


Postoperative ileus as a surgical challenge: comparative outcomes of end-to-end and side-to-side ileal anastomosis in radical cystectomy

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ABSTRACT

BACKGROUND: This study aimed to compare the incidence of postoperative ileus (POI) between end-to-end hand-sewn and side-to-side stapled ileo-ileal anastomoses and to identify independent risk factors associated with POI.

METHODS: We conducted a retrospective analysis of patients who underwent radical cystectomy with urinary diversion at Ankara Etlik City Hospital between October 2022 and October 2024. Patients were categorized according to the anastomosis technique used: end-to-end hand-sewn or side-to-side stapled. Perioperative data, including demographic characteristics, comorbidities, preoperative laboratory parameters, operative variables, and postoperative outcomes, were collected. POI was defined as intolerance to oral intake accompanied by abdominal distension and absence of flatus or stool beyond postoperative day five, requiring medical or surgical management. Univariable and multivariable logistic regression analyses were performed to identify risk factors for POI.

RESULTS: A total of 71 patients were included in the analysis. POI occurred in nine patients (23.7%) in the hand-sewn group and in four patients (12.1%) in the stapled group, indicating a significantly lower incidence in the stapled group. Multivariable analysis identified side-to-side stapled anastomosis as an independent protective factor against POI. Additional independent predictors included age ≥ 65 years, abnormal body mass index (BMI), preoperative constipation, hypoalbuminemia, and prolonged operative time. Receiver operating characteristic (ROC) curve analysis demonstrated good predictive performance of the model.

CONCLUSION: Side-to-side stapled ileo-ileal anastomosis is associated with a lower risk of POI compared to end-to-end hand-sewn anastomosis in patients undergoing radical cystectomy with urinary diversion.

Keywords: Hand-sewn anastomosis; ileal anastomosis; postoperative ileus; radical cystectomy; risk factors; stapled anastomosis; urinary diversion.

INTRODUCTION

Radical cystectomy with urinary diversion is widely accepted as the standard surgical treatment for muscle-invasive bladder cancer (MIBC).^[1,2] Despite being performed routinely for several decades, it remains one of the most complex procedures in urologic oncology.^[3] Postoperative ileus (POI) is among the most common complications following radical cystectomy and

may lead to prolonged hospitalization.^[4,5] One of the factors that may contribute to the development of this complication is the technique used for bowel anastomosis during neobladder or ileal conduit construction. Following urinary diversion reconstruction (ileal loop or neobladder), bowel continuity can be restored using end-to-end, side-to-side, or end-to-side anastomosis techniques.^[6] These techniques may be performed either manually or with the assistance of a stapling

Cite this article as: Sandıkçı F, Aydın MY, Doğan AE, Yavuz A, Hasdemir AO, İmamoğlu MA. Postoperative ileus as a surgical challenge: comparative outcomes of end-to-end and side-to-side ileal anastomosis in radical cystectomy. *Ulus Travma Acil Cerrahi Derg* 2026;32:544-551.

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Ulus Travma Acil Cerrahi Derg 2026;32(5):544-551 DOI: 10.14744/tjtes.2026.79776

Submitted: 30.09.2025 Revised: 25.11.2025 Accepted: 12.12.2025 Published: 05.05.2026

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device.^[7] Some studies have suggested that stapled anastomosis reduces operative time and postoperative complications; however, other studies have reported fewer bowel-related complications with the manual technique.^[8-12] Consequently, there is no clear consensus in the current literature regarding the optimal method of bowel anastomosis. Moreover, studies comparing different techniques and their technical approaches are limited. Determining whether one technique offers a safer profile in terms of postoperative bowel recovery may help optimize perioperative management.

We aimed to compare the incidence of postoperative ileus between patients undergoing end-to-end hand-sewn and side-to-side stapled ileal anastomoses during radical cystectomy with urinary diversion.

MATERIALS AND METHODS

This retrospective study was conducted in the Department of Urology at Ankara Etlik City Hospital and included all patients who underwent open radical cystectomy with urinary diversion between October 20, 2022 and October 20, 2024. Patient data were obtained from the hospital's electronic medical record system. The study protocol was approved by the Ankara Etlik City Hospital Scientific Research Evaluation and Ethics Committee (Approval Number: AEŞH-BADEK-2024-1123, Date: 27.11.2024). All procedures were performed in accordance with the ethical standards of the Declaration of Helsinki, and informed consent was obtained from all participants.

Inclusion and Exclusion Criteria

Eligible participants were adult patients who underwent open radical cystectomy with urinary diversion via either ileal conduit or orthotopic neobladder reconstruction, regardless of age, sex, or comorbid conditions, provided that the pathological tumor stage ranged from T1 to T4a. Patients were excluded if they underwent ureterocutaneostomy, experienced perioperative mortality, required postoperative intensive care unit admission, presented with ileus prior to surgery, or had non-muscle-invasive bladder cancer with a pathological stage below T1 or above T4a.

Group Design

Standard bowel preparation was not performed prior to surgery. Patients followed a restricted diet for one day before the procedure, and oral intake was discontinued 8 hours preoperatively. Prophylactic cefazolin and metronidazole were administered one hour before surgery. Fluid replacement was individualized according to the patient's clinical condition, fluid deficit, and electrolyte balance. Patients were stratified into two groups according to the ileo-ileal anastomosis technique used. Group 1 consisted of patients who underwent end-to-end hand-sewn ileo-ileal anastomosis, whereas Group 2 included patients who underwent side-to-side stapled ileo-ileal anastomosis. The choice of surgical technique and type of urinary diversion was determined based on surgeon prefer-

ence and patient-specific factors. Manual anastomoses were performed using absorbable sutures, whereas stapled anastomoses were constructed using standardized stapling devices.

Data Collection and Parameters

Demographic and clinical data collected included sex, age, body mass index (BMI), smoking history, and the presence of comorbidities such as hypertension (HT), diabetes mellitus, and hyperlipidemia (HL). Additional clinical variables included preoperative constipation, history of prior abdominal surgery, and chemotherapy details, including treatment regimen. Preoperative laboratory parameters recorded were hemoglobin, albumin, urea, creatinine, electrolytes, glycated hemoglobin (HbA1c), and lipid profile. Bladder cancer history was documented, including the number and cumulative duration of previous transurethral resections of bladder tumor (TURBT), the largest tumor size, pathological findings from TURBT and radical cystectomy specimens, lymph node dissection status, and nodal pathology.

Perioperative variables included the type of urinary diversion, anastomosis technique and duration, stapler size and manufacturer (when applicable), total operative time, estimated intraoperative blood loss, requirement for blood transfusion, and adherence to Enhanced Recovery After Surgery (ERAS) protocols. Postoperative outcomes assessed included the occurrence of postoperative ileus, intestinal complications, need for reoperation, time to first mobilization, and time to first passage of flatus or stool.

Outcome Measures

The primary outcome was the incidence of postoperative ileus in each anastomosis group. POI was defined as intolerance to oral intake accompanied by abdominal distension and absence of flatus or bowel movements beyond postoperative day five, requiring medical or surgical management. Postoperative complications were classified according to the Clavien-Dindo classification system.^[13] Secondary outcomes included the identification of risk factors associated with POI based on perioperative variables and patient demographic characteristics.

Statistical Analysis

Statistical analyses were performed using SPSS Statistics version 22.0 (IBM, New York, USA). Continuous variables were presented as mean±standard deviation or median with interquartile range, depending on the distribution of the data. Comparisons between groups were performed using the Student's t-test or Mann-Whitney U test, as appropriate. Categorical variables were expressed as frequencies and percentages and compared using the chi-square test or Fisher's exact test. Comparative analyses were conducted between the two independent groups (end-to-end versus side-to-side anastomosis). A two-tailed t-test was used for normally distributed continuous variables, whereas the Mann-Whitney U test was applied for nonparametric data. Sample size calculation was performed assuming an effect size of 0.5, $\alpha=0.05$, and a power

of 80%, resulting in a required sample size of 29 patients per group (58 patients in total). Receiver operating characteristic (ROC) curve analysis was performed to evaluate the discrimi-

native ability of significant variables for predicting POI, and the area under the curve (AUC) with 95% confidence intervals was calculated. Logistic regression analyses were used to

Table 1. Baseline demographic, clinical, and perioperative characteristics of patients undergoing radical cystectomy with urinary diversion

Variable	Group 1: End-to-end hand-sewn (n=38)	Group 2: Side-to-side stapled (n=33)	p-value
Sex		0.75	
Male	35 (92.1%)	30 (90.9%)	
Female	3 (7.9%)	3 (9.1%)	
Age (mean±SD)	66.5±7.4	66.0±7.2	0.84
Smoking	29 (76.3%)	26 (78.8%)	0.82
Hypertension	23 (60.5%)	20 (60.6%)	0.99
Diabetes mellitus	14 (36.8%)	13 (39.4%)	0.82
BMI (kg/m ²)			0.95
<18.5	3 (7.9%)	2 (6.1%)	
18.5–30	29 (76.3%)	26 (78.8%)	
>30	6 (15.8%)	5 (15.1%)	
Constipation	8 (21.1%)	7 (21.2%)	0.99
Prior TURBT	17 (44.7%)	14 (42.4%)	0.85
Prior abdominal surgery	5 (13.2%)	4 (12.1%)	0.88
Chemotherapy	14 (36.8%)	13 (39.4%)	0.82
Anemia	6 (15.8%)	5 (15.2%)	0.95
Hypoalbuminemia	5 (13.2%)	5 (15.2%)	0.82
Renal insufficiency	3 (7.9%)	3 (9.1%)	0.85
Surgical approach			—
Open radical cystectomy	38 (100%)	33 (100%)	
Urinary diversion			0.98
Ileal conduit	29 (76.3%)	25 (75.8%)	
Orthotopic neobladder	9 (23.7%)	8 (24.2%)	
PLND	34 (89.5%)	30 (90.9%)	0.89
Operative time (hours, mean±SD)	4.7±0.9	4.8±0.8	0.74
Intestinal reconstruction time (minutes, mean±SD)	49.5±5.3	35.0±5.0	0.01
Blood loss (mL, mean±SD)	370±320	360±290	0.89
Blood transfusion	15 (39.5%)	12 (36.4%)	0.79
Pathological stage			0.88
T1	2 (5.3%)	3 (9.1%)	
T2	24 (63.2%)	21 (63.6%)	
T3	9 (23.7%)	8 (24.2%)	
T4	3 (7.9%)	1 (3.0%)	
Postoperative time to first flatus (days, mean±SD)	4.08±0.26	3.88±0.29	0.629
Postoperative time to first bowel movement (days, mean±SD)	6.00±0.33	6.30±0.43	0.930
Postoperative time to first mobilization (days, mean±SD)	1.95±0.15	3.88±0.28	0.651

PLND: Pelvic lymph node dissection; TURBT: Transurethral resection of bladder tumor; BMI: Body mass index

identify predictors of POI. Variables with a p -value <0.1 in univariate analysis were included in the multivariate model. A p value <0.05 was considered statistically significant.

RESULTS

A total of 71 patients who underwent open radical cystectomy with urinary diversion were included in the study. All procedures were performed using an open surgical approach. Of these, 38 patients (53.5%) underwent end-to-end hand-sewn ileo-ileal anastomosis (Group 1), whereas 33 patients (46.5%) received side-to-side stapled anastomosis (Group 2). Baseline demographic and clinical characteristics were similar between the two groups (Table 1).

Postoperative ileus occurred in nine patients (23.7%) in the end-to-end hand-sewn anastomosis group and in four patients (12.1%) in the side-to-side stapled anastomosis group, indicating a significantly lower incidence in the stapled group compared to the hand-sewn group ($p=0.001$). Univariate logistic regression identified several variables associated with an increased risk of POI. Patients aged ≥ 65 years had a significantly higher likelihood of developing POI (odds ratio [OR]: 2.10, 95% confidence interval [CI]: 1.32–3.30; $p=0.002$). Both underweight (BMI <18.5 ; OR: 2.50, 95% CI: 1.07–5.85; $p=0.038$) and obese patients (BMI >30 ; OR: 3.00, 95% CI: 1.70–5.20; $p=0.001$) demonstrated an increased risk of POI. Preoperative constipation was also identified as a significant predictor (OR: 1.84, 95% CI: 1.10–3.10; $p=0.023$), as was hypoalbuminemia (OR: 2.63, 95% CI: 1.51–4.60; $p=0.001$). Operative time was strongly associated with POI, with each additional 30 minutes of surgery increasing the odds of POI approximately threefold (OR: 3.02, 95% CI: 2.29–3.99; $p=0.001$).

Multivariate logistic regression analysis confirmed that side-to-side stapled anastomosis significantly reduced the risk of POI (OR: 0.30, 95% CI: 0.13–0.72; $p=0.001$), independent of other variables. Additionally, age ≥ 65 years (OR: 2.00, 95% CI: 1.20–3.30; $p=0.004$), abnormal BMI categories (underweight: OR: 3.00, 95% CI: 1.70–5.20; $p=0.001$; obese: OR: 1.58, 95% CI: 1.04–2.42; $p=0.034$), constipation (OR: 1.85, 95% CI: 1.10–3.10; $p=0.020$), hypoalbuminemia (OR: 2.75, 95% CI: 1.56–4.86; $p=0.001$), and prolonged operative time (OR: 3.00, 95% CI: 2.28–3.99; $p=0.001$) remained independent predictors of POI.

No significant associations were observed between POI and other variables, including sex, smoking status, hypertension, diabetes mellitus, anemia, prior abdominal surgery, pathological tumor stage, or type of urinary diversion (Table 2).

Receiver operating characteristic curve analysis demonstrated that the multivariate model predicting POI had strong discriminative ability, with an AUC of 0.87 (95% CI: 0.79–0.94, $p<0.001$) (Fig. 1). Among individual predictors, operative time showed the highest predictive accuracy for POI (AUC: 0.82, 95% CI: 0.73–0.91), followed by serum albumin level (AUC: 0.79, 95% CI: 0.70–0.88) and anastomosis technique (stapled

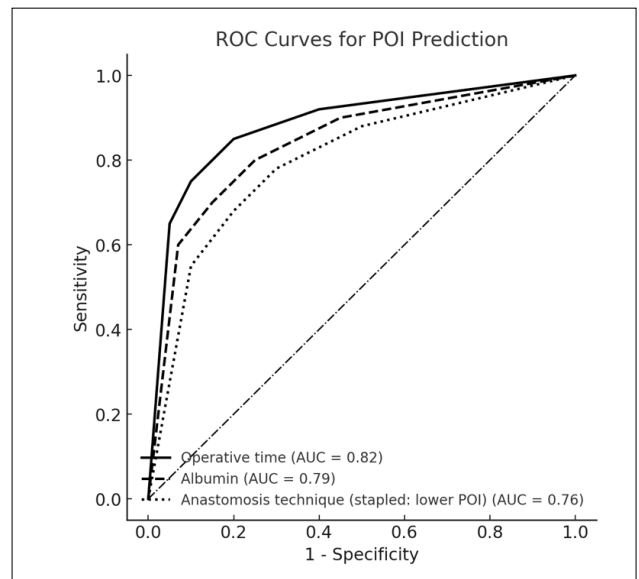


Figure 1. Receiver operating characteristic (ROC) curve of the multivariable model predicting postoperative ileus.

vs. hand-sewn) (AUC: 0.76, 95% CI: 0.66–0.86; $p=0.001$). The optimal cut-off values, determined using the Youden index, were >310 minutes for operative time and <3.5 g/dL for serum albumin.

DISCUSSION

In this retrospective study evaluating postoperative ileus in patients undergoing radical cystectomy with urinary diversion, we found that side-to-side stapled ileo-ileal anastomosis was associated with a significantly lower incidence of POI compared to the end-to-end hand-sewn technique. Additionally, several independent risk factors for POI were identified, including advanced age (≥ 65 years), abnormal body mass index (both underweight and obesity), preoperative constipation, hypoalbuminemia, and prolonged operative time. Other variables such as sex, smoking status, hypertension, diabetes mellitus, anemia, prior abdominal surgery, pathological tumor stage, and type of urinary diversion were not significantly associated with POI.

Abnormal BMI is associated with an increased risk of postoperative ileus. Hinojosa-Gonzalez et al.^[14] reported that the incidence of major complications increases with the severity of malnutrition in patients with low BMI, cachexia, and hypoalbuminemia. In their study, the need for blood transfusion and mortality rates were approximately doubled, and patients with low BMI experienced longer hospital stays.

Our findings are consistent with those reported by Schineis et al.^[13] in their retrospective study, in which stapled anastomosis was associated with reduced operative time and lower postoperative complication rates, including POI. Similarly, in our cohort of 71 patients undergoing radical cystectomy with urinary diversion, the incidence of POI was significantly lower

Table 2. Logistic regression analysis of risk factors for postoperative ileus

Variable	Univariable OR (95% CI)	p-value	Multivariable OR (95% CI)	p-value
Sex				
Male	1.17 (0.65–2.10)	0.65	–	–
Female	Ref	Ref	Ref	Ref
Smoking				
Yes	1.34 (0.85–2.11)	0.21	–	–
No	Ref	Ref	Ref	Ref
Hypertension				
Yes	0.92 (0.54–1.55)	0.79	–	–
No	Ref	Ref	Ref	Ref
Diabetes mellitus				
Yes	0.85 (0.46–1.56)	0.65	–	–
No	Ref	Ref	Ref	Ref
Anemia				
Yes	1.07 (0.58–1.97)	0.88	–	–
No	Ref	Ref	Ref	Ref
Prior TURBT				
Yes	1.10 (0.70–1.73)	0.73	–	–
No	Ref	Ref	Ref	Ref
Chemotherapy				
Yes	1.17 (0.74–1.85)	0.55	–	–
No	Ref	Ref	Ref	Ref
Surgical approach				
End-to-end (hand-sewn)	Ref	Ref	Ref	Ref
Side-to-side (stapled)	0.35 (0.15–0.80)	0.012*	0.30 (0.13–0.72)	0.001*
Estimated blood loss				
Per 100 mL increase	1.05 (0.88–1.24)	0.62	–	–
Pathological stage				
T1	Ref	Ref	Ref	Ref
T2	2.55 (0.75–8.60)	0.15	–	–
T3	2.45 (0.68–8.80)	0.16	–	–
T4	2.50 (0.58–10.80)	0.30	–	–
Intestinal reconstruction time	Per 5 min. increase	1.20 (0.95–1.52)	0.10	–
Age				
<65 years	Ref	Ref	Ref	Ref
≥65 years	2.10 (1.32–3.30)	0.002*	2.00 (1.20–3.30)	0.004*
BMI				
<18.5	2.50 (1.07–5.85)	0.038*	3.00 (1.70–5.20)	0.001*
18.5–30	Ref	Ref	Ref	Ref
>30	3.00 (1.70–5.20)	0.001*	1.58 (1.04–2.42)	0.034*
Constipation				
Yes	1.84 (1.10–3.10)	0.023*	1.85 (1.10–3.10)	0.020*
No	Ref	Ref	Ref	Ref
Renal insufficiency				
Yes	1.74 (0.85–3.58)	0.15	1.70 (0.85–3.58)	0.13
No	Ref	Ref	Ref	Ref
Prior abdominal surgery				

Yes	1.77 (0.97–3.25)	0.086	2.08 (1.01–4.31)	0.073
No	Ref	Ref	Ref	Ref
Hypoalbuminemia				
Yes	2.63 (1.51–4.60)	0.001*	2.75 (1.56–4.86)	0.001*
No	Ref	Ref	Ref	Ref
Urinary diversion				
Ileal conduit	Ref	Ref	Ref	Ref
Ileal neobladder	1.49 (0.90–2.47)	0.14	1.58 (0.94–2.65)	0.08
PLND				
Yes	1.95 (0.46–1.14)	0.17	0.70 (0.44–1.12)	0.14
No	Ref	Ref	Ref	Ref
Blood transfusion				
Yes	1.47 (0.93–2.32)	0.10	1.47 (0.93–2.32)	0.097
No	Ref	Ref	Ref	Ref
Operative time	Per 30 min. increase	3.02 (2.29–3.99)	0.001*	3.00 (2.28–3.99)

POI incidence: 23.7% (9/38) in the hand-sewn group vs. 12.1% (4/33) in the stapled group (p=0.001). PLND: Pelvic lymph node dissection; TURBT: Transurethral resection of bladder tumor; BMI: Body mass index.

in the side-to-side stapled group (p=0.001), supporting the beneficial impact of stapled anastomosis on postoperative bowel recovery. In a prospective study of elective gastrointestinal surgeries, stapled anastomosis was shown to reduce operative time, accelerate the return of bowel function, shorten hospital stay, and decrease anastomotic leak rates compared to hand-sewn techniques. Additionally, the stapled group demonstrated a lower rate of surgical site infections, while pain scores and the relationship between albumin levels and leak rates did not differ significantly between the groups.^[15] However, not all studies support this finding. Lahes et al.,^[16] in a study including 339 patients, found no significant difference in POI rates between hand-sewn and stapled anastomosis. The authors suggested that outcomes may be more strongly influenced by surgeon experience and perioperative management protocols rather than by the anastomotic technique itself. Furthermore, the meta-analysis by Feng et al.^[17] highlighted considerable heterogeneity among studies and emphasized the limited number of large randomized controlled trials, underscoring the need for more reliable data to establish definitive conclusions.

The role of preoperative constipation as a risk factor for POI, observed in approximately 21% of patients in both groups, is supported by evidence from the colorectal surgery literature. Xue et al.,^[18] in their retrospective study, reported that baseline bowel dysmotility increases susceptibility to prolonged postoperative ileus. Hypoalbuminemia was detected in 13.2% and 15.2% of patients in Groups 1 and 2, respectively, and significantly increased the risk of postoperative ileus in our study (OR: 2.75, 95% CI: 1.56–4.86; p=0.001). Similarly, Sun et al.^[19] retrospectively analyzed 452 patients with bladder cancer undergoing radical cystectomy and identified hypoalbuminemia as an independent risk factor for POI, subsequently incor-

porating this variable into a nomogram designed to predict POI occurrence. Unlike the study by Sun et al.,^[19] our analysis additionally evaluated the impact of anastomosis technique on POI incidence and demonstrated that side-to-side stapled anastomosis significantly reduced the risk of POI. Although operative times were similar between the two groups (mean 4.7±0.9 hours in the hand-sewn group vs. 4.8±0.8 hours in the stapled group; p=0.74), prolonged operative duration independently increased the risk of POI (OR: 3.00, 95% CI: 2.28–3.99; p=0.001). This finding is consistent with previous surgical literature emphasizing that longer operative times lead to greater tissue trauma and inflammatory responses, thereby delaying the recovery of bowel function.^[20] Other variables, including sex, smoking status, hypertension, diabetes, anemia, prior abdominal surgery, tumor stage, and type of urinary diversion, were not significantly associated with POI.

This study has several strengths that support the reliability of its findings. First, the analysis included a relatively homogeneous cohort of patients who underwent open radical cystectomy with either ileal conduit or orthotopic neobladder, ensuring consistency in the surgical approach. This homogeneity allowed for a clearer assessment of the impact of anastomosis technique on POI. Additionally, the availability of detailed perioperative data enabled the use of multivariable logistic regression to adjust for confounders such as age, BMI, nutritional status, and operative time, thereby strengthening the reliability of the risk factor analysis.

However, several limitations should be acknowledged. Since this was a retrospective study, there is a potential risk of selection bias and the presence of unmeasured confounding factors. Surgeon preference may have influenced the choice of anastomosis technique, which could have affected the results independently of the technique itself. Additionally, the total

number of patients (n=71) was relatively small, limiting the ability to perform detailed subgroup analyses or generalize the results to a wider population. Furthermore, perioperative care was not standardized; for example, ERAS protocols were not implemented, which may have influenced POI rates and makes comparisons with other centers more difficult. Finally, the follow-up period was not clearly defined, limiting the assessment of long-term bowel function.

Our findings suggest that side-to-side stapled ileo-ileal anastomosis may reduce the risk of POI after radical cystectomy with urinary diversion. Surgeons should also consider patient-related factors such as advanced age, abnormal BMI, preoperative constipation, and low albumin levels when planning surgical management. Optimization of nutritional status and management of constipation before surgery may help improve postoperative recovery. Additionally, operative duration appears to be an important factor, as longer procedures were associated with an approximately threefold increase in POI risk in our cohort. These findings highlight the importance of careful surgical planning and strategies aimed at reducing operative time, including the potential use of minimally invasive approaches.

Future prospective randomized studies are needed to provide clearer comparisons between anastomosis techniques and to standardize perioperative care, including ERAS protocols.

CONCLUSION

In conclusion, this retrospective study of 71 patients demonstrated that side-to-side stapled ileo-ileal anastomosis was associated with a lower risk of postoperative ileus compared to end-to-end hand-sewn anastomosis. These findings highlight the importance of surgical technique and patient preparation in postoperative recovery. Larger prospective studies with standardized care protocols are needed to confirm these results and guide clinical practice.

Ethics Committee Approval: Ethics committee approval was obtained from the Ankara Etlik City Hospital Scientific Research Evaluation Ethics Committee (Date: 27.11.2024, Decision No: AEŞH-BADEK-2024-1123).

Informed Consent: Written informed consent was obtained from all patients.

Peer-review: Externally peer-reviewed.

Authorship Contributions: Concept: F.S., M.Y.A.; Design: F.S., M.Y.A., A.E.D.; Supervision: M.A.İ.; Resource: F.S., A.Y., A.O.H.; Materials: F.S., M.Y.A.; Data Collection and/or Processing: F.S., M.Y.A., A.E.D.; Analysis and/or Interpretation: F.S., M.Y.A., M.A.İ.; Literature Review: F.S., A.E.D.; Writing: F.S., M.Y.A., M.A.İ.; Critical Review: M.A.İ.

Conflict of Interest: The authors have no conflicts of interest to declare.

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

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ORİJİNAL ÇALIŞMA - ÖZ

Cerrahi bir zorluk olarak ameliyat sonrası ileus: Radikal sistektomide uç-uç ve yan-yan ileal anastomozun karşılaştırmalı sonuçları

AMAÇ: Bu çalışmanın amacı, uç uca elle dikilmiş ve yan yana zımbalanmış ileoileal anastomozlar arasında ameliyat sonrası ileus (POI) sıklığını karşılaştırmak ve POI ile ilişkili bağımsız risk faktörlerini belirlemektir.

GEREÇ VE YÖNTEM: Ekim 2022 ile Ekim 2024 tarihleri arasında Ankara Etlik Şehir Hastanesi'nde radikal sistektomi ve idrar diversiyonu uygulanan hastaları geriye dönük olarak analiz ettik. Hastalar anastomoz tekniğine göre gruplandırıldı: Uç uca elle dikilmiş veya yan yana zımbalanmış. Demografik bilgiler, komorbiditeler, ameliyat öncesi laboratuvar değerleri, ameliyat detayları ve ameliyat sonrası sonuçlar dahil olmak üzere perioperatif veriler toplandı. POI, ameliyat sonrası beşinci günden sonra karın distansiyonu, gaz veya dışkı olmaması ve tıbbi veya cerrahi müdahale gerektiren oral alımı tolere edememe olarak tanımlanmıştır. POI için risk faktörlerini belirlemek amacıyla tek değişkenli ve çok değişkenli lojistik regresyon analizleri kullanılmıştır.

BULGULAR: Toplam 71 hasta dahil edildi. El dikişli grupta 9 hastada (%23.7) ve zımbalı grupta 4 hastada (%12.1) ameliyat sonrası ileus (POI) görülmüş olup, bu da zımbalı grupta anlamlı derecede daha düşük bir insidansı gösterdi. Çok değişkenli analiz, yan yana stapler anastomozunun POI riskini bağımsız olarak azalttığını belirledi. Diğer bağımsız öngörücüler arasında yaş ≥ 65 , anormal BMI, ameliyat öncesi kabızlık, hipoalbuminemi ve uzamış ameliyat süresi yer alıyordu. ROC eğrisi analizi, modelin iyi bir öngörücü performans gösterdiğini ortaya koydu.

SONUÇ: Üriner diversiyonlu radikal sistektomide yan yana zımbalı ileo-ileal anastomoz, uç uca el dikişli anastomozla karşılaştırıldığında ameliyat sonrası ileus riskinin daha düşük olmasıyla ilişkilidir.

Anahtar sözcükler: Elle dikilmiş anastomoz; ileal anastomoz; ameliyat sonrası ileus; radikal sistektomi; risk faktörleri; zımbalı anastomoz; üriner diversiyon.

Ulus Travma Acil Cerrahi Derg 2026;32(5):544-551 DOI: 10.14744/tjtes.2026.79776