complications and recurrence of anal fissure were comparable in both groups. FI was observed in 5% of the PLIS group and 15% of the LIS group ( $p = 0.07$ ). The reduction in resting anal pressure postoperatively was significantly greater in the PLIS group compared to the LIS group ( $42.8 \pm 5.0$  vs  $54.3 \pm 6.9$ ;  $p < 0.0001$ ).

**Conclusion:** Both PLIS and LIS achieved satisfactory outcomes in the treatment of chronic anal fissure. PLIS was associated with shorter healing time, lower pain scores, and

less incidence of FI. However, further research is needed to assess the long-term incidence of FI. This study suggests that PLIS may offer advantages over LIS in the treatment of chronic anal fissure.

**Keywords:** Sphincterotomy, Chronic anal fissure

**Outcome Measure**

Outcome Measure	PLIS Group (n=20)	LIS Group (n=26)	p-value
Healing Time (weeks)	3.9 ± 1.5	5.6 ± 1.3	<0.001
Pain Score (VAS)	1.0 ± 0.8	1.8 ± 1.0	0.004
Fecal Incontinence (%)	5%	15%	0.07

## SB-164

### Controversies in Pilonidal Disease: Results of A Modified DELPHI Survey with Expert Recommendations and Review of The Literature

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**Objective:** The primary objective of this report is to present expert opinions on controversial aspects of pilonidal disease (PD) and identify critical areas requiring future research. We aimed to provide practical guidance for surgeons while highlighting key knowledge gaps that need to be addressed through prospective studies.

**Materials-Methods:** The TSCRS PD working group established a steering committee to address controversial issues in the management of PD. The committee's responsibilities included defining research objectives and timelines, conducting a comprehensive literature review, analyzing voting outcomes, documenting results, preparing the manuscript, and promoting dissemination through publications and presentations. A literature review was conducted using various databases (MEDLINE, PubMed, Cochrane, CINAHL, EMBASE) to identify articles from 2013-2023. Exclusions were made for pediatric studies and those concerning PD outside the natal cleft. 459 articles were

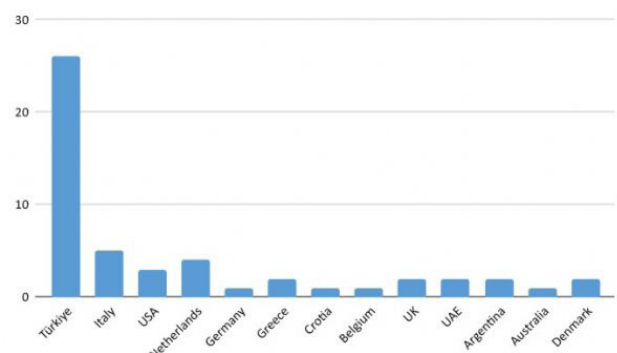
selected to guide survey question development. Experts with significant publications in PD between 2013-2023 were invited to participate in a Delphi study, with 172 experts contacted and 98 agreeing to participate. Of these, 52 completed at least two rounds of the process.

**Results:** Expert opinions were obtained on classification, severity, complexity, diagnosis, mapping, acute abscess, minimally invasive treatments, excisional treatments, recurrent/persistent pilonidal disease, regional care and hair removal, perioperative care and antibiotics, and postoperative care, and results were analyzed on controversial issues.

**Conclusion:** This Delphi survey aimed to explore issues that are not widely discussed in the literature but are common in clinical practice. The results highlight a significant need for prospective, comprehensive studies, especially on topics such as disease classification, the need for definitive treatment after acute abscess drainage, hair removal, and dressing application.

**Keywords:** delphi survey, pilonidal disease

**Figure 1**





## SB-165

## Does Laser Treatment Affect Recurrence in Pilonidal Disease? Long-Term Multicenter Retrospective Analysis of Pit-Picking Alone vs. Pit-Picking with Laser

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**Objective:** This study compares the outcomes of pit picking alone versus pit picking combined with laser treatment (LT) in terms of long-term recurrence, complications, recovery time, and costs.

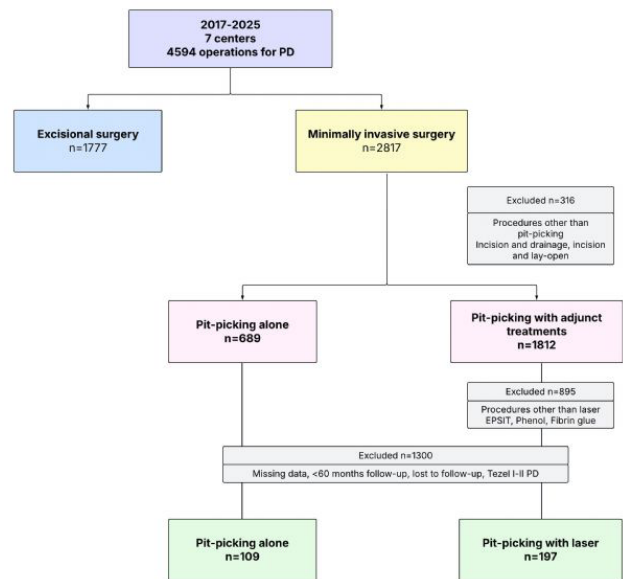
**Materials-Methods:** This multicenter retrospective study analyzed patients who underwent surgery for PD between March 2017-March 2025 at seven high-volume centers. A database of 4594 patients was reviewed. The inclusion criteria was pit-picking operation with or without addition of LT. Any adjunct methods other than LT (EPSIT, phenol, fibrin glue), excisional procedures, incision and lay-open techniques and patients with Tezel I (asymptomatic) and Tezel II (acute abscesses) disease were excluded. The primary outcome measure was recurrence at 5 years.

**Results:** A total of 306 patients in pit picking (n=109) and pit picking + LT (n=197) groups were included. The median age was 24 years (range: 18–54), and 63.1% of patients were male. Pit picking + LT resulted in significantly fewer complications (6.1% vs. 14.7%, p=0.012), particularly lower rates of seroma (2% vs. 11%, p=0.001) and bleeding (0.5% vs. 6.4%, p=0.004). Patients in the pit picking + LT group had a shorter time to return to work (median 3 vs. 6 days, p<0.001) and to sit pain-free (median 5 vs. 7 days, p<0.001). Recurrence rates were similar (13.8% vs. 12.7%, p=0.460). Recurrence was associated with higher BMI (p<0.001) and advanced Tezel stage (Tezel III 5.5% vs Tezel IV 16.5% vs Tezel V 38.6%, p<0.001). The total cost was higher for pit picking + LT (\$1212±146 vs. \$888±148, p=0.004).

**Conclusion:** Combining pit picking with LT results in lower complication rates and faster recovery compared to pit picking alone, however, it does not affect long-term recurrence rates. Despite the higher cost, the improved clinical outcomes may justify its use. A thorough cost-benefit analysis should be conducted and shared with patients when considering laser treatment.

**Keywords:** pilonidal disease, laser

Figure 1



Flow diagram

## SB-166

## The Effect of Adding Partial Lateral Internal Sphincterotomy to Combined Fissure Excision and Botox Therapy

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**Objective:** The aim of this study was to compare the clinical outcomes of fissure excision combined with Botox treatment, with and without the addition of partial lateral internal sphincterotomy, in managing chronic anal fissure.

**Materials-Methods:** Prospectively maintained data from patients treated with fissure excision and Botox (FEB) or fissure excision, Botox, and partial lateral internal sphincterotomy (FEBPLIS) due to resistance to medical treatment, between June 2023 and December 2024, were retrospectively analyzed. The primary outcome was complete healing, while secondary outcomes included pain, postoperative complications, continence status, and recurrence.

**Results:** Seventy-two patients (19 females) meeting the inclusion criteria were included in the study. The median age was 43 years, and the median body mass index (BMI) was 26.55. The median duration of symptoms was 5 months, with the fissure located posteriorly in 76.4% of cases. FEB was performed on 30 patients, while FEBPLIS was performed on 42 patients. The median follow-up period was 19 months. Both groups were similar in terms of age (p=0.312), gender (p=0.624), BMI (p=0.902), symptom duration (p=0.734), and length of hospital stay (p=0.09). Preoperative visual analog scale (VAS) scores (p=0.207) were comparable in both groups. However, postoperative 6th-hour (p<0.0001; 5 vs. 7) and postoperative 1st-day (p=0.0021; 3 vs. 3.5) VAS scores were lower in the

FEBPLIS group, while postoperative 1st-month VAS scores remained similar ( $p=0.8964$ ). Postoperative complication rates were also similar ( $p=0.398$ ). A keyhole deformity was observed in one patient in the FEB group. First-month Wexner Incontinence scores ( $p=0.189$ ) and complete healing rates ( $p=0.2571$ ) were similar between the two groups. Healing time was shorter in the FEBPLIS group ( $p=0.0212$ ; 4 weeks vs. 4.5 weeks). Recurrence rates were comparable ( $p=0.369$ ). However, the follow-up period was longer in the FEB group ( $p=0.0001$ ; 19 vs. 8 months).

**Conclusion:** Adding partial lateral internal sphincterotomy to fissure excision and Botox treatment does not impact the success rate; however, it reduces postoperative pain and accelerates healing. Furthermore, it can be performed safely without compromising continence.

**Keywords:** combined therapy, fissure

## SB-167

### Goodsall's Rule Revisited: An MRI-Based Assessment of Its Accuracy in Perianal Fistulas

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**Objective:** The aim of this study is to evaluate the accuracy of Goodsall's rule in predicting the internal orifice of perianal fistulas based on magnetic resonance imaging (MRI) findings, and to assess its relevance in contemporary imaging and surgical planning.

**Materials-Methods:** In the retrospective analysis of 1473 consecutive MRI scans performed for perianal fistulas, a total of 305 patients (men/women: 214/91) with a single fistula were included in the study. Fistulas were classified as anterior or posterior based on the external orifice position relative to the transverse anal line.

**Results:** Posteriorly located fistulas were more common (61.3% vs. 38.7%). The accuracy of Goodsall's rule was higher in anterior fistulas (64.4%) (Figure 1. 2.) compared to posterior fistulas (39.6%), ( $p<0.001$ ). There is no statistically significant difference in adherence to the rule between genders ( $p=0.416$ ), different types of fistulas according to the Parks classification ( $p=0.588$ ), and presence of abscess ( $p=0.464$ ). Comorbidities significantly affected the accuracy of the rule ( $p=0.017$ ). In the Bonferroni-adjusted analysis, no significant difference in adherence was found between the cryptoglandular and Crohn's disease groups ( $p>0.05$ ). Among 11 malignancy patients, only 1 (9.1%) adhered to the rule, differing in accuracy.

**Conclusion:** Goodsall's rule is more accurate for anterior fistulas; however, this rule does not apply to all perianal fistula cases, with a greater exception observed in posterior fistulas. MRI should be considered for all perianal fistulas when possible to improve diagnosis and outcomes.

**Keywords:** Goodsall Rule, Magnetic Resonance Imaging

Figure 1.

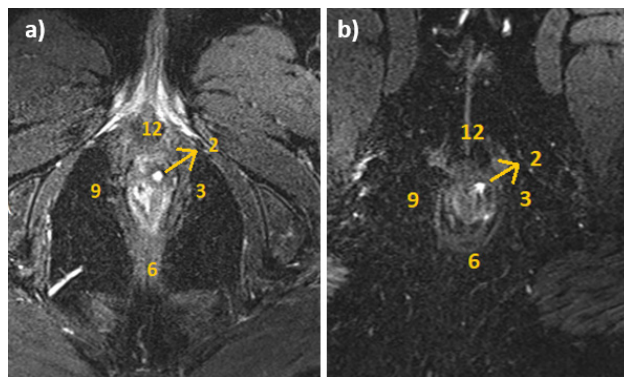


Figure 1 (a-b). A 54-year-old female patient with an internal orifice (a) at the 2 o'clock position at the anorectal junction, a fistula tract progressing caudally in the intersphincteric space, and in connection with the skin at the 2 o'clock position at the anal verge (b).

Figure 2.

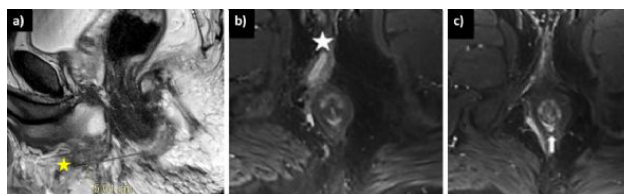


Figure 2 (a-c). A 48-year-old male patient. The external orifice (star) is located anteriorly, 5 cm from the anal verge, with the internal orifice located in the middle portion of the anal canal, along the posterior midline (thick arrow), forming a fistula.

## SB-168

### Our Experiences in Pilonidal Sinus Treatment: A Comparative Analysis of Surgical Techniques

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**Objective:** The management of pilonidal sinus has undergone significant advancements in recent years, particularly with the introduction of new surgical technologies. The present study compares the clinical outcomes of three Methods: the innovative SILaC procedure, phenol application, and the standard Karydak-Limberg procedures.

**Materials-Methods:** A retrospective analysis was performed on 231 patients who underwent surgical intervention between June 2019 and March 2025. The patients were categorized into three groups: laser treatment, phenol application, and the Karydak-Limberg procedure. The groups were evaluated based on recurrence rates, postoperative complications, and

the number of sinus tracts as determined by preoperative imaging in patients experiencing complications.

**Results:** Among the 231 patients, 49 (21.2%) were female, and 182 (78.8%) were male, with a median age of 24. The laser group comprised 115 patients (49.7%), the phenol group included 89 patients (38.5%), and the Karydakís-Limberg group consisted of 27 patients (11.6%). Postoperative complications were observed in 10 patients (8.6%) within the laser group, 12 patients (13.4%) in the phenol group, and four patients (14.8%) in the Karydakís-Limberg group. The recurrence rates for these groups were 5.2%, 13.4%, and 7.4%, respectively. The most prevalent complication in the laser group was serious wound discharge (5 cases), while the phenol group reported a greater incidence of wound abscess (6 cases). In the Karydakís-Limberg group, wound dehiscence prevailed as the primary complication. Additional complications included bleeding and persistent pain. The median number of sinus tracts in those experiencing complications or recurrence was 2.3 for the laser group and 2.6 for the phenol group.

**Conclusion:** Laser therapy emerges as a promising alternative, exhibiting relatively low rates of recurrence and complications. However, further investigations are needed to ascertain the most effective surgical technique for treating pilonidal sinus.

**Keywords:** pilonidal sinus, laser

## SB-169

### Comparison of Clinical Effectiveness of Hemorrhoidal Artery Ligation (HAL) and Sutured Hemorrhoidopexy in Stage 4 Hemorrhoid Patients

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**Objective:** The aim of this study is to compare the clinical outcomes of Hemorrhoidal Artery Ligation (HAL) and sutured Hemorrhoidopexy methods in stage 4 hemorrhoid patients.

**Materials-Methods:** In this single-center study, 42 patients (HAL group: n=21, sutured Hemorrhoidopexy group: n=21) diagnosed with stage 4 hemorrhoids between January 2023 and October 2024 were included. Hemorrhoidopexy was performed using 2.0 Vicryl sutures. The mean follow-up period was 17.4 months (8.2-28.7 months) in the HAL group and 15.8 months (8.7-25.9 months) in the Hemorrhoidopexy group. Demographic data, complications, and recurrence rates of the patients were compared.

**Results:** The mean age was 48.1±11.3 in the HAL group and 40.2±9.3 in the Hemorrhoidopexy group (p=0.017). The male patient ratio was 71.4% in the HAL group and 61.9% in the Hemorrhoidopexy group. BMI values were 27.7±3.9 in the HAL group and 25.4±2.6 in the Hemorrhoidopexy group (p=0.035). Recurrence rates were 14.3% (3/21) in both the HAL group and the Hemorrhoidopexy group (p=0.337).

Tenesmus was not observed in the HAL group, while it was detected in 14.3% of the Hemorrhoidopexy group (p=0.232). Perianal fistula was observed in one patient (4.8%) in the HAL group, while it was not observed in the Hemorrhoidopexy group (p=1.000). In the quality of life assessment, the HAL group had better scores in terms of general health (p=0.022) and daily activities (p=0.030), while there was no significant difference between the groups in terms of restriction, quality of life, social relations, and mental well-being.

**Conclusion:** In this study, HAL and sutured Hemorrhoidopexy methods have the same recurrence rates in stage 4 hemorrhoid patients. However, the HAL method may be preferred as it is more advantageous in terms of general health status and daily activities. Age and BMI factors should also be considered in patient selection.

**Keywords:** Hemorrhoidal Artery Ligation, Sutured Hemorrhoidopexy

#### Baseline Characteristics of HAL and Hemorrhoidopexy Groups

Variable	N (n=42)	HAL (n=21)	Hemorrhoidopexy (n=21)	p value
Age	44.2 ±11	48.1 ±11.3	40.2 ±9.3	0.017
Gender				
Female	14 (%33.3)	6 (%28.6)	8 (%38.1)	0.743
Male	28 (%66.7)	15 (%71.4)	13 (%61.9)	
BMI	26.5 ±3.5	27.7 ±3.9	25.4 ±2.6	0.035
Diabetes mellitus	3 (%7.1)	2 (%9.5)	1 (%4.8)	1.000
Hypertension	4 (%9.5)	4 (%19)	0 (0%)	0.107
Cardiovascular Disease	3 (%7.1)	1 (%4.8)	2 (%9.5)	1.000
Follow-up period (months)	16.6 (8.2-28.7)	17.4 (8.2-28.7)	15.8 (8.7-25.9)	0.337

BMI, Body Mass Index; HAL, Hemorrhoidal Artery Ligation. Values are presented as mean ± standard deviation or number (percentage).

P-values <0.05 were considered statistically significant

#### Postoperative Outcomes After HAL and Hemorrhoidopexy

Variable	N (n=42)	HAL (n=21)	Hemorrhoidopexy (n=21)	p value
VAS Score (1st Week)	8 (2.2-10)	8 (3-10)	8 (2-10)	0.603
VAS Score (2nd Week)	3 (0-5)	3 (0-5)	3 (0-5)	0.712
Bleeding	8 (%19)	4 (%19)	4 (%19)	1.000
Tenesmus	3 (%7.1)	0 (0%)	3 (%14.3)	0.232
Gas Incontinence	1 (%2.4)	0 (0%)	1 (%4.8)	1.000
Perianal Fistula	1 (%2.4)	1 (%4.8)	0 (0%)	1.000
Recurrence	6 (%14.3)	3 (%14.3)	3 (%14.3)	1.000
General Health	10 (9-10)	10 (10-10)	9 (8-10)	0.022
Daily Activities	10 (9-10)	10 (10-10)	10 (7-10)	0.030
Restriction	10 (8.2-10)	10 (10-10)	9 (8-10)	0.094
Quality of Life	10 (8-10)	10 (8-10)	10 (7-10)	0.557
Social Relations	10 (8-10)	10 (9-10)	10 (6-10)	0.171
Mental Well-being	10 (9-10)	10 (10-10)	10 (7-10)	0.100

VAS, Visual Analog Scale; HAL, Hemorrhoidal Artery Ligation. Values are presented as median (range) or number (percentage). Quality of life parameters (General Health through Social Relations) were assessed on a scale of 0-10. P-values <0.05 were considered statistically significant.



## SB-170

## Modified Lateral Internal Sphincterotomy for Chronic Anal Fissure: A Novel Approach with Superior Outcomes and Minimal Complications

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**Objective:** Chronic anal fissure (CAF) is a common and debilitating condition characterized by a longitudinal tear in the anoderm. Conservative treatments often fail, necessitating surgical intervention. Lateral internal sphincterotomy (LIS) is considered the gold standard procedure, but concerns regarding postoperative complications, particularly incontinence and recurrence, remain. This study aimed to evaluate the efficacy, postoperative complications, and recurrence rates of a novel modified surgical technique, lateral internal sphincterotomy of the belt of anus (LIS-BOA), compared to the conventional LIS procedure.

**Materials-Methods:** A retrospective cohort study was conducted on 91 patients who underwent surgical treatment for CAF between January 2017 and December 2022. Patient demographics, postoperative complications, recurrence, and incontinence rates were analyzed. All procedures were performed by a single experienced surgeon, ensuring uniformity in surgical technique. Follow-up was 2 years and results were compared to literature.

**Results:** The mean follow-up period was  $19.73 \pm 13.36$  months. Among 91 patients, 8.7% reported postoperative pain, 3.3% had hemorrhage, and 2.2% experienced recurrence. No cases of fecal or gas incontinence were detected during follow-up. The recurrence rate (2.1%) was significantly lower than reported in conventional LIS studies. Minimal tissue trauma and preservation of the lateral one-third of the internal sphincter contributed to reduced complications.

**Conclusion:** The LIS-BOA technique demonstrated superior outcomes in terms of low recurrence and complication rates without compromising sphincter function. This modification provides a safe and effective alternative for the surgical management of chronic anal fissure.

**Keywords:** Chronic anal fissure, lateral internal sphincterotomy

Table-1

Female/Male	44/47
Age (Ort.±SS)	40,98±12,20
Follow-up time (Ort.±SS)	19,73±13,36

Demographic and follow-up characteristics of the patients.

Table 2

Complication	(n, %)
Ache	8 (8,70)
Discharge	2 (2,19)
Stool	0 (0,0)
Wind	0 (0,0)
Constipation	0 (0,0)
Haemorrhage	3 (3,29)
Pruritus	1 (1,09)
Recurrence	2 (2,19)
Tenesmus	0 (0,0)

Total number of postoperative complications.

## SB-171

## Robotic Surgery for Inflammatory Bowel Disease: Insights and Perioperative Outcomes from a Tertiary Referral Center

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**Objective:** While the benefits of robotic surgery have been well-documented in oncologic and benign colorectal surgery, its application in inflammatory bowel disease (IBD) remains less established. Given the complex nature of IBD surgery, which often involves challenging dissection planes, extensive adhesions, and a high risk of postoperative complications, the potential advantages of robotic assistance are of particular interest. This study aims to evaluate and compare the short-term outcomes of robotic versus laparoscopic surgery for IBD.

**Materials-Methods:** This retrospective study included patients diagnosed with IBD who underwent robotic or laparoscopic surgery between 2011 and 2024 at three hospitals by the same surgical team. Demographic characteristics, perioperative and postoperative outcomes, and 90-day complication rates were assessed and compared.

**Results:** A total of 123 patients were included, comprising 78 with ulcerative colitis (UC) and 45 with Crohn's disease (CD). Of these, 62 underwent robotic surgery, while 61 underwent laparoscopic surgery. The most frequently performed robotic procedure was proctocolectomy with ileal pouch-anal anastomosis and diverting ileostomy, whereas total colectomy with diverting ileostomy was the most common laparoscopic procedure. The intracorporeal anastomosis rate was significantly higher in the robotic group (87.3% vs. 65.9%,  $p < 0.01$ ). No statistically significant differences were observed between the groups regarding demographic characteristics, estimated blood loss, length of hospital stay, or overall complication rates (Table). Although all three cases requiring conversion to open surgery occurred in the laparoscopic group, this difference was not statistically significant. Reoperation was required in two patients per group due to anastomotic



leakage, postoperative hemorrhage, or ileus. No perioperative mortality was observed.

**Conclusion:** Robotic surgery is a feasible and effective approach for IBD surgery, demonstrating non-inferiority to laparoscopy in terms of short-term outcomes. Robotic surgery may offer potential advantages in complex IBD cases by facilitating intracorporeal anastomosis and precise tissue handling.

**Keywords:** Inflammatory bowel disease, robotic surgery

#### Comparison of patient demographics, clinical characteristics, and 90-day outcomes between robotic and laparoscopic surgery

Outcomes	Robot (n=62)	Laparoscopy (n=61)	P value
Age, years	43±16	40±15	>0.05
Sex, male	35 (55)	29 (45)	>0.05
BMI, kg/m <sup>2</sup>	22±4	23±7	>0.05
Estimated blood loss, ml	116±128	97±65	>0.05
Time to flatus, day	2±1	2±1	>0.05
Time to regimen 2, day	4±2	4±2	>0.05
Time to discharge, day	6±4	7±4	>0.05
Complications	16 (26)	17 (28)	>0.05
Time to complication, day	9±5	7±6	>0.05
Stoma opening	42 (68)	39 (64)	>0.05

Data are expressed as number (percentage) or mean ± SD, BMI: Body mass index

#### Comparison of patient demographics, clinical characteristics, and 90-day outcomes by diagnosis

Outcomes	UC (n=78)	CD (n=45)	P value
Age, years	43±15	39±15	>0.05
Sex, male	45 (58)	19 (42)	>0.05
BMI, kg/m <sup>2</sup>	22±4	24±8	>0.05
Robot/Laparoscopy	41/37	21/24	>0.05
Complications	24 (31)	9 (20)	>0.05

Data are expressed as number (percentage) or mean ± SD, BMI: Body mass index, UC: Ulcerative Colitis, CD: Crohn's Disease

## SB-172

### Impact of Patient Education on Religious Practices Following Stoma Creation

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**Objective:** Stoma creation affects multiple aspects of health-related quality of life, including the ability to engage in religious and spiritual activities. Although the Turkish Directorate of Religious Affairs has stated that a stoma does not prevent ablation or prayer, misinformation may contribute to withdrawal from religious practices. This study aimed to evaluate the impact of patient education regarding religious practices on the ability to perform worship and perceptions of the stoma as a barrier to religious duties.

**Materials-Methods:** Patients who underwent stoma creation

between January 2020 and December 2024 were surveyed regarding changes in their religious practices following surgery. Data were collected through structured questionnaires administered via face-to-face interviews or telephone calls. Patients were stratified based on whether they received information about performing religious practices with a stoma. The primary outcome was the change in religious behavior following stoma creation.

**Results:** Among 269 eligible patients, 216 (80.2%) completed the questionnaire. The median age was 52 years (IQR19), and 93 participants (43.1%) were female. The median time from stoma creation to survey completion was 56 months (IQR37). No significant differences were observed in age, gender, surgical approach, education level, income level, place of residence, or marital status between patients who received religious guidance and those who did not (**Table 1**). However, patients who did not receive information were significantly more likely to report decreased frequency of ablation and prayer following stoma surgery ( $p=0.020$  and  $p=0.025$ , respectively). Furthermore, among patients who underwent stoma reversal, those who had not received prior education were less likely to resume their preoperative religious routines.

**Conclusion:** Inadequate patient education on stoma and religious practices leads to misconceptions, causing a decline in worship activities. Surgeons should address this gap by providing clear guidance, ensuring patients understand that a stoma is not a barrier to religious observance.

**Keywords:** Stoma education, worship

**Tablo 1: Comparison of Demographic, Clinical Characteristics and Religious Activities Between Patients Who Received and Did Not Receive Religious Practice Guidance After Stoma Creation**

	Educated	Non-educ
Age, year (IQR)	52 (41-59)	51 (39-58)
Female gender, n (%)	62 (47.7%)	31 (36%)
Laparoscopic approach, n (%)	15 (11.6%)	12 (14%)
Robotic-assisted, n (%)	4 (3.1%)	3 (3.5%)
Permanent stoma, n (%)	0 (0%)	5 (5.8%)
Ileostomy, n (%)	76 (58.5%)	46 (53.5%)
Time to reversal, month (IQR)	13 (8-20)	11 (5-16)
Time to questionnaire, month (IQR)	58 (37-77)	55 (39-70)
Tertiary education, n (%)	27 (20.8%)	21 (24.4%)
Metropolitan residency, n (%)	64 (49.2%)	46 (53.5%)
Married, n (%)	96 (73.8%)	71 (82.6%)
Employed, n (%)	18 (13.8%)	21 (24.4%)
Non-insured, n (%)	45 (34.6%)	24 (27.9%)
Income at/or below minimum wage, n (%)	80 (62%)	60 (69.7%)
Solitary living arrangement, n (%)	7 (5.4%)	8 (9.3%)
Independent stoma management, n (%)	74 (56.9%)	52 (60.5%)
Frequent Prayers, n (%)	63 (27.7%)	18 (20.9%)
Decrease of prayer frequency, n (%)	56 (43.1%)	51 (59.3%)
Decrease of ablation frequency, n (%)	20 (15.4%)	24 (27.9%)
Location of religious observance, n (%)		
Home	115 (89.1%)	56 (90.3%)
Workplace	1 (0.8%)	0 (0%)
Place of worship	0 (0%)	6 (9.7%)
Change in worship place, n (%)	29 (22.3%)	12 (16.4%)
Degree of obstacle, point (1-5) (IQR)	1 (1-4)	2 (1-4)
Stoma reversal, n (%)	105 (80.8%)	68 (79.1%)
Resumption of pre-operative routine, n (%)	84 (76.4%)	23 (32.4%)
Informative, n (%)		-
Doctor	0 (0%)	
Allied health personnel	45 (34.6%)	
Internet resources	24 (18.5%)	
Religious leader	61 (46.9%)	
Satisfied with education, point (1-5) (IQR)	1 (1-1)	-

## SB-173

## Atypical Course of Fistulas and Intramural Abscesses in Patients with Perianal Fistula on Magnetic Resonance Imaging: Predictive Signs for Crohn's Disease?

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**Objective:** Traditional classification systems and imaging findings help characterize perianal fistulas. However, the relationship between atypical fistula characteristics and Crohn's disease remains incompletely understood. Identifying specific imaging features that distinguish Crohn's disease-associated fistulas from idiopathic ones could improve early diagnosis and guide appropriate treatment selection. The aim of this study was to investigate the relationship between Crohn's disease and atypical fistula characteristics, including their course within the external anal sphincter and concurrent intramural abscesses, and to assess their role in distinguishing Crohn's disease-associated fistulas.

**Materials-Methods:** A retrospective analysis of 624 patients with perianal fistulas was conducted via magnetic resonance imaging (MRI). Fistulas were classified by type, complexity, activity, course within the EAS and presence of intramural abscesses. Logistic regression analyses identified factors differentiating CD-associated fistulas from idiopathic fistulas.

**Results:** Among the 624 patients, 109 had Crohn's disease. Fistulas coursing within the external anal sphincter (Figure 1.) were observed in 10% of patients, primarily of cryptoglandular origin (87.3%), with a minority associated with Crohn's disease (7.9%). Intramural abscesses (Figure 2.), which are significantly more prevalent in Crohn's disease patients ( $p < 0.001$ ), increased the likelihood of Crohn's disease by 9.4-fold (95% CI: 3.08–28.70,  $p < 0.001$ ). Complex fistulas (OR = 2.46,  $p < 0.001$ ) and internal orifice localization in the proximal anal canal or distal rectum (OR = 2.26,  $p = 0.002$ ) were identified as independent predictors of Crohn's disease.

**Conclusion:** Intramural abscesses, complex fistulas and specific internal orifice locations are strong indicators of Crohn's disease in patients with perianal fistulas. The course of fistulas within the external anal sphincter, although not strongly associated with Crohn's disease, is a critical feature for treatment planning. Multidisciplinary studies are essential to refine classification systems and assess the prognostic implications of external anal sphincter-involving fistulas.

**Keywords:** Perianal fistula, Magnetic Resonance Imaging

Figure 1

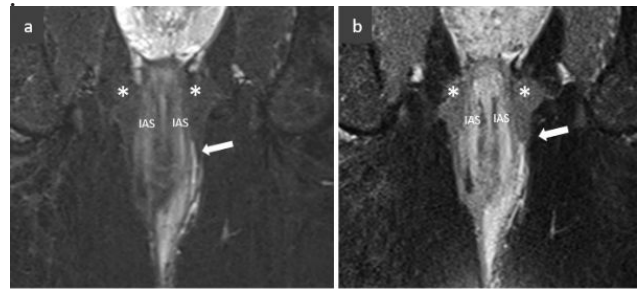


Figure 1. On the coronal T2-weighted image (a) and the coronal postcontrast image (b), a fistula tract (arrow) extending caudally within the external anal sphincter (\*) is observed. IAS, internal anal sphincter

Figure 2.

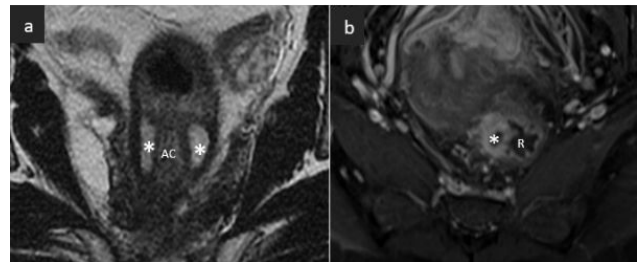


Figure 2. On the coronal T2-weighted image (a), an intramural abscess (\*) with hyperintense signal characteristics is observed at the level of the proximal anal canal. In another patient, the postcontrast axial image (b) shows a peripherally enhancing intramural abscess (\*) at the level of the mural layer of the distal rectum. AC, anal canal; R, rectum

## SB-174

## Welcome to a New Life! K-Pouch

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**Objective:** Continent ileostomy (CI) was popularized by Nils Kock as a method to maintain fecal continence following proctocolectomy, primarily in patients with ulcerative colitis. While ileal pouch-anal anastomosis (IPAA) is now the most common approach for restoring continence after total proctocolectomy, CI remains a viable option for highly selected patients who are not candidates for IPAA or have irreparable IPAA dysfunction but still desire fecal continence. CI continues to offer a pathway for appropriately selected patients to achieve the highest possible quality of life and functional status after total proctocolectomy.

**Materials-Methods:** Three patients evaluated in the General Surgery Department of Akdeniz University between March 2024 and June 2024 were included in this study. The patients' age, gender, comorbidities, preoperative laboratory findings, and SF-36 questionnaire results were recorded. Two patients had inflammatory bowel disease, while one had familial adenomatous polyposis.

**Results:** The mean patient age was 38 (range: 37-39), and two patients (66.7%) were female. The preoperative hemoglobin level was 12.47 mg/dL. The preoperative CRP level was 52.67 mg/L, and the mean preoperative albumin level was 31.3 g/dL.

Table 1: SF-36 Questionnaire Mean Results

On average, patients emptied their K-pouch five times per day, with only one patient occasionally needing to empty the ileal pouch at night. None of the patients required any assistive materials for pouch emptying. The average patient satisfaction rate was found to be 66.6%.

**Conclusion:** The results indicate that, in appropriately selected patients, K-pouch ileostomy facilitates adaptation to normal life and enhances participation in daily activities. However, broader and more comprehensive studies are needed in the future to achieve more detailed and extensive results.

**Keywords:** K-Pouch, inflammatory bowel diseases

Table 1

SF-36 Score Results	
Scale	Score Result
Physical functioning	40%
Role limitations due to physical health	0%
Role limitations due to emotional problems	0%
Energy/fatigue	50%
Emotional well-being	60%
Social functioning	50%
Pain	65%
General health	45%

## SB-188

### Comparison of Post-Hemorrhoid Surgery Pain Profiles in Older and Younger Adults: A Retrospective Analysis

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**Objective:** Postoperative pain management is critical for recovery after hemorrhoid surgery (HS). This study aims to compare postoperative pain outcomes between older and younger adults, given the potential risks associated with opioid use in the elderly.

**Materials-Methods:** A retrospective analysis was conducted on electronic medical records of 156 patients who underwent HS between 2019 and 2023. Patients were divided into older adults ( $\geq 65$  years,  $n=100$ ) and younger adults ( $<65$  years,  $n=56$ ). Pain-related outcomes assessed included narcotic prescription refills, pain-related phone calls within 30 days, urgent postoperative office visits, and pain-related emergency department visits. Statistical analyses included Fisher's exact test, chi-square test, and covariate-adjusted logistic regression modeling.

**Results:** Older adults had significantly fewer pain-related phone calls (12% vs. 30%,  $P = 0.04$ ) and opioid refills (2% vs. 16%,  $P = 0.03$ ) compared to younger adults. No significant difference was found in urgent postoperative visits (8% vs. 14%,  $P = 0.30$ ) or pain-related emergency department visits (5% vs. 9%,  $P = 0.25$ ). Logistic regression analysis indicated

older age was inversely associated with pain-related phone calls (odds ratio = 0.30, 95% CI = [0.12-0.72],  $P = 0.005$ ).

**Conclusion:** Older adults demonstrated better postoperative pain outcomes, suggesting reduced analgesic needs. These findings support age-specific pain management protocols to minimize opioid use in the elderly, reducing opioid-related complications

**Keywords:** Hemorrhoid Surgery, Pain

Baseline Characteristics of Study Cohorts

Characteristic	Older Adults ( $\geq 65$ years) ( $n=100$ )	Younger Adults ( $<65$ years) ( $n=56$ )	p-value
Age, years (mean $\pm$ SD)	72.5 $\pm$ 5.1	45.8 $\pm$ 10.3	<0.001
Male, n (%)	40 (40%)	33 (58.9%)	0.02
Female, n (%)	60 (60%)	23 (41.1%)	0.02
Hypertension, n (%)	70 (70%)	15 (26.8%)	<0.001
Diabetes, n (%)	15 (15%)	5 (8.9%)	0.30
Chronic Opioid Use, n (%)	2 (2%)	4 (7.1%)	0.20

Postoperative Pain-Related Outcomes

Outcome	Older Adults ( $\geq 65$ years) ( $n=100$ )	Younger Adults ( $<65$ years) ( $n=56$ )	P-value
Pain-Related Phone Calls, n (%)	12 (12%)	17 (30%)	0.04
Opioid Prescription Refills, n (%)	2 (2%)	9 (16%)	0.03
Urgent Postoperative Office Visits, n (%)	8 (8%)	8 (14%)	0.30
Pain-Related Emergency Department Visits, n (%)	5 (5%)	5 (9%)	0.25

## SB-189

### Comparison of Doppler-Guided Hemorrhoidal Artery Ligation (DGHAL), Hemorrhoidopexy, and Traditional Hemorrhoidectomy (Ferguson Technique with LigaSure) in Hemorrhoidal Disease Management: A Randomized Controlled Trial

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**Objective:** Hemorrhoidal disease significantly impacts the quality of life, causing symptoms such as bleeding, pain, and prolapse. Traditional surgical treatments, although effective, are associated with considerable postoperative pain and long recovery times. Doppler-guided hemorrhoidal artery ligation (DGHAL) and hemorrhoidopexy are minimally invasive techniques developed to address these issues. This study compares the efficacy and safety of DGHAL, hemorrhoidopexy, and traditional hemorrhoidectomy (Ferguson technique with LigaSure)

**Materials-Methods:** This prospective, randomized controlled trial included 75 patients with grade II-III hemorrhoids, divided into three groups: DGHAL ( $n=25$ ), hemorrhoidopexy ( $n=25$ ),



and traditional hemorrhoidectomy (Ferguson technique with LigaSure, n=25). Primary outcomes were postoperative pain (measured using a visual analog scale, VAS) and bleeding. Secondary outcomes included complication rates, recurrence rates, operative time, hospital stay duration, and return to normal activities.

**Results:** The DGHAL group demonstrated the lowest postoperative pain and bleeding levels, with a complication rate of 0% and a recurrence rate of 4%. The hemorrhoidectomy group showed the highest postoperative pain and bleeding levels, with complication and recurrence rates of 8% and 16%, respectively. The traditional hemorrhoidectomy group had one case of postoperative wound infection, with complication and recurrence rates of 4% and 8%, respectively.

**Conclusion:** DGHAL represents a significant advancement in the surgical management of hemorrhoidal disease, offering patients a less painful and quicker recovery option. Hemorrhoidectomy, due to its higher pain and bleeding levels, requires careful patient selection. Traditional hemorrhoidectomy, while effective, carries a risk of postoperative complications.

**Keywords:** Hemorrhoidal Artery Ligation, Hemorrhoidal Disease

**Hemoroidal Study Results**

Group	Mean Postoperative Pain (VAS)	Mean Bleeding (mL)	Complication Rate (%)	Recurrence Rate (%)	Operative Time (min)	Hospital Stay (days)
DGHAL	2.3	10	0	4	45	1
Hemorrhoidectomy	6.5	20	8	16	60	2
Traditional Hemorrhoidectomy	4.2	30	4	8	55	2

## SB-190

### Coreout Fistulectomy Combined with Laser Ablation of the Intersphincteric Fistula Tract: A Pilot Study

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**Objective:** Evaluation of the effectiveness of “core-out fistulectomy combined with intersphincteric laser ablation of the fistula tract” in anal fistulae in terms of primary healing and recurrence.

**Materials-Methods:** In this pilot study, the patients who underwent the above method were analyzed for primary healing time, recurrence, and quality of life. Fistula type was defined using the perianal MRI and physical findings during examination under general anesthesia and classified according to the Parks classification at the time of surgery. Healing was assessed using the perianal fistula severity scoring system. The surgical procedure was performed using spinal anesthesia. The external opening of the anal fistula was removed until the sphincter complex. The fistula tract inside the sphincter complex was debrided. The laser probe was introduced to the transsphincteric fistula tract, and a 10 watt,

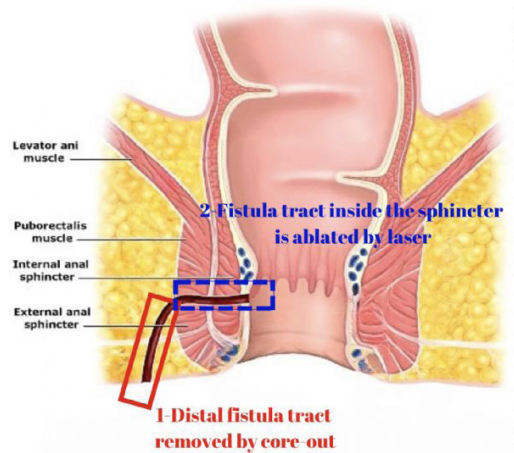
1470 nm wavelength was utilized for six seconds, and the probe was retrieved at 1 cm intervals. After the ablation, the internal opening was sutured. The patients were discharged the following day.

**Results:** Six patients underwent the hybrid method. The mean age was 50.33 (min:41, max:60). Four patients were male and two patients were female. The mean healing time was 6.6 weeks. One patient had soiling mixed with a non-healing fistula. Healing was achieved in this patient after proper cleaning of the wound. In one patient, the tract did not close and suppuration was seen, so he underwent seton placement. Incontinence was not observed in any of the patients. The success rate was 5/6 during the six-month follow-up.

**Conclusion:** This method may suggest a practical way of solving a complex problem using a combination of straightforward techniques that could be practiced without the need for learning complicated new techniques. Longer follow-up and increased sample size are needed for further studies.

**Keywords:** Anal fistula, laser ablation

#### Surgical Technique





**Patient Demographics and Clinical Variables**

	Age	Sex	BMI	Smoking Status	Comorbidities	Fistula Type	Number of Prior Fistula Surgery	Fistula Duration (weeks)	Presence of Suppuration	Perianal Fistula Severity Scoring System	Healing Time (weeks)
Patient 1	52	M	38	CURRENT	DIABETES TYPE II, HYPERTENSION, RHEUMATOID ARTHRITIS,	Transsphincteric	0	2	YES	0	7
Patient 2	42	F	25	CURRENT	NONE	Transsphincteric	2	40	YES	0	6
Patient 3	60	M	24	NEVER	NONE	Transsphincteric	2	104	NO	0	8
Patient 4	59	M	23	CURRENT	NONE	Transsphincteric	1	60	YES	0	5
Patient 5	48	M	23	NEVER	NONE	Transsphincteric	0	10	YES	2	N/A
Patient 6	41	F	32	CURRENT	NONE	Transsphincteric	2	96	NO	0	7

*Perianal Fistula Severity Scoring System: 0- no active disease or complete healing 1- slight drainage with minimal symptoms 2- persistent symptomatic drainage 3- severe perianal disease, potentially requiring diversion*

**SB-191**

### Five-Year Outcomes and Predictors of Healing in Chronic Anal Fissure Treated with Botulinum Toxin: A Retrospective Analysis of 199 Cases

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**Objective:** Botulinum toxin (BT) is a non-surgical alternative to lateral internal sphincterotomy (LIS). While promising results, there is still a gap in knowledge regarding long-term outcome and the predictors for healing after BT.

**Material-Methods:** Chronic anal fissure (CAF) patients treated with 100 IU BT with a minimum 5-year follow-up were analyzed retrospectively. Patients with persistent or recurrent fissures after first BT injection were offered either a second BT injection or LIS. Healing was defined as complete symptom resolution with fissure epithelization. The primary outcome measure was recurrence-free healing rate with BT at 5 years. Predictors of healing were assessed by logistic regression analysis.

**Results:** Mean age was 33.8±10 and 139 (69.5%) patients were female. The complete healing rate at 5 years was 73.8% and 26.2% of the patients underwent LIS. Multivariate analysis for LIS likelihood revealed that female gender (OR: 0.48, 95% CI:0.25 - 0.92, p=0.028), absence of chronic constipation (OR:0.09, 95% CI: 0.03- 0.25, p<0.0001) and shorter constipation duration (OR: 1.10, 95% CI:1.06 - 1.13, p<0.0001) were predictors for recurrent-free healing after BT at 5-years. A cut-off value of 10 months of constipation yielded an accuracy of 88% for predicting unhealing with BT (AUC: 0.881). BT-related incontinence was mild and resolved within 2 months, while LIS resulted in 19.2% permanent incontinence at 5 years.

**Conclusion:** BT is an effective and safe treatment for CAF, with acceptable long-term outcomes and minimal incontinence risk. Constipation duration and gender are key predictors of healing, aiding patient selection. Male patients with prolonged constipation may benefit from earlier consideration of LIS.

**Keywords:** Anal fissure, botulinum toxin

**SB-192**

### Efficacy of home-based biofeedback therapy in dyssynergic defecation

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**Objective:** Chronic constipation is common, and about half of cases are associated with obstructive defecation (OD). Dyssynergic defecation (DD) is a primary cause in many cases and rarely resolves with lifestyle changes or medical treatment. Surgery remains controversial, while anal biofeedback is the most effective therapy. This study evaluates the efficacy of home-based biofeedback therapy in DD treatment.

**Materials-Methods:** Patients with OD symptoms underwent physical examination, colonoscopy, anal manometry, and MR defecography. Those meeting the Rome IV criteria for DD were included. Demographics, symptoms, comorbidities, anal manometry, and defecography findings were recorded. Symptom severity was assessed using the Obstructed Defecation Syndrome Score (ODS-S), and quality of life with the Patient Assessment of Constipation Quality of Life (PAC-QOL) questionnaire. Patients performed biofeedback exercises with a simple manometry based device (Figure 1) at home for 30 minutes daily over three months. Follow-ups were conducted at weeks 1 and 2 and months 1, 2, and 3. The primary outcome was changes in ODS-S and PAC-QOL scores. The secondary outcome was identifying organic anal disorders and psychiatric conditions associated with DD.

**Results:** The study included 24 patients (54.2% female, median age 49.5 years). Significant improvements were observed in ODS-S and PAC-QOL scores (p<0.001) (Table 1). Recovery (ODS-S <9) was achieved in 18 (75%) patients. Pelvic floor descent was found in 11 (45.8%), rectocele in 8 (33.3%), and intrarectal intussusception in 6 (25%) (Table 2). Psychiatric disorders were identified in 18 (75%) patients.

**Conclusion:** Home-based biofeedback therapy is effective for DD. Its simplicity, low cost, accessibility, privacy benefits, and ability to be performed without a hospital setting make it the preferred first-line treatment.

**Keywords:** biofeedback, dyssynergic defecation

Figure 1: Biofeedback device



Table 1: Comparison of ODS-S and PAC-QOL scores

	Before treatment	After treatment	P-value
ODS-S (min-max)	17.5 (13-20)	3 (0-12)	<0.001
PAC-QOL (min-max)	104 (65-126)	49 (32-81)	<0.001

Table 2: MR Defecography Findings in the Study Group

Finding	Total (n:24)
Pelvic floor descent	11 (45.8%)
Intrarectal intussusception	6 (25%)
Peritoneocele	3 (12.5%)
Rectocele	8 (33.3%)
Cystocele	3 (12.5%)
Uterine prolapse	2 (8.3%)

## SB-193

### Evaluating the Outcomes of Loose Seton Ligation in Adult Patients with Idiopathic Complex Perianal Fistulas: A Focus on Healing and Anal Incontinence

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**Objective:** This study aims to investigate the outcomes related to the implementation of loose setons in patients with complex anal fistulas, with a particular emphasis on the effects on incontinence and overall quality of life.

**Materials-Methods:** Patients who underwent loose seton surgery for complex anal fistulas between June 2022 and June 2024 were identified from the hospital's records. Participants were contacted by telephone to take part in the administration of the Wexner incontinence scale and short health scale questionnaires. Preoperative and postoperative scores were then compared. The Wilcoxon Signed-Rank Test, a non-parametric statistical method, was utilized to analyze the test results of the same individuals at different time points.

**Results:** The study included a total of 77 patients. Individuals with inflammatory bowel disease or those who were

immunosuppressed were excluded from the study. Within this cohort, 44 participants (57.1%) had transsphincteric fistulas, while 33 participants (42.9%) presented with extrasphincteric fistulas. The median follow-up period for these patients was 22 months, ranging from 12 to 24 months. The preoperative median Wexner Score was significantly higher than the postoperative median score ( $p < 0.001$ ). Additionally, the postoperative median score on the Short Health Scale also demonstrated a significant increase following the surgery ( $p < 0.001$ ).

**Conclusion:** In summary, evaluations using the Wexner and Short Health Scale demonstrated considerable improvements following the surgical procedure. The loose seton ligation technique is established as a safe and effective method for managing complex anal fistulas, with a marked decrease in incontinence rates.

**Keywords:** fistula, seton

Figure 1.

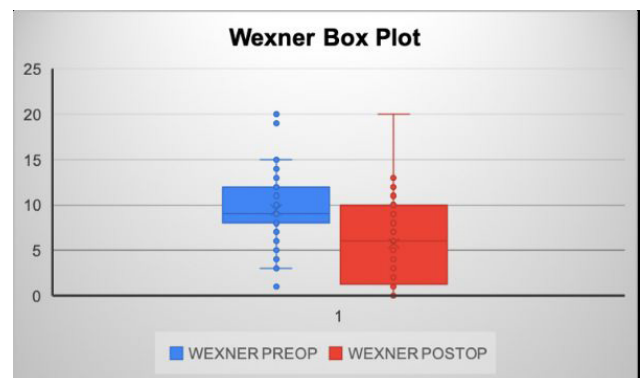


Figure 2

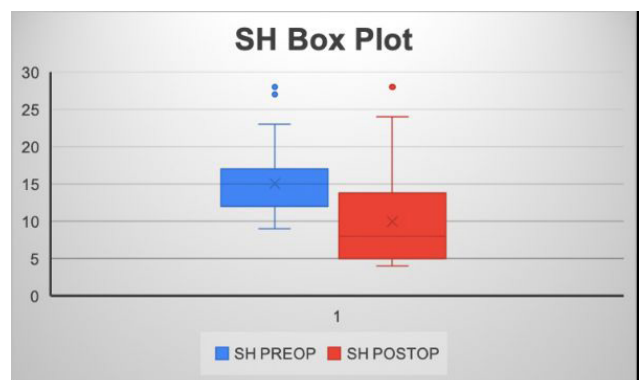


Table 1. Comparison of preoperative and postoperative Wexner Score and Short Health Scale results

		Preoperative	Postoperative	W score a	p
Wexner Score	median [min;max] IQR*	9 [1.0;20.0] 4	6 [0.0;20.0] 8	64.5	<0.001
Short Health Scale	median [min;max] IQR*	16 [9;28] 6	8 [4.0;28.0] 12	276.5	<0.001

a Wilcoxon Signed-Rank Test \*Inter Quantile Range

**SB-194****Doppler-Guided Hemorrhoidal Artery Ligation: Effects on Quality of Life and Symptomatic Outcomes**

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**Objective:** This study aims to evaluate the impact of Doppler-guided hemorrhoidal artery ligation on the quality of life in patients with hemorrhoidal disease.

**Materials-Methods:** This retrospective study analyzed data from patients diagnosed with grade III-IV hemorrhoidal disease who presented to the clinic between 2020 and 2023. A total of 34 patients who met the inclusion criteria and underwent hemorrhoidal artery ligation were analyzed. Demographic data, operative time, intraoperative bleeding, and postoperative complications were recorded. Symptoms such as bleeding, soiling, prolapse, and pain were assessed both preoperatively and postoperatively by using several validated assessment tools. Quality of life was measured using the Short Form Survey-36 (SF-36) and the World Health Organisation Quality of Life - BREF (WHOQOL-BREF) questionnaire. The Hemorrhoidal Disease Symptom Score (HDSS), Wexner Score, and Visual Analog Scale (VAS) scores were also used to assess the symptomatic improvement. The primary outcomes measures were patient satisfaction, quality of life, hemorrhoidal symptom score and postoperative pain levels. The secondary outcomes were complete healing and recurrence rates. Statistical analyses were performed using Wilcoxon signed-rank tests, with significance set at  $p < 0.05$ .

**Results:** Postoperative SF-36( $p < .001$ ) and WHOQOL-BREF( $p < .001$ ) scores demonstrated a significant improvement in patients' overall quality of life. There was a statistically significant decrease in the HDSS( $p < .001$ ) and Wexner Score( $p < .001$ ) indicating improved symptom control. VAS scores also showed significant improvement on postoperative day 7. Two complications were observed. One patient experienced persistent anal pain for one month; however, it did not require daily analgesic use. By the second postoperative month, the pain had completely resolved. Another patient experienced recurrence within one month postoperatively and subsequently underwent hemorrhoidectomy.

**Conclusion:** This study demonstrates that Doppler-guided hemorrhoidal artery ligation is a safe, well-tolerated, and effective procedure, significantly reducing postoperative symptoms in patients with grade III and IV hemorrhoids. These results will gain greater significance with long-term studies assessing recurrence rates and late complications.

**Keywords:** Doppler, hemorrhoidal artery ligation

**SB-195****Evaluation of Pelvic Floor Disease Awareness in Patients Receiving Pelvic Floor Physiotherapy**

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**Objective:** Pelvic floor (PF) diseases are common in society and can affect all age groups and both genders. Treatment is personalized and may include surgical interventions, pelvic floor physiotherapy (PFP), or a combination of these methods. In this study, we evaluated the effectiveness of physiotherapy in the treatment of PF diseases and the role of a PF center in raising patient awareness.

**Materials-Methods:** Patients treated at the Bursa Medica Hospital PF Diseases Center between April 2024 and February 2025 were included in the study. Patients were asked to complete a questionnaire assessing their awareness of PF issues. Demographic data, the reason for receiving PFP, and recovery rates were also evaluated. The level of awareness regarding PF disorders and the perceived benefits after PFP were assessed.

**Results:** A total of 86 patients (62.8% female) with a median age of 41.5 (22-73) were included in the study. The majority of patients (60.46%) had a higher education level. The most common reason for receiving PFP was constipation/difficulty defecating (72.09%). 74.41% of patients reported benefiting from PFP. The median score on the PF awareness questionnaire was 75.86 (3.44-100), and 75.58% of patients were considered successful. Although patients who benefited from PFP had a higher success rate on the PF awareness questionnaire (76.56% vs. 72.73%,  $p = 0.71$ ), this difference was not statistically significant.

**Conclusion:** The majority of patients receiving PFP were successful in the PF awareness questionnaire, indicating that they gained knowledge about PF diseases, symptoms, and treatments during the treatment process. Providing information activities before treatment may contribute to a smoother and more beneficial PFP process.

**Keywords:** rehabilitation, pelvic floor

**SB-196****Clinical impact of preoperative sarcopenia on the outcome of patients with right-sided colon cancer**

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**Objective:** Sarcopenia is a skeletal muscle disorder that has been shown to increase postoperative complications related to colon cancer undergoing colectomy, including infection, length of stay, increased cost of care, and delayed recovery. We aimed to investigate the prognostic impact of sarcopenia in right-sided colon cancer patients.

**Materials-Methods:** We performed a retrospective analysis of 228 patients diagnosed with right-sided colon cancer between 2016 and 2022 in a single institution. The cross-sectional skeletal muscle area was measured on preoperative CT scans at the level of L3 vertebra and psoas muscle index was calculated.

**Results:** Sarcopenic patients (n=78) had higher rates of intra-abdominal infection (p=0.040), pulmonary infection (p=0.011), cardiac complication (p=0.013), urinary infection (p=0.013), and postoperative hypoalbuminemia (p=0.022) compared to nonsarcopenic patients. In univariate analysis, sarcopenia, open surgery, postoperative hypoalbuminemia, and longer duration of hospital stay were associated with postoperative complications (p<0.001). Hypoalbuminemia (p=0.026) and longer duration of hospital stay (p=0.002) remained the most significant factors related to postoperative complications in multivariate analysis. The five-year OS and DFS rates were 43% and 51.7% in patients without sarcopenia, and 19.7% and 43.1% in patients with sarcopenia (p=0.597 and p=0.154, respectively). In Cox proportional hazards model, according to the factors affecting OS, age  $\geq$  65 years, stage IV disease, and higher CA 19-9 were significant factors in univariate analysis while age  $\geq$  65 years, male sex, stage IV disease, and higher CEA were significant in multivariate analysis. According to the factors affecting DFS, age  $\geq$  65 years, stage IV disease, peritumoral Crohn's-like lymphoid reaction, and higher CA 19-9 were significant factors in univariate analysis while age  $\geq$  65 years and stage IV disease were significant in multivariate analysis.

**Conclusion:** Preoperative sarcopenia has a negative impact on the outcome of patients with right-sided colon cancer. Appropriate prehabilitation strategies may help patients improve their postoperative outcomes.

**Keywords:** Sarcopenia, colon cancer

**Table 1**

Characteristics	Patients (n=228) n (%)	Sarcopenia		p-value
		No (n=150)	Yes (n=78)	
Age (year)				
< 65	71 (31.1)	48 (32)	23 (29.5)	0.697 <sup>a</sup>
$\geq$ 65	157 (68.9)	102 (68)	55 (70.5)	
Sex				
Male	115 (50.4)	69 (46)	46 (59)	0.063 <sup>b</sup>
Female	113 (49.6)	81 (54)	32 (41)	
Psoas muscle index**		6.04 (4.86-7.49)	3.83 (3.3-5.02)	<0.001 <sup>a</sup>
Tumor Location				
Cecum	101 (44.3)	68 (45.3)	33 (42.3)	0.586 <sup>b</sup>
Ascending colon	40 (17.5)	25 (16.7)	15 (19.2)	
Hepatic flexure	44 (19.3)	26 (17.3)	18 (23.1)	
Transverse colon	43 (18.9)	31 (20.7)	12 (15.4)	
Nature of operation				
Open	204 (89.5)	131 (87.3)	73 (93.6)	0.144 <sup>b</sup>
Minimally invasive	24 (10.5)	19 (12.7)	5 (6.4)	
Operation Type				
Right hemicolectomy	123 (53.9)	79 (52.7)	44 (56.4)	0.771 <sup>b</sup>
Extended right hemicolectomy	75 (32.9)	50 (33.3)	25 (32.1)	
Transverse colectomy	13 (5.7)	8 (5.3)	5 (6.4)	
Extended left hemicolectomy	17 (7.5)	13 (8.7)	4 (5.1)	
Colostomy				
No	209 (91.7)	138 (92)	71 (91)	0.801 <sup>b</sup>
Yes	19 (8.3)	12 (8)	7 (9)	
T				
T1	10 (4.4)	8 (5.3)	2 (2.6)	0.689 <sup>a</sup>
T2	15 (6.6)	11 (7.3)	4 (5.1)	
T3	74 (32.5)	47 (31.3)	27 (34.6)	
T4	129 (56.5)	84 (56)	45 (57.7)	
N				
N0	121 (53.1)	77 (51.3)	44 (56.4)	0.239 <sup>a</sup>
N1	62 (27.2)	46 (30.7)	16 (20.5)	
N2	45 (19.7)	27 (18)	18 (23.1)	
M				
M0	176 (77.2)	120 (80)	56 (71.8)	0.161 <sup>b</sup>
M1	52 (22.8)	30 (20)	22 (28.2)	
AJCC Stage				
I	24 (10.5)	17 (11.3)	7 (9)	0.290 <sup>b</sup>
II	86 (37.7)	54 (36)	32 (41)	
III	65 (28.5)	48 (31.3)	17 (21.8)	
IV	53 (23.3)	31 (20.7)	22 (28.2)	
Morphology				
Expanding	15 (6.6)	11 (7.3)	4 (5.1)	0.619 <sup>a</sup>
Infiltrative	159 (69.7)	106 (70.7)	53 (67.9)	
Expanding and infiltrative	54 (23.7)	33 (22)	21 (26.9)	

**Table 2**

Tumor volume				
$\leq$ 30 cm <sup>3</sup>	98 (43)	67 (44.7)	31 (39.7)	0.476 <sup>b</sup>
> 30 cm <sup>3</sup>	130 (57)	83 (55.3)	47 (60.3)	
Grade				
Low	179 (78.5)	119 (79.3)	60 (76.9)	0.674 <sup>b</sup>
High	49 (21.5)	31 (20.7)	18 (23.1)	
Component				
Adenocarcinoma	184 (80.7)	125 (83.3)	59 (75.6)	0.163 <sup>b</sup>
Mucinous adenocarcinoma	44 (19.3)	25 (16.7)	19 (24.4)	
Tumor necrosis				
None	22 (9.6)	14 (9.3)	8 (10.3)	0.496 <sup>b</sup>
Massive	112 (49.1)	70 (46.7)	42 (53.8)	
Intraluminal	94 (41.2)	66 (44)	28 (35.9)	
Lymphatic invasion				
No	20 (8.8)	17 (11.3)	3 (3.8)	0.058 <sup>b</sup>
Yes	208 (91.2)	133 (88.7)	75 (96.2)	
Vascular invasion				
No	64 (28.1)	42 (28)	22 (28.2)	0.974 <sup>b</sup>
Yes	164 (71.9)	108 (72)	56 (71.8)	
Plexus invasion				
No	67 (29.4)	48 (32)	19 (24.4)	0.230 <sup>b</sup>
Yes	161 (70.6)	102 (68)	59 (75.6)	
Perineural invasion				
No	31 (13.6)	22 (14.7)	9 (11.5)	0.513 <sup>b</sup>
Yes	197 (86.4)	128 (85.3)	69 (88.5)	
Peritumoral Crohn's-like lymphoid reaction				
No	117 (51.3)	74 (49.3)	43 (55.1)	0.406 <sup>b</sup>
Yes	111 (48.7)	76 (50.7)	35 (44.9)	
Harvested lymph nodes <sup>a</sup>		30 (20.7-40.2)	27.5 (20-41.2)	0.847 <sup>a</sup>
Metastatic lymph nodes <sup>a</sup>		0 (0-2)	0 (0-4)	0.695 <sup>a</sup>
Harvested/metastatic lymph node ratio <sup>a</sup>		0 (0-0.09)	0 (0-0.13)	0.811 <sup>a</sup>
Microsatellite instability				
Instable	49 (21.5)	29 (20)	20 (26.7)	0.260 <sup>b</sup>
Stable	171 (75.0)	116 (80)	55 (73.3)	
Preoperative CEA <sup>a</sup>		6.28 (2.86-29.8)	4.78 (2.72-10.8)	0.273 <sup>a</sup>
Preoperative CA-19.9 <sup>a</sup>		13.11 (6.18-26.1)	16.5 (9.73-44.2)	0.092 <sup>a</sup>
Duration of hospital stay (days)		9 (7-12.25)	10 (7-14.25)	0.359 <sup>a</sup>

<sup>a</sup>Psoas muscle index median (25-75 percentile), <sup>b</sup>Pearson Chi-Squared Test, <sup>c</sup>Mann-Whitney U test



## SB-197

# Impact of ERAS Protocols in Colorectal Oncological Surgery: A Latin American Perspective

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**Objective:** Enhanced Recovery After Surgery (ERAS) protocols improve postoperative outcomes by reducing complications and accelerating recovery. While their benefits in colorectal oncological surgery are well-documented in high-income countries, evidence from Latin America remains limited. This study evaluates the clinical impact of ERAS implementation in this region.

**Materials-Methods:** Observational target trial emulation study. Adult patients undergoing oncological colorectal surgery (2021–2025) were included. Outcomes assessed included hospital length of stay, ICU admission, complications, reoperations, and 30-day readmission. Multivariate analysis used robust Poisson regression to estimate adjusted relative risks (aRR), with  $p < 0.05$  and 95% confidence intervals (CI).

**Results:** Among the 183 patients included, 124 received ERAS care, while 59 followed standard management. The median age was 65 years (IQR 56–74), with females comprising 50.8% of the cohort. The most frequently performed procedure was anterior rectal resection. ERAS patients achieved earlier passage of flatus ( $p < 0.001$ ), bowel movements ( $p = 0.001$ ), and oral intake tolerance ( $p < 0.001$ ) than controls. No differences in hospital stay were observed. Multivariate analysis showed ERAS was associated with lower complication rates (aRR = 0.45, 95% CI 0.26–0.8,  $p = 0.006$ ), ICU admission (aRR = 0.29, 95% CI 0.12–0.63,  $p = 0.02$ ), and reoperations (aRR = 0.46, 95% CI 0.24–0.89,  $p = 0.001$ ).

**Conclusion:** ERAS implementation in colorectal oncological surgery in Latin America improves key recovery metrics and reduces complications, ICU admissions, and reoperations. These findings support wider adoption of ERAS protocols in the region to optimise surgical outcomes.

**Keywords:** Enhanced Recovery After Surgery, Colorectal Cancer

## SB-198

# Ambulatory Colorectal Surgery Following Enhanced Recovery After Surgery Guidelines:

## A Multidisciplinary Protocol in a Latin American Institution

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**Objective:** The clinical success of the Enhanced Recovery After Surgery (ERAS) protocol has prompted the question of whether outpatient colorectal surgery, defined by postoperative stays of less than 24 hours, can be performed safely. While there is a paucity of published results, particularly in low- to medium-resource settings, the lack of consensus on inclusion criteria represents a significant challenge. The objective of this study is to evaluate the clinical outcomes of an ambulatory colorectal surgery protocol under the Enhanced Recovery After Surgery (ERAS) framework in a high-complexity institution in Latin America.

**Materials-Methods:** A retrospective observational cohort study was conducted including adult patients who underwent major colorectal surgery under ERAS between 2022 and 2024. To be eligible for ambulatory surgery, patients were required to have undergone preoperative counseling, to have the support of their family, to have demonstrated medical adherence, and classified as ASA 1 or 2. Patients who underwent complex surgeries, required intensive care, or were at high social risk were excluded from the study. The primary outcomes assessed were gastrointestinal recovery, complications, reinterventions, hospital readmissions, and length of stay exceeding 30 days.

**Results:** 114 patients underwent treatment in accordance with the institutional protocol, of whom 14.9% (17/114) were deemed eligible for outpatient colorectal surgery (Figure 1). The median age was 60 years, and 82.4% (14/17) were men classified as ASA II who underwent anterior rectal resection or right hemicolectomy for primary adenocarcinoma. The median length of hospital stay was 19 hours (interquartile range [IQR] 15–21), with a median time to oral recovery of 6 hours (IQR 4–6) and a median time to flatus passage of 10 hours (IQR 6–11). There were no re-interventions or readmissions within 30 days of surgery (Figure 2).

**Conclusion:** Ambulatory colorectal surgery according to the ERAS protocol can be safely performed in low-to-moderate resource settings.

**Keywords:** Enhanced Recovery after Surgery, Ambulatory Surgery

Figure 1

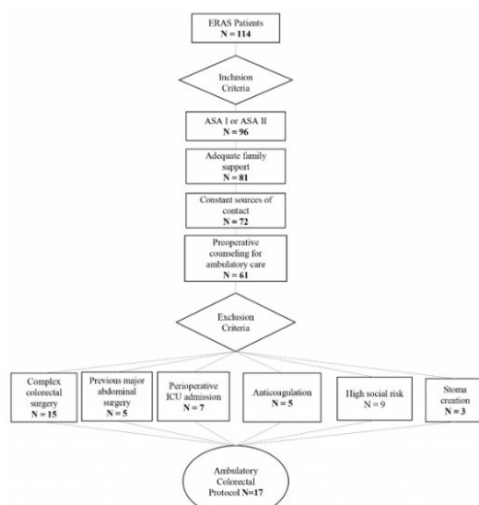


Figure 2

	Non-Ambulatory ERAS patients	Ambulatory ERAS patients
N	97	17
First passage of stool, hours, median [IQR]	34.00 [27.00, 72.00]	12.00 [9.75, 15.25]
Tolerance to the oral route, hours, median [IQR]	24.00 [12.00, 51.00]	6.00 [4.00, 6.00]
Complications, (%)	24 (24.7)	1 (5.9)
Postoperative nausea and vomiting	3 (12.5)	1 (100.0)
Surgical complications	12 (50.0)	0 (0.0)
Infectious Complications	3 (12.5)	0 (0.0)
Other gastrointestinal, renal and hepatic complications	6 (25.0)	0 (0.0)
Hospital Stay, hours, median [IQR]	76.00 [62.00, 118.00]	19.00 [15.00, 21.00]
<b>Pre-discharge vital signs and lab tests</b>		
Systolic blood pressure , mmHg, median [IQR]	132.00 [120.00, 148.00]	131.00 [120.00, 145.75]
Pulse rate, bpm, median [IQR]	73.00 [64.00, 78.00]	72.00 [65.00, 78.00]
Glasgow Coma Scale, median [IQR]	15.00 [15.00, 15.00]	15.00 [15.00, 15.00]
Hemoglobin, g/dl, median [IQR]	13.00 [11.80, 13.80]	13.00 [11.80, 13.97]
White blood cell count, x10 <sup>9</sup> /l, median [IQR]	5.70 [5.08, 7.16]	6.43 [5.22, 12.20]
Sodium, mmol/l, median [IQR]	141.00 [139.00, 142.00]	141.00 [139.00, 142.00]
Potassium, mmol/l, median [IQR]	4.30 [4.02, 4.53]	4.35 [4.03, 4.60]
<b>30-Day Clinical Outcomes</b>		
Readmissions, (%)	15 (15.8)	0 (0.0)
Reinterventions, (%)	5 (33.3)	0 (0.0)
Complications, (%)	15 (15.8)	0 (0.0)

## SB-199

## Association of Prognostic Nutritional Index with Postoperative Complications Following Pilonidal Sinus Surgery

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**Objective:** This study aims to evaluate the prognostic value of the Prognostic Nutritional Index (PNI) and inflammatory markers (NLR, PLR, and CAR) in predicting postoperative complications in patients undergoing pilonidal sinus surgery. The study hypothesizes that low PNI levels are significantly associated with an increased risk of postoperative complications. Additionally, the impact of different surgical techniques on postoperative complications and recurrence rates is examined.

**Materials-Methods:** This retrospective cohort study included 890 patients who underwent surgical treatment for pilonidal sinus disease. Patients were classified into three groups based on the surgical technique employed: Karydakias flap (n=720), Limberg flap (n=115), Primary closure (n=55). Evaluated inflammatory markers: PNI = [(10 × albumin (g/dL)) + [0.005 × lymphocyte count (/mm<sup>3</sup>)]], NLR (Neutrophil-to-Lymphocyte Ratio), PLR (Platelet-to-Lymphocyte Ratio), and CAR (C-Reactive Protein-to-Albumin Ratio). Statistical Analysis: Postoperative complications and recurrence rates were analyzed using Chi-square test and Odds Ratio (OR). The prognostic value of PNI and inflammatory markers was assessed through Receiver Operating Characteristic (ROC) analysis.

**Results:** Patients with PNI <55.55 had a postoperative complication rate of 28.21%, while those with PNI >55.55 had a significantly lower rate of 13.56% (p=0.0476). NLR, PLR, and CAR showed no significant association with postoperative complications (p>0.05). No significant difference in complication risk was observed between Limberg and Karydakias flap techniques (OR=0.44, 95% CI: 0.18-1.12, p=0.114). Primary closure demonstrated a significantly higher recurrence rate compared to flap techniques. These findings suggest that PNI should be incorporated into preoperative risk assessment and that patients with low PNI values are at an elevated risk for postoperative complications.

**Conclusion:** Low PNI levels are significantly associated with an increased risk of postoperative complications following pilonidal sinus surgery and should be considered in preoperative assessment. Primary closure is associated with a higher recurrence rate compared to flap techniques and should be carefully considered in high-risk patients. NLR, PLR, and CAR have limited predictive value for surgical outcomes and are not reliable standalone prognostic biomarkers in this context.

**Keywords:** Pilonidal sinus, Prognostic Nutritional Index (PNI)

## SB-200

## The Relationship Between Preoperative, Intraoperative, and Postoperative Adherence to the ERAS Protocol and Major Complications in Colorectal Cancer Patients

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**Objective:** The ERAS (Enhanced Recovery After Surgery) protocol is a multidisciplinary approach aimed at accelerating postoperative recovery and reducing complication rates. This study aimed to evaluate the relationship between adherence to the ERAS protocol and the development of major complications in patients undergoing colorectal cancer surgery.

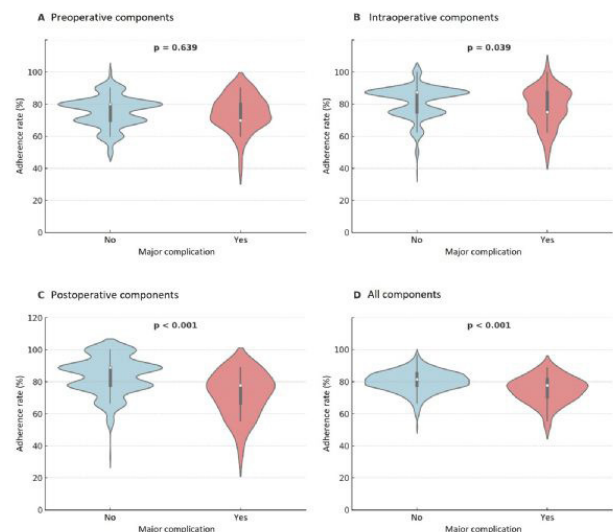
**Materials-Methods:** In this retrospective study, adult patients who underwent colorectal cancer surgery under the ERAS protocol, between 2021-2025 were analyzed. Preoperative, intraoperative, postoperative, and overall ERAS adherence rates were calculated for each patient. Patients were classified into two groups based on the presence of major complications. The overall and component-specific adherence to the ERAS protocol was statistically compared between the two groups.

**Results:** A total of 438 patients were included in the study, of whom 51 (11.6%) developed major complications. In patients without major complications, the preoperative, intraoperative, postoperative, and overall ERAS adherence rates were 80.0% (70.0–80.0), 87.5% (75.0–87.5), 88.9% (77.8–88.9), and 81.5% (77.8–85.2), respectively. In the major complication group, these rates were 70.0% (70.0–80.0), 75.0% (75.0–87.5), 77.8% (66.7–77.8), and 77.8% (70.4–81.5), respectively. Intraoperative adherence was significantly lower in the major complication group (75.0% vs. 87.5%,  $p=0.039$ ). Similarly, postoperative adherence (77.8% vs. 88.9%,  $p<0.001$ ) and overall adherence (77.8% vs. 81.5%,  $p<0.001$ ) were significantly lower in patients who developed major complications.

**Conclusion:** This study demonstrated that intraoperative and postoperative adherence to the ERAS protocol is significantly associated with major complication development. The lack of a significant difference in preoperative adherence between the groups suggests that the standardized implementation of ERAS protocol components in the preoperative preparation phase may be effective. Postoperative adherence is in a bidirectional interaction with complication development, where lower adherence may increase the risk of complications, while complications may, in turn, impair postoperative management and adherence rates. In this context, ensuring high standards of preoperative adherence for optimal patient preparation and meticulous management of intraoperative and postoperative processes can contribute significantly to reducing the risk of major complications and postoperative morbidity.

**Keywords:** Colorectal cancer, ERAS adherence

Figure 1.



Comparison of adherence rates to the ERAS components (preoperative, intraoperative, postoperative, and overall) in relation to the presence of major complications in colorectal cancer patients.

Table 1.

	No major complication (n = 387)	Major complication (n = 51)	p value
Age (year)	65.0 (56.0-70.0)	67.0 (60.0-73.0)	0.106
Gender, n (%)			
Female	159 (41.1%)	13 (39.3%)	0.021
Male	228 (58.9%)	38 (74.5%)	
ASA score, n (%)			
ASA 1	51 (13.2%)	5 (9.8%)	0.578
ASA 2	223 (57.6%)	28 (54.9%)	
ASA 3	108 (27.9%)	18 (35.3%)	
ASA 4	5 (1.3%)	0 (0.0%)	
ERAS components (%) *			
Preoperative adherence	80.0% (70.0-80.0)	70.0% (70.0-80.0)	0.639
Intraoperative adherence	87.5% (75.0-87.5)	75.0% (75.0-87.5)	0.039
Postoperative adherence	88.9% (77.8-88.9)	77.8% (66.7-77.8)	<0.001
Total adherence	81.5% (77.8-85.2)	77.8% (70.4-81.5)	<0.001

Comparison of adherence to ERAS protocol components in patients with and without major complications.

## SB-206

## Conventional Protective Stoma Should Be Replaced By Tube Ileostomy (Wafi Procedure), Phase II Study

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**Objective:** Protective stoma is a common procedure for fecal diversion to prevent mortality and morbidity of colorectal anastomotic leakage. However, serious complications may

occur due to protective stoma and its closure. Alternative procedures should be considered. In this study, we aimed to present long term results of an innovative approach (Wafi Procedure) in two centers.

**Materials-Methods:** This prospective study was conducted in two centers in Turkey. Patients who underwent colorectal resections with primary anastomosis and who were deemed as requiring a defunctioning stoma were included in the study. After completion of resection and anastomosis, Wafi procedure was performed to protect the anastomosis instead of conventional ileostomy. This technique mainly consists of inserting a reinforced (spiral) endotracheal tube into the ileum and to provide complete faecal diversion, temporary occlusion of the distal ileum was performed using a flexible rubber strip. This procedure does not require closure surgery. The primary outcome of this study was to determine the safety and efficacy of this procedure in a large number of patients with long follow-up period. The secondary outcomes were to measure the spontaneous closure time of the wound after tube removal and to observe whether there were complications related to tube ileostomy.

**Results:** 140 consecutive patients underwent the above described procedure. There was no mortality due to this technique. No major complication was observed in this large series. Defecation before removal of the tube did not occur in any of the patients inferring that complete diversion was observed in all patients (100%). Wound healing was observed within 4 (1-60) days after tube removal. During follow-up of 47(1-79) months.

**Conclusion:** Wafi procedure is a safe and effective to provide complete fecal diversion. Because it is minimally invasive, does not require ostomy closure and the lack of complications due to loop ileostomy, tube ileostomy (Wafi Procedure) can be considered as a better alternative over loop ileostomy.

**Keywords:** Protective Stoma, Tube Ileostomy

## SB-207

### Propensity Score Matching Comparison of Wafi Ileostomy with Brooke Ileostomy in Rectal Surgery

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**Objective:** Patients with resectable adenocarcinoma located in the distal rectum often require diverting ileostomy at the time of elective total mesorectal excision following neoadjuvant chemoradiation. The aim of this study was to compare Wafi ileostomy to Brooke ileostomy in terms of overall complications.

**Materials-Methods:** This was a prospective cohort study enrolling consecutive patients with distal rectal cancer undergoing elective TME with Wafi or Brooke ileostomy in two institutions. Wafi ileostomy was defined as the insertion of a soft polyvinylchloride spiral endotracheal tube into the afferent limb of the terminal ileum with a flexible rubber band passed behind the backwall of its efferent limb to occlude. (Figure-1) Brooke ileostomy was defined as the exteriorization of the terminal-ileum afferent limb through the abdominal wall with the efferent limb acting as mucous fistula. Propensity score matching with a 1:1 ratio was employed to compare diagnosis-matched patients for age, gender and American Society of Anesthesiologists score.

**Results:** With propensity score matching 99 Wafi and 99 Brooke patients were comparable for age, gender and ASA score. Tube removal without surgery in Wafi ileostomy group was carried out at median postoperative day 14 vs. median 150 days of ileostomy reversal in Brooke ileostomy group,  $p < 0.001$ . Rates of dehydration with/without kidney failure (1% vs. 22.7%;  $p < 0.001$ ), emergency room visits with/without readmission (1% vs. 24.5%;  $p < 0.001$ ) were significantly higher in Brooke patients. None of the complications of Brooke ileostomy such as prolapse, parastomal hernia, stenosis and retraction, and skin maceration were observed in the Wafi Procedure.

**Conclusion:** Completely diverted tube ileostomy (Wafi ileostomy) is superior to loop ileostomy for reasons such as lack of need for reversal surgery and fewer complications.

**Keywords:** Tube ileostomy, Loop ileostomy

Tube (Wafi) Ileostomy

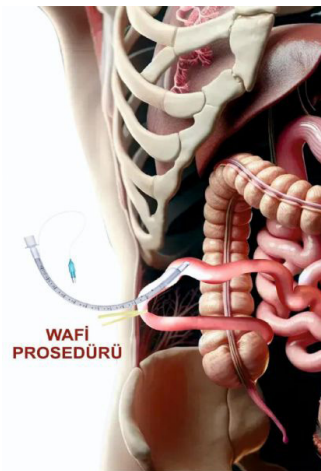


Illustration Of Tube (Wafi) Ileostomy



**SB-209****Does Protective Loop Ileostomy Creation Technique Affect Closure Complications For Rectal Cancer?: Peritoneal Fascial Suture Technique**

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**Objective:** Ileostomy closure is a minor surgical procedure performed through a peristomal incision. The Peritoneal Fascial Suture(PFS) technique aims to reduce adhesions in the abdominal wall layers. This study was planned to evaluate whether the PFS technique reduces the adhesions between the intestine and abdominal wall during the mobilization of the ileostomy.

**Materials-Methods:** This prospective randomized study was conducted between 2012 and 2022 at the Colorectal Surgery Departments of Ankara University and Sivas Cumhuriyet University. A total of 90 patients with mid and low rectal cancer, consisting of 52 males and 38 females, were included in the study. All patients received neoadjuvant chemoradiotherapy. The average age of the patients was 64(range: 42-80 years). Ileostomy was performed using the classical technique in 30 patients and the PFS technique in 60 patients. Due to less adhesion and shorter surgery times observed in the PFS group, the last 30 patients underwent the PFS technique instead of the classical method. The degree of adhesion during surgery, ileostomy mobilization time, total surgery time, intestinal injury, and pre- and post-operative parastomal hernia rates were analyzed.

**Results:** The total surgery time was found to be shorter in the PFS group compared to the classical method(42-71 minutes, p=0.023). The ileostomy mobilization time was also shorter in the PFS group(15-45 minutes, p<0.001).The rate of intestinal injury was lower in the PFS group(8.7% vs. 34.0%, p<0.005). The degree of adhesion was significantly less in the PFS group(7 vs. 4, p=0.010).There was no significant difference in the rates of preoperative parastomal hernias between the two groups. However, when evaluating the postoperative incisional hernia rates, it was observed that significantly more incisional hernias developed in the classical method compared to the PFS technique during the follow-up period of 3-10 years(2012-2022).

**Conclusion:** The PFS technique has less adhesion and fewer complications during the mobilization of ileostomy.

**Keywords:** rectal cancer, loop ileostomy

**SB-210****Comparison of Oncological, Functional, and Quality of Life Outcomes Between Intersphincteric Resection and Abdominoperineal Resection for Low Rectal Cancer**

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**Objective:** Intersphincteric resection (ISR) has emerged as a viable alternative to abdominoperineal resection (APR) for low rectal cancer, allowing for sphincter preservation and avoidance of a permanent colostomy. Previous studies have demonstrated that ISR provides oncological outcomes comparable to APR; however, functional impairments, including urinary, sexual, and defecatory dysfunction, remain concerns. Additionally, the necessity for a permanent colostomy in APR and the potential functional deficits following ISR impact patients' quality of life (QoL). This study aims to evaluate QoL, functional outcomes, and oncological outcomes in patients undergoing either APR or ISR for low rectal cancer.

**Materials-Methods:** This retrospective study included patients who underwent curative-intent APR or ISR for low rectal cancer between 2014 and 2024. Functional outcomes and QoL were assessed using the Cleveland Clinic Fecal Incontinence Score (CCFIS), Revised Urinary Incontinence Score (RUIS), International Index of Erectile Function-5 (IIEF-5), Female Sexual Function Index (FSFI), and the SF-36 questionnaire. The primary outcomes were functional outcomes and QoL, while secondary outcomes included disease-free survival (DFS) and overall survival (OS).

**Results:** A total of 246 patients (64.2%male) with a median age of 59.2±9.9 years were included. No significant differences were observed in demographic or tumor characteristics between groups (**Table1**). The median CCFI score in the ISR group was 7 (4), indicating good continence. Physical function, emotional well-being, and energy levels were slightly better in the ISR group, though not statistically significant. Urinary and sexual function scores were comparable between the APR and ISR groups. No significant differences were observed in local recurrence, distant metastasis, mortality, DFS, or OS between the two groups.

**Conclusion:** ISR and APR demonstrate comparable oncological and functional outcomes, with no significant differences in QoL for patients with low rectal cancer. A patient-centered approach should be prioritized in surgical decision-making, balancing the potential benefits and drawbacks of each procedure.

**Keywords:** Intersphincteric resection, Functional outcome

**Table 1: Comparison of demographics, tumor characteristics, functional and long-term oncological outcomes**

	APR (n=48)	ISR (n=44)	p-value
Age, year (SD)	61.6 (12.1)	59.5 (11.1)	0.25
Male gender, n (%)	129 (85.2%)	29 (60.4%)	0.53
BMI, kg/m <sup>2</sup> (IQR)	27.8 (5.8)	26 (4.3)	0.11
ASA score			
I	110 (55.6%)	26 (54.2%)	0.96
II	79 (39.9%)	20 (41.7%)	
III	9 (4.5%)	2 (4.2%)	
Abdominal surgical hx, n (%)	44 (22.2%)	8 (16.7%)	0.39
Diversion before neoadjuvant treatment, n (%)	9 (4.5%)	0 (0%)	0.21
Stage			
I	22 (11.1%)	7 (14.6%)	0.50
II-III	176 (88.9%)	41 (85.4%)	
Surgical approach, n (%)			
Open	166 (83.6%)	40 (83.3%)	0.48
Laparoscopic	26 (13.1%)	5 (10.4%)	
Robotic assisted	6 (3%)	3 (6.3%)	
pT stage			
T0	40 (20.2%)	11 (22.9%)	
T1	3 (1.5%)	1 (2.1%)	
T1	10 (5.1%)	7 (14.6%)	0.11
T2	26 (13.1%)	9 (18.8%)	
T3	101 (51%)	17 (35.4%)	
T4	18 (9.1%)	3 (6.3%)	
pN stage			
N0	132 (66.7%)	34 (70.8%)	0.53
N1	38 (19.2%)	6 (12.5%)	
N2	28 (14.1%)	8 (16.7%)	
Time to questionnaire, month (IQR)	69 (53)	74 (46.8)	0.06
CCFI, score (IQR)	-	7 (4)	n/a
RUIS, score (IQR)	5 (10)	5.5 (10)	0.93
FSFI, score (IQR)	9 (10)	9 (11)	0.24
IEF-5, score (IQR)	9 (10)	6 (8.7)	0.60
SF-36, scores (IQR)			
Physical functioning	50 (47)	85 (50)	0.13
Limitations due to physical health	77.5 (76)	95 (21)	0.16
Limitations due to emotional problems	47.5 (69)	71.3 (69)	0.75
Energy/fatigue	55 (20)	67.5 (35)	0.07
Emotional well-being	65 (28)	65 (28)	0.46
Social functioning	75 (34)	70 (28)	0.74
Pain	83.8 (32)	77.5 (31)	0.71
General health	60 (25)	60 (25)	0.91
Follow-up time, month (IQR)	29 (51)	45 (51)	0.08
Local recurrence, n (%)	19 (11.7%)	5 (11.4%)	0.94
Distant metastasis, n (%)	49 (30.2%)	9 (20.2%)	0.20
Mortality, n (%)	84 (42.4%)	18 (37.5%)	0.53
DFS, month (IQR)	24 (47)	44.5 (51)	0.06
3-year DFS, %	64%	70%	0.14
5-year DFS, %	64%	67%	
OS, month (IQR)	36 (58)	58.5 (50)	0.032
3-year OS, %	76%	90%	
5-year OS, %	61%	70%	0.28

**SB-211****Timing of Ileostomy Closure in Rectal Cancer Patients: A Retrospective Analysis of Early Closure Outcomes**

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**Objective:** Diversion ileostomy is commonly performed after rectal cancer (RC) surgery to minimize the risk of anastomotic leakage. However, the optimal timing for ileostomy closure remains controversial. This study evaluates the safety and feasibility of early ileostomy closure within one month post-surgery, focusing on complications and the impact on adjuvant treatment timing.

**Materials-Methods:** A retrospective review was conducted on patients who underwent LAR with diversion ileostomy at a single institution between January 2019 and December 2021. Inclusion criteria included patients aged 18 years or older with RC who underwent LAR with diversion ileostomy. Patients with concurrent multi-visceral resection or those who had their ileostomy closed at another institution were excluded. Data on patient demographics, surgical details, complications, and timing of adjuvant treatment were collected and analyzed. Descriptive statistics were used to summarize the data. Continuous variables were reported as means with standard deviations (SD), and categorical variables were reported as frequencies and percentages.

**Results:** The study included 30 patients with a mean age of 58.17 years (SD=11.2). The majority were male (63.3%), and the mean BMI was 26.04 (SD=3.6). Comorbidities included diabetes (26.7%), hypertension (56.7%), and ischemic heart disease (20%). Smoking history was present in 60% of patients. The mean time to ileostomy closure was 35.47 days (SD=4.1). Ten percent of patients experienced complications; one intraoperative conversion to midline laparotomy was brought on by adhesions and two postoperative complications—ileus and surgical site infection. With a mean of 27.21 days (SD=9.5) from closure to adjuvant treatment, all patients who needed adjuvant treatment started it within the advised period.

**Conclusion:** Early closure of diversion ileostomy within one month after RC surgery is safe and feasible, with a low complication rate and no delay in adjuvant treatment initiation. Careful patient selection, particularly for smokers and those on steroids, is essential to minimize risks.

**Keywords:** rectal cancer, diverting ileostomy

**Table 1****Table 1: Patient Characteristics and Pre-Morbid Status**

Characteristic	Value (Mean ± SD or n (%))
Age (years)	58.17 ± 11.2
Gender (Male/Female)	19 (63.3%) / 11 (36.7%)
BMI (kg/m <sup>2</sup> )	26.04 ± 3.6
Diabetes Mellitus	8 (26.7%)
Hypertension	17 (56.7%)
Ischemic Heart Disease	6 (20%)
Steroid Use	3 (10%)
Smoking History	18 (60%)

**Table 2****Table 2: Surgical and Postoperative Outcomes**

Outcome	Value (Mean ± SD or n (%))
Time to Closure (days)	35.47 ± 4.1
Surgery Time (minutes)	70.6 ± 20
Complications	3 (10%)
Time to Adjuvant (days)	27.21 ± 9.5

## SB-212

## Evaluation of Quality of Life with SF-36 Form in Fournier Gangrene Patients

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**Objective:** Fournier's gangrene (FG) is a severe, life-threatening necrotizing infection of the perineal region, often necessitating extensive and recurrent surgical interventions alongside a prolonged recovery period. Consequently, the quality of life (QoL) of affected patients is known to decline over time. This study aims to determine the relationship between disease severity, demographic characteristics, and clinical outcomes on QoL in Fournier gangrene.

**Materials-Methods:** This retrospective study included patients who underwent debridement for Fournier's gangrene (FG) between January 2014 and December 2024. Disease severity was assessed using the Fournier's Gangrene Severity Index (FGSI), while quality of life (QoL) was evaluated using the SF-36 questionnaire. Patient scores were compared with normative values from the healthy Turkish population, and factors influencing QoL were analyzed.

**Results:** A total of 105 patients underwent surgical debridement, of whom 73 (69.5%) were male. The mean age was 59.6 ±14.6 years. The in-hospital mortality rate was 16.2% (n=17). Additionally, 47 patients (44.8%) died from secondary causes, and 5 (4.8%) were lost follow-up. Ultimately, 36 patients (34.3%) with complete data were included in the analysis, with a mean age of 53.52 ±10.89 years; 77.8% (n=28) were male. All SF-36 component scores were significantly lower than those of the healthy Turkish population ( $p<0.001$ ) (Table 1). Gender, comorbidities, the need for additional debridement, stoma formation, complications, and FGSI scores were not significantly associated with QoL. However, the time interval between FG diagnosis and last follow-up was positively correlated with physical functioning ( $p=0.006$ ), social functioning ( $p=0.012$ ), role limitations due to emotional problems ( $p=0.043$ ), bodily pain ( $p=0.016$ ), and energy/vitality ( $p=0.018$ ) (Table 2).

**Conclusion:** Fournier's gangrene has a significant negative impact on quality of life. However, QoL improves over time following treatment.

**Keywords:** Fournier's gangrene, Quality of Life

Table 1: SF-36 Scale Results for the Study Group

Variable	Study Group (*)	Turkish Population (*)	P Value
Physical functioning	77.5	100	<0.001
Social functioning	62.5	100	<0.001
Role limitation due to physical problems	25	100	<0.001
Role limitation due to emotional problems	83.35	100	<0.001
Mental health	56	76	<0.001
Energy and vitality	57.5	70	0.001
Bodily pain	72.5	100	<0.001
General perception of health	52.5	72	<0.001

\* Median values

Table 2: SF-36 scores and Time Interval Correlations

Variable	Time	
	Coefficient Correlation	P Value
Physical functioning	0.448	0.006
Social functioning	0.415	0.012
Role limitation due to emotional problems	0.338	0.043
Energy and vitality	0.393	0.018
Bodily pain	0.400	0.016

## SB-213

## Impact of Surgery Timing on Postoperative Outcomes in Colorectal Cancer Surgery

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**Objective:** The "weekday effect" refers to the increased risk of postoperative complications and mortality associated with elective surgeries performed on Fridays, potentially due to provider fatigue and reduced perioperative care quality. While this phenomenon has been investigated, the impact of surgery timing within the day remains underexplored. This study aims to examine the impact of surgery timing (morning vs. afternoon) on early postoperative outcomes in patients undergoing colorectal cancer surgery, with a secondary analysis of the weekday effect.

**Materials-Methods:** This retrospective study included patients who underwent curative-intent colorectal cancer surgery between January 2022 and December 2024. Patients were categorized based on surgery timing: morning (before 11:00 AM) and afternoon (after 11:00 AM). The primary outcomes were early postoperative complications and mortality (30-day). The secondary analysis evaluated the weekday effect on early postoperative complications and mortality. Multivariate logistic regression was performed to adjust for confounders.

**Results:** A total of 385 patients were included (morning: 293, afternoon: 92). Rectal and robotic surgeries were more frequently performed in the morning ( $p=0.034$  and  $p=0.009$ , respectively). Afternoon surgeries were associated with shorter operative times (215 vs. 240 min,  $p=0.007$ ) but had a higher complication rate (20.7% vs. 11.9%,  $p=0.036$ ). Multivariate analysis identified afternoon surgery as an independent predictor of early postoperative complications (OR: 2.34,  $p=0.014$ ). Although postoperative complication rates were comparable across weekdays, Friday surgeries were associated with a significantly higher mortality rate compared to surgeries performed on other weekdays (4.2% vs. 0.3%,  $p=0.022$ ).

**Conclusion:** Afternoon surgery in colorectal cancer patients is associated with a higher risk of postoperative complications despite a shorter operative time, possibly due to surgical team fatigue and increased time pressure. These findings underscore the need for optimized surgical scheduling to enhance patient outcomes.

**Keywords:** Surgery timing, Weekday effect



Table 1: Univariate analysis of operation timin

	Morning operations (n=293)	Afternoon operations (n=92)	p-value
Age, year (IQR)	68 (17)	65.5 (16)	0.74
Female sex, n (%)	116 (39.6%)	28 (30.4%)	0.11
ASA, n (%)			
I	80 (27.5%)	24 (26.4%)	
II	182 (62.5%)	55 (60.4%)	0.74
III	28 (9.6%)	12 (13.2%)	
IV	1 (0.3%)	0 (0%)	
Abdominal surgical history, n (%)	136 (46.7%)	35 (38%)	0.14
Friday operation, n (%)	53 (18.1%)	19 (20.7%)	0.58
Tumor location, n (%)			
Right sided	82 (28%)	29 (31.5%)	
Left sided	92 (31.4%)	39 (42.4%)	0.034
Rectal	119 (40.6%)	24 (26.1%)	
Operative approach, n (%)			
Open	219 (74.7%)	65 (70.7%)	0.009
Laparoscopic	51 (17.4%)	26 (28.3%)	
Robotic	23 (7.8%)	1 (1.1%)	
Length of hospital stay, day (IQR)	7 (2)	7 (1.2)	0.83
Operative time, min (IQR)	240 (120)	215 (93)	0.007
Complication, n (%)	35 (11.9%)	19 (20.7%)	0.036
Clavien-Dindo Score, n (%)			
I	22 (7.5%)	7 (7.6%)	
II	5 (1.7%)	7 (7.6%)	0.049
IIIa	1 (0.3%)	4 (4%)	
IIIb	3 (1%)	0 (0%)	
IV	1 (0.3%)	0 (0%)	
Mortality, n (%)	3 (1%)	1 (1.1%)	1.00
Pathological T stage, n (%)			
T0	29 (9.9%)	3 (3.3%)	
T1	19 (6.5%)	8 (8.7%)	0.22
T2	44 (15%)	14 (15.2%)	
T3	166 (56.7%)	52 (56.5%)	
T4	35 (11.9%)	15 (16.3%)	
Pathological N stage, n (%)			
N0	210 (71.7%)	68 (73.9%)	0.10
N1	59 (20.1%)	22 (23.9%)	
N2	24 (8.2%)	2 (2.2%)	
Harvested lymph node, n (IQR)	16 (13)	17 (14)	0.28
Metastatic lymph node, n (IQR)	0 (1)	0 (0.5)	0.46
Positive surgical margin, n (%)	12 (4.1%)	2 (2.2%)	0.53
Surgeon experience, n (%)			
Resident	28 (9.6%)	13 (14.1%)	0.32
Specialist	6 (2%)	3 (3.3%)	
Professor	259 (88.4%)	76 (82.6%)	

ASA: American Society of Anaesthesiologists, IQR: Interquartile range

Table 2: Multivariate analysis of operation timing

	ref.	OR (CI)	p-value
Sex	female	0.59 (-1.07-0.02)	0.61
Abdominal surgical history	yes	0.71 (-0.86-0.18)	0.20
Tumor location	rectal		
Right sided		1.52 (-0.30-1.14)	0.25
Left sided		1.52 (-0.22-1.10)	0.19
Operative approach	robotic		
Open		2.34 (-1.26-2.96)	0.43
Laparoscopic		7.27 (-0.11-4.08)	0.06
Operative time, min		0.99 (-0.01- -0.001)	0.003
Complication	no	2.34 (0.17-1.53)	0.014
T stage	T4		
T0		0.44 (-2.29-0.65)	0.27
T1		1.18 (-0.96-1.29)	0.77
T2		1.05 (-0.90-1.02)	0.90
T3		0.85 (-0.90-0.58)	0.67
N stage	N2		
N0		4.89 (0.05-3.12)	0.043
N1		4.96 (0.01-3.18)	0.048

OR: Odds ratio, CI: Confidence interval

**Results:** (see table)

**Conclusion:** POI occurred in 15.6 % of all colorectal cancer resections at our institution. Diagnosis of POI was made on day 5 (predominantly radiologically), requiring 3 days of NG decompression, but prolonged ileus (>7 days) required parenteral nutrition at our centre. POI is usually self-limiting but arises from a complex effect of inflammatory & neurogenic stresses, and compounded by pharmacologic triggers. Management of POI include: prevention (minimal invasive surgery, early ambulation, adherence to ERAS, opioid free analgesia), supportive care (NBM, intravenous fluids, electrolyte correction, NG decompression), pharmacological therapies (prokinetic agents, vagus nerve stimulation) & parenteral nutrition (i.e. prolonged POI).

**Keywords:** post operative ileus

### Results

	POI (n=292)	Non-ileus (n=1593)	Mann-Whitney-U (p-value)
Age (yrs)	71.8 ± 0.7	70.0 ± 0.3	NS
Sex (M:F)	204: 88	832: 761	<0.0001
ASA	2	2	NS
Body-Mass-Index (kg/m2)	26.9 ± 0.3	26.5 ± 0.2	NS
Emergency (n)	65	334	NS
Laparoscopic (n)	158	951	NS
Anastomotic-Leaks(n)	17	57	NS
Hospital-Acquired-Pneumonia(n)	68	127	<0.0001
Wound infections(n)	41	122	NS
Collection(n)	32	81	NS
Sepsis(n)	43	64	< 0.01
LN harvest (n)	17 ± 5.5	17 ± 5.5	NS
Operation-time (mins)	190.0 ± 4.9	174.3 ± 2.2	<0.005
Length-Of-Stay (days)	14 ± 6	7 ± 3.5	<0.0001
POI-onset (days)	5 ± 2		
Naso-Gastric tube (days)	3 ± 1.5		
Stage 1 (n)	65	373	
Stage 2 (n)	107	506	
Stage 3 (n)	107	545	
Stage 4 (n)	10	114	
Others (n)	3	55	
Day5-WCC(x109/L)	8.5 ± 0.3	8.7 ± 0.2	NS
Day5-CRP(mg/L)	148.1 ± 6.7	119.4 ± 3.8	<0.0001
POI-diagnosis(n)			
Clinical	64		
AXR	65		
Gastrograffin	127		
CT scan			
90-Day-mortality(n)	20	92	NS
Survival rates(%)			
1st year	90.1	87.7	Logrank
5th year	72.3	69.1	p=NS
10th year	57.3	56.4	(uncensored)
15th year	43.2	45.6	

### SB-215

## Non Operative Management of Acute Appendicitis: A Cohort Study

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**Objective:** Acute appendicitis has been traditionally treated surgically via appendicectomy accounting for 50,000 appendicectomies/year (NICE, UK). Non-operative management of appendicitis is evolving as a viable option (supportive care & antibiotics), but recurrence is reported at < 30%. This was encouraged during COVID 19 pandemic (NHS England), but return to surgery has been advocated now. The aim of the study is to assess implications of non operative management of acute appendicitis.

### SB-214

## Postoperative ileus (POI) in Malignant Colorectal Resections: A Cohort Study

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**Objective:** Post operative ileus (POI) is a prevalent complication that occurs in 10-30 % of colorectal cancer (CRC) resections, is associated with increased hospitalization, morbidity & healthcare costs. The aim of the study was to evaluate the effects of POI in CRC resections at a single centre.

**Materials-Methods:** A cohort study was carried out at a single institution from January 2007 to April 2025. Descriptive demography & post-operative outcomes were assessed for POI patients following CRC resections, non-ileus resections were recruited as controls.



**Materials-Methods:** A cohort study was carried out from Mar'2020 to Mar'2025 at a single institution. Descriptive demography & outcomes were evaluated for non-operative management (n=264) of acute appendicitis. Surgical management of appendicitis (emergency appendicectomy n=699 & interval appendicectomy n=64) were recruited as controls. Standardised NHS cost ledger for resources, procurement and services were employed to calculated costing for cases.

**Results:** (see table)

**Conclusion:** Characterization of appendicitis (clinically, radiologically, serologically) into uncomplicated (27.4%) or complicated (72.6) appendicitis, has allowed safe non operative therapy especially in uncomplicated appendicitis. However, the risk of recurrence & development of complications (perforation) and the need for subsequent investigations (interval imaging CT scan, colonoscopy) & surgery (interval appendicectomy) must be weighed against the benefits of avoiding immediate surgery. Non operative management of appendicitis presents specific challenges including diagnostic mis-classification (complicated versus uncomplicated), optimal patient selection & antibiotic complications (resistance).

**Keywords:** non operative appendicitis management

## Results

	Non operative (n=274)	Appendicectomy (n=742)	Interval appendicectomy (n=66)	Kruskal Wallis (p value)
Age (yrs)	41.5 ± 1.4	36.6 ± 0.7	51.7 ± 2.0	<0.0001
Sex (M: F)	136: 138	350: 392	26: 40	NS
BMI (kg/m <sup>2</sup> )	26.2 ± 0.4	25.6 ± 0.2	26.9 ± 0.6	NS
ASA		1	2	<0.05
GP (n)	87	242	0	NS
A&E (n)	187	500	0	NS
OPD	0	0	66	NS
WCC (x10 <sup>9</sup> /L)	11.9 ± 0.3	13.2 ± 0.2	7.1 ± 0.4	<0.0001
CRP (mg/L)	79.9 ± 5.3	70.9 ± 3.3	16.6 ± 5.0	<0.0001
Laparoscopic(n)		719		
Open(n)		8	66	NS
Lap-open (n)		15		
Uncomplicated(n)	180	341		<0.0001
Complicated(n)	94	401		<0.0001
Diagnostics(n)				
Clinical	27	88		NS
USS scan	74	189		NS
CT scan	196	510		NS
Operation time (mins)		75.3 ± 1.2	69.1 ± 4.47	NS
Washout (n)		489	37	<0.0001
Drain (n)		142	1	<0.0001
Length-Of-Stay (days)	3 ± 2	2 ± 1	0 ± 0.5	<0.0001
Inpatient Antibiotics(days)	3 ± 2	2 ± 1	0 ± 0.5	<0.0001
Post op antibiotics(days)	7 ± 2	0 ± 2.5	0 ± 0	<0.0001
Length(mm)		67.8 ± 0.7	52.6 ± 2.5	<0.0001
Diameter(mm)		11.0 ± 0.2	9.9 ± 0.4	NS
Appendix HPA(n)		61	7	NS
Normal		651	7	0.0093
Appendicitis		30	52	<0.0001
Others				
Cost (£)	1529 ± 168	3411 ± 117	2212 ± 348	0.001

## SB-216

### Risk Factors for Postoperative Major Complications Following Simultaneous Colorectal and Liver Resection

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**Objective:** This study aimed to identify risk factors associated with the development of major postoperative complications in patients undergoing simultaneous colorectal and liver resection (SR) for synchronous colorectal cancer and liver metastases.

**Materials-Methods:** A retrospective analysis was conducted on 158 patients who underwent SR between 2011 and 2025. Regardless of the location of the primary tumor and the number, size and, location of liver metastases, SR was planned in all patients who were suitable for anesthesia and could be curatively resected. Exclusion criteria included recurrent cancer, non-adenocarcinoma pathology, extrahepatic intra-abdominal metastases, and unresectable liver metastases in a single session. Univariate and multivariate logistic regression analyses were performed to determine independent risk factors for the development of major complications.

**Results:** Characteristics of the patients are shown in Table 1. In univariate analysis, bilobar metastasis (p=0.003), more than 3 metastases (p<0.001), neoadjuvant biologic agent (Anti-VEGF, Anti-EGFR) use (p=0.003), and more than 3 liver

Table 2

Variable	Univariate Analysis		p-value
	Major complication (+) n=46 (%)	Major complication (-) n=112 (%)	
Age>70 years	9 (19.6)	22 (19.6)	0.99
Male gender	28 (60.9)	77 (68.8)	0.34
BMI>30 kg/m <sup>2</sup>	10 (21.7)	19 (17)	0.48
CCI>8	17 (37)	36 (32.1)	0.56
Elevated initially CEA level (>200, ng/ml)	8 (18.2)	12 (11)	0.23
Primary tumor site			0.48
Right sided	10 (21.7)	33 (29.5)	
Left sided	26 (56.5)	52 (46.4)	
Rectum	10 (21.7)	27 (24.1)	
T stage 3-4	45 (97.8)	99 (88.4)	0.06
N stage (+)	34 (73.9)	84 (75)	0.88
Bilobar metastases	31 (67.4)	46 (41.1)	0.003
Number of metastases >3	31 (67.4)	43 (38.4)	<0.001
Largest metastasis diameter>5 cm	6 (13)	24 (21.4)	0.22
Neoadjuvant chemotherapy (+)	31 (67.4)	57 (50.9)	0.58
Use of biologic agent	27 (58.7)	37 (33)	0.003
Surgical approach			0.22
Totally open	33 (71.7)	69 (61.6)	
Totally laparoscopic	2 (4.3)	15 (13.4)	
Colorectal laparoscopic- liver open	11 (23.9)	28 (25)	
Major liver resection	4 (8.7)	17 (15.2)	0.27
RFA/MWA (+)	29 (63)	49 (43.8)	0.028
Number of RFA/MWA >3	16 (55.2)	15 (30.6)	0.032
Pringle's maneuver (+)	18 (39.1)	38 (33.9)	0.53
Pringle's maneuver time, min	36.6 ± 16.4	32.3 ± 12.8	0.93
Operation time, min	335 ± 80	308 ± 91	0.08
Length of stay, days (median)	18	8	<0.001
	Multivariate Logistic Regression Analysis		
	B	SE	OR (95% CI)
Number of metastases >3	1.199	0.370	3.316 (1.60-6.84)
Use of biologic agent	0.670	0.394	1.953 (0.90-4.22)
Number of RFA/MWA >3	0.729	0.512	2.072 (0.75-5.65)

BMI Body Mass Index,  
CCI Charlson Comorbidity Index,  
CEA Carcinoembryonic Antigen,  
RFA Radiofrequency Ablation,  
MWA Microwave Ablation,  
B Beta Coefficient,  
SE Standard Error,  
OR Odds Ratio, CI Confidence Interval

Univariate and multivariate analysis of factors associated with major complications

ablations (p=0.032) were significantly associated with major complications (Table 2). However, in multivariate analysis, only the presence of more than 3 metastases remained an independent predictor of major complications (OR: 3.316, 95% CI: 1.60–6.84, p=0.001). Biologic agent use (p=0.089), bilobar metastases (p=0.223), and more than 3 liver ablations (p=0.155) were not found to be independent risk factors. Additionally, patients who experienced major complications had significantly longer hospital stays compared to those without complications (p<0.001, median 18 vs. 8 days).

**Conclusion:** Among patients undergoing SR, the presence of more than 3 liver metastases was identified as the only independent predictor of major postoperative complications. Patients who develop major complications experience prolonged hospitalization and may face delays in initiating adjuvant chemotherapy, which could negatively impact their oncological treatment outcomes. Identifying high-risk patients may help optimize perioperative management strategies and improve postoperative outcomes in this complex surgical population.

**Keywords:** simultaneous resection, synchronous colorectal cancer and liver metastases

Table 1

Variable	n=158
Age, years	59.4 ± 11.8
Age>70 years	31 (19.6)
Gender, male	105 (66.5)
BMI, kg/m <sup>2</sup>	26.4 ± 4.3
BMI>30, kg/m <sup>2</sup>	29 (18.4)
CCI score (median, IQR)	8 (7-9)
CCI score>8	53 (33.5)
Elevated initially CEA level (>200, ng/ml)	20 (12.7)
Primary tumor site	
Right sided	43 (27.2)
Left sided	78 (49.4)
Rectum	37 (23.4)
T stage 3-4	144 (91.1)
N stage (+)	118 (74.7)
Bilobar liver metastases	77 (48.7)
Number of metastases	5.4 (min-max: 1-34)
Number of metastases >3	74 (46.8)
Largest metastasis diameter>5 cm	30 (19)
Neoadjuvant chemotherapy (+)	88 (55.7)
Use of biologic agent	
Anti-VEGF	42 (26.6)
Anti-EGFR	22 (13.9)
Surgical approach	
Totally open	102 (64.6)
Totally laparoscopic	17 (10.8)
Colorectal laparoscopic-liver open	39 (24.7)
Major liver resection (>3 segments)	21 (13.3)
RFA/MWA (+)	78 (49.4)
Number of RFA/MWA (median, IQR)	3 (1 – 7)
Number of RFA/MWA >3*	31 (39.7)
Largest RFA/MWA diameter*	16.7 ± 8.6
Pringle's maneuver (+)	56 (35.4)
Pringle's maneuver time, min†	32.4 ± 13.9
Operation time, min	316 ± 89
Major complication (Clavien-Dindo ≥3)	46 (29.1)
Length of stay, days (median, IQR)	10 (8 – 13)
BMI Body mass index, CCI Charlson Comorbidity Index, CEA Carcinoembryonic Antigen, VEGF Vascular Endothelial Growth Factor, EGFR Epidermal Growth Factor Receptor, RFA Radiofrequency Ablation, MWA microwave ablation	
* Among patients who underwent RFA/MWA.	
† Among patients who underwent Pringle maneuver	
Values are presented as mean ± standard deviation or number of patients (%).	

Characteristics of the patients undergoing simultaneous resection for synchronous colorectal liver metastases

## SB-217

## Factors Influencing Hartmann's Reversal Following Left-sided Colon Surgery

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**Objective:** The Hartmann procedure is commonly performed in emergency settings for left-sided colonic perforation or obstruction, particularly in patients with poor physiological status where primary anastomosis poses a high risk. Once the patient stabilizes, reversal of Hartmann's procedure may be considered; however, a subset of patients remains unreversed due to various factors. This study aims to evaluate Hartmann's reversal rates and identify factors influencing non-reversal in left-sided colon surgery.

**Materials-Methods:** A retrospective analysis was conducted on patients who underwent the Hartmann procedure between 2016 and 2021. Patient demographics, diagnostic characteristics and short-term surgical outcomes were assessed. The overall reversal and 30-day survivors rates were calculated separately. Statistical analysis was performed on 30-day survivors to evaluate factors influencing non-reversal. The primary outcome was Hartmann reversal.

**Results:** A total of 156 patients were included, with an overall reversal rate of 40.4%. The 30-day mortality rate was 19.9% (n=31). Among 30-day survivors, the reversal rate was 50.4%, with a mean time to reversal of 13.1 months (±5.6). Demographics, diagnostic characteristics and short-term surgical outcomes were given in **Table 1**. Multivariate analysis identified advanced age (OR: 2.13,  $p=0.003$ ), higher ASA score (OR: 9.13,  $p=0.017$ ), and tumor diagnoses (OR: 8.08,  $p=0.002$ ) as significant predictors of non-reversal (**Table 2**).

**Conclusion:** Among patients who underwent Hartmann's procedure, the majority retained a permanent stoma. Advanced age, higher ASA scores, and a primary diagnosis of malignancy were identified as significant predictors of non-reversal. Preoperative identification of these risk factors may facilitate patient counseling to set realistic expectations.

**Keywords:** Hartmann reversal rate, Risk factors

Table 1: Univariate analysis

	All (n=125)	No reversal (n=63)	Reversal (n=63)	p-value
Age, year (±SD)	63.7 (14)	69.9 (11.5)	57.6 (13.5)	<0.001
Female, n (%)	49 (39.2%)	27 (43.5%)	22 (34.9%)	0.32
ASA score				
I	30 (24%)	6 (9.7%)	24 (38.1%)	<0.001
II	71 (56.8%)	36 (58.1%)	35 (55.6%)	
III	23 (18.4%)	19 (30.6%)	4 (6.3%)	
IV	1 (0.8%)	1 (1.6%)	0 (0%)	
Residency distance to hospital, km (IQR)	15 (80)	12 (65)	15 (90)	0.63
Diagnosis, n (%)				
Tumor	78 (62.4%)	45 (72.6%)	33 (52.4%)	0.002
Diverticulosis	28 (22.4%)	6 (9.7%)	22 (34.9%)	
Volvulus	8 (6.4%)	4 (6.3%)	4 (6.3%)	
Trauma	2 (1.6%)	0 (0%)	2 (3.2%)	
Anastomotic leak	3 (2.4%)	3 (4.8%)	0 (0%)	
Other	6 (4.8%)	4 (6.3%)	2 (3.2%)	
Cancer stage, n (%)				
II	14 (17.3%)	6 (12.5%)	8 (24.2%)	<0.001
III	31 (38.3%)	11 (22.9%)	20 (60.6%)	
IV	36 (44.4%)	31 (64.6%)	5 (15.2%)	
Adjuvant chemotherapy, n (%)	68 (66.7%)	37 (68.5%)	31 (64.6%)	0.67
Chemotherapy completed, n (%)	41 (56.2%)	11 (29.7%)	30 (83.3%)	<0.001
Elective surgery, n (%)	17 (13.6%)	12 (19.4%)	5 (7.9%)	0.06
LOS, day (IQR)	8 (3)	8.5 (5)	8 (2)	0.032
Clavien-Dindo >3 (30day), n (%)	10 (8%)	6 (9.7%)	4 (6.4%)	0.53
Readmission (30day), n (%)	13 (10.4%)	12 (19.4%)	1 (1.6%)	0.001
Reasons for no closure, n (%)				
Pt choice	-	6 (9.7%)	-	-
Mortality (after 30 day)	-	18 (29%)	-	-
High risk patient	-	12 (19.4%)	-	-
Ongoing oncologic treatment	-	18 (24.2%)	-	-
Lost follow-up	-	11 (17.7%)	-	-
Time to reversal, month (±SD)	-	-	13.1 (5.6)	-
Clavien-Dindo >3 (30day) (after reversal), n (%)	-	-	6 (9.5%)	-
Readmission (30day) (after reversal), n (%)	-	-	2 (3.2%)	-
Mortality (30day) (after reversal), n (%)	-	-	0 (0%)	-

Table 2: Multivariate analysis

	ref.	Odds ratio (CI 95%)	p-value
Age, year (±SD)		2.13 (-0.11 – 0.02)	0.003
ASA score	III-IV		
I		9.13 (0.40 – 4.01)	0.017
II		4.43 (0.09 – 2.88)	0.037
Diagnosis	Tumor		
Diverticulosis		8.08 (0.78 – 3.39)	0.002
Other		1.58 (-0.95 – 1.87)	0.52
LOS, day (IQR)		0.93 (-0.17 – 0.03)	0.17
Readmission	Yes	15.8 (0.46 – 5.05)	0.018

## SB-218

## Emergency versus Interval Appendectomy in Patients with Plastron Appendicitis: A Comparative Analysis of Clinical Outcomes

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**Objective:** Plastron appendicitis is a difficult clinical condition for which there is ongoing debate on optimal management. This study aimed to compare clinical outcomes between emergency appendectomy and interval appendectomy following initial conservative treatment in patients with plastron appendicitis.

**Materials-Methods:** We conducted a retrospective case-control analysis of patients treated at Mersin University of Medicine from January 2020 through December 2024. Patients with plastron appendicitis who underwent either emergency appendectomy (within 24 hours of admission) or interval appendectomy (4-16 weeks after initial conservative treatment) were included. The primary outcome was length of hospital stay, with secondary outcomes including ICU admission, postoperative complications, and appendectomy completion rate in patients underwent emergency appendectomy. Patients were followed for 3 months postoperatively.

**Results:** Among the 77 patients (mean age 49.4±18.5 years), 55 were set up for emergency appendectomy; however, only 36 of these patients actually underwent emergency appendectomy, and 19 (%34,5) were unable to have appendectomy and were

instead scheduled for interval appendectomy. Including these patients, a total of 41 patients underwent interval appendectomy. Hospital stay was significantly longer in the interval group ( $10.7 \pm 5.3$  vs.  $6.1 \pm 5.5$  days,  $p=0.001$ ). In the interval group, the mean time from initial presentation to surgery was  $70.0 \pm 27.5$  days (range: 25-134 days), with initial hospitalization of  $7.4 \pm 4.3$  days and post-operative stay of  $3.3 \pm 3.5$  days. ICU admission was more common in the emergency group (30.9% vs. 18.2%,  $p=0.872$ ). Laparoscopic approach was more frequently employed in the interval group (27.3% vs. 10.9%), while complication rates were similar between groups (32.7% vs. 27.3%,  $p=0.978$ ).

**Conclusion:** In conclusion, emergency appendectomy was associated with higher rates of incomplete appendectomy. Although the hospital stay is longer in interval appendectomies, interval appendectomy may be preferred in patients with suspected plastron appendicitis to avoid a second operation.

**Keywords:** Interval appendectomy, Plastron appendicitis

## SB-219

### PAN-Immune Inflammation Value Score, a New Inflammation Marker, to Predict Complicated Appendicitis

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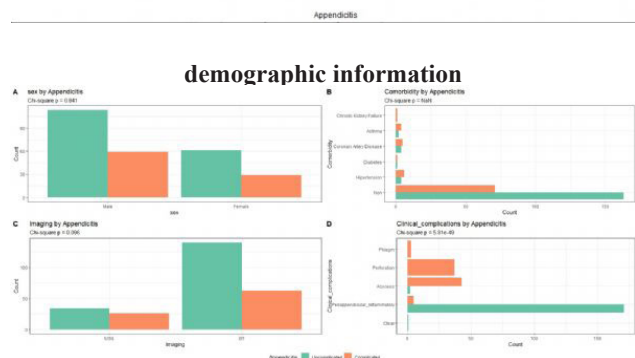
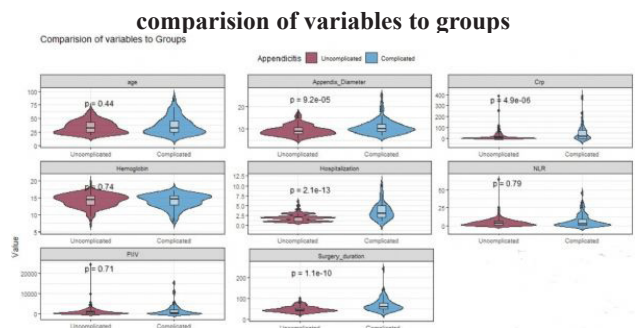
**Objective:** Acute appendicitis (AA) is one of the most common causes of acute abdominal pain. AA is categorized into two groups: complicated appendicitis (CA) and uncomplicated appendicitis (UCA). Complicated appendicitis is described as perforated appendicitis, periappendicular abscess, gangrenous, or phlegmonous appendicitis. Pan-immune inflammation value (PIV) includes the four primary cells seen in peripheral blood; neutrophils, lymphocytes, platelets, and monocytes. The purpose of this research is to determine if the PIV score differs between complicated and uncomplicated appendicitis.

**Materials-Methods:** The retrospective analysis included adult patients who were diagnosed with AA. Various clinical and laboratory variables such as patients' demographic information, appendix diameter, C-reactive protein (CRP), hemogram, hospital stay, and surgery duration were analyzed. Patients were examined in two groups: CA and UCA. The distributions of the variables were shown with violin graphs, and statistical significance was evaluated at the  $p < 0.05$  level.

**Results:** A total of 262 patients (CA:88, UCA:174) were included. The mean age of the patients participating in the study was 35.01; 172 of the patients were male and 90 were female. In the study, significant differences were found between complicated and uncomplicated appendicitis groups in terms of appendix diameter ( $p = 0.001$ ), CRP ( $p = 0.001$ ), hospital stay ( $p = 0.001$ ) and surgery time ( $p = 0.001$ ). However, there was no statistically significant difference between the groups in terms of age ( $p = 0.44$ ), hemoglobin ( $p = 0.74$ ), Neutrophil-to-Lymphocyte Ratio (NLR) ( $p = 0.79$ ), PIV ( $p = 0.71$ ) variables.

**Conclusion:** This study shows that appendix diameter, CRP level, hospital stay, and surgery duration are important variables in predicting complicated appendicitis cases. However, it was observed that variables such as NLR and PIV score were not determinative.

**Keywords:** complicated appendicitis, PIV score



## SB-220

### Our Clinical Experience in Appendiceal Neuroendocrine Tumors

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**Objective:** Appendiceal neuroendocrine tumors are the most common tumors of the appendix. They are usually diagnosed incidentally following the pathological examination of specimens obtained from appendectomies performed due to acute appendicitis. In our study, we aimed to evaluate the clinical and pathological characteristics of appendiceal neuroendocrine tumors.

**Materials-Methods:** The medical records of patients who were diagnosed with neuroendocrine tumors in pathology reports following surgery for acute appendicitis between January 2015 and December 2024 were retrospectively reviewed. The demographic characteristics, imaging findings, surgical findings, and pathological data of the patients were collected and analyzed.



**Results:** Appendiceal neuroendocrine tumors were detected in 41 patients (0.6%). The mean age was 34.3 years. Of the patients, 53.6% were female and 46.4% were male. Preoperative computed tomography suggested neoplasia in two patients (4.9%). No intraoperative suspicion of neoplasia was reported in any patient. While one patient (2.6%) underwent an open operation, all others underwent laparoscopic surgery. The mean tumor size was measured as 6.42 mm. Appendectomy alone was performed in 97.6% of the patients, while an additional procedure was performed in one patient. Surgical margin positivity was reported in one patient (2.4%). Histopathological analysis revealed that 38 patients (92.7%) had a G1 tumor, whereas 3 patients (7.3%) had a G2 tumor. The most common site of tumor invasion was the subserosa (36.6%). Lymphovascular invasion was observed in one patient (2.4%), and perineural invasion was present in four patients (9.8%). The mitotic count was below three in all patients. During follow-up, seven patients underwent secondary surgery with right hemicolectomy. The mean hospital stay was calculated as 2.2 days. The average follow-up period was 61.3 months. No morbidity or mortality was observed during the follow-up period.

**Conclusion:** Although appendiceal neuroendocrine tumors are rare, their incidental diagnosis highlights the importance of carefully reviewing the pathology reports of appendectomy specimens.

**Keywords:** appendiceal neuroendocrine tumor, acute appendicitis

## SB-221

### Thirty-Day Readmission After Rectal Cancer Surgery: An Analysis of Risk Factors and Causes

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**Objective:** Postoperative 30-day readmission is an important indicator of surgical quality and patient outcomes. Reported readmission rates after colorectal surgery range from 6% to 25%. Identifying risk factors for readmission is crucial for optimizing care, reducing healthcare costs, and improving postoperative outcomes. This study evaluates the causes and clinical characteristics of patients readmitted within 30 days after rectal cancer surgery.

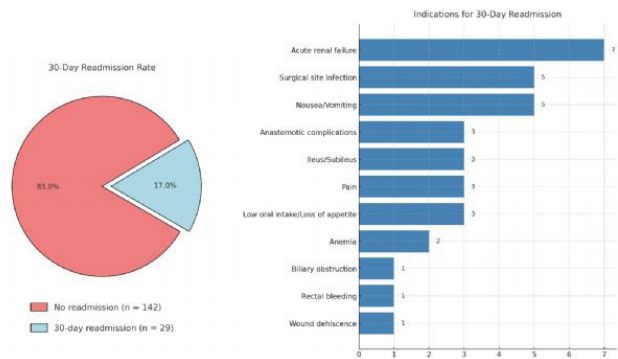
**Materials-Methods:** This study included adult patients who underwent rectal cancer surgery under the ERAS protocol at the Ankara University School of Medicine, Department of General Surgery, between 2021 and 2025. Patients were categorized into two groups based on 30-day readmission status, and demographic, operative, pathological, and postoperative characteristics were compared.

**Results:** A total of 171 patients were included in the study, and 29 patients (17%) experienced 30-day readmission. The most common indications for readmission were acute renal failure (ARF) (24.1%), surgical site infection (17.2%), and nausea/vomiting (17.2%). Other causes included anastomotic complications, ileus/subileus, pain, and low oral intake/loss of appetite (Figure 1). When comparing groups, patients with readmission had a significantly higher incidence of in-hospital major complications compared to those without readmission ( $p=0.045$ ). However, demographic characteristics, surgical approach, and tumor staging were comparable between groups. The length of hospital stay was longer in the readmission group (10 vs. 8 days), though not statistically significant (Table 1).

**Conclusion:** Our study demonstrates that 30-day readmission after rectal cancer surgery occurs in 17% of patients, with ARF being the most common cause. Importantly, patients who required readmission had a significantly higher incidence of in-hospital complications, suggesting that early postoperative morbidity strongly correlates with unplanned hospital returns. This findings underscore the necessity of optimizing perioperative management strategies—such as fluid balance regulation, infection control, and enhanced recovery protocols—to minimize postoperative complications, which in turn may reduce readmission rates, improve patient outcomes, and alleviate healthcare burdens.

**Keywords:** Early postoperative readmission, rectal cancer surgery

Figure 1.



Thirty-day readmission rate and indications for readmission following rectal cancer surgery.

Table 1.

Variables	No 30-day readmission (n = 142)	30-day readmission (n=29)	p value
Age, years	65 (37-85)	63 (25-86)	0.961
Male sex, n (%)	88 (62.0%)	18 (62.1%)	0.992
BMI, kg/m2	26.1 (17.9-38.4)	25.8 (19.4-35.2)	0.610
Surgical procedure			0.777
LAR	121 (85.2%)	24 (82.8%)	
APR	21 (14.8%)	5 (17.2%)	
Stoma type			0.189
No ostomy	7 (4.9%)	4 (13.8%)	
Ileostomy	113 (79.6%)	20 (69.0%)	
Colostomy	22 (15.5%)	5 (17.2%)	
Surgical technique			0.636
Open	8 (5.6%)	1 (3.4%)	
Laparoscopic	92 (64.8%)	17 (58.6%)	
Robotic	42 (29.6%)	11 (37.9%)	
Charlson comorbidity index	4 (0-8)	4 (2-9)	0.875
Diabetes mellitus, n (%)	31 (21.8%)	8 (27.6%)	0.501
Hypertension, n (%)	63 (44.4%)	12 (41.4%)	0.768
Neoadjuvant chemotherapy, n (%)	109 (76.8%)	20 (69.0%)	0.374
Neoadjuvant radiotherapy, n (%)	105 (73.9%)	19 (65.5%)	0.354
Perioperative nutritional support, n (%)	35 (24.6%)	12 (41.4%)	0.066
Perioperative blood transfusion, n (%)	33 (23.2%)	6 (20.7%)	0.766
P-POSSUM			
Physiological score	16 (12-34)	15 (12-32)	0.176
Operative severity score	17 (8-37)	19 (13-26)	0.729
Distance of tumor from anal verge, cm	6.3 (1-15)	6 (2-15)	0.474
Tumor location, n (%)			0.214
Upper rectum	31 (21.8%)	7 (24.1%)	
Middle rectum	63 (44.4%)	8 (27.6%)	
Lower rectum	48 (33.8%)	14 (48.3%)	
Operative duration, minutes	390 (227-777)	463 (251-710)	0.120
T stage			0.940
ypT0	35 (24.6%)	6 (20.7%)	
T1	7 (4.9%)	2 (6.9%)	
T2	36 (25.4%)	7 (24.1%)	
T3	64 (45.1%)	14 (48.3%)	
N stage			0.270
N0	111 (78.2%)	20 (69.0%)	
N1	22 (15.5%)	8 (27.6%)	
N2	9 (6.3%)	1 (3.4%)	
M stage			0.215
M0	117 (82.4%)	21 (72.4%)	
M1	25 (17.6%)	8 (27.6%)	
Length of hospital stay, days	8 (4-50)	10 (4-25)	0.161
In-hospital major complication, n (%)	11 (7.7%)	6 (20.7%)	0.045
Postoperative 30-day mortality, n (%)	0 (0.0%)	1 (3.4%)	0.170

*Comparison of demographic, operative, pathologic characteristics, and follow-up outcomes in patients with and without 30-day readmission following rectal cancer surgery.*

## SB-236

### When Complexity Meets Simplicity: The Role of TTSS in Optimizing Distal Rectal Cancer Surgery

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**Objective:** Anastomosis techniques in rectal cancer surgery impact surgical outcomes and complications. Very Low Anterior Resection(VLAR) is commonly used for sphincter preservation, but when VLAR is not feasible, Transanal Transection with Single-Stapled Anastomosis(TTSS) may offer a safer alternative. This retrospective study compares the clinical outcomes and complication rates of VLAR and TTSS.

**Materials-Methods:** This study includes 48 rectal cancer patients who underwent surgery between 2019-2025. Patients who had abdominoperineal resection(APR) or hand-sewn anastomosis were excluded. According to the Rullier classification, only type 1-2 tumors were included. Patients were categorized into two groups:VLAR or TTSS. Transection was performed using an instrument based on pelvic depth, and TTSS was applied when standard transection was not feasible.

**Results:** The mean age of the patients was 62.4(28-96)years, and 29(60.4%) were male. The stage distribution was as follows:13(27%) patients were Stage I-II, 29(60%) were Stage III, and 6(13%) were Stage IV. 43(90%) patients received neoadjuvant chemoradiotherapy. Among the patients, 4(8%) underwent TTSS, while the remaining patients underwent VLAR. The mean operative time was 548 minutes in the TTSS group and 271 minutes in the VLAR group(p=0.002). The mean hospital stay was 8 days for TTSS patients and 12 days for VLAR patients, with no statistically significant difference(p=0.387). No patients in the TTSS group had a Clavien-Dindo score of 3b or higher, whereas 7(16%) in the VLAR group had scores of 3b or higher(p=0.4). No postoperative mortality was observed in any patient.No anastomotic leakage was detected in TTSS patients,3 VLAR patients experienced anastomotic leakage.

**Conclusion:** Although TTSS requires a longer operative time, it has lower complication rates than VLAR, making it a viable alternative when VLAR is not feasible. Its ability to reduce severe complications and anastomotic leakage supports its use in select patients. Further studies are needed to validate these findings and refine surgical strategies for distal rectal cancer.

**Keywords:** Transanal Transection with Single-Stapled Anastomosis (TTSS), Distal Rectal Cancer Surgery

**SB-237****Where Should the Resection Margin End in Transverse Colon Cancer?**Barış Candan<sup>1</sup>, Mustafa Saraçoğlu<sup>2</sup>, Sadık Keşmer<sup>3</sup><sup>1</sup>Konya Şehir Hastanesi, Cerrahi Onkoloji Kliniği, Konya<sup>2</sup>Konya Şehir Hastanesi, Gastroenterolojik Cerrahi Kliniği, Konya<sup>3</sup>Elazığ Fethi Sekin Şehir Hastanesi, Gastroenterolojik Cerrahi Kliniği, Elazığ

**Objective:** Transverse Colon Cancer (TCC) constitutes 10% of all colorectal cancers and can be surgically challenging due to its anatomical location. This study analyzes the clinical data of patients undergoing surgery for TCC, examining the effect of the distal surgical margin on surgical decision-making.

**Materials and Methods:** Between 2020 and 2025, in 2 center 20 patients who underwent surgery for TCC were included in the study. Patient age, gender, ASA score, clinical and pathological stage, tumor location, tumor size, surgical method applied, specimen length, number of lymph nodes removed, length of hospital stay, postoperative complications, and distal surgical margin distance were evaluated.

**Results:** The male-to-female ratio was 60/40%, with a mean age of 62.3 years. The most frequently observed clinical stage was 3B, and the most common T stage was T3. The most common surgical method was extended right hemicolectomy (65%), followed by subtotal colectomy and transverse colectomy. The average specimen length was 48.6 cm, the number of lymph nodes removed was 18.5, and the metastatic lymph node rate was 35%. Perineural and lymphovascular invasion was found in 40% of cases. The average hospital stay was 7.8 days, and the postoperative complication rate was 25% (anastomotic leakage 10%, wound infection 15%). The average tumor size was 4.24 cm, and the tumor's distance from the distal surgical margin was 13.5 cm.

**Conclusion:** Determining the optimal resection margin in TCC surgery is crucial. Our findings indicate variability in surgical methods based on tumor location. The potential disruption of right colon perfusion following Middle Colic Artery ligation should be considered, and resection decisions should be made accordingly. Given the increased risk of colocolic anastomoses, ileocolic anastomoses may be preferred, influencing surgical strategies. Studies with larger patient series will help define optimal surgical approaches.

**Keywords:** Transverse Colon Cancer, Margin

**SB-238****Micropapillary Pattern in Early-Stage Colon Cancer as a High-Risk Feature and Prognostic Marker**Cemil Burak Kulle<sup>1</sup>, Meryem Yanık<sup>1</sup>, Melek Narin<sup>1</sup>, Melek Büyük<sup>2</sup>, Neslihan Berker<sup>2</sup>, Adem Bayraktar<sup>1</sup>, İlker Özgür<sup>1</sup>, Metin Keskin<sup>1</sup>, Mehmet Türker Bulut<sup>1</sup><sup>1</sup>Department of General Surgery, Istanbul University School of Medicine, Istanbul/Turkey<sup>2</sup>Department of Pathology, Istanbul University Oncology Institute, Istanbul/Turkey

**Objective:** Micropapillary pattern is defined as papillary tufts without a fibrovascular core and is known to be a poor prognostic factor in colon cancer patients, but it has not been comprehensively investigated yet. The aim of this study is to assess the impact of a micropapillary pattern on clinical outcomes in stage II colon cancer patients.

**Materials-Methods:** Patients with stage II colon cancer who received curative resection from January 2015 to December 2023 were included in this retrospective comparative cohort study using propensity score matching at a single comprehensive cancer center. The patients were divided into two groups based on the presence or absence of a micropapillary pattern, which was defined as  $\geq 5\%$ . The primary outcomes were disease-free survival and overall survival.

**Results:** Out of the 152 patients, 18 (11.8 %) patients depicted micropapillary pattern in the colon specimen. No significant differences were found between the micropapillary pattern presence and micropapillary pattern absence groups in terms of age and gender ( $p > 0.5$ ). The micropapillary pattern presence group showed significantly more local recurrence compared to the micropapillary pattern absence group ( $n=0$  vs  $n=2$  (11.1%);  $p=0.013$ ). There was no significant difference regarding distant metastasis ( $n=7$  (5%) vs  $n=3$  (16%);  $p=0.099$ ). No statistically significant difference was also observed in the disease free and overall survival between patients with micropapillary pattern presence and micropapillary pattern absence groups, respectively (83.3 % vs 93.3 %;  $p=0.104$ ) and (85.1 % vs 89.9 %,  $p=0.954$ ).

**Conclusion:** For stage II colon cancer patients micropapillary pattern presence is an independent poor prognostic factor. Early-stage colon cancer patients with the presence of micropapillary pattern could be considered to receive a more aggressive postoperative treatment, such as adjuvant chemotherapy.

**Keywords:** stage II colon cancer, micropapillary pattern

**SB-239****Can Inflammatory Markers Predict Local Regrowth in Locally Advanced Distal Rectal Cancer Patients Followed with Non-Operative Management After Complete Clinical Response?**

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**Objective:** The aim of this study is to determine whether inflammatory markers can predict regrowth in patients with Non operative management (NOM).

**Materials-Methods:** All locally advanced distal rectal cancer patients who were managed with NOM after achieving a complete clinical response (cCR) between December 2013 and September 2024 were enrolled into this study. In this retrospective study, neutrophil/lymphocyte (NLR), platelet/lymphocyte (PLR), lymphocyte/monocyte (LMR), platelet/neutrophil (PNR) ratios, systemic inflammation index (SII) and systemic inflammation score (SIS) were calculated at the time of diagnosis and during the surveillance period and were analyzed for their association with local regrowth.

**Results:** 92 patients diagnosed with locally advanced distal rectal cancer who were managed with NOM were retrospectively analyzed. Regrowth was observed in 19 patients (20.6%). No significant differences were found between the sustained cCR and local regrowth groups in terms of age (58.5) (p=0.49) and gender (p=0.39). There were no significant differences between the two groups in neutrophil/lymphocyte ratio (NLR) (p=2.77), platelet/lymphocyte ratio (PLR) (p=0.70), lymphocyte/monocyte ratio (LMR) (p=0.81), platelet/neutrophil ratio (PNR) (p=0.18), and systemic inflammation index (SII) (p=0.55). However, a significant difference was found between the two groups in the systemic inflammation score (SIS) (p=0.032).

**Conclusion:** The association between inflammatory markers and local regrowth in locally advanced distal rectal cancer patients managed with NOM achieving cCR following total neoadjuvant treatment was demonstrated only with the systemic inflammation score (SIS). Systemic inflammation score (SIS) could be a useful method for the detection of local regrowth, but further studies with larger patient samples are needed.

**Keywords:** Locally advanced distal rectal cancer, inflammatory markers

**SB-240****Non-operative Management in Locally Advanced Distal Rectal Cancer Patients with Clinical Complete Response After Consolidation Chemoradiotherapy: A Single Center Experience**

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**Objective:** This study aims to analyze the long-term clinical outcomes of non-operative management (NOM) in locally advanced distal rectal cancer (LADRC) patients who had a complete clinical response (cCR) following consolidation neoadjuvant chemoradiotherapy (CNCRT).

**Materials-Methods:** LADRC patients with stage II/III amenable for surgery received neoadjuvant chemoradiotherapy (nCRT). Patients with an incomplete response following nCRT underwent surgery and patients with a significant clinical response were treated with FOLFOX (5-fluorouracil and oxaliplatin) or CapeOx (capecitabine and oxaliplatin). Patients with a cCR following CNCRT were managed with NOM.

**Results:** A total of 141 patients treated between April 2014 and September 2024 were enrolled in this prospective, observational cohort study. All of these patients were treated with total neoadjuvant treatment and received especially CNCRT. Following CNCRT 93 (66%) patients with cCR were followed up with NOM. The rate of local regrowth was 20,4% (n=19) with all patients having an endoluminal growing pattern confined to the first two years. Distant metastases were diagnosed in 7 (7,5%) out of 93 patients. 5-year overall survival was 93,5% and 5-year disease-free survival was 77,4%.

**Conclusion:** The long-term clinical outcomes of NOM were promising in terms of pelvic tumor control and overall survival in strictly selected patients who had cCR after CNCRT.

**Keywords:** Consolidation chemotherapy, locally advanced distal rectal cancer; non-operative management



**SB-241****Current Trends in Total Neoadjuvant Therapy in Locally Advanced Rectal Cancer: An International Survey Study**

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Ünitesi

**Objective:** Total Neoadjuvant Therapy (TNT) for locally advanced rectal cancer (LARC) has become popular due to increased complete response rates and better local control over conventional neoadjuvant approaches. However, there is no standard TNT protocol. This study aimed to evaluate clinicians' perspectives on tailoring TNT approaches in the management of LARC

**Materials-Methods:** 225 clinicians participated in this multicenter survey, grouped by professional seniority (early-career clinicians [ECC], <10 years: n=79; experienced clinicians [EC], ≥10 years: n=146) and specialty (surgeons: n=94; non-surgeons: n=130).

**Results:** ECC preferred TNT more than EC (55.1% vs. 45.8%), while EC favoured long-course chemoradiotherapy (CRT) (47.2% vs. 30.7%, p=0.005). ECC based radiotherapy decisions on clinicopathological evaluation more frequently (73.0% vs. 51.7%), while EC standardly preferred long-course radiotherapy (45.5% vs. 19.2%, p<0.001). ECC considered clinical symptoms more frequently for planning TNT protocol (18.9% vs. 8.2%, p=0.018). Surgeons are more prone to apply TNT (70.9% vs. 33.5%), whereas non-surgeons favoured CRT (50.7% vs. 27.9%, p<=0.001). Preoperative PET-CT evaluation was more common among surgeons (80.6% vs. 31.2%, p<=0.001). For chemotherapy regimens, non-surgeons preferred FOLFOX (47.6% vs. 24.7%, p<=0.001). Patient's decision was the most common reason for Watch-and-Wait approach. Non-surgeons are less likely offering organ preservation (19.2% vs. 12.7%, p=0.002).

**Conclusion:** TNT is well accepted, among surgeons and early-career clinicians. Watch-and-Wait approach seems as a concern to offer as a routine treatment option for LARC among the medical and radiation oncologists.

**Keywords:** Total neoadjuvant therapy, Rectum Cancer

## ***Selected Video Presentations***



**SVB-001**

### **Simultaneous Robotic Extramesorectal Lymph Node and Liver Resection for NET G2 Metastases**

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 Zaman Zaurovich Mamedli

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We present a rare case a oligometastatic anal neuroendocrine G2 tumor (NET G2) managed by a combined robotic resection. Initially patient underwent a wide local excision for a 1 cm anal NEO G2. Two metastatic nodes were found on a subsequent 68 Ga-DOTATATE PET/CT: a 2 cm extramesorectal node on S3-S4 level and a 8mm S8 liver metastasis. Patient started to receive octreotide treatment and after 1 months underwent a simultaneous robotic extramesorectal node removal and an atypical liver resection. Extramesorectal node was removed by following the mesorectal surgical layer posteriorly without damage to its capsule. No additional ports were required to switch to the liver resection after extramesorectal lymph node removal. Postoperative pathology report confirmed both nodes to be NET G2 metastases, R0 resection was achieved. The patient continues to receive octreotide therapy. No progression was observed at 9-months follow-up examination.

**Keywords:** Neuroendocrine tumor, robotic surgery

**SVB-003**

### **Prophylactic Ureteral Stents and ICG: Improving Safety in High-Risk Colorectal Surgery**

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 Zeynep Ece Dimitoka, Sevcan Koç, Derya Salim Duymaz,  
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Iatrogenic ureteral injury is a severe complication of colorectal surgery even though it is rarely seen. It may enhance morbidity and mortality and 50-70 % of the cases require further interventions if this injury is not detected during operation. Common risk factors are intraoperative adhesions, rectal cancer, female sex and complicated diverticulitis. Evidence regarding prevention methods is not sufficient but intraoperative identification of it reduces morbidity. Although there are conflicting studies in literature, some suggest an association between prophylactic ureteral stents and lower rates of ureteral injury. Specific factors to patients may justify prophylaxis use. It possesses advantages such as effective identification of ureter in high-risk scenarios. Lighted ureteral stents using fluorescence which has been developed for ureteral visualization with minimal dissection and it enhances outcomes regarding complications. Ryu et al. suggest that although statistical significance was not reached, there was minimal incidence of iatrogenic urinary tract injury (0% with vs. 1.6% without fluorescent stents)<sup>1</sup>. ICG (indocyanine green) is one of the ureteral fluorescent dyes to visualize ureters. It can be used both with and without stents. Without stents, intramural injection of ICG

is associated with less complications and it is more time and cost saving when compared to stent placement. However, still the literature is not sufficient to provide high quality data. In our case in the video, a patient having previous open abdominal surgery followed by total mesorectal excision. Due to increased injury risk, lighted ureteral catheters were used to provide clear retroperitoneal visualization. In the second case, ICG fluorescence enables ureteral identification during mediolateral dissection in a fatty mesentery case. These cases emphasize the effectiveness of ICG fluorescence in preventing injury, improving intraoperative ureter identification in conclusion, better surgical outcomes and safety.

**Keywords:** ICG Fluorescence, Prophylactic Ureteral Stents

**SVB-004**

### **Z-Plasty for the Repair of Cloaca-Like Defects Following Obstetric Injury**

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**Objective:** Cloacal deformity is a rare but severe complication of obstetric trauma, arising from extensive perineal injuries. It is characterized by the breakdown of the perineal body, anterior disruption of the anal sphincters, and loss of rectovaginal tissue integrity.

**Case:** A 32-year-old female presented with persistent gas and fecal incontinence following her second complicated vaginal delivery, symptoms that had significantly impaired her quality of life for six years. Preoperative evaluation revealed a Cleveland Clinic Fecal Incontinence Score of 15. Surgical reconstruction was performed using a Z-like flap technique, which required fewer incisions compared to traditional X-like flap methods, potentially reducing the risk of wound complications. The patient was discharged on postoperative day 2 with detailed wound care instructions. At the 2 month's follow-up, the Cleveland Clinic Fecal Incontinence Score improved to 2. The patient was also instructed on Kegel exercises to support further recovery.

**Conclusion:** Cloacal defects are challenging to manage due to the high-risk nature of the perianal region, particularly concerning fecal contamination. While X-like flap techniques are commonly described in the literature, the Z-like flap method offers a significant advantage by requiring fewer incisions, thereby minimizing the risk of wound complications. Unlike larger flaps, such as the modified petal lotus flap described by Altomare et al., the Z-like flap provides a safer and more effective approach for surgical reconstruction. This case highlights the efficacy of the Z-like flap technique as a promising alternative for the repair of cloacal defects.

**Keywords:** Cloaca-like defect, Z-plasty



**SVB-006****Kraske Procedure: Oldie but Goodie**

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Retrorectal masses are rare lesions presenting significant management challenges due to their deep anatomical location and proximity to critical structures. These include congenital lesions (e.g., tailgut cysts), benign tumors, and malignancies, with an overall malignancy rate of approximately 30%. Presacral tumors occur at an incidence of 1/40,000 to 1/63,000, with surgical intervention often required due to the risk of malignancy and malignant degeneration.

The Kraske procedure, introduced by Kraske in 1885, is a posterior surgical approach providing excellent access to the retrorectal space. It is particularly suitable for low-lying, posteriorly located retrorectal masses.

This video vignette demonstrates the Kraske procedure in a 36-year-old woman with a retrorectal mass presenting with perianal pain. Ultrasonography identified the lesion, and pelvic MRI revealed a 4 cm avascular, slightly hypointense lesion on T2A and T1A series with marked hyperintensity on high b values. No luminal invasion or significant contrast enhancement was observed. The lesion was closely associated with the posterior rectal wall.

The surgical technique involved prone jackknife positioning, a midline incision from the left coccyx to the sacral hollow, and exposure of the presacral fascia. Key steps included gluteal muscle dissection, rectal retraction, and mass excision, with optional coccyx resection for enhanced visualization. Critical landmarks were preserved to avoid damage to adjacent structures, and the surgical site was closed in layers to minimize complications. Surgical resection confirmed a benign epidermoid cyst, and the patient was discharged on postoperative day one.

The Kraske procedure achieves complete resection rates exceeding 90% for benign retrorectal masses, with low recurrence and morbidity. This vignette underlines its ongoing relevance as a safe, effective technique for retrorectal mass management.

**Keywords:** Kraske, Retrorectal mass

## ***Video Presentations***



## VB-001

**Laparoscopic Repair of Spontaneous Ascending Colon Perforation After Laparoscopic Left Hemicolectomy for Chronic Diverticulitis**Muharrem Oner<sup>1</sup>, Maher Aref Abbas<sup>2</sup>, Mehmet Ölçüm<sup>1</sup><sup>1</sup>Antalya Şehir hastanesi<sup>2</sup>Al Zahra Hopsital Dubai

**Objective:** To describe early recognition of post operative colon perforation and prompt repair to avoid further deterioration and systemic sepsis.

**Case:** A 59-year-old woman was referred to our service for segmental colectomy for a 5 cm polypoid lesion in the ascending colon. Initial biopsy of the lesion revealed a villous adenoma. Diagnostic work up included normal tumor markers. CT scan of the abdomen and pelvis confirmed a polypoid mass in the ascending colon without evidence of enlarged lymph nodes. The patient was offered endoscopic resection. Endoscopic piece-meal resection was performed in the endoscopy unit. Spot ink was used to mark the area of the colon for future surveillance of the site. The defect was closed with endoscopic clips to minimize post procedural bleeding and perforation. The procedure took approximately 1 hour to complete. The patient was observed for 6 hours and discharged home. No post endoscopic procedure complications. Final histopathologic assessment revealed intramucosal carcinoma without submucosal invasion. All margins were negative

**Conclusion:** Therapeutic endoscopy offers an alternative to segmental colectomy for patients with large colorectal polyps including adenomatous lesions or early carcinoma. Colon sparing procedures are gaining momentum with low morbidity compared to segmental colectomy and good short-term results. Such resection requires advanced therapeutic endoscopic skills and judgment for selection of patients and lesions for this treatment approach

**Keywords:** diverticulitis, spontaneous perforation

## VB-002

**Laparoscopic Central Vascular Ligation of Middle Colic Vessels: A Critical and Challenging Step Made Easy by Standardization of Operative Technique**Mahwish Khawar<sup>1</sup>, Ammar Aleter<sup>1</sup>, Mahmood Aldhaheer<sup>1</sup>, Ibrahim Amer<sup>1</sup>, Ali Toffaha<sup>1</sup>, Mohammed Yousif<sup>1</sup>, Ayman Ahmed<sup>1</sup>, Mohamed Abunada<sup>1</sup>, Amjad Parvaiz<sup>2</sup><sup>1</sup>Hamad Medical Corporation, Doha, Qatar<sup>2</sup>Champalimaud Foundation, Lisbon, Portugal

**Objective:** To standardize surgical approach when performing central vascular ligation of middle colic vessels during oncological resection. Laparoscopic complete mesocolic excision (CME) with central vascular ligation (CVL) is required from surgical oncology perspective [1]. However, true CVL of the middle colic artery (MCA) could be technically challenging.[1] It is largely due to anatomical vascular

variations and close proximity of major vessels.(2)

We present a video demonstrating key steps for the identification and ligation of middle colic vessels using laparoscopic approach. In our video, we have highlighted various methods using the concept of standardization to approach middle colic artery (MCA) and to achieve complete mesocolic excision (CME). Our aim is to provide an insight regarding the surroundings, landmarks for CME and possible complications that can occur during the extensive dissection.

**Conclusion:** We believe the concept of standardization and tailor-made approach to middle colic vessels can help surgeons overcome this technically demanding procedure.

**Keywords:** laparoscopic, standardization

## VB-003

**Single Incision Total Mesorectum Excision by Low Rectum Cancer**

Ali Al Ghrebawi

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**Objective:** To reduce the number of trocars and avoid a 5cm incision for specimen extraction, we started to utilise the “Single Port” technique while dealing with rectal cancer. Performing the TME safely, respecting all oncological principles whilst following the surgical guidelines of the Germanian and international guidelines

**Case:** lap. low rectum resection with anastomosis using single port technique

**Conclusion:** Single Port TME is an advanced minimally invasive laparoscopic surgical technique that allows surgeons a more accurate pelvic dissection while improving the visualisation of the operating field. Less manipulation of the tissue should improve the operative and short term outcomes. This particular surgical technique reduce

**Keywords:** TME, SILS

Loop Ileostomy



Result of the SILS TME



Specimen



Low rectum resection

**VB-004****Nerve-Sparing Laparoscopic Low Anterior Resection: Step by Step Nerve Identification and Preservation**

Kerim Deniz Batun, Aykhan Valiyev, Şerif Furkan Doğanç, Ali Emre Atıcı, Asım Cingi, Şevket Cumhuriyet Yeğen  
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**Objective:** With the introduction of the total mesorectal excision (TME) technique in the surgical treatment of rectal cancer, both disease-free survival and overall survival times have increased, while the rate of local recurrence has significantly decreased (1). Therefore, the focus of surgeons has shifted towards enhancing postoperative quality of life by minimizing the impact of the surgery on urogenital (urinary and sexual) functions. Nerve-sparing surgery, performed without compromising oncological principles, has become one of the success criteria for total mesorectal excision, and terms such as functional total mesorectal excision have started to be used. Today, while the postoperative morbidity rate related to urological complications has been reduced from 30% to as low as 9%, functional loss related to sexual functions remains high at approximately 26% (2). The advantages of video camera systems used in minimally invasive surgical procedures, such as magnification of images and providing more precise dissection, alongside adherence to the pelvic nerve anatomy and the steps of the surgical procedure, will further decrease these rates (3). However, even an international survey of high-volume laparoscopic colorectal surgeons found low rates of awareness of nerve-sparing surgery: 81.2% for hypogastric nerves, 43.5% for inferior hypogastric plexus, 31.8% for urogenital branches, and 12.9% for pelvic splanchnic nerves (1).

**Case:** A 61 year-old female patient presented with rectal bleeding was diagnosed as rectum adenocarcinoma. Pelvic MRI showed minimal rectal wall thickening and no lenfadenopathy. No history of neadjuvant chemotherapy or radiotherapy. The patient underwent laparoscopic low anterior resection.

**Conclusion:** In conclusion, awareness of pelvic nerve anatomy and identification of anatomically at-risk areas for nerve injury will reduce postoperative urogenital complication rates and improve patients' quality of life. We aim to review the detection of autonomic pelvic nerves and the identification of high-risk areas through the laparoscopic low anterior resection video performed at Marmara University.

**Keywords:** nerve preservation, rectal cancer

**VB-005****Robotic Low Anterior Resection in A Patient with Previous Robotic Radical Cystoprostatectomy**

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**Objective:** Surgery in rectal cancer patients with a history of previous major pelvic operation can be challenging due to altered anatomical planes and adhesions. In this video, we aim to present the safety and feasibility of robotic low anterior resection (LAR) performed on a male patient with a history of major pelvic surgery.

**Case:** A 64-year-old male patient with a body mass index of 27,5 kg/m<sup>2</sup> and American Society of Anesthesiologist score of 3 presented to our clinic with a diagnosis of adenocarcinoma of the upper rectum (cT1N1M0). His past medical history revealed the diagnosis of urothelial carcinoma of the bladder, for which he had undergone robotic radical cystoprostatectomy, bilateral pelvic lymphadenectomy and orthotopic neobladder reconstruction (TisN0M0) seven months prior to his presentation. Robotic LAR procedure was performed using the robotic da Vinci Xi system. The operative time was 270 min and estimated blood loss was 200 ml. The procedure was completed without any complications. The final histopathology was pT1bN1b. Following an uneventful recovery, the patient was discharged on the fourth postoperative day.

**Conclusion:** Thanks to the important advantages of robotic technology, including improved instrumentation, depth perception and greater range of motion, robotic rectal surgery can also be performed safely in this subset of patients with a history of previous major pelvic surgery.

**Keywords:** robotic surgery, low anterior resection

**VB-006****Transillumination-Guided Endoscopic and Transanal Recanalization for Total Anastomotic Stenosis Following Low Anterior Resection**

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**Objective:** The management of postoperative anastomotic stenosis after rectal cancer surgery remains a significant challenge, often resulting relaparotomy or permanent ostomy. While Hegar dilators and endoscopic balloon dilation are effective for partial stenoses, they are not applicable in cases of complete occlusion. A transillumination-guided laparoscopic needle-assisted endoscopic and transanal recanalization technique can be employed in patients with total anastomotic stenosis following low anterior resection (LAR).

**Case:** A 56-year-old male, who had undergone LAR with sigmoid loop colostomy for rectal cancer nine months prior, presented with rectal stenosis. His postoperative course included adjuvant radiotherapy followed by chemotherapy. Colonoscopy revealed a complete stenosis at 6 cm from the anal verge, and histopathological examination confirmed a benign etiology. The patient was positioned in modified lithotomy, and the Lone Star® Retractor System (CooperSurgical, Trumbull, CT,USA) was applied along with an anal retractor. A colonoscope was introduced through the distal segment of the sigmoid colostomy. Under translumination guidance, a laparoscopic needle was advanced through the stenotic segment to establish an initial opening. The opening was subsequently enlarged using electrocautery tip, positioned between the jaws of a grasper inserted through the created fenestration. The lumen was further dilated using a Foley catheter balloon (5–10 mL inflation) followed by sequential Hegar dilators (14 Fr to 18 Fr). Finally, a fully covered self-expandable metal stent was deployed to maintain luminal patency.

**Outcome:** The procedure was completed in 48 minutes with minimal blood loss. The patient was discharged on postoperative day two without tenesmus or other complications. Stent removal and colostomy reversal were planned for postoperative week six.

**Conclusion:** Transillumination-guided endoscopic and transanal recanalization is a safe and feasible approach for the management of total anastomotic stenosis following rectal cancer surgery. The selective utilization of this technique may reduce the need for relaparotomy and/or permanent ostomy in selected patients.

**Keywords:** Total anastomotic stricture, transillumination guided endoscopic recanalization

## VB-007

### Sphincter-Preserving Surgery for Low Rectal Cancer: Robotic ISR with Fluorescence Imaging

Zeynep Ece Dimitoka, Ibrahim Halil Ozata, Yağmur Öykü Sunar, Derya Salim Duymaz, Emre Balık  
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Intersphincteric resection is an anal-preserving technique to treat low rectal cancer. It was introduced followed by a hand-sewn coloanal anastomosis. (1) It is a complicated procedure that requires comprehensive anatomical knowledge and surgical training. However, it decreases the requirement of abdominoperineal resection. Additionally, by definition it aids to conserve sphincter function. In the literature when operated properly, 5-year disease-free survival was reported as 80.2% with a local recurrence rate of only 5.8% for ISR procedure. (2) However, evaluation of patients' preoperative situation, quality of life expectations and functional outcome of this procedure requires to be carefully assessed because the internal sphincter is a key to maintain function. Oncological inclusion criteria for this procedure include well- to moderately differentiated adenocarcinoma with T1-

T3 stage tumor, while exclusion criteria include T4 tumor, fixed tumor, untreatable distant metastasis, and poorly differentiated adenocarcinoma.(3) Due to these, patients for this procedures should be chosen wisely and possible postoperative outcomes should be addressed to patients before robotic ISR operation. This operation has a recurrence rate between 0-22.7 %; however, it still remains lower than APR which makes it feasible from an oncological perspective. With all these evaluations, robotic ISR is an applicable technique which has reasonable surgical and oncological outcomes in low rectum cancers; however, selection of the patients is one of the most crucial aspects of this procedure. (3) In our case in video, 36-year-old male with a mucinous distal rectal tumor extending beyond the muscularis propria undergoing robotic intersphincteric resection and it emphasizes the benefits of robotic intersphincteric resection in low rectal cancer, highlighting its precision, sphincter preservation, and enhanced anastomotic safety with ICG fluorescence imaging.

**Keywords:** Robotic rectal surgery, sphincter saving surgery

## VB-008

### Long-Term Complications of Radiotherapy in Rectal Cancer: Challenges and Surgical Implications

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Rectal cancer treatment requires a multidisciplinary strategy combining chemotherapy, radiation, and surgery to enhance outcomes. The course of treatment for most cases includes neoadjuvant chemoradiotherapy followed by complete mesorectal excision, and adjuvant chemotherapy as necessary. Long course chemoradiotherapy is advantageous due to its tumor downstaging and local disease control properties; therefore, it is more commonly utilized. Disease stage and prior neoadjuvant treatment are keys to determine to administer adjuvant therapy. As mentioned, radiotherapy lowers local recurrence and enhances survival. However, patient follow ups are crucial to evaluate late complications. These complications such as secondary malignancies, fibrosis- related issues, urinary and sexual dysfunction; may be challenging due to their life threatening possibilities. Bowel obstruction addressing intestine mostly, is one of the late complications due to late toxicity. However, rectal and colonic obstruction cases are rare compared to intestinal ones and neglected most of the time. At the same time, delaying surgery to enhance treatment response of chemoradiotherapy on purpose may cause complications such as fibrosis and tissue destruction. Therefore, long term follow-ups are crucial to identify and treat these complications as well as disease surveillance. Both individualized pre and post treatment assessment of patients may reduce risks, enhance life quality and maintain functional outcomes. In our first case, 80 year-old-female with mid-rectal adenocarcinoma received neoadjuvant chemoradiotherapy, achieving near-total regression, in 2017 was advised APR due to sphincter dysfunction. However, she denied therapy and re-admitted with obstruction in 2022. In our second case, 60 year-

old-male having significant alterations in pelvic tissue due to radiation-induced fibrosis and increased collagen deposition after delayed control of radiotherapy. Specifically, surgery was postponed to maximize response of the chemoradiotherapy on purpose; however, delaying period caused tissue fibrosis and narrowing of pelvis which complicates surgery. These cases emphasize severeness of post-treatment complications due to radiation and deferred operations.

**Keywords:** Radiotherapy induced fibrosis, rectum tumor

## VB-009

### Laparoscopic Left Hemicolectomy Using the NICE (Natural Orifice Intracorporeal Anastomosis and Transrectal Extraction) Technique in an Obese Patient

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**Objective:** NICE procedure is a technique that uses a total intracorporeal natural orifice approach to extract the specimen and perform anastomosis without any abdominal wall incision other than the port sites. It is associated with low SSI and incisional hernia formation, which provides a great advantage in obese patients.

**Case:** A 50-year-old obese male with previous abdominoplasty surgery, presented with intermittent abdominal pain over the past three months. Colonoscopy reported a 1.5 cm polypoid flat lesion in the descending colon. Polypectomy was performed. Pathology reported adenocarcinoma of 0.7 cm in size, developed on the basis of tubulovillous adenoma. The polyp is closer than 0.1 cm to the excision margin. Lymphovascular and perineural invasion was not detected. Tumor budding was reported as a high score. Staging with CT scan and MRI showed no evidence of lymph node involvement or distant metastasis, confirming the T1N0M0 stage. The patient underwent left hemicolectomy with the laparoscopic NICE method. Standard laparoscopic mobilization of the descending colon, ensuring adequate proximal and distal margins. After resection of the tumor-bearing segment, we performed an intracorporeal anastomosis with the NICE (Natural Orifice Intracorporeal Anastomosis and Transrectal Extraction) technique. Resection was performed. Instead of creating an additional abdominal incision, we extracted the resected specimen transanally. This approach aligns with the principles of minimally invasive surgery and enhances patient recovery. He was started on a liquid diet on the first day and discharged on the third with no signs of infection or anastomotic leakage. Histopathology confirmed a T1 lesion with clear margins and no lymphovascular invasion, aligning with our preoperative staging.

**Conclusion:** Compared to traditional open or laparoscopic techniques, NICE approaches had several advantages, such as reduced postoperative pain, faster recovery and shorter hospital stay, improved cosmetic outcomes, and lower risk of wound-related complications.

**Keywords:** Natural orifice intracorporeal anastomosis and transrectal extraction, NICE

## VB-010

### Neoadjuvant Immunotherapy in MSI-High Metastatic Colon Cancer: A Case Study and Emerging Paradigm Shift

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erya Salim Uymaz, Emre Balık

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**Objective:** Neoadjuvant therapy has become a key strategy in rectal cancer, enhancing tumor response before surgery. While rectal cancer treatment routinely includes neoadjuvant chemoradiotherapy, its role in colon cancer remains under investigation. Recent studies, including NICHE-2, demonstrate that neoadjuvant immunotherapy achieves high pathological response rates in dMMR colon cancer. MSI-H tumors have a higher tumor mutational burden and an abundance of neoantigens, making them highly responsive to immune checkpoint inhibitors. Additionally, emerging data suggest some pMMR tumors may also respond to immunotherapy, indicating that predictive markers beyond MSI status may refine patient selection. This case highlights how neoadjuvant immunotherapy can achieve complete pathological response in metastatic MSI-H colon cancer, including metastatic lesions, supporting its role in reshaping treatment paradigms and guiding clinical decision-making.

**Case:** A patient presenting with abdominal pain was diagnosed with transverse colon adenocarcinoma. Staging PET-CT revealed lung and peritoneal metastases. Endobronchial ultrasound biopsy of a lung lesion confirmed metastatic MSI-H adenocarcinoma (MLH1 and PMS2 loss). Given the MSI-H status, the patient received three cycles of nivolumab (Opdivo) plus ipilimumab (Yervoy) followed by seven cycles of nivolumab monotherapy. Post-treatment imaging showed complete regression of the primary and metastatic lesions. A laparoscopic extended right hemicolectomy with peritoneal implant removal was performed, and pathological examination revealed no residual malignancy, confirming a complete pathological response.

**Conclusion:** Despite accounting for 10-15% of non-metastatic and 5% of metastatic colorectal cancers, MSI-H tumors are often managed conventionally, highlighting the need for universal MSI testing to guide early treatment decisions. Immunotherapy has emerged as a game-changer for MSI-H tumors, demonstrating superior efficacy compared to conventional therapies, yet its integration into standardized neoadjuvant protocols remains inconsistent. Further trials are needed to clarify long-term outcomes, refine patient selection, and assess whether surgery can be safely omitted in select MSI-H colon cancer cases.

**Keywords:** MSI-H Colon Cancer, Neoadjuvant Immunotherapy



**VB-011****Laparoscopic Ventral Mesh Rectopexy and Lateral Suspension for Multicompartment Prolapse: A Video Vignette**

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**Objective:** Pelvic floor diseases are a group of disorders, resulting from the failure of the floor muscles to fulfill their supporting role for the pelvic organs, that affect urinary, gynecological or anorectal organs and require a multidisciplinary approach. Pelvic organ prolapse (POP) affects 25% of female population and two or more compartment prolaps can be found in 10–55% of patients (1). Laparoscopic ventral mesh rectopexy (LVMR) is a nerve-sparing technique described by D'Hoore et al. in 2004 for pelvic floor disorders and its efficacy has been supported by many studies in the last two decades (2). The widely accepted approach for apical prolapse is laparoscopic sacrocolpopexy. In patients who deserve to keep their uterus, lateral suspension is another safe and efficient option (3) with comparable functional outcomes and less complication risk (4).

**Case:** We present a 39-year-old female patient with complaints of obstructive defecation syndrome, stress incontinence, and vaginal flatulence. The patient has a medical history of three vaginal deliveries and bilateral salpingo-oophorectomy. Defecography revealed Oxford grade 3 rectal prolapse, anterior rectocele, moderate middle compartment prolapse and small cystocele. Pelvic Organ Prolapse Quantification (POP-Q) stage was 2. Laparoscopic ventral mesh rectopexy and lateral suspension were performed, and all compartments were restored in a single transabdominal approach. The surgical technique was described in the video.

**Conclusion:** This case underscores the importance of an individualized and multidisciplinary approach for patients with multiple pelvic floor disorders.

**Keywords:** Laparoscopic ventral mesh rectopexy, pelvic organ prolapse

**VB-012****House Advancement Flap for Treatment of Post-Hemorrhoidectomy Severe Distal Anal Stenosis**

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**Objective:** Anal stenosis which commonly occurring as a complication of hemorrhoidectomy, is a rare condition characterized by anatomical stricture or functional narrowing of the anal canal, significantly impacting patients' quality of life. Management is guided by severity and anatomic location whereas moderate and severe cases typically require surgical

intervention. House flap anoplasty has been identified as an effective approach for severe distal anal stenosis. This video presents a clinical case of anal stenosis following Ferguson hemorrhoidectomy, providing technical insights and procedural guidance.

**Case:** A 40-year-old male presented with anal pain and obstructed defecation four months after an extensive, single-session hemorrhoidectomy. Physical examination revealed severe anal stenosis, with an anal verge diameter of approximately 4–5 mm. Given the severity of the condition, surgical intervention was indicated. Under regional anesthesia in the lithotomy position, a house-shaped skin flap measuring 3 cm was delineated along the anal margin from the 1 o'clock to 5 o'clock positions. The flap was incised, mobilized as an island flap while preserving vascular integrity, and advanced into the anal canal. A lateral internal sphincterotomy was performed, and the flap was sutured to the anal mucosa. A vacuum drain was placed within the flap cavity, and the external wound was closed. The procedure was completed without intraoperative complications (**Video 1**).

**Outcome:** The patient was discharged on postoperative day 2 following vacuum drain removal, with an uneventful recovery. At the three-month follow-up, the patient exhibited complete resolution of symptoms, with no recurrence or complications.

**Conclusion:** House flap anoplasty is a viable and effective surgical approach for severe distal anal stenosis, particularly in cases resulting from hemorrhoidectomy. Optimal outcomes require careful flap preparation, as improper design may compromise healing and lead to complications such as flap necrosis, dehiscence, or recurrent stenosis.

**Keywords:** House advancement flap, anal stenosis

**VB-013****Anterior Sagittal Anorectoplasty for Anorectal Malformation in an Adult Female with Rectoperineal Fistula**

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**Objective:** Anorectal malformations (ARMs) are common congenital anomalies in pediatric surgery, occurring in approximately 1 in 5000 live births. In females, low-type malformations are the most frequently observed. Anterior Sagittal Anorectoplasty (ASARP) is the preferred surgical technique for correcting low type anomalies. Although low ARMs are typically repaired in the newborn, low-type malformations may remain undiagnosed until late infancy, even adulthood, particularly in regions with limited healthcare access. These cases are exceedingly rare, with only a few reports documented in the literature. In this video, we present the case of a 52-year-old female who underwent anorectoplasty for low-type anorectal malformation.



**Case:** A 52-year-old female presented with lifelong fecal incontinence. Examination revealed an ectopic anal opening at the perineum immediately posterior to the vaginal wall. Digital examination and imaging confirmed an intact rectovaginal septum. Under general anesthesia in the lithotomy position, sphincter muscle complex located by a stimulator and a localization suture was placed at the normal anatomical site. Traction sutures were applied at four quadrants, followed by a circumferential incision. A sagittal incision was extended to the designated anatomical location. Dissection mobilized the anus and rectum. The anus was transposed and sutured circumferentially at the normal anatomical site. The perineal muscles were approximated, and the perineal skin was closed. An 18Fr Hegar dilator passed without resistance, and sphincter activity was confirmed via transcutaneous electrical nerve stimulation. A laparoscopic sigmoid diversion colostomy was performed.

**Outcome:** The total operative time was 120 minutes with minimal blood loss. The patient was discharged on postoperative day 7 without complications. At the 1-month follow-up, there were no anal stenosis and complications. A closure of colostomy planned in postoperative 3rd month.

**Conclusion:** Low-type ARMs may remain undiagnosed until adulthood. ASARP remains a viable surgical option for anatomical correction in late-diagnosed cases, yielding favorable outcomes.

**Keywords:** Anorectal malformation, Anterior sagittal anorectoplasty

## VB-014

### Logistical Requirements for High Resolution Anoscopy: Pre-Procedure Preparation and Materials

Çiğdem Arslan

Private office

High-resolution anoscopy (HRA) is a diagnostic procedure that involves examining the anus, anal canal, and perianal region with a microscope, utilizing 5% acetic acid and Lugol's solution to detect abnormal epithelial changes and early precursors of anal cancer. Vital stains cause epithelial and vascular changes that distinguish normal tissue from lesions, aiding in clinical decision-making for biopsy. HRA is indicated for screening and monitoring anal intraepithelial neoplasia and anal cancer, especially in high-risk populations such as individuals with HIV, men having sex with men, and immunosuppressed patients. It allows both the detection and treatment of anal neoplasia, playing a key role in preventing cancer progression. The widespread adoption of HRA and increased awareness regarding anal neoplasms are necessary in our country. In this video presentation, the essential logistical conditions and technical tips for HRA) will be discussed. Additionally, some of the common pathological findings encountered during the procedure will be shared.

**Keywords:** anal neoplasia, high resolution anoscopy

## VB-015

### Complex Ventral Hernia Repair Using Botulinum Toxin with Combination of Fasciotense: Case Series

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**Objective:** Ventral hernias are a common complication following abdominal surgeries, particularly in patients with underlying conditions such as malignancy or weakened abdominal musculature. This case series and video presentation describe the management of complex ventral hernia utilizing preoperative Botulinum Toxin A (BTA) administration, and after 1 month of application, patients were treated with the fasciotens technique.

**Case:** The CT scan was performed on all patients, with measurements BTA performed. A control CT scan was performed, due to the control imaging surgery planned. To facilitate surgical repair, the patients received preoperative BTA injections into the lateral abdominal wall muscles. This intervention was aimed at inducing temporary muscle paralysis, thereby reducing tension on the abdominal wall and allowing for easier approximation of the fascial edges during surgery. The BTA was administered four weeks prior to the planned surgical intervention. The patient underwent surgical repair of the ventral hernia using the fasciotens technique. This technique involves the use of a mesh to reinforce the abdominal wall and a tension-free closure of the fascial defect. The procedure was performed under general anesthesia, and the patient was monitored closely for any intraoperative complications. The patient's postoperative course was uneventful. They managed with appropriate analgesia and monitored for any signs of infection, abdominal compartment syndrome, or hernia recurrence. The patients were discharged with instructions for gradual resumption of activities and follow-up appointments to monitor their recovery.

**Conclusion:** The patients with complex ventral hernias, a preoperative BTA combination combined with a fasciotens technique, offer a novel approach that can greatly lower the tension on the abdominal wall, enabling simpler and more effective surgical repair. This technique may be applicable in the management of complex ventral hernias, especially in patients with cancer and other comorbidities.

**Keywords:** complex ventral hernia, fasciotens

## VB-041

**Martius Flap in Recurrent Rectovaginal Fistula: A Video Vignette**

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**Objective:** The Martius flap is a well-established surgical technique used in the reconstruction of urogenital defects, particularly in cases of vesicovaginal and rectovaginal fistulas. The technique involves harvesting a vascularized flap from the labial fat pad, ensuring preservation of its blood supply through the internal pudendal vessels. The flap is then transposed to the defect site to provide robust vascular support and enhance healing.

**Case:** This video presents the Martius flap technique performed on a 39-year-old female patient with a recurrent rectovaginal fistula for the second time. The patient initially developed an iatrogenic fistula six years ago following cystocele repair. A primary repair was attempted but failed to heal, leading to a repair with a Martius flap harvested from the left labium majus. Despite this, the fistula persisted, and the patient underwent colostomy, yet her symptoms continued.

**Conclusion:** The Martius flap is a valuable and effective technique. This case underscores the importance of considering alternative or adjunctive surgical strategies when faced with recurrent or refractory rectovaginal fistulas

**Keywords:** Martius Flap, rectovaginal fistula

## VB-042

**A Hidden Anomaly: Resolving an Anal Duplication Case After 30 Fistula Surgeries – A Video Vignette**

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**Objective:** Anal canal duplication (ACD) is an exceptionally rare congenital anomaly that presents significant diagnostic and therapeutic challenges. It is characterized by a secondary, non-communicating anal orifice located posterior to the true anus. Diagnosing ACD is often difficult due to its non-specific imaging findings and clinical overlap with more common anorectal conditions, such as cryptoglandular abscesses and pilonidal disease.

**Case:** This video vignette presents a rare case of ACD in a 33-year-old female patient who endured years of misdiagnosis as recurrent perianal abscess. The patient had undergone 30 fistula surgeries at multiple centers for presumed anal abscess and/or fistula. This case underscores the diagnostic difficulties,

surgical considerations, and the crucial role of histopathological confirmation in managing this rare condition.

**Conclusion:** Through this detailed surgical demonstration, we aim to raise awareness and provide a reference for the accurate diagnosis and effective treatment of ACD. This case emphasizes the importance of considering this rare anomaly in patients with persistent or atypical perianal pathology.

**Keywords:** Anal canal duplication, Anorectal malformation

## VB-043

**Video Vignette: Application and Technique of Intradermal Methylene Blue Injection for Treating Intractable Idiopathic Pruritus Ani**

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**Objective:** Refractory anal pruritus is a challenging condition, especially when complicated by dermabrasion due to persistent scratching. Standard therapies, including topical agents and lifestyle modifications, often fail to provide relief in severe cases, necessitating innovative approaches. Methylene blue injection, although rarely performed and largely unfamiliar to many clinicians, offers a promising solution. The procedure involves precise injection of methylene blue at the dermo-epidermal junction, targeting sensory nerve endings to disrupt the pruritus-scratch cycle through neurotoxic effects.

**Case:** This video vignette presents two patients with refractory anal pruritus complicated by dermabrasion who were treated with methylene blue injection. The technique, performed under spinal anesthesia, is straightforward and minimally invasive. Both patients reported significant symptomatic relief and improved quality of life during follow-up, with no reported complications.

**Conclusion:** By illustrating the practical application of this novel technique, we aim to raise awareness and provide a practical guide for clinicians and contribute to the adoption of methylene blue injection as a valuable therapeutic option for refractory anal pruritus. This video vignette focuses on demonstrating the optimal technique for methylene blue injection in patients with refractory anal pruritus. The step-by-step approach ensures precision and safety, highlighting key technical details to maximize efficacy and minimize complications. By sharing this procedure, we aim to provide a practical guide for clinicians and contribute to the adoption of this innovative treatment in appropriate cases.

**Keywords:** Anal Pruritus, Methylene blue

**VB-044****Management of Complex Anal Fistula with Amniotic Membrane and Exosome Therapy**

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**Objective:** Recurrent abscesses and complex anal fistulas (AF) with multiple tracts are difficult to treat surgically. Inflammation, infection, and changes in tissue structure can negatively transform surgical management into something ineffective. Amniotic membranes and exosome treatments can provide better results with their anti-inflammatory, immune-regulating, and tissue-regenerative approach.

**Case:** A 32-year-old male presented with a 3-year history of a horseshoe abscess and complex AF. MRI showed four internal openings and four external known portions of a fistula tract. Initially, the patient was suspected to have Crohn's disease, which was ruled out after a colonoscopy, biopsy, and laboratory tests. Despite multiple surgical interventions, the fistula persisted, and the patient experienced recurrent symptoms. The patient underwent surgical debridement and subsequently an amniotic membrane and exosome treatment to all four external tracts of AF. Two weeks later, a second application of amniotic membrane and exosomes was performed for a single persistent tract. Post-surgical monitoring revealed no complications or signs of infection. During the two-month follow up, the patient remained asymptomatic with no evidence of recurrence.

**Conclusion:** Amniotic membrane and exosome therapy is a promising alternative for the management of complex anal fistulas resistant to conventional treatments. This case highlights the successful application of these regenerative therapies without any recurrence or complications during follow-up. Future research should focus on larger clinical trials to confirm these findings and optimize treatment protocols.

**Keywords:** complex anal fistula, amniotic membrane

## ***Poster Presentations***





**PB-003****Risk Factors for Anastomotic Leakage in Colorectal Cancer Surgery The Role of Aortic Calcification, Diabetes, and Hypertension**Mehmet Torun*Erzurum State Hospital*

**Objectives:** Anastomotic leakage is a severe postoperative complication in colorectal cancer (CRC) surgery, associated with significant morbidity and mortality. Identifying risk factors for leakage is essential for optimizing patient outcomes and improving perioperative management strategies. This study aimed to evaluate the association between anastomotic leakage and key factors, including tumor location, aortic calcification degree, diabetes mellitus (DM), and hypertension (HT), in patients undergoing CRC surgery.

**Materials-Methods:** In this retrospective analysis, data were collected from patients who underwent colorectal surgery with anastomosis at Haydarpaşa Numune Training and Research Hospital. Tumor locations were classified into right colon (cecum, ascending colon, hepatic flexure, transverse colon) and left colon (splenic flexure, descending colon and sigmoid colon). Aortic calcification was assessed based on preoperative imaging, with grading from 0 (no calcification) to 4 ( $\geq 75\%$  calcification). Chi-square and Mann-Whitney U tests were utilized for statistical analysis, with  $p < 0.05$  considered statistically significant.

**Results:** A total of 606 patients were analyzed. Tumor location and individual factors such as DM and HT were not independently associated with leakage risk. However, a combination of aortic calcification with DM or HT was associated with a significantly increased risk of leakage ( $p < 0.001$ ). These findings suggest that vascular health, when compounded by metabolic conditions, may contribute to anastomotic complications.

**Conclusion:** While tumor location and individual comorbidities alone may have limited predictive value, the combination of aortic calcification with DM or HT could identify patients at heightened risk for anastomotic leakage. These results highlight the need for comprehensive preoperative evaluations and potentially tailored surgical approaches in high-risk CRC patients.

**Keywords:** anastomotic leakage, aortic calcification

**PB-009****Managing Anal Stenosis Following Inadequate Treatment: A Technical Guide to Anoplasty Revision**

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**Objective:** Anal stenosis is a rare but debilitating complication, often resulting from excessive tissue excision during hemorrhoidectomy. Severe cases require complex reconstructive techniques to restore function and improve quality of life. An uncommon presentation of severe anal stricture is relapsing stricture, resulting from prior inadequate or erroneous anoplasty

**Case:** This report presents a 52-year-old female patient with relapsing anal stenosis, following multiple inadequate surgical interventions, including an unsuccessful anoplasty. The patient suffered from persistent anal pain and obstructed defecation, with a Wexner Constipation Score of 18. Clinical examination revealed extensive scarring, a nonfunctional left-sided flap, and a recurrent hemorrhoidal mass. A diamond-flap anoplasty, supplemented by ultrasonic dissector-assisted hemorrhoidectomy, successfully restored a functional anal caliber of 26-27 mm. Postoperative care involved a high-fiber diet, topical wound management, and routine follow-ups, leading to complete symptom resolution. At the one-year follow-up, the Wexner Constipation Score had improved to 2, demonstrating a significant functional recovery.

**Conclusion:** This case highlights that successful anoplasty relies on precise surgical execution and patient-specific planning, rather than a singular procedural approach.

**Keywords:** Anal stenosis, Anoplasty

**PB-016****Rectal Buttonhole Tear: Report of a Rare Case**

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**Objective:** A rectal buttonhole tear is a rare obstetric injury characterized by a localized defect in the rectal and vaginal walls without disruption of the anal sphincter. This condition is distinct from standard obstetric anal injuries and, if undiagnosed or improperly managed, can lead to serious complications such as rectovaginal fistula or incontinence. Due to its rarity, optimal management strategies remain poorly defined in the literature.

**Case:** We present the case of a 33-year-old primigravida woman who developed a rectal buttonhole tear following an vaginal delivery at 39 weeks of gestation. She delivered a

healthy 3.250 g infant via normal vaginal delivery with a lateral episiotomy. Post-delivery examination revealed a 3.5 cm full-thickness defect in the posterior vaginal wall and anterior rectal mucosa, sparing the anal sphincter complex (buttonhole tear). Urgent consultation was asked from the our proctology team. Surgical repair was performed under general anesthesia using a two-layer closure technique. The rectal defect was repaired with continuous 3-0 PDS sutures, and the vaginal wall was reconstructed using continuous 2-0 Vicryl sutures. A Penrose drain was placed within the rectovaginal septum to prevent hematoma formation. The patient had an uneventful recovery. The drain was removed on postoperative day two. At one-month's follow-up, she remained asymptomatic with no signs of incontinence or rectovaginal fistula. Digital rectal examination confirmed the integrity of the sphincter complex and rectovaginal septum.

**Conclusion:** Detailed examination of the perineum, vagina, and rectum after vaginal delivery is essential to detect and manage occult injuries. Early diagnosis and meticulous surgical repair by an experienced surgeon are crucial to preventing long-term complications. The two-layer repair technique with absorbable sutures appears to be a safe and effective approach for rectal buttonhole tears.

**Keywords:** Buttonhole tear, Obstetric injury

**Buttonhole rectal tear following vaginal birth.**



**Postoperative one month's.**



## PB-020

### Gastrointestinal Tumors of the Small Bowel: Prognostic Roles of Tumor Stage and Inflammatory Markers

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**Objective:** Small bowel tumors are a heterogeneous group of malignancies, including gastrointestinal stromal tumors (GISTs), adenocarcinomas, neuroendocrine tumors (NETs), and myofibroblastic tumors, each with distinct prognostic implications. While tumor stage is a well-established prognostic factor, patient survival outcomes and systemic inflammatory markers also play a crucial role in disease progression. This study evaluates these factors comprehensively to enhance prognostic assessment in small bowel malignancies.

**Materials-Methods:** This retrospective study analyzed 25 patients diagnosed with small bowel tumors, including various histological subtypes. The prognostic significance of tumor stage (T and N classification), systemic inflammatory markers (neutrophil-to-lymphocyte ratio [NLR], platelet-to-lymphocyte ratio [PLR], albumin, and C-reactive protein [CRP]), and overall survival was assessed. Kaplan-Meier survival analysis was conducted to evaluate the association between tumor stage, inflammatory markers, and patient outcomes. Statistical analyses included independent sample t-tests, Mann-Whitney U tests, and Chi-square tests.

**Results:** The median age of the cohort was 63 years (range: 47–81). The most common histological subtype was GIST (52%), followed by adenocarcinoma (24%), NET (20%), and myofibroblastic tumors (4%). Kaplan-Meier survival analysis revealed a significant association between tumor stage and patient survival ( $p = 0.036$ ), with advanced-stage tumors (T3–T4) demonstrating significantly lower survival rates compared to early-stage tumors (T2). Lymph node involvement (N stage) was also a significant predictor of reduced survival ( $p = 0.013$ ). Although inflammatory markers such as NLR, PLR, albumin, and CRP were assessed, they did not show statistically significant associations with survival outcomes ( $p > 0.05$ ).

**Conclusion:** This study highlights the importance of evaluating both tumor stage and patient survival when determining prognosis in small bowel tumors. The Kaplan-Meier analysis underscores the strong prognostic impact of tumor staging and lymph node involvement on survival outcomes. Although systemic inflammatory markers did not show significant prognostic value in this cohort, their role in risk stratification warrants further investigation in larger studies.

**Keywords:** Gastrointestinal stromal tumors (GISTs), inflammatory markers

**PB-021**

### Complications Associated with Colonoscopy: A Five-Year Retrospective Study at a Tertiary Care Hospital

Mehmet Torun

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**Objective:** Colonoscopy is a widely used diagnostic and therapeutic procedure for colorectal diseases, but it carries risks of complications such as perforation and bleeding. This study aimed to evaluate the incidence, types, and management of complications associated with colonoscopy.

**Materials-Methods:** A retrospective analysis was conducted at Kartal Koşuyolu High Specialization Training and Research Hospital, reviewing colonoscopies performed between January 2019 and September 2024. Of 986 colonoscopies, 16 patients with complications were included. Patients under 18 years, with known tumors, or inflammatory bowel disease were excluded. Ethical approval was obtained, and all procedures were performed by experienced gastrointestinal surgeons. Results: Complications occurred in 16 patients (1.62%). The mean age was 66.1 years. The most common complication was iatrogenic colonic perforation (81.25%), predominantly in the sigmoid colon. Nine perforations required surgical repair, three were managed conservatively, and one required a Hartmann procedure. Two patients experienced lower gastrointestinal bleeding, managed conservatively. Mortality was 6.25%, with one death from sepsis due to delayed perforation diagnosis.

**Conclusion:** Colonic perforation is the most frequent complication of colonoscopy, especially in elderly patients. Prompt diagnosis and appropriate management are essential to improve outcomes and minimize mortality in colonoscopy-related complications.

**Keywords:** Colonoscopy complications, Colonic perforation

**PB-022**

### Anatomical and Clinical Variations in the Mesoappendix and Appendicular Arteries: Implications for Appendicitis and Surgical Outcomes

Mehmet Torun

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**Objective:** The anatomical variations of the mesoappendix and appendicular arteries play a crucial role in the development and management of appendicitis. This study aimed to analyze these variations and their clinical implications.

**Materials-Methods:** A retrospective analysis was conducted on 287 patients who underwent appendectomy. Data on mesoappendix extension, appendicular arterial patterns, and appendicitis types were collected. Statistical analyses, including chi-square tests and t-tests, were performed to explore relationships between variables.

**Results:** The most common mesoappendix extension was “Whole Length” (51.22%), followed by “Two-thirds Length” (32.06%). A “Single Artery” supplied the appendix in 69.68% of cases, with the ileocolic artery being the primary origin (62.03%). Acute appendicitis was more common in younger patients, while chronic appendicitis was prevalent among older individuals. Significant associations were observed between mesoappendix extension and arterial origin ( $p < 0.001$ ), as well as between age and appendicitis type ( $p = 0.034$ ).

**Conclusion:** This study highlights the anatomical and clinical variability of the mesoappendix and appendicular arteries. Understanding these variations is essential for optimizing surgical outcomes and minimizing complications. Future research should explore the implications of these findings across diverse populations.

**Keywords:** Mesoappendix, Appendicular Artery

**PB-024**

### Immunoglobulin G4-Related Disease Mimicking An Appendiceal Neoplasm: The First Case Report From Turkey

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**Objective:** Immunoglobulin G4-related disease (IgG4-RD) is a fibroinflammatory condition that can affect multiple organs, typically characterized by a mass-like formation caused by inflammation and infiltration of IgG4-positive lymphoplasmacytic cells. Although the pancreas, kidneys, orbital structures, salivary glands and retroperitoneum are the most commonly affected organs, appendiceal involvement is extremely rare with only seven cases reported in the literature. These patients are at risk of misdiagnosis due to the similarity to tumors, infections, and immune-mediated diseases. However, IgG4-RD can often be treated with glucocorticoids. This report describes the first case of IgG4-RD of the appendix in Turkey.

**Case:** A 38-year-old male patient presented with abdominal pain for four days. Physical examination revealed tenderness in the right lower quadrant. Acute phase reactants were elevated. Abdominal CT demonstrated a dilated and inflamed appendix with a linear hyperdensity within the lumen, suggestive of an appendicolith, along with multiple enlarged mesenteric lymph nodes. (Fig.1) Based on these findings, laparoscopic appendectomy was performed. Intraoperatively, a mass-like formation resembling a mucocoele was observed. Postoperative histopathological examination revealed IgG4 positive plasma cells, non-necrotizing granulomas, submucosal and subserosal fibrosis and obliterative lymphocytic phlebitis, consistent with the IgG4-RD of appendix. (Fig.2) The patient was discharged on postoperative day one with no complication.



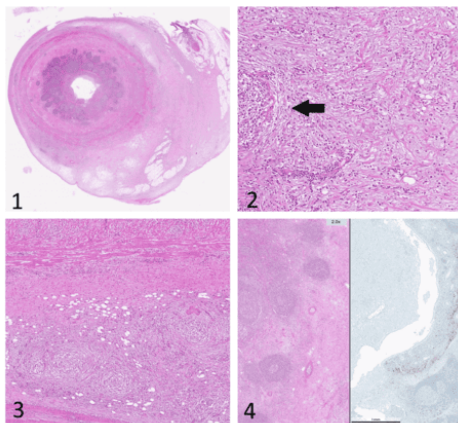
**Conclusion:** Although extremely rare, IgG4-RD should also be considered in the differential diagnosis of appendiceal pathologies to ensure accurate diagnosis and optimal patient management.

**Keywords:** IgG4-related disease, appendix

**Figure 1: Intraoperative Appearance**



**Figure 2: Pathology Images**



**Fig 2.** 1 - fibrosis, 2 - obliterative phlebitis, 3 - non-necrotizing granulomas, 4 - IgG4 positive plasma cells

## PB-029

### Deep Postanal Abscess with Sacrococcygeal Osteomyelitis

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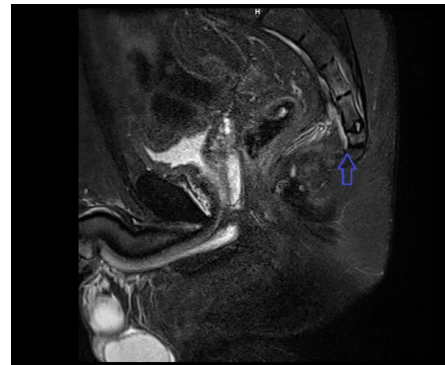
**Objective:** To report a rare case of sacrococcygeal osteomyelitis as a complication of a long-standing deep postanal abscess, emphasising the importance of timely surgical management.

**Case:** A patient with a long-standing deep postanal abscess developed sacrococcygeal osteomyelitis as a complication. Surgical drainage and seton placement were performed, resulting in complete resolution of both the abscess and the osteomyelitis.

**Conclusion:** This case highlights the clinical significance of deep postanal abscesses and the potential for rare but serious complications such as osteomyelitis. Prompt surgical intervention is essential to prevent severe outcomes and ensure successful resolution.

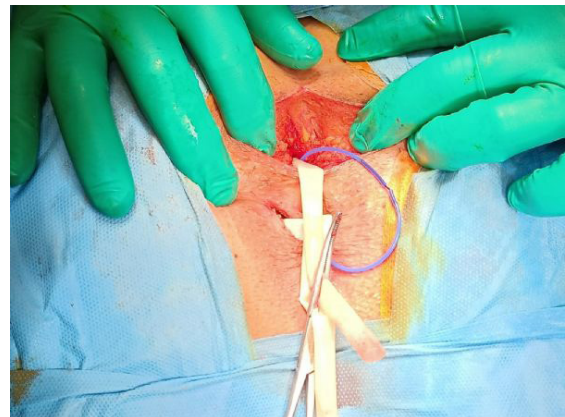
**Keywords:** Postanal abscess, Surgical treatment

**Preoperative MRI View.**



On the sagittal STIR image, intramedullary hyperintensity consistent with osteomyelitis was observed on the opposite surfaces of the sacral 4-5 vertebrae. Inflammatory hyperintense soft tissue thickening was also noted in the presacral fat tissue

**Intraoperative view**



The deep postanal space was exposed and drained. A seton was placed between the postanal space and posterior midline intracranial opening, as well as a penrose drain through the left extension of DPA

## PB-031

### Early-Onset Colorectal Cancer in Pediatric Patient

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**Objective:** The incidence of early-onset colorectal cancer is rising, largely driven by underlying genetic mutations. While many countries have implemented screening programs for individuals under 45 years of age, colorectal cancer in pediatric patients remains exceedingly rare and often unexpected. As a result, children diagnosed with colorectal cancer frequently present with advanced-stage disease, commonly due to obstructive symptoms. In this case report, we describe the

clinical presentation and management of a 17-year-old female patient who was admitted with an obstructing tumor at the splenic flexure.

**Case:** A 17-year-old girl with cerebral palsy was referred to our center with a 10-day history of obstructive symptoms. She had a four-month history of constipation with multiple hospital admissions. Following an evaluation by the pediatric surgery team in the emergency department, a computed tomography scan was performed, revealing a 4 cm tumor at the splenic flexure with signs of obstruction and suspected metastatic mesenteric lymphadenopathy. Once the diagnosis was confirmed, the pediatric surgery team referred the patient to the colorectal surgery team. The colorectal surgeons recommended laparotomy, which was performed through a midline incision. An extended left hemicolectomy with a Mikulicz colostomy was carried out.

**Outcome:** The patient was discharged on postoperative day 7 without complications. Histopathological analysis identified mucinous adenocarcinoma with 17 metastatic lymph nodes among the 42 examined. The patient was subsequently referred for genetic counseling, which detected a variant of uncertain significance (VUS) in the ATM gene. Adjuvant therapy was initiated.

**Conclusion:** Pediatric-onset colorectal cancer should be considered in the differential diagnosis of children presenting with persistent gastrointestinal symptoms, as delayed recognition may lead to advanced disease. Genetic counseling plays a crucial role in management, underscoring the need for surgeon awareness and multidisciplinary collaboration.

**Keywords:** Pediatric-onset colorectal cancer, Genetic counselling

Figure 1: Operative view of the obstructed splenic flexure tumor



Figure 2: Coronal computed tomography image of the splenic flexure tumor



### PB-035

#### Simultaneous Resection for Synchronous Colorectal Cancer with Liver Metastasis: Morbidity, Mortality, and Clinical Outcomes

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Ankara Etlik Şehir Hastanesi

**Objective:** Simultaneous resection for patients with synchronous colorectal cancer liver metastasis (CRLM) has increased in recent years. Around 20% of colorectal cancer patients present with CRLM. However, whether liver resection should be simultaneous or sequential remains debated. This study aims to evaluate the outcomes of patients who underwent simultaneous resection for colorectal cancer and liver metastasis in our hospital.

**Methods:** This retrospective study reviewed patients who underwent simultaneous resection for colorectal cancer and synchronous liver metastasis in the General Surgery Department of Etlik City Hospital between 2022 and 2024. Of 74 patients assessed, 19 underwent both simultaneous colon and liver resection with curative intent and had adequate data. Patients with incomplete data, or those who underwent only liver or colon resection, or non-curative resections, were excluded.

**Results:** The patients were categorized into two groups: major resection (7 patients, 36.8%) and minor resection (12 patients, 63.2%). The study cohort included 12 males (63.2%) and 7 females (36.8%), with a mean age of  $67.2 \pm 12.4$  years. Tumor locations were as follows: 12 patients (63.2%) had left colon tumors, 3 (15.8%) had right colon tumors, and 4 (21.0%) had rectal tumors. The mean hospital stay was  $17 \pm 9.16$  days. Postoperative complications occurred in 6 patients (31.6%). Four patients (33.3%) in the minor resection group and 2 patients (28.6%) in the major resection group developed complications. Four of these complications were classified as



Clavien-Dindo grade 1–3. The 90-day postoperative mortality rate was 31.6%, with 4 deaths in the minor resection group and 2 in the major resection group.

**Conclusion:** Although simultaneous resection is a curative treatment option for CRLM, the associated morbidity and mortality risks must be considered. Therefore, surgical decisions should be made on a case-by-case basis, with careful patient selection being crucial.

**Keywords:** Simultaneous resection, Synchronous metastasis

**Patient Characteristics and Postoperative Outcomes**

Parameter	Minor Resection (n=12)	Major Resection (n=7)	Total (n=19)
Number of Patients	12	7	19
Male/Female Ratio	8 Male (66.7%) / 4 Female (33.3%)	4 Male (57.1%) / 3 Female (42.9%)	12 Male (63.2%) / 7 Female (36.8%)
Average Age	67.5 ± 11.3 years	66.7 ± 14.0 years	67.2 ± 12.4 years
Tumor Location	Left Colon: 7 (58.3%) Right Colon: 2 (16.7%) Rectum: 3 (25%)	Left Colon: 5 (71.4%) Right Colon: 1 (14.3%) Rectum: 1 (14.3%)	Left Colon: 12 (63.2%) Right Colon: 3 (15.8%) Rectum: 4 (21%)
Average Hospital Stay	16.5 ± 8.0 days	18.3 ± 10.2 days	17 ± 9.16 days
Postoperative Complications	4 (33.3%)	2 (28.6%)	6 (31.6%)
Clavien-Dindo Grade 1-3	3 (25%)	1 (14.3%)	1 (14.3%)
90-day Postoperative Mortality	4 (33.3%)	2 (28.6%)	6 (31.6%)

### PB-036

#### A Rapidly Developing Giant Condyloma Acuminatum (Buschke-Löwenstein tumour) in A Female Kidney Transplant Recipient

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**Objective:** This report presents a rare case of giant condyloma acuminatum (Buschke-Löwenstein tumour) in an immunosuppressed patient, emphasising its aggressive behaviour and the associated challenges in management.

**Case:** A 26-year-old female kidney transplant recipient developed a rapidly growing 20 cm perianal mass five months post-transplant. The lesion was excised en-bloc, and reconstruction was performed using V-Y advancement flaps. Despite the successful surgical intervention, recurrence was observed during follow-up.

**Conclusion:** This case underscores the aggressive behaviour of giant condyloma acuminatum in immunosuppressed patients. Early diagnosis, radical excision, and close

postoperative monitoring are crucial for optimal management and to minimise recurrence.

**Keywords:** Human papillomavirus, kidney transplant recipients

**Preoperative image of condyloma acuminatum**



*Preoperative image of condyloma acuminatum*

**Total excision of the lesion and reconstruction of the large defects**



*Total excision of the lesion and reconstruction of the large defects*

### PB-038

#### Anorectal Necrosis Due to Incorrect Rectal Enema Administration: A Rare Case Report

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**Objective:** Anorectal injuries from incorrect rectal enema administration are rare but can be life-threatening, with high morbidity and mortality rates. Perforation carries an average mortality rate of 39%, and since most cases are performed by healthcare professionals, they can lead to significant medicolegal issues. Hypertonic sodium phosphate's chemical effects play a more critical role in the pathophysiology than physical trauma. Uncontrolled anorectal sepsis may progress to Fournier's gangrene. While Hartmann's procedure or diversion is commonly used, no consensus exists on the optimal management of these injuries.

**Case:** A 61-year-old male developed severe pain on postoperative day 1 following a rectal enema before elective coronary bypass surgery. Abdominal examination was unremarkable, but anal examination revealed a hyperemic, ecchymotic bullous lesion extending over 10 cm from the anoderm to the rectum. Total parenteral nutrition (TPN) and

antibiotics were initiated for anorectal sepsis control. Pelvic MRI ruled out perforation, while sigmoidoscopy showed damage involving 20% of the lumen. Per NCCN guidelines, local excision is indicated for rectal tumors affecting <30% of the lumen, making this criterion applicable. Within a week, a clear demarcation line of anorectal necrosis developed, leading to wide local excision and debridement, including the internal anal sphincter. The rectal mucosa was primarily sutured, and anodermal VAC therapy was applied. Fecal diversion was achieved with the Qora Stool Management Kit without a colostomy. Oral intake was resumed, and stool consistency was regulated to prevent contamination. VAC changes and debridements facilitated wound healing, and the patient was discharged on day 17 without ICU support. At the 30-day follow-up, the wound was fully healed, with no fistula, and the Wexner incontinence score was 10.

**Conclusion:** This report highlights the diagnostic and therapeutic challenges of iatrogenic enema-related anorectal injuries and their surgical management.

**Keywords:** Rectal enema, Rectal necrosis

Post-operative image



VAC and Rectal Stool Management application after wide local excision

rectal necrosis



Rectal necrosis after administration of rectal enema

## PB-051

### Cecal Diverticulitis and Its Mimics: The Importance of Accurate Diagnosis

Yasemin Keskin, Pınar Dağ

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**Objective:** Colonic diverticulosis is a global health issue, with an incidence ranging from 5% to 45% depending on age and predominantly affecting the left colon. In the Asian population, it has an incidence of 13% to 25%, with most cases involving the right colon. Right colonic diverticulitis occurs in approximately 1.5% of patients and is mainly (80%) observed on the anterior surface of the cecum. This study aims to evaluate the incidence of patients diagnosed with cecal diverticulitis in our clinic and to emphasize that the condition may be more common than expected, highlighting the importance of differential diagnosis.

**Materials-Methods:** Patients hospitalized with a diagnosis of diverticulitis in our clinic in 2023 and 2024 were evaluated. Demographic data, presenting symptoms, physical examination findings, and computed tomography (CT) images were reviewed. Patients were categorized into two groups: sigmoid colon diverticulitis and cecal diverticulitis. The treatment and follow-up process of cecal diverticulitis patients were assessed, and their diagnoses were compared with colonoscopy findings obtained during follow-up.

**Results:** This study analyzed 20 patients hospitalized with a diagnosis of diverticulitis. Nine patients (45%) were admitted with a diagnosis of cecal diverticulitis. One patient underwent emergency surgery due to perforation, while the remaining eight were managed conservatively. Colonoscopy performed 6–8 weeks after inflammation subsided revealed cecal diverticula in two patients (10%). Additionally, one patient was diagnosed with acute cholecystitis, one with acute appendicitis, and one with terminal ileitis. The pathological examination of the surgically treated patient confirmed a diagnosis of acute appendicitis.

**Conclusion:** Right colonic diverticulitis is a rare form of diverticulitis with a low incidence of complications. Due to its low prevalence and location affecting a younger patient population, differential diagnosis is crucial. Other inflammatory conditions in the same region, such as appendicitis, terminal ileitis, and gynecological disorders, should also be considered.

**Keywords:** cecal diverticulitis, differential diagnosis



**PB-079****Evaluation of Clinical and Laboratory Parameters in Metastatic Colorectal Cancers**Pırılı Özcan<sup>1</sup>, Fatma İpek Günaydın<sup>2</sup>, Bedii Berat Apaydın<sup>2</sup><sup>1</sup>Yerköy Şehit Orgeneral Osman Erbas State Hospital, Department of General Surgery, Yozgat, Turkey<sup>2</sup>Istanbul University-Cerrahpaşa Cerrahpaşa Medical Faculty, Department Of General Surgery, Istanbul, Turkey

**Objective:** Each year, 1.2 million cases of colorectal cancer (CRC) are diagnosed worldwide, with 20% of cases detected at the metastatic stage. This study aims to investigate the relationship between the presence and location of metastases with clinical and biochemical parameters and to evaluate the impact of these parameters on survival.

**Materials-Methods:** The data of patients who underwent surgery for colorectal cancer at Istanbul University-Cerrahpaşa, Cerrahpaşa Faculty of Medicine, Department of General Surgery between August 2017 and August 2024 were retrospectively analyzed. Patients who underwent surgery due to benign diseases, those operated on in emergency settings, and patients whose data were unavailable were excluded from the study. The metastatic locations (liver, ovary, pancreas-duodenum) were recorded. Neutrophil counts and the Systemic Immune-Inflammation Index (SII) values were analyzed.

**Results:** A total of 96 patients (43 females and 53 males) were included in the study. Liver metastases were detected in 7 patients, ovarian metastases in 3 patients, and pancreas-duodenum metastases in 1 patient. Patients with metastases had significantly higher mean neutrophil levels ( $p<0.05$ ). The presence of metastases, along with invasion depth and the number of regional lymph nodes, was associated with higher neutrophil counts. The mean SII values in metastatic patients were statistically significantly higher compared to non-metastatic patients ( $p<0.001$ ). Patients with liver metastases had significantly higher mortality rates compared to those with other metastatic sites ( $p<0.01$ ).

**Conclusion:** This study highlights the impact of clinical and laboratory parameters on disease progression and survival in metastatic colorectal cancer. It was found that neutrophil counts and SII values increased in the presence of metastases. The significantly higher mortality rates in patients with liver metastases further emphasize the importance of metastatic site localization. The evaluation of clinical and biochemical parameters in metastatic colorectal cancer is crucial for determining patient prognosis and shaping treatment strategies. These findings provide insights for future research

**Keywords:** Colorectal, metastasis

**PB-092****Current Developments in The Treatment of Parastomal Hernia. Systemic Review and Meta-Analysis**

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**Objective:** Parastomal hernia is a prevalent complication that arises following the formation of an ostomy, posing significant challenges in both diagnosis and management. Despite the available options, there is a lack of consensus on the optimal management strategy. In this study, a meta-analysis of surgical methods used in the treatment of parastomal hernia was performed using studies with high level of evidence.

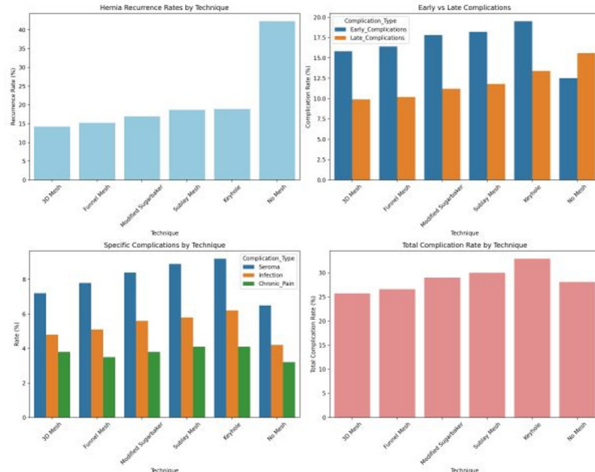
**Materials-Methods:** A systematic review and meta-analysis was conducted following PRISMA guidelines. Electronic databases (PubMed) was searched from inception to February 2025. Search terms included “parastomal hernia,” “mesh repair,” and “complications.” Randomized controlled trials and observational studies comparing surgical techniques for parastomal hernia repair were included. Statistical analysis used random-effects models to calculate risk ratios with 95% confidence intervals. Heterogeneity was assessed using I<sup>2</sup> statistic. Publication bias was evaluated using funnel plots and Egger’s test. Quality assessment followed GRADE guidelines.

**Results:** Analysis of 70 studies (2000-2025) revealed significant differences in surgical outcomes. 3D mesh technique showed lowest recurrence rate (14.2%, 95% CI:11.8-16.6%) compared to conventional methods ( $p<0.001$ ). Early complications were lower with mesh repairs (15.8% vs 19.5%,  $p=0.02$ ). Modified Sugarbaker technique demonstrated intermediate outcomes (recurrence: 16.9%). Meta-regression showed significant correlation between surgical technique and hernia recurrence ( $R^2=0.78$ ,  $p<0.001$ ). Funnel plot analysis revealed no significant publication bias.

**Conclusion:** Based on this comprehensive meta-analysis, prophylactic mesh placement demonstrates superior outcomes in parastomal hernia management. The 3D mesh technique emerges as the optimal approach with significantly lower recurrence rates (14.2%) and reduced complications compared to traditional methods. Modified Sugarbaker technique presents a viable alternative with acceptable outcomes. Early intervention with mesh repair significantly improves quality of life and reduces long-term complications. These findings strongly support the routine use of prophylactic mesh in stoma formation, particularly in elective cases. Future research should focus on long-term outcomes and cost-effectiveness of different mesh materials.

**Keywords:** parastomal hernia, metaanalysis

### Statistical analysis of the studies



### PB-101

## Anatomical Distribution of Hemorrhoidal Piles in Advanced Disease: Clinical Insights and Correlations

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**Objective:** A precise evaluation of the positional distribution of hemorrhoidal piles has not been distinctly conducted. We hypothesized that the distribution of hemorrhoidal piles follows a predictable anatomical pattern influenced by disease duration and recurrence.

**Materials-Methods:** Our retrospective study analyzed the demographic data, surgical records, operative photographs, previous treatments, and associated colorectal symptoms of patients who underwent invasive procedures for advanced hemorrhoidal disease (2020-2024).

**Results:** Of the 171 patients (123 male; 71.9%; median age 41 ± 12.04 years, range 18–88), 35 had prior interventions (recurrent cases). The largest pile was most commonly in the left lateral quadrant (40.14%), followed by right posterior (31.97%), right anterior (23.47%), and atypical locations (4.42%). Most patients had more than one pile (87.7%). Symptom duration positively correlated with pile number (p = 0.013).

**Conclusion:** The classical three-quadrant distribution is confirmed, with the left lateral pile being predominant in primary cases. The association between prolonged symptom duration and increased pile number offers novel insights, highlighting left lateral predominance in primary cases and its reduction in recurrence, enhancing clinical understanding and management.

**Keywords:** Hemorrhoids, Anorectal disease

### PB-117

## The Impact of Smoking on Survival and Extranodal Extension in Colorectal Cancer Patients: A Retrospective Cohort Study

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**Objective:** The aim of this study was to evaluate the impact of smoking on clinical outcomes, including tumor localization, staging, extranodal extension, and cumulative survival in patients diagnosed with colorectal cancer (CRC).

**Materials-Methods:** This retrospective cohort study included 401 patients with histologically confirmed colorectal cancer treated at [institution] between [years]. Patients were categorized into smokers and non-smokers based on their documented smoking history. Data on age, gender, tumor localization, staging (T and N stages), and the presence of extranodal extension (EX) were collected from medical records. Kaplan-Meier survival analysis and Log-Rank test were used to compare cumulative survival times between smokers and non-smokers. The Chi-square test (X<sup>2</sup>) and Mann-Whitney U test (m) were used to compare categorical and continuous variables, respectively.

**Results:** The mean age of the patients was 67.4 ± 11.2 years, with smokers being significantly older than non-smokers (69.5 ± 9.6 vs. 66.1 ± 11.8, p=0.005). Tumor localization did not significantly differ between smokers and non-smokers, with the most common site being the sigmoid colon (31.4%). Extranodal extension was significantly more common in smokers (33.8%) than in non-smokers (19.4%, p=0.001). Cumulative survival time was significantly shorter in smokers (90.2 months; 95% CI: 82.5 - 97.9) compared to non-smokers (112.9 months; 95% CI: 107.3 - 118.5, p=0.001). There were no significant differences in tumor staging between smokers and non-smokers.

**Conclusion:** Smoking is associated with poorer outcomes in colorectal cancer patients, including a higher frequency of extranodal extension and significantly reduced survival. These findings highlight the importance of smoking cessation as part of colorectal cancer management. Targeted interventions aimed at reducing smoking could improve survival outcomes in this patient population.

**Keywords:** Colorectal cancer, smoking

**PB-121****Surgical Outcomes of Mechanical Intestinal Obstruction: A Retrospective Analysis of 764 Cases at a Tertiary Care Center**

Mehmet Torun

Erzurum State Hospital

**Objective:** Mechanical intestinal obstruction (MIO) is a common and potentially life-threatening surgical emergency. This study aims to evaluate the clinical, radiological, and pathological features, along with surgical outcomes, in patients treated for MIO at a tertiary care center.

**Materials-Methods:** A retrospective cohort study was conducted, including 764 patients who underwent surgical treatment for MIO at Haydarpaşa Numune Training and Research Hospital between January 2015 and December 2023. Data on demographics, clinical presentation, imaging findings, etiology, operative details, and outcomes were analyzed. Statistical comparisons between small intestinal and colonic obstructions were performed using t-tests and chi-square tests, with multivariate logistic regression employed to identify predictors of postoperative complications and mortality.

**Results:** The mean age of the cohort was 61.7±14.9 years, with 52.7% being male. Adhesions (74.6%) were the leading cause of obstruction, followed by tumors (42.0%). Preoperative imaging revealed signs of perforation more frequently in colonic obstructions ( $p = 0.024$ ). Surgical interventions included adhesiolysis (67.8%), resection with anastomosis (28.6%), and stoma formation (9.8%). Postoperative complications occurred in 34.1% of cases, with anastomotic leaks being more common in small intestinal obstructions ( $p = 0.046$ ). The in-hospital mortality rate was 24.9%, significantly higher in colonic obstructions ( $p = 0.046$ ). Advanced age, malignancy, and perforation were identified as independent predictors of mortality ( $p < 0.05$ ).

**Conclusion:** This study highlights the distinct clinical and surgical patterns of small intestinal and colonic obstructions. Adhesions were the most common etiology, while tumor-related obstructions carried worse outcomes. Tailored management strategies are essential to improve surgical outcomes, particularly in high-risk groups.

**Keywords:** Mechanical Intestinal Obstruction, Adhesions

**PB-141****Endoscopic Decompression as An Alternative to Emergency Surgery in Colonic Obstruction: A Feasibility Study on Laparoscopic Resection and Primary Anastomosis**Akay Edizsoy<sup>1</sup>, Zeynep Simay Ergin<sup>2</sup>, Pars Tunçyürek<sup>2</sup><sup>1</sup>Aydın Adnan Menderes Üniversitesi Tıp Fakültesi Genel Cerrahi Anabilim Dalı Cerrahi Onkoloji Bilim Dalı<sup>2</sup>Aydın Adnan Menderes Üniversitesi Tıp Fakültesi Genel Cerrahi Anabilim Dalı

**Objective:** In patients presenting to the emergency department with colonic obstruction, preoperative bridge-to-surgery stenting via colonoscopy facilitates laparoscopic surgery and enables primary anastomosis following resection. In addition to stents, drainage tubes can also be used. Alternatively, achieving partial passage without stent placement may provide similar advantages.

**Materials-Methods:** Between 2024 and 2025, eight patients admitted to our clinic via the emergency department due to colonic obstruction were clinically and laboratorily selected. In five of these patients, partial passage was achieved via colonoscopy, and biopsies were obtained. All patients were diagnosed with adenocarcinoma. No stents were placed. Preoperative laboratory findings and dilated cecal diameters were recorded. In addition to demographic data, preoperative and postoperative follow-up durations were documented.

**Results:** Following the restoration of partial colonic passage, nasogastric decompression contributed to the resolution of distension, leading to the normalization of proximal bowel physiology. Consequently, laparoscopic surgery was feasible in 62.5% of patients, with all procedures completed with primary anastomosis. However, in 37.5% of patients, colonic passage could not be established, necessitating emergency laparotomy and colostomy formation. Morbidity developed in two patients.

**Conclusion:** In selected patients with colonic obstruction, endoscopic decompression via colonoscopy may be a viable alternative to emergency surgery. This approach enables laparoscopic resection with primary anastomosis. Further randomized controlled trials with larger sample sizes are warranted. We plan to expand our patient cohort to conduct a more comprehensive study.

**Keywords:** decompression, endoscopic

**Colonic Obstruction Patient Data**

Patient No	Decomp	Colon Segment	Pre FU (Days)	Post FU (Days)	Age	Cecal D. (cm)	CRP (mg/L)	Albumin (g/dL)
1	+	Ascending	4	7	63	8,8	84	39
2	+	Sigmoid	6	7	68	9,2	25	26
3	+	Descending	4	13	59	10,5	38	27
4	+	Transverse	5	5	53	9,8	35	34
5	+	Sigmoid	7	6	75	11,2	105	35
6	-	Ascending	1	6	53	10,9	74	32
7	-	Cecum	1	11	72	9,7	112	32
8	-	Ascending	1	5	48	8,7	74	41

Decomp (+/-) = Colonoscopic decompression Pre FU (days) = Preoperative Follow-up Post FU (days) = Postoperative Follow-up  
Cecal D.: Cecal Diameter (cm) CRP (mg/L) = C reactive protein

**PB-150****Enhancing Preoperative Planning in Colorectal Surgery: The Role of 3D Reconstruction in Tumor Evaluation and Resection Margin Calculation**

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**Objective:** Three-dimensional (3D) reconstruction softwares in colorectal surgery may improve the calculation of safe resection margins through the use of radiomics and artificial intelligence. This study aims to explore its potential in evaluating tumor consistency and its relationship with adjacent structures.

**Materials-Methods:** Case series. All patients underwent contrast-enhanced abdominal and pelvic CT scans before surgery. The images were processed using 3G software prior to surgery. The 3D models were then analyzed on an online platform to calculate safe resection, assess tumor contact areas, infiltration depth, identify suspicious lymph nodes, and evaluate the relationship with vascular structures. Informed consent was obtained from all patients, and ethical approval was granted by the committee.

**Results:** Case 1: An 88-year-old male with weight loss and rectal bleeding was diagnosed with upper rectal adenocarcinoma. CT scans initially suggested bladder and ureter involvement. However, 3D reconstruction ruled out ureteral involvement. The patient underwent anterior rectal resection with left ureteral reimplantation. His recovery was uneventful, and he was discharged without complications. Case 2: A 77-year-old female, previously treated for distal rectal adenocarcinoma, presented with recurrent adenocarcinoma at the anorectal junction and compromised resection margins. 3D reconstruction identified vascular and coccygeal involvement, leading to a block resection. Coccygeal infiltration was confirmed during surgery. The patient was discharged without complications.

**Conclusion:** The use of 3D reconstruction in colorectal surgery enhances preoperative planning by providing a more detailed view of tumors, their margins and their relationship with surrounding structures.

**Keywords:** 3d-reconstruction, colorectal cancer

**PB-156****Factors Affecting Pathological Response After Neoadjuvant Chemoradiotherapy in Patients with Rectal Cancer**

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**Objective:** Neoadjuvant chemoradiotherapy has become the standard treatment for locally advanced rectal cancer. Pathological complete response can be obtained in 10-30% of patients with locally advanced rectal cancer after performing total mesorectal excision following neoadjuvant therapy. In our study, we aimed to define the factors affecting pathologic response in patients that operated after neoadjuvant chemoradiotherapy.

**Materials-Methods:** Patients that diagnosed with locally advanced rectal cancer and operated after neoadjuvant therapy between January 2017 and December 2021 were retrospectively analyzed. Patients with metastatic disease, younger than 18 years of age, and incomplete records were excluded from the study. Modified Ryan scoring (MRS) system was used to classify the pathological response and patient were divided into two groups as good response (MRS:0 and 1) and poor response (MRS: 2 and 3). After that factors associated with pathologic responses and factors affecting pathologic responses were identified.

**Results:** A total of 60 patients were detected. 36(60%) of the patients were male and the mean age was 60,1±11,4 years. Younger age was associated with good response (p=0.019). Also COPD was associated with good response (p=0.004). In multivariate analysis presence of T4 tumor and lymph node negative disease before the neoadjuvant chemoradiotherapy were detected as effective factors for good response (p=0.025; OR 7,377, 95%CI 1,280-42,503 and p= 0.041; OR 7,451, 95%CI 1,090-50,962)

**Conclusion:** In patients that underwent total mesorectal excision for rectal cancer after neoadjuvant chemoradiotherapy, presence of T4 tumor and non metastatic lymph nodes before the neoadjuvant therapy may be considered as predictive factors for good pathologic response.

**Keywords:** pathological response, rectal cancer



**PB-165****Miles Procedure for A Locally Advanced Distal Rectum Tumor Protruding Through The Anal Canal**

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**Objective:** In this case we present a patient that underwent Miles procedure with extended gluteal resection after neoadjuvant therapy.

**Case:** A forty-six year old male presented with a locally advanced distal rectum tumor protruding through the anal canal. The only comorbidity he had was diabetes mellitus. Patient had bleeding and pain during defecation due to the tumor therefore we created a end colostomy from sigmoid colon. Then patient started neoadjuvant chemoradiotherapy. After oncologic treatment we performed Miles procedure with an extended gluteal resection (Figure-1). Wound was closed with primary sutures. On postoperative day 1 oral intake was started and patient was discharged on postoperative day 5 without any complications. Patient's pathological stage came T2N0 with clear resection margins.

**Conclusion:** Neoadjuvant treatment is important for downstaging in rectal cancer. Surgery followed the neoadjuvant therapy is important for the patient's survival and quality of life.

**Keywords:** rectal cancer

**Figure 1****PB-176****Perianal Disease in IBD Surgery: Indications vs. Incidental Findings**

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Akdeniz University Faculty of Medicine Hospital

**Objective:** Inflammatory bowel disease (IBD) is frequently associated with perianal diseases, which significantly impair patients' quality of life and often necessitate surgical intervention. The presence of perianal disease complicates the management of IBD, particularly during surgical procedures performed for extra-anal indications. Understanding the interplay between IBD and perianal disease is crucial for optimizing patient management and treatment outcomes.

**Materials-Methods:** This retrospective study analyzed IBD patients who underwent surgery performed by a single faculty member at Akdeniz University Faculty of Medicine between December 2022 and March 2025. The study aimed to evaluate the prevalence and characteristics of perianal diseases in this patient population and their impact on surgical and clinical management.

**Results:** The study included 40 patients, of whom 23 had Crohn's disease and 17 had ulcerative colitis. A history of intra-abdominal or perianal surgeries was reported in 34 patients (85%). At the time of admission, 13 patients (32.5%) were being followed up with a stoma. Among the patients, perianal diseases were distributed as follows: perianal abscess in 13 patients (33%), perianal fistula in 10 patients (25%), hemorrhoidal disease in 2 patients (5%), and anal fissure in 1 patient (3%). Common symptoms at admission included diarrhea in 20 patients (50%), anal discharge in 13 patients (36%), painful defecation in 10 patients (25%), anal pain in 8 patients (20%), constipation in 4 patients (10%), tenesmus in 7 patients (18%), and rectal bleeding in 6 patients (15%).

**Conclusion:** The high prevalence of perianal diseases and their associated symptoms in IBD patients underscores the complexity of managing this population. These findings highlight the need for tailored treatment strategies that address both the primary IBD and concomitant perianal conditions. Improved understanding of these comorbidities can guide

surgical planning and enhance patient outcomes, ultimately improving quality of life for individuals with IBD.

**Keywords:** Inflammatory Bowel Disease (IBD), Perianal Diseases

### PB-181

#### Colectomy Results of Patients That Underwent EMR and Diagnosed with SM3 Invasive Adenocarcinoma

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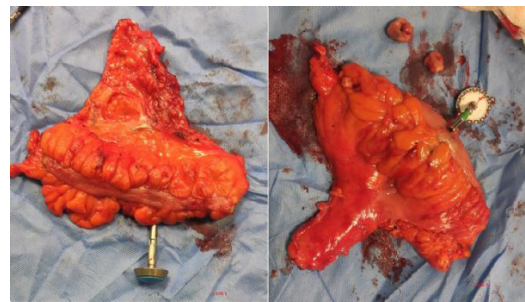
**Objective:** While SM1 and SM2 invasions with low risk can be treated with only local excision, polyps with SM3 invasion and high risk factors may needed colectomy. Here we present two patients underwent colectomy after SM3 invasive colon polypectomy.

**Case:** Case 1: A sixty-two year female that had breast cancer found to have FDG uptake in sigmoid colon after PET-CT scans. In her colonoscopy a 14 mm polyp in sigmoid colon was underwent EMR. Pathology result was SM3 invasive adenocancer. Polyp type was sessile and tumor was invasive to submucosa, 1 mm near to base surgical margin, grade II and without lymphovascular and perineural invasion. Also muscularis propria layer was not seen clearly and IHC panel was KI-67+, P53-, D2-40 normal+. Patient underwent laparoscopic anterior resection after marking the polypectomy area with isosulfan blue. No tumor was found in pathology result only adenomatous changes were seen and 14 lymph nodes were all reactive. Patient was discharged in postoperative day 6. Case 2: A sixty-six year old male who only have hypertension was underwent colonoscopy for cancer screening. Patient was referred to our clinic after an EMR to a 5x5 cm polyp in the 30th cm of the colon. Pathology results showed that the polypectomy was performed piecemeal and that the polyp was a pedunculated polyp having a 1,5 cm area of adenocarcinoma. Tumor was invasive to the submucosa, grade I and has lymphovascular invasion. Patient underwent laparoscopic anterior resection after marking and no tumor was detected in the pathology result. All 41 lymph nodes were reactive.

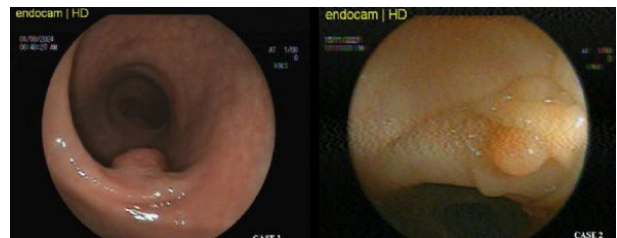
**Conclusion:** Proper colonoscopy, proper polyp excision and detailed pathology result are the most important factors in patients with T1 tumors. Instead of a deficient polypectomy the patient should be referred to a experienced center. There are patients who come with no tumor or lymph node metastasis in colectomy results, therefore, detailed studies are needed to be more selective in patients.

**Keywords:** polypectomy, SM3 invasion

anterior resection specimens



colonoscopy images



### PB-190

#### Laparoscopic Open Conversions in Malignant Colorectal Resections: A Cohort Study

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**Objective:** Laparoscopic colorectal cancer (CRC) resection has been universally adopted, accounting for 68% of CRC resections (National Bowel Cancer Audit NBOCA report 2024). Lap-open conversion rate is reported at < 12% of cases (NBOCA 2023). The aim of the study is to assess peri-operative causes of laparoscopic-open conversions and post-operative implications at a single institution.

**Materials-Methods:** A cohort study carried out from January 2007 to April 2025 at a single institution. Descriptive demographics & post-operative outcomes in laparoscopic-open conversion resections. Laparoscopic and open CRC resections were recruited as controls.

**Results:** (see table)

**Conclusion:** The crude lap-open conversion rate was 11.9 % at our centre. Lap-open conversions were associated with prolonged operative times ( $p < 0.0001$ ) and hospital stay ( $p < 0.05$ ), specific complications, however survival was unaffected. Conversion were categorized into patient-related factors (high BMI, multiple operations, comorbidities), tumour-related factors (locally advanced T4 disease, adhesions) & intra-operative challenges (access, visualization, bleeding, failure to mobilize structures, equipment failure). strategies to reduce conversion rates include: better patient selection, advanced laparoscopic skills & hybrid techniques. a “well-timed” conversions may reduce complications & prevent poor outcomes.

**Keywords:** Laparoscopic open colorectal cancer resections

## Results

	Lap-open (n = 133)	Laparoscopic (n = 978)	Open (n = 773)	Kruskal- Wallis test (p value)
Age (yrs)	68.9 ± 1.1	69.8 ± 0.4	71.1 ± 0.6	NS
Sex (M:F)	92: 41	519: 459	427: 346	< 0.005
ASA (median)	2	2	2	NS
Body-Mass-Index(kg/m2)	27.5 ± 0.4	26.5 ± 0.2	26.5 ± 0.3	NS
Operation time (mins)	227.5 ± 8.1	191.0 ± 2.9	147.6 ± 2.5	< 0.0001
Emergency CRC (n)	13	81	301	< 0.0001
Complications(n)				
Anastomotic-Leaks	6	35	35	NS
Ileus	18	141	134	NS
Hospital-Acquired- Pneumonia	18	83	94	< 0.05
Anaemia(requiring- transfusion)	7	21	29	< 0.05
Wound-infections	24	65	74	< 0.001
Collections	9	52	52	NS
Sepsis	10	48	50	NS
Stage 1	29	274	133	
Stage 2	50	296	266	
Stage 3	44	316	291	
Stage 4	5	71	50	
Others	5	21	33	
LN harvest (median)	18 ± 6.5	18 ± 5.5	17 ± 5	NS
Length-Of-Stay (days)	8 ± 4	6 ± 3.5	10 ± 4.5	< 0.0001
90-day Mortality (n)	2	50	60	< 0.001
Survival rates(%)				
1st-year	94.7	91.1	84.6	Logrank p < 0.005
5th-year	77.7	76.2	62.1	
10th-year	67.4	60.7	50.4	
15th-year	52.2	53.8	39.8	

## PB-193

### Comparison of Clinical Features of Patients Undergoing Emergency and Elective Surgery for Complicated Colonic Diverticulitis

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**Objective:** Diverticular disease is a common gastrointestinal disorder affecting one-third of people over the age of 60 in Western population. In 2006, the American Association of Colon and Rectal Surgeons recommended elective colon resection after complicated diverticulitis that treated nonoperatively. In this study, demographic characteristics, preoperative and postoperative results of patients who underwent emergency and elective surgery due to complicated diverticulitis were compared.

**Materials-Methods:** Patients that referred to our emergency clinic with complicated diverticulitis between 2021-2024 were collected. Patients were divided into two groups as emergency and elective. Elective group had medical treatment first than underwent surgery while emergency ones directly operated after hospitalisation. Demographic characteristics, preoperative and postoperative results of patients were evaluated.

**Results:** 52.8% of the patients were male and the mean age was 63.2 years. 26 patients (72.2%) underwent emergency surgery, while 10 patients (27.8%) underwent elective surgery after medical treatment. The mean age of patients who underwent emergency surgery was statistically higher than the elective group ( $p=0.002$ ). In preoperative laboratory findings, white blood cell, neutrophil count, and creatine were higher in patients who underwent emergency surgery ( $p=0.005$ ,  $p=0.002$ ,  $p=0.011$ ). On the other hand lymphocyte count was lower in emergency group ( $p=0.004$ ). On postoperative day 1 CRP was higher in emergency group however on postoperative day 3 no statistical difference was observed between groups ( $p=0.018$ ,  $p=0.828$ ). While 92.3% of patients who underwent emergency surgery had a stoma after resection, 90% of those who underwent elective surgery had an anastomosis after resection. While intensive care unit stay was higher in patients who underwent emergency surgery, no statistically significant difference was found in postoperative complications such as surgical site infection, pulmonary complications and anastomotic leakage.

**Conclusion:** Patients who underwent emergency surgery have higher age, stoma rate, preoperative white blood cell and neutrophil counts. Patients who underwent elective surgery have higher anastomosis rates. Postoperative complications are similar in both groups

**Keywords:** colonic diverticulitis

## PB-205

### A Rare Case of Acute Abdomen: Clostridium difficile, Entamoeba Histolytica and Rotaviridae Co-Infection

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**Objective:** Cases of Clostridium difficile colitis with acute abdomen presentation were recognised in medical literature. However, co-infections involving C.difficile are extremely rare. In this case report, we are presenting a case of acute abdomen caused by C.difficile, Entamoeba histolytica and Rotaviridae co-infection.

**Case:** A 63 year-old male was admitted with abdominal pain and diarrhea ongoing for a week with no response to antibiotics. Vitals were stable, he had accompanying arthritis on large joints and purpura-like rashes on skin. Abdominal examination showed tenderness in lower right quadrant without guarding or rebound tenderness. Laboratory findings were Leukocyte:20.490/mm<sup>3</sup> Neutrophil:17.190/mm<sup>3</sup> Hemoglobin:16,8g/dL C-reactive protein:73,16mg/L. CT revealed free fluid in the pelvis and right lower quadrant. There was widespread inflammatory wall thickening and edema in the terminal ileum and right colon. The patient was admitted to the internal medicine clinic for further



evaluation and treatment. His symptoms progressed under medical treatment. On second day, re-examination showed generalized guarding and rebound tenderness in abdomen. Biochemical parameters were increased. Control CT proved progression in both the free abdominal fluid and the thickening of intestinal walls. Diagnostic laparoscopy was conducted. During abdominal exploration, skip lesions of advanced inflammation in intestines were detected without apparent perforation. Postoperatively, stool cultures revealed *C. difficile*, *E. histolytica*, and *Rotaviridae*. The patient was diagnosed as fulminant colitis by the infectious diseases team. Oral vancomycin and intravenous metronidazole were initiated. On postoperative day 4, the patient responded to medical treatment, and his clinic improved. After completing a 10-day course of oral vancomycin and achieving negative stool cultures, the patient was discharged.

**Conclusion:** Triple microorganism co-infection with *C. difficile* is extremely rare but can mimic surgical pathologies by causing an acute abdomen presentation. In patient management, systemic infectious pathogens should be considered in the differential diagnosis of acute abdomen, and treatment should be coordinated through a multidisciplinary approach.

**Keywords:** Acute abdomen, clostridium difficile co-infection

## PB-207

### Histopathological Variants of Colon Adenocarcinoma: Evaluating Mucinous Features and Outcomes

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Mucinous adenocarcinomas (MAC) are a subtype of colorectal cancer where over 50% of the tumor mass consists of extracellular mucin. They account for 5–15% of cases and are linked to larger tumor size, advanced stage at diagnosis, proximal colon localization, and higher peritoneal dissemination risk. Adenocarcinoma with mucinous components (AC-MC) contains <50% mucin and shares molecular features with MAC but has a more favorable prognosis. Compared to conventional adenocarcinomas (AC), MAC is diagnosed at a younger age, is more prevalent in the right colon, and has higher lymph node metastasis rates.

To investigate these subtypes, we analyzed colorectal tumor records from 2018–2022 at our hospital. Among 283 patients, 80.6% had AC, 10.6% AC-MC, and 8.8% MAC. The mean age was  $63.9 \pm 13.8$  years, with no significant differences in age ( $p=0.48$ ), BMI ( $p=0.52$ ), or gender ( $p=0.59$ ). The sigmoid colon (38.8%) was the most common tumor site, followed by the right colon (16.4%) and rectosigmoid (16.4%). Lymph node involvement (pN1–2) was 51.1%, highest in MAC (60.0%,  $p=0.71$ ). Distant metastasis (M1) occurred in 21.2%, lowest in AC-MC (10.0%,  $p=0.27$ ). Lymphatic invasion was highest in MAC (68.0%) vs. AC (52.9%) and AC-MC (43.3%,  $p=0.18$ ). Vascular invasion was most frequent in MAC (40.0%)

( $p=0.67$ ). Recurrence rates were similar ( $p=0.69$ ). Overall mortality was 22.6%, with no significant difference in disease-free survival ( $p=0.10$ ) or overall survival ( $p=0.86$ ). TNM stage ( $p=0.018$ ) and neoadjuvant chemotherapy ( $p=0.012$ ) were significant predictors of recurrence and survival.

This study concludes that MAC has distinct pathological features but no significant survival differences among subtypes. While MAC exhibits aggressive characteristics, tumor histopathology may not be the sole prognostic determinant. Future research should include a larger patient population to better assess the prognostic impact of histopathological subtypes.

**Keywords:** Adenocarcinoma, mucinous component

## PB-211

### When is Stoma Reversal Not Feasible? Identifying High-Risk Patients in Rectal Cancer Surgery

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**Objective:** Reversal of a diverting ileostomy following rectal cancer surgery is associated with considerable morbidity, leading to non-reversal in a subset of patients. The reported rates of stoma reversal and the associated risk factors for non-closure vary across studies, creating controversy regarding patient selection and perioperative management. This study aims to evaluate the stoma reversal rate and identify risk factors associated with non-reversal in patients undergoing restorative rectal cancer surgery.

**Materials-Methods:** A retrospective analysis was conducted on patient with rectal adenocarcinoma who underwent low anterior resection, ultra-LAR, or intersphincteric resection with primary anastomosis and a diverting loop ileostomy between 2018 and 2024. Patient demographics, tumor characteristics, surgical details, and oncological factors were analyzed. The primary outcomes were stoma reversal rates and associated morbidity and mortality.

**Results:** A total of 130 patients who underwent rectal cancer surgery with an overall stoma reversal rate was 80.8%. The median time to stoma closure was 10 months (IQR11). No significant difference were observed in demographic characteristics, tumor location, or pathological staging between the reversal and non-reversal groups (**Table 1**). However, patients who did not undergo stoma reversal had a higher incidence of poor tumor differentiation (8% vs. 2.9%,  $p=0.035$ ). Additionally, failure to complete adjuvant chemotherapy (52.9%) and the presence of distant metastases (32%) were significantly associated with non-reversal. Postoperative complications and readmission rates following stoma reversal were low (3.8% and 3.6%, respectively), with no mortality.



**Conclusion:** Although most patients successfully underwent ileostomy reversal with minimal morbidity, poor tumor differentiation, ongoing oncologic treatment and distant metastases emerged as significant risk factors for non-reversal. In patients with a high risk of non-reversal, surgeons might consider performing a loop colostomy to optimize long-term functional outcomes.

**Keywords:** Ileostomy reversal, rectal cancer

**Table 1: Risk factors for stoma non-reversal**

	All (n=130)	No stoma closure (n=25)	Stoma closure (n=125)	p-value
Age, year (±SD)	64.7 (11.1)	64.2 (10.4)	64.1 (11.1)	0.86
Female, n (%)	68 (36.9%)	6 (23%)	40 (31.9%)	0.57
ASA score				0.33
I	108 (83.1%)	21 (84%)	87 (82.9%)	
II	17 (13.1%)	2 (8%)	15 (14.3%)	
III	5 (3.8%)	2 (8%)	3 (2.9%)	
Tumor location				0.49
Lower	52 (40%)	9 (36%)	43 (41%)	
Mid	48 (36.9%)	8 (32%)	40 (38%)	
Upper	30 (23.1%)	8 (32%)	22 (21%)	
Tumor histology, n (%)				0.035
Well-differentiated	65 (65.4%)	20 (80%)	65 (81.9%)	
Moderately differentiated	40 (30.8%)	3 (12%)	37 (35.2%)	
Poorly differentiated	5 (3.8%)	2 (8%)	3 (2.9%)	
pT stage, n (%)				0.69
0	15 (11.5%)	4 (16%)	11 (10.5%)	
I	1 (0.8%)	0 (0%)	1 (1%)	
1	12 (9.2%)	2 (8%)	10 (9.5%)	
2	36 (27.7%)	5 (20%)	31 (30.4%)	
3	71 (54.6%)	12 (48%)	59 (56.2%)	
4	5 (3.8%)	2 (8%)	3 (2.9%)	
pN stage, n (%)				1.00
0	93 (71.5%)	18 (72%)	75 (71.4%)	
1	30 (23.1%)	6 (24%)	24 (22.9%)	
2	7 (5.4%)	1 (4%)	6 (5.7%)	
Initial metastatic disease, n (%)	6 (8.2%)	2 (8%)	6 (5.7%)	0.65
Operation, n (%)				0.16
LAR	112 (86.2%)	23 (92%)	89 (84.8%)	
Ultra LAR	11 (8.5%)	0 (0%)	11 (10.5%)	
ISR	7 (5.4%)	2 (8%)	5 (4.8%)	
Anastomosis distance from AI, cm (IQR)	4 (3)	5 (2)	4 (3)	0.42
LOS, day (IQR)	8 (2)	8 (2)	8 (2)	0.36
Clavien-Dindo >3 (30day), n (%)	2 (1.5%)	1 (4%)	1 (1%)	0.34
Readmission (30day), n (%)	4 (3.1%)	0 (0%)	4 (3.8%)	1.00
Mortality (30day), n (%)	1 (0.8%)	1 (4%)	0 (0%)	0.19
Distal margin involvement, n (%)	2 (1.5%)	1 (4%)	1 (1%)	0.34
CRM involvement, n (%)	3 (2.3%)	1 (4%)	2 (1.9%)	0.47
Mesorectal excision, n (%)				0.34
Complete	128 (98.5%)	24 (96%)	104 (99%)	
Near complete	0 (0%)	0 (0%)	0 (0%)	
Incomplete	2 (1.5%)	1 (4%)	1 (1%)	
Adjuvant chemotherapy, n (%)	90 (69.2%)	17 (68%)	73 (69.5%)	0.88
Chemotherapy completed, n (%)	78 (60.7%)	6 (47.1%)	70 (65.9%)	<0.001
Local recurrence, n (%)	0 (0%)	0 (0%)	0 (0%)	-
Distant metastasis, n (%)	15 (11.5%)	8 (32%)	7 (6.7%)	<0.001
Duration with stoma, month (IQR)	13.5 (13)	25 (11)	10 (11)	<0.001
Reasons for no closure, n (%)				
Pt on operation list	-	2 (8%)	-	-
Pt choice	-	1 (4%)	-	-
Morbidity	-	1 (4%)	-	-
High risk patient	-	6 (24%)	-	-
Ongoing oncologic treatment	-	11 (44%)	-	-
Rectal stenosis	-	1 (12%)	-	-
Lost follow-up	-	3 (12%)	-	-
Clavien-Dindo >3 (30day) (after reversal), n (%)	-	-	5 (3.8%)	-
Readmission (30day) (after reversal), n (%)	-	-	6 (3.8%)	-
Mortality (30day) (after reversal), n (%)	-	-	0 (0%)	-

## PB-223

### An Unexpected Cause of Small Bowel Obstruction: Neuroendocrine Tumor

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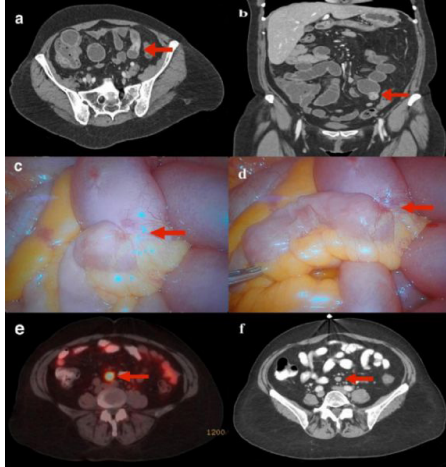
**Objective:** Neuroendocrine tumors (NETs) are heterogeneous malignancies originating from neural crest-derived cells. In the United States, the small intestine (SI) is the second most common site for NETs after the lungs, with an incidence of 1.3 per 100,000 individuals. Small intestinal NETs are slow-growing, prone to metastasis, and typically located within 100 cm of the ileocecal valve. They commonly present with abdominal pain and obstruction. At diagnosis, nearly half of the patients have regional lymph nodes or distant metastases. This report presents a NET case causing small bowel obstruction.

**Case:** A 59-year-old female was admitted to the emergency department with sudden-onset abdominal pain, distension, nausea, and vomiting. Her history included hypertension and asthma. Physical examination revealed periumbilical defense and tenderness. Laboratory tests showed leukocytosis (13,080/ $\mu$ L) and elevated C-reactive protein (14.2 mg/L). Abdominal X-rays indicated air-fluid levels, while contrast-enhanced computer tomography revealed a jejunal segment stricture due to an intraluminal mass, proximal dilation, and free pelvic fluid (Figure 1a, b). After nasogastric decompression, laparoscopic exploration identified a 5 cm intraluminal mass with desmoplastic reaction, 95 cm proximal to the ileocecal valve (Figure 1c, d). The proximal small intestine was dilated, while the distal segments were collapsed. The affected segment was resected, and a side-to-side jejunojejunostomy was performed. Pathology confirmed a well-differentiated NET (Grade 2, pT3). Gallium-68 DOTA-TATE Positron Emission Tomography (Ga-68 DOTA-TATE PET) detected a metastatic ileal mesenteric lymph node (SUVmax: 18.25) (Figure 1e, f). A second laparoscopic surgery for lymph node dissection confirmed metastasis, staging the patient as pT3N1 (Stage 3).

**Conclusion:** Neuroendocrine tumors (NETs) are rare causes of intestinal obstruction. Additionally, in the presented case, the presence of lymph node metastasis despite the well-differentiated nature of the neuroendocrine tumor is noteworthy. Laparoscopy can be safely utilized in suitable cases for the surgical exploration and treatment of intestinal obstructions.

**Anahtar Kelimeler:** Neuroendocrine Tumor (NET), Small Bowel Obstruction

Figure-1: Tomography, operation and PET images



**Conclusion:** The combination of loose seton placement followed by the LIFT procedure may be a viable treatment option for anal fistulas. However, larger controlled studies with expanded patient cohorts are required to validate these findings.

**Keywords:** Fistula, LIFT

## PB-230

### Anastomotic Leakage After Closure of Diverting Ileostomy

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**Objective:** Although the closure of a diverting ileostomy is considered a relatively simple surgical procedure, it can be associated with serious complications. Anastomotic leakage (AL) is one of the most severe complications among these. This study addresses the complication of AL following ileostomy closure.

**Materials-Methods:** Data from diverting ileostomy cases closed by seven different surgeons at a single center between January 2018 and December 2024 were retrospectively collected. Demographic data, operative and postoperative outcomes were evaluated. Cases with and without AL were divided into two groups, and the results were compared.

**Results:** A total of 150 patients (38% female) with a median age of 64 (21-98) were included in the study. 60% of the ileostomies were closed using a stapler, and the skin was closed with purse-string sutures in 7.33% of cases. The median operation time was 75 (15-260) minutes. Surgical site infection developed in 7.33% of patients. AL occurred in 5 (3.33%) cases. While the method of closure (stapler or manual) did not show a significant effect on the development of AL, postoperative ileus (60% vs. 11.03%,  $p=0.014$ ) and the frequency of readmission (80% vs. 4.83%,  $p<0.0001$ ) were significantly higher in the AL group. There were no cases of mortality.

**Conclusion:** AL is an important, though not frequent, complication following the closure of a diverting ileostomy. AL negatively affects postoperative outcomes due to prolonged ileus and increased readmission rates.

**Keywords:** anastomotic leakage, ileostomy closure

## PB-227

### Bridging Loose Seton Drainage to LIFT Procedure in Complex Anal Fistula

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**Objective:** Anal fistula is a challenging condition for surgeons worldwide due to its high recurrence rates and the complexity of its management, particularly in cases of complex fistulas. Numerous treatment modalities have been described. Among these, loose seton placement and Ligation of the Intersphincteric Fistula Tract (LIFT) are two commonly utilized techniques. In our study, we aimed to evaluate the recurrence rates and anal incontinence outcomes by combining these two methods.

**Materials-Methods:** In 2024, seven patients who presented to Aydın Adnan Menderes University General Surgery outpatient clinic with anal fistula and were found to have an associated abscess cavity on magnetic resonance imaging (MRI) underwent two-stage surgery. In the first stage, drainage was achieved by loose seton placement. Approximately 8 weeks (Mean follow-up duration was  $8.4 \pm 0.98$  weeks) were allowed for the regression of the abscess cavity before performing the LIFT procedure in the second stage. Demographic characteristics, fistula tract length, abscess cavity diameter, and comorbidities of the patients were recorded. Wexner scores were assessed between the 8th and 12th postoperative weeks (Mean Wexner score was  $2.0 \pm 1.63$ ). Patients with inflammatory bowel disease were excluded from the study.

**Results:** No recurrence was observed in 4 out of 7 patients (57%). (Mean postoperative follow-up duration was  $7.86 \pm 1.07$  months). One patient developed an abscess in the third postoperative week. Recurrences occurred in the fourth and sixth weeks after the second operation, respectively. In these cases, loose seton placement was repeated.

**PB-244****The Disease Group Neglected by Both Patients and Even Physicians: Benign Anorectal Diseases**

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**Objective:** The primary goal of general surgery residency training is to ensure that residents develop professional competence. Proctology and benign anorectal diseases are examples of subjects where training can be inadequate, often due to the limited number of specialists with a specific focus on this field. In this study, we aimed to measure the knowledge level of resident physicians.

**Materials-Methods:** Out of 61 residents, 31 were in Group 1, and 30 were in Group 2. A total of 20 case visuals were presented to residents undergoing specialization training in the General Surgery Clinic at Etlik City Hospital. Questions were posed under four main headings: Hemorrhoidal Disease (Hemorrhoids, Fissures), Fistula Disease, Pelvic Floor Diseases (Prolapse, Rectocele etc.), and Other Diseases (Pilonidal Sinus etc.), with five questions in each category. In evaluating the results, total scores and main topics were assessed out of 100 points. Residents were divided into two groups: Group 1 (0-24 months of training) and Group 2 (>24 months of training). Hemorrhoids, anal fissures, and anal fistulas are common benign anorectal conditions. Other pathologies, such as pelvic floor diseases, hidradenitis suppurativa, and infectious conditions, also fall within this category. These diseases are first assessed from other specialties before being referred to a specialist proctologist. Both patients and doctors can find it challenging to make a differential diagnosis of benign anorectal diseases.

**Results:** In our study, where specialist knowledge is more widespread, the performance in diagnosing benign anorectal diseases was found to be very low. Our study raises the question of whether we are adequately educating on benign anorectal diseases. It supports the view that these conditions are neglected not only by patients but also by physicians.

**Conclusion:** The obtained results indicate that proctological diseases should be given more emphasis in resident training.

**Keywords:** proctology

**PB-250****A Rare and Aggressive Metastasis of Colon Cancer: Virchow's Node Involvement**

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**Objective:** Colorectal cancer, the leading cause of cancer-related mortality, shares frequent metastasis to regional lymph nodes, liver, and lungs. Supraclavicular lymph node, known as Virchow's node, metastasis is an extremely rare occurrence and usually the result of aggressive behavior of the disease. This presentation will bring to light the clinical significance of such a rare form of metastasis from a case of sigmoid colon adenocarcinoma with solitary distant metastasis to Virchow's node.

**Case:** A 40-year-old female with no personal or family history of medical illness presented with rectal bleeding. Colonoscopy was performed, circumferential mass in the sigmoid colon was observed, preventing scope passage. Diagnosis was established by biopsy as poorly differentiated adenocarcinoma. Abdominal CT revealed 11 cm mass in the sigmoid colon with luminal narrowing and para-aortic lymphadenopathy. PET-CT surprisingly revealed metastatic left cervical, supraclavicular, axillary lymph nodes. Biopsy from Virchow's node was diagnostic of metastasis of colorectal adenocarcinoma, a rare diagnosis in colorectal cancer and indicator of bad prognosis. The patient was given neoadjuvant treatment of five cycles of FOLFOX and two cycles of Bevacizumab. The patient, during treatment, developed bowel obstruction, for which stent was inserted in the sigmoid colon. Follow-up imaging revealed poor response to chemotherapy, which led to robotic anterior resection. Histopathological evaluation indicated the tumor stage as pT4N0, confirming treatment-resistance (Score:3). Imaging two months post-surgery revealed multiple liver metastases and pelvic lymph node involvement. These findings supported Virchow's node metastasis and poor prognosis correlation of colorectal cancer.

**Conclusion:** Metastasis to Virchow's node in colorectal carcinoma is rare but of significant prognostic importance, indicating aggressive cancer with poor prognosis even when chemotherapy is given. As in this case, involvement of the supraclavicular lymph nodes in patients mandates multi-disciplinary treatment and close follow-up. The case underscores the need for increased clinical vigilance at presentation and during planning of treatment.

**Keywords:** Sigmoid Colon Adenocarcinoma, Virchow's Node Metastasis

**PB-258****Management of Complex Anorectal Fistulas**

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**Objective:** Anorectal fistulas are among the most challenging proctological conditions to manage due to their high recurrence rates and surgical options impacting patient comfort. The treatment process must consider the anatomical characteristics of the fistula, the patient's condition, and recurrence risks. While the diversity of surgical techniques and novel minimally invasive approaches today is promising, an ideal treatment method remains elusive. Therefore, individualized treatment plans need development. Materials

**Materials-Methods:** This retrospective study includes anorectal fistula procedures performed under the supervision of a single faculty member at Akdeniz University Faculty of Medicine from December 2022 to March 2025. Data were collected from patients' electronic records. Patients were categorized into two groups: simple and complex fistulas. Complex fistulas were defined anatomically as those involving extensive sphincter muscle sections, multiple tracts, horseshoe formations, or rectovaginal fistulas. Additionally, underlying pathologies like Crohn's disease, radiation proctitis, trauma, malignancy, or immunosuppression were considered factors complicating fistulas.

**Results:** A total of 52 patients were analyzed (36 male, 16 female), with a median age of 42±14 years and a median follow-up period of 8 months (IQR: 3–13). Preoperative abscesses were present in 22 patients, and 30 had complex perianal fistulas. Symptom frequencies included discharge, swelling, pain, incontinence, and itching. Loose setons were applied in complex cases. Nine patients received stomas, with two undergoing total proctocolectomy and K-pouch creation. Additionally, LIFT and flap techniques were performed on select cases.

**Conclusion:** Managing perianal fistulas requires tailored surgical approaches based on fistula complexity and patient conditions. Complex cases may necessitate multidisciplinary management, additional surgeries, and ongoing follow-up.

**Keywords:** Anorectal fistula, complex fistula





***Nursing Congress  
Selected  
Oral Presentations***



**HSSB-02****The Effects of Laughter Therapy on Self-Esteem and Quality of Life in Patients with Stoma: A Randomized Controlled Study**

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**Objective:** This study was carried out to investigate the effects of laughter therapy on self-esteem and quality of life in patients with stoma.

**Materials-Methods:** This research, conducted as a randomized controlled trial, was conducted through the “Association of Colostomy and Ostomy Patients” between November 2021 and April 2023. The research population consisted of 192 patients who attended the association, and the sample consisted of 74 patients who met the inclusion criteria. After obtaining institutional and ethics committee approval, a total of 4 sessions of laughter therapy were delivered to participants in the experimental group via video calls over WhatsApp by the certified researcher. The data were collected using a Personal Information Form, the Rosenberg Self-Esteem Scale, and the City of Hope-Quality of Life-Ostomy Questionnaire. The results were evaluated in a computer environment using the SPSS 26 program.

**Results:** There was no statistically significant difference between the experimental and control groups in terms of the personal characteristics of the participants. After laughter therapy, in the posttest and the 3rd-month follow-up measurements, the participants in the experimental group were determined to have significantly higher self-esteem and quality of life levels than those in the control group ( $p<0,001$ ). In addition, it was determined that the quality of life of the individuals in the experimental group increased more in each measurement.

**Conclusion:** As a result of this study, we found that laughter therapy is an effective method to increase both self-esteem and quality of life of patients with stoma. The increase in the quality of life of patients with stoma in every measurement is an indication that laughter therapy continues to increase its effect in the long term. As laughter therapy is also a nursing intervention recognised by the “Nursing Interventions Classification”, its increased use is recommended.

**Keywords:** laughter therapy, stoma





***Nursing Congress***  
***Oral Presentations***



**HSB-022**

### Effects of Music Therapy on Patients Undergoing Lower Gastrointestinal Endoscopy: A Systematic Review

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**Objective:** To systematically review the effects of music therapy on patients undergoing lower gastrointestinal endoscopic intervention.

**Materials-Methods:** This research was conducted by systematically reviewing the studies that met the inclusion criteria in the electronic databases “Pubmed”, “Cochrane” and “Google Scholar” using the keywords “music and endoscopy”, “music and colonoscopy”, “music and sigmoidoscopy”, “music and rectosigmoidoscopy” and “music and rectoscopy”. The systematic review included studies published in English between 2000-2025, with experimental and quasi-experimental research designs, and with a sample of patients undergoing lower gastrointestinal endoscopy (colonoscopy, sigmoidoscopy, rectoscopy, rectosigmoidoscopy). As a result of the search, 31.817 results were reached in English between the years 2000-2025 with keywords. After the research was examined in line with the criteria, 16 research articles were obtained (search date March 16, 2025). The “Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)” checklist was used to evaluate the studies.

**Results:** There were differences in the type, method of application, and duration of music therapy in the studies examined. There was a great consensus that music therapy reduced anxiety and the need for sedation, and increased satisfaction. Also, results indicated that it reduced the difficulty of endoscopic procedures, reduced pain, shortened the duration of the endoscopic procedure, and increased comfort. Moreover, it was seen that the results regarding pain and physiological parameters were contradictory.

**Conclusion:** Music therapy reduces anxiety and sedation requirements and increases satisfaction in patients undergoing lower gastrointestinal endoscopy. To clarify conflicting results, it is recommended that studies be conducted in which the music therapy protocol is clearly defined and reported, and patient inclusion criteria are selected correctly to accurately measure the effect on pain.

**Keywords:** endoscopy, music

**HSB-026**

### The Effect of Chewing Gum on Nausea, Vomiting, and Bowel Function After Colorectal Surgery: A Randomized Clinical Trial

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**Objective:** The aim of this study was to evaluate the effectiveness of chewing gum on nausea, vomiting and bowel function after colorectal surgery.

**Materials-Methods:** The study is a prospective and randomized controlled trial. The study was conducted with 84 patients (42 experimental, 42 control) who underwent colorectal surgery in the general surgery clinic of a hospital between June 2023 and June 2024. Individual Information Form, ECOG Performance Score, Apfel Risk Score and Nausea and Vomiting Assessment Form were used to collect data. All patients received routine nursing care after surgery. Participants in the experimental group will begin chewing gum three times a day on the first day after surgery. Inclusion criteria were to have undergone elective and laparoscopic colorectal surgery, to have no communication, visual and hearing problems and to have an ECOG performance score between 0-2.

**Results:** There is a statistically significant difference between the groups in the time to first postoperative gas and stool passage ( $p < 0.05$ ). There is no statistically significant difference between the Apfel risk scores between the groups ( $p > 0.05$ ). There was no statistically significant difference between the groups in terms of nausea and vomiting at the 0th, 2nd, 4th, 8th, 24th, 48th and other hours after surgery ( $p > 0.05$ ).

**Conclusion:** In conclusion, gum chewing shortened postoperative gas and stool expulsion times. This inexpensive and noninvasive intervention may be recommended to prevent postoperative ileus and decrease recovery time in patients undergoing colorectal surgery.

**Keywords:** Chewing gum, colorectal surgery



**HSB-027****Effectiveness of Perioperative Warming Methods in Patients Undergoing Colorectal Surgery: A Systematic Review**Gamze Bozkul<sup>1</sup>, Hande Nur Arslan<sup>2</sup>, Sevilay Şenol Çelik<sup>2</sup><sup>1</sup>Department of Nursing, Faculty of Health Sciences, Tarsus University, Mersin, Türkiye<sup>2</sup>School of Nursing, Koç University, Istanbul, Türkiye

**Objective:** The aim of this systematic review is to evaluate the effectiveness of perioperative warming methods in patients undergoing colorectal surgery and synthesize the existing evidence.

**Materials-Methods:** This study was conducted using a systematic review design. A comprehensive search was performed in the PUBMED, Web of Science, ScienceDirect, Cochrane Library, TÜBİTAK ULAKBİM, TR Dizin, and Google Scholar databases without any time restrictions. Research articles published in Turkish or English that examined the effectiveness of warming methods during the perioperative period in patients undergoing colorectal surgery were included in the study. Eligibility criteria were determined using the PICOT-SD method, and the risk of bias was assessed using the Cochrane RoB2 tool.

**Results:** The literature search identified a total of 1,652 articles based on the predefined keywords. After removing duplicate studies, 1,124 articles were screened. Following title and abstract evaluation, 1,103 articles were excluded. A total of 21 experimental studies that met the inclusion criteria were analyzed. These studies applied different warming methods, including forced air, resistive heating, circulating water, and blankets. The findings indicated that these warming methods maintained higher body temperatures in patients compared to control groups, reduced the incidence of hypothermia, and helped prevent complications such as shivering blood loss, and other adverse effects.

**Conclusion:** Colorectal surgery is a major surgical procedure, and patients are at high risk of perioperative hypothermia. Preventing and managing hypothermia during this period is a critical component of nursing care. Effective management of perioperative hypothermia reduces the risk of complications, shortens hospital stays, decreases healthcare costs, and improves patient outcomes. Therefore, it is recommended that nursing practices be actively utilized in perioperative hypothermia management and integrated into clinical protocols.

**Keywords:** Colorectal surgery, warming methods

**HSB-034****Descriptive Analysis of Waste Generation in the Stoma Care Process: A Prospective Study**Aylin Günay<sup>1</sup>, Sevcin Avcı Işık<sup>1</sup>, Elif Budak Ertürk<sup>1</sup>,Çiğdem Üstündağ<sup>2</sup>, Azize Karahan<sup>1</sup><sup>1</sup>Department of Nursing, Faculty of Health Sciences, Baskent University, Ankara, Türkiye<sup>2</sup>Nursing Directorate Services, Baskent University, Ankara, Türkiye

**Objective:** The use and management of disposable medical materials during stoma care are critical for environmental sustainability. The increasing waste production in stoma care not only imposes additional costs on the healthcare sector but also poses potential environmental and public health risks. This study aims to descriptively analyze the amount of waste generated (medical products such as stoma bags, gloves, gauze, and packaging materials) during stoma care following colorectal surgery.

**Materials-Methods:** This is a prospective descriptive study. Data collection began in February 2025, with 25 cases recorded so far. Data on stoma care and waste management are gathered using literature-based forms validated by experts. The study is ongoing and is expected to be completed within three months.

**Results:** The mean age of patients receiving stoma care was 67.32±14.73 years, 60% were male, 88% underwent open surgery, and 52% had an ileostomy. Leakage problems were observed in 28% of cases. Stoma care was performed for an average of 6.24±9.56 months, 5.16±6.28 times per week. Daily care involved an average use of 0.59±0.38 adapters, 1.73±0.42 stoma bags, 8.26±6.86 gauze pieces, 4.88±2.87 pairs of disposable gloves, and 4.03±2.72 paper towels. Additionally, 1.91±1.10 waste bags were used, with 88% of waste being sorted into medical/general waste. The daily medical waste volume was 1362.5±427.53cc, with 1.75±1.38 waste bags generated. Stoma nurses performed care, lasting an average of 45.60±23.73 minutes.

**Conclusion:** The frequent use of stoma care materials highlights the need for efficient waste management. Sustainable practices, reduced disposable product use, promotion of eco-friendly materials, and nurse and patient education are recommended to minimize environmental impact.

**Keywords:** Stoma care, medical waste

## Comparison of the Effectiveness of Chlorhexidine and Povidone-Iodine in Preventing Surgical Site Infections in Colorectal Surgery: A Systematic Review and Bayesian Network Meta-Analysis

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**Objective:** Surgical site infections (SSIs) are a significant complication of colorectal surgery, increasing morbidity and mortality. This study compared the effectiveness of chlorhexidine- and povidone-iodine-based antiseptics in reducing SSIs using Bayesian Network Meta-Analysis and aimed to support nurses in making evidence-based antiseptic choices.

**Materials-Methods:** Randomized controlled trials (RCTs) evaluating chlorhexidine- and povidone-iodine-based antiseptics were included. A comprehensive search was conducted in PubMed, Web of Science, ScienceDirect, Cochrane Library, TÜBİTAK ULAKBİM, TR Dizin, and other databases. Data were analyzed using the Bayesian random-effects model in R (gem package). The primary outcome was SSI incidence. Posterior probabilities, median odds ratios (OR), and 95% Credible Intervals (CrI) were reported. Convergence diagnostics (Gelman-Rubin statistics, trace plots, and autocorrelation analysis) ensured model reliability.

**Results:** Ten RCTs with 3,124 patients were analyzed. Bayesian analysis showed chlorhexidine-based antiseptics were more effective than povidone-iodine-based solutions. Chlorhexidine significantly reduced overall SSI rates (OR: 0.67, 95% CrI: 0.55–0.81), better protected against superficial SSIs (OR: 0.61, 95% CrI: 0.49–0.76), and decreased profound SSI incidence (OR: 0.50, 95% CrI: 0.32–0.78). The cumulative ranking analysis identified povidone-iodine-alcohol as the most effective antiseptic (P = 50.3%), followed by iodine-alcohol (P = 37.4%), while chlorhexidine-alcohol (P = 2.9%) and povidone-iodine (P = 7.4%) ranked lower. Chlorhexidine alone showed the least efficacy (P = 1.8%).

**Conclusion:** This study provides key evidence for nurses in selecting preoperative antiseptics. Chlorhexidine-based antiseptics were more effective in colorectal surgery patients, supporting their integration into nursing practice. However, larger high-quality RCTs are needed to strengthen the evidence base.

**Keywords:** Colorectal surgery, surgical site infections

## HSB-044

### Impact of Transcutaneous Electrical Nerve Stimulation on Recovery of Pressure Wounds Grade 1 and 2: Clinical Case Series

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**Objective:** The aim of this study was to investigate the effect of transcutaneous electrical nerve stimulation (TENS) on wound healing in pressure wounds.

**Case:** Eight patients with stage 1 or 2 pressure wounds who were being treated in the anaesthesia intensive care unit of Bingöl State Hospital were included in the study for TENS application. Within the scope of the study, TENS was applied to 6 patients and could not be applied to 2 patients. Patients with 1st and 2nd stage pressure wounds in the sacrum and coccyx region, who met the inclusion criteria and whose consent was obtained, were provided with standard nursing and wound care; TENS application was provided 3 sessions per week (Monday, Wednesday and Friday) for 1 month (4 weeks) for a total of 12 sessions and 30 minutes each session. In TENS application, electrodes were placed on 4 sides of the wound (right, left, bottom, top) and 40 Hz 15-25 mA current was applied. Descriptive Patient Characteristics Form, Braden Pressure Ulcer Risk Assessment Scale, TENS Application Record and Follow-up Form, Bates-Jensen Wound Assessment Tool and Pressure Ulcer Scale For Healing were used for data collection.

**Conclusion:** As a result of the study, it was determined that electrical stimulation shortened wound healing times in patients and provided rapid reduction of wound sizes. It was found that wound healing times were longer and wound size and stage increased over time in patients in whom TENS could not be applied.

**Keywords:** TENS, Pressure Wound

## HSB-045

### Identification of Nursing-Sensitive Indicators on Pressure Injuries/Ulcers: A Systematic Review

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**Objective:** This systematic review aims to develop a conceptual framework to identify nursing-sensitive indicators for preventing and managing pressure ulcers. The first step involves defining evidence-based indicators critical to effective prevention and management. The second step examines the

relationships influencing the management of these indicators, using insights derived from scientific research findings.

**Materials-Methods:** The review is guided by a conceptual framework rooted in Structural State Theory and employs a methodological approach. A total of 956 articles were identified through a search of original references from Medline/PubMed, Scopus, Cochrane Library, and CINAHL, covering the period from 2012 to 2023.

**Results:** A systematic review of 29 studies identified 241 relationships between dependent and independent variables. A theoretical conceptual framework highlighted nursing-sensitive indicators (independent variables) related to patients, nurses, pressure injury/ulcer management, organizational structure, and their association with pressure injury/ulcer outcomes (dependent variables). The analysis showed that patient-focused studies had the highest frequency of relationships.

**Conclusion:** This review highlights the complexity of managing pressure injuries/ulcers and the essential role of nursing care practices and interventions in shaping outcomes. The findings highlight the need for specialized wound care nurses and further research on nursing interventions, urging hospitals to invest in structural changes and nurse education.

**Keywords:** nursing indicator, pressure injury/ulcer

## HSB-048

### Impact of Care Bundles Prevention of Hospital-Acquired Pressure Injuries: A Systematic Review and Meta-Analysis

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**Objective:** The early detection and prevention of hospital-acquired pressure injuries (HAPI) is essential for cost-effective, quality care. Care bundles support healthcare professionals in standardizing and enhancing preventive care for pressure injuries (PIs). To evaluate the effects of care bundles applied to patients on the rate of HAPIs, length of hospital stay (LOS), and the number of PIs compared to previously determined standard care.

**Materials-Methods:** Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) and Joanna Briggs Institute Systematic Reviews Tools were used in the methodological approach. The study was registered (ID No: CRD42024554497). The publications up to June 5, 2024 were searched using MEDLINE(R), CINAHL, Web of Science, Pubmed and Scopus databases without year limitation. The PRISMA flow chart eliminated publications. The title (n=3182), abstract (n=1200), and full text (n=29) contents of the listed publications were evaluated according to review questions and eligibility criteria. This process was carried out independently by two authors. Random effects meta-analysis was performed, with estimates pooled as odds

ratios or risk differences and proportions with 95% confidence intervals.

**Results and Conclusion:** A total of nine published studies, including 29.572 patients (Control group:56,8%; Intervention group: 43,2%) were included in this review. The meta-analysis results showed a significant effect of care bundle intervention on HAPI rates (OR:-0.86, Q = 95.317, I<sup>2</sup> =81,616%, p < 0.001), LOS (Hedge's g =-0.665, Q = 41.671, I<sup>2</sup> =62.497%, p < 0.001), and number of PIs (OR: -1.095, Q = 47.644, I<sup>2</sup> =60.505%, p < 0.001). This systematic review and meta-analysis study demonstrates that care bundles are effective in preventing HAPIs. According to the results of the study, care bundle implementation reduces the rate of HAPIs, shortens the LOS, and reduces the number and severity of PIs.

**Keywords:** Care Bundles, Hospital-acquired pressure injuries

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**HPB-025****Artificial Intelligence in Endoscopy**

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This review highlights the importance of artificial intelligence in endoscopy for healthcare professionals. In recent years, artificial intelligence has rapidly advanced in medicine, particularly in gastroenterology and endoscopy. By analyzing imaging methods and laboratory tests, artificial intelligence enhances lesion detection, diagnosis, disease management, and patient care.

One of the most common applications of artificial intelligence in endoscopy is computer-aided detection and diagnosis. Computer-aided detection helps identify polyps and tumors in the gastrointestinal system, while computer-aided diagnosis estimates the histological features of lesions, reducing unnecessary biopsies. Artificial intelligence can also assess bowel preparation quality before colonoscopy and improve the accuracy of intestinal disease detection in capsule endoscopy. Additionally, promising applications are emerging in pancreatic lesion diagnosis.

Artificial intelligence acts as a real-time “second observer” in endoscopy, reducing the risk of misdiagnosis and improving workflow efficiency. It provides educational support for healthcare professionals, assists in screening programs, and enhances decision-making transparency. By optimizing resource allocation and supporting image analysis, artificial intelligence increases diagnostic accuracy and expands access to remote healthcare services.

However, artificial intelligence also presents ethical and technical challenges, such as data privacy, algorithmic bias, regulatory approvals, and generalizability across patient populations. It should be considered as a complementary tool rather than a replacement for healthcare professionals. Developing reliable, ethical, and clinically applicable artificial intelligence systems is essential.

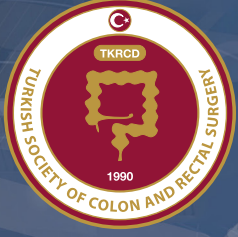
Endoscopy nurses should stay informed about artificial intelligence advancements, enhance their knowledge, and integrate these technologies into patient care, monitoring, and treatment processes.

**Keywords:** Artificial intelligence, Endoscopy









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