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**SCIENTIFIC PROGRAM**

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# VIDEO PRESENTATIONS

## [V-002]

### Treatment of anastomotic leakage using a low-cost modified EndoVAC system: Clinical experience

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**Objective:** Anastomotic leakage following low anterior resection is one of the most serious complications of colorectal surgery and is associated with increased morbidity, mortality, and healthcare costs. Although endoscopic vacuum therapy (EndoVAC) is an effective treatment modality, the commercial systems are expensive. This study presents the technical details and clinical outcomes of a low-cost modified EndoVAC system created using conventional abdominal VAC sets available in our clinic.

**Material and Methods:** EndoVAC therapy was applied to three patients who underwent surgery for colorectal malignancy and were diagnosed with postoperative anastomotic leakage either clinically or radiologically. Pre-procedural imaging, laboratory values, length of hospital stay, number of EndoVAC sessions, and early and long-term outcomes were retrospectively evaluated. The EndoVAC system was assembled using standard abdominal VAC sponges and a nasogastric tube. The sponge was cut to fit the size of the leakage cavity, and a 14-16 F nasogastric tube was passed through its center so that the drainage holes remained embedded within the sponge, then secured with sutures. Under endoscopic guidance, a transparent guiding sheath was introduced into the cavity, and the sponge was advanced through this sheath to the leakage site. The distal end of the nasogastric tube was connected to the VAC device, and a negative pressure of 80-120 mmHg was applied. The system was replaced every 2-3 days under endoscopic visualization. Larger-caliber tubes were found to be ineffective due to dead-space formation and insufficient suction; therefore, narrower tubes were preferred.

**Results:** The procedure was technically successful in all three cases. After approximately 3-5 treatment sessions, cavity shrinkage and granulation tissue formation were achieved, and no patient required reoperation.

**Conclusion:** The low-cost modified EndoVAC system is an effective, safe, and cost-efficient alternative for the treatment of anastomotic leakage. Its applicability is particularly high in resource-limited settings.

**Keywords:** Anastomotic leakage, low-cost EndoVAC, endoscopic vacuum therapy

## [V-004]

### Laparoscopic adhesiolysis, a series of 5 cases

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**Objective:** Adhesions are the most common cause of mechanical small bowel obstruction. Adhesions most frequently occur after previous surgery. Laparoscopic adhesiolysis has been used safely in recent years with appropriate patient selection. In this article, we aim to present our experience with 5 cases undergoing laparoscopy due to small bowel obstruction.

**Material and Methods:** The ages of our patients, whose data were retrospectively reviewed, ranged from 38 to 77 years. Four patients presented to the emergency department with non-specific complaints such as nausea, vomiting, and abdominal pain. Preoperative abdominal tomography was performed on all patients. Four patients underwent surgery on the day of diagnosis, while one patient underwent surgery after 3 days of clinical follow-up due to persistent symptoms. In the 4 patients who underwent surgery on the same day, a single-banded transition zone was suspected. Two patients had no history of previous abdominal surgery. Three patients had a history of appendectomy. The surgery was completed laparoscopically in two patients, revealing a single-banded transition zone. Conversion to open surgery was required in three patients. The reasons for conversion were limited exploration, small bowel injury, and the presence of extensive adhesions. The preferred incisions for conversion were laparotomy, mini-laparotomy, and the old McBurney incision. Patients who underwent laparoscopic completion were discharged on the 2nd and 3rd days, while the discharge times for the other patients ranged from 7 to 13 days. The reasons for prolonged hospitalisation were delayed gas and stool discharge and the persistence of ileus on direct radiography. Nevertheless, none of the patients required readmission or hospitalisation after discharge.

**Results and Conclusion:** Laparoscopy may be considered an appropriate approach, particularly in patients with a distinct transition zone where a single band is thought to cause the pathology. Conversion to open surgery should not be considered a failure.

**Keywords:** Laparoscopic adhesiolysis, ileus

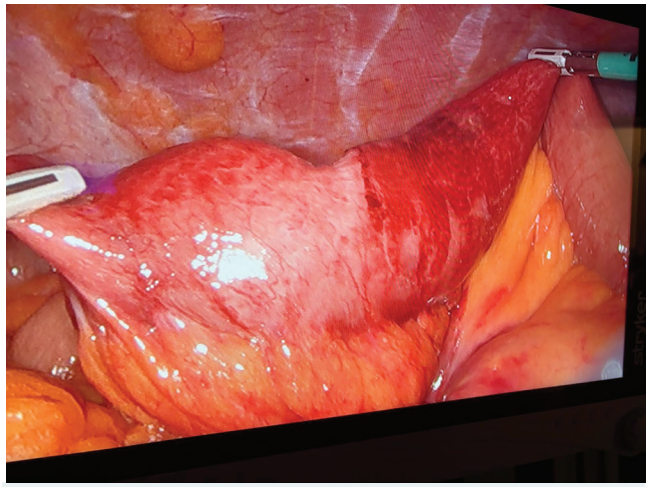

Figure 1. The segment of the small intestine where the transition zone is located following laparoscopic adhesiolysis.

**Table 1. Patient data**

| Case number | Age | Gender | Surgical history, incision | Time to surgery after admission | Operation | Reason for conversion, incision | Length of hospital stay (days) |
|---|---|---|---|---|---|---|---|
| Case-1 | 38 | Female | Appendectomy, McBurney | Same day | Laparoscopic adhesiolysis | - | 2 |
| Case-2 | 64 | Male | None | Same day | Laparoscopic adhesiolysis | - | 3 |
| Case-3 | 60 | Male | Appendectomy, McBurney | Same day | Conversion adhesiolysis | Limited exploration, mini laparotomy | 7 |
| Case-4 | 77 | Male | None | Same day | Conversion adhesiolysis + small bowel primary repair | Small bowel injury, laparotomy | 13 |
| Case-5 | 42 | Male | Appendectomy, McBurney | Day 3 | Conversion/ileocecal resection + ileocolonic anastomosis | Extensive and dense adhesions, small bowel injury, old McBurn | 8 |

## [V-006]

### The use of wound debridement and aspiration devices in laparoscopic hydatid cyst surgery

Ramazan Onuş, Serkan Demir, Engin Ölçücüoğlu

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**Objective:** In laparoscopic hydatid cyst surgery, it is important to drain the cyst contents without causing contamination. This report aims to present a case in which we performed cholecystectomy along with laparoscopic hydatid cyst surgery.

**Material and Methods:** A 64-year-old male patient presented to the outpatient clinic with a complaint of pain in the right upper quadrant of the abdomen for approximately one month. Imaging revealed a lesion consistent with a type 3 hydatid cyst measuring 12x11x9 cm in the right lobe of the liver. In addition, multiple stones, the largest measuring 12 mm, were detected in the gallbladder. The patient was scheduled for a cholecystectomy operation along with laparoscopic hydatid cyst surgery. Following laparoscopic cholecystectomy, hypertonic saline-soaked gauze pads were placed around the cyst. After injecting hypertonic saline into the cyst using a Veres needle, a 10-minute wait period was observed. Subsequently, the cyst contents were aspirated. The microvesicles were aspirated using a debridement and aspiration device. The germinative membrane was also fragmented and aspirated. Part of the cyst wall was then removed. The cyst wall was examined for haemostasis and bile leakage. No bile leakage was observed. It was noted that the germinative membrane was absent. Omentopexy was performed. A diet was prescribed on the same day postoperatively. The patient was discharged on the 5th postoperative day. No bile leakage or haemorrhage was observed from the drains. No recurrence was detected in the 6-month follow-up imaging.

**Results and Conclusion:** We observed that the device used provided convenience for the procedure. We believe that it can be used as an alternative surgical instrument in laparoscopic hydatid cyst surgery and can be developed specifically for this field. We declare that we have no conflict of interest with any person, institution or company.

**Keywords:** Hydatid cyst, minimally invasive surgery

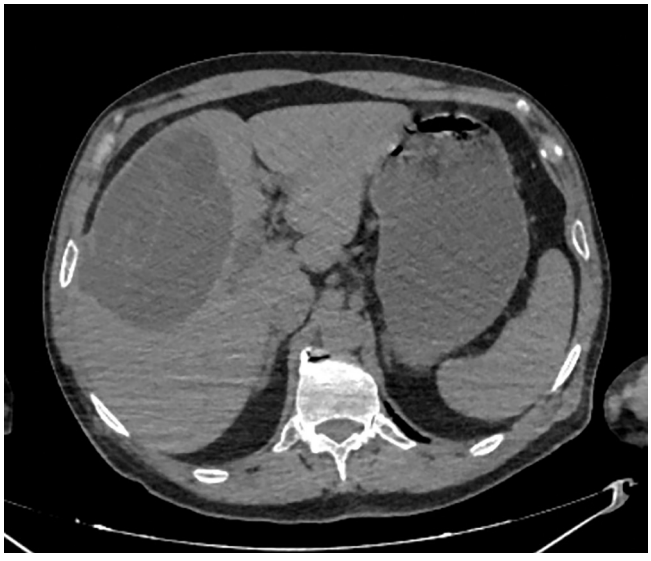

**Figure 1.** Hydatid cyst filling the anterior portion of the right lobe of the liver prior to surgery.

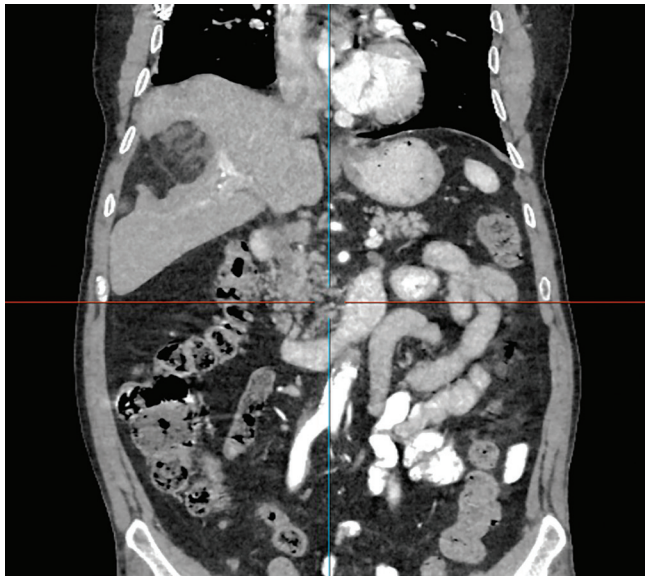

**Figure 2.** No recurrence or collection on the 6-month follow-up CT scan.

*CT: Computed tomography*

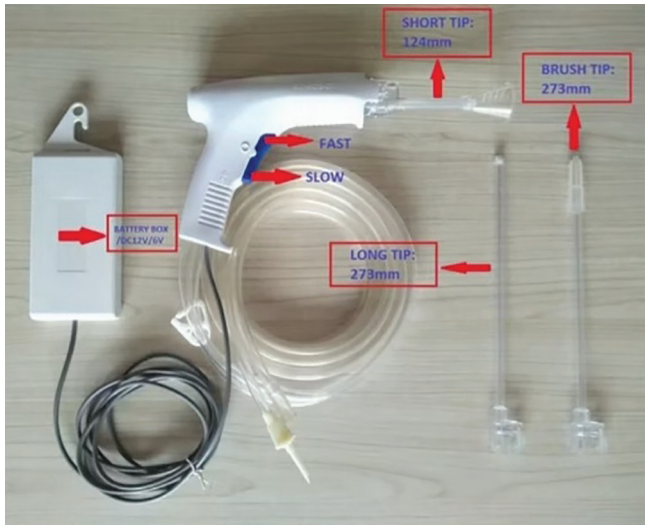


**Figure 3.** Washer and aspirator function device.

# ORAL PRESENTATIONS

## [S-002]

### Academic productivity, thesis progress, and mentor accessibility among surgical residents: A single-center cross-sectional analysis

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**Objective:** This study aimed to evaluate surgical residents' academic productivity, thesis progress, and mentor accessibility, their English proficiency and statistical knowledge, and analyze relationships among these variables. Although the adequacy of academic guidance and mentorship in residency programs is frequently discussed, contemporary quantitative evidence is limited. By describing the current status, this study intends to inform improvements in residency training and emphasize the need for further evidence-based evaluation.

**Material and Methods:** A cross-sectional online survey was conducted in 2025 among 76 surgical residents at a tertiary care center. Thirty-six-item questionnaire assessed residency year, academic output, thesis stage, mentor accessibility, research habits, self-perceived competencies, and statistical literacy. Data were collected using Google Forms, and analyzed with chi-square tests, Spearman, two-tailed t-tests. Statistical significance was defined as $p<0.05$.

**Results:** Participants included 12 first-year, 23 second-year, 20 third-year and 21 senior residents. Residency year was significantly associated with the number of publications produced in the previous 24 months ($p=0.0026$), with a marked increase in the 4th and 5th years. Thesis stage correlated strongly with residency level ($p<0.000001$): early-year residents often reported having "not started" or being in the "literature review" phase, whereas thesis completion reached 70% among fifth-year residents. However, mentor accessibility did not significantly correlate with thesis stage ($p=0.12$), and reports of insufficient accessibility appeared independent of thesis progress.

**Conclusion:** Although academic productivity and thesis advancement improve with seniority, mentor accessibility doesn't show parallel trend. These findings suggest; research engagement relies largely on individual initiative rather than structured mentorship. Limited English proficiency and inadequate statistical knowledge reduce academic efficiency. Strengthening research culture will require structured mentorship models, protected academic time, systematic thesis-monitoring mechanisms, training in biostatistics, scientific writing, and English proficiency. Multicenter studies're recommended to validate these findings and guide evidence-based improvements in surgical residency education.

## [S-003]

### Bibliometric analysis of publications in abdominal wall surgery: 35-year data from Türkiye

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**Objective:** Abdominal wall hernias represent one of the most frequently operated patient groups in general surgical practice. Along with the high surgical volume, the scientific dissemination of outcomes through publication has become increasingly important. Citation count is among the key parameters used to evaluate the scientific impact and visibility of academic publications. This study aims to analyze the characteristics and citation trends of publications from Türkiye related to abdominal wall surgery (AWS).

**Material and Methods:** A comprehensive search was conducted in the Web of Science database in February 2025 using the keywords "inguinal hernia," "incisional hernia," "ventral hernia," "parastomal hernia," "femoral hernia," "chronic groin pain," "MeSH," "hernia and surgical site infection," "incarcerated hernia," and "strangulated hernia." Clinical research articles authored from Türkiye and published up to the end of 2024 were included. Articles not indexed in SCI, SCIE, or ESCI, as well as those categorized outside surgical fields, were excluded. Quantitative publication data and the top 50 most cited articles were analyzed.

**Results:** A total of 367 articles were included. Inguinal hernia was the most common research topic, accounting for 250 articles (68.1%). Publication distribution by decade was as follows: 1989-1999: 10 (2.7%), 2000-2009: 64 (17.4%), 2010-2019: 179 (48.8%), and 2020-2024: 114 (31.1%). University hospitals produced the highest number of publications (163; 44.4%). İstanbul had the highest city-based publication volume. Regarding journal indexing, 248 articles (67.6%) were published in SCIE journals and 119 (32.4%) in ESCI journals. The mean citation count across all articles was $8.6\pm15.2$. Among the top 50 cited articles, most focused on inguinal hernia, were published between 2010 and 2019, and originated from university hospitals—predominantly those based in Ankara. The journal Hernia was identified as the most frequent publication venue. When citations were compared across topics, articles related to surgical site infections had significantly higher citation counts than others. Citation numbers were found to decline significantly in recent years. Publications from university hospitals had significantly higher citation impact.

**Conclusion:** Although the number of publications related to AWS in Türkiye has increased over time, citation rates have shown a decreasing trend. In addition to increasing publication quantity, improving scientific quality may help reverse this decline. Furthermore, initiatives such as hernia-related societies offering writing courses and supporting broader journal access may contribute to enhanced publication quality and citation performance.

## [S-008]

### The relationship between paramedical and sociological factors and performance among general surgery residents: A sociological analysis of seniority-related differences

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**Objective:** Resident performance in surgical training is shaped not only by technical proficiency but also by physiological and sociological conditions. Factors such as sleep deprivation, hunger, operating room workload, communication dynamics, and environmental stimuli—including music—may influence attention, decision-making, and technical skill. Limited research has explored how these paramedical and sociological factors vary across different levels of seniority during residency. Understanding these differences is essential for optimizing training environments and promoting both resident performance and patient safety. Surgical practice is known to extend beyond technical skills, with residents' physiological and sociological conditions also playing a decisive role in professional performance. This study aims to evaluate the perceptions of paramedical and sociological factors among residents working in the General Surgery Department of University of Health Sciences Türkiye, Ankara Etlik City Hospital and to examine how these perceptions vary by level of seniority.

**Material and Methods:** An anonymous survey was administered to general surgery residents (n=88; postgraduate years 1-5). Continuous variables included age, sleep duration, time spent in the operating room, self-rated performance score (0-10), and concern about making mistakes (0-10). Likert-type (1-5) and categorical variables included perceptions of hunger, music, nutrition breaks, and communication. Differences between seniority groups were analyzed using the Kruskal-Wallis and chi-square tests.

**Results:** The mean age of participants was 28.5±2.2 years, and 71.6% were male. The mean sleep duration reported for the preceding 24 hours was 5.2 hours. Daily time spent in the operating room increased significantly with seniority, rising from 2.3 hours in PGY-1 to 6.6 hours in PGY-5 ($p<0.001$). Self-rated performance scores also increased significantly across seniority levels (PGY-1: 5.2 → PGY-5: 7.9; $p=0.006$), whereas concern about making mistakes did not differ significantly ($p>0.05$). Overall, 68.6% of residents reported that "assisting in surgery after an overnight shift negatively affected their attention," 64.4% stated that "hunger decreased performance," and 73.9% believed that "short snacking breaks during long operations would improve performance." Likert-scale analysis showed a significant difference only in the item "hunger affects performance more than music" ($p=0.014$), a perception that was more pronounced among junior residents. No significant differences were found regarding music or nutrition-related items. Additionally, 55.7% reported that music in the operating room improved their concentration, and 80.7% stated they would "prefer the attending surgeon to be well-fed during their operations."

**Discussion:** This study evaluated general surgery residents' perceptions of paramedical and sociological factors and examined how these perceptions vary by seniority. Variables such as sleep duration, time spent in the operating room, hunger, music, and communication were analyzed. Our findings demonstrate that surgical education encompasses not only technical skills but also the physiological and sociological conditions that shape residents' performance. First, regarding sleep duration and time spent in the operating room, the mean sleep duration in our cohort was 5.2 hours, while the time spent in the operating room increased progressively with seniority (2.3 hours in PGY-1 → 6.6 hours in PGY-5; $p<0.001$). This aligns with previous literature examining the influence of fatigue and physical exhaustion on surgical performance. For instance, the systematic review "Impact of fatigue in surgeons on performance and patient outcomes" reported that fatigue may negatively affect surgical skills and outcomes—showing approximately a 46% negative impact in simulator studies, with a lower yet still meaningful effect in real surgical settings. However, our finding that sleep duration did not differ significantly across levels of concern about making mistakes may suggest that among residents who have reached a certain threshold of competency, the measurable effects of sleep deprivation may be more complex and multifactorial. Factors related to hunger and nutrition were also noteworthy. In our study, 64.4% of participants stated that "hunger decreases performance," and 73.9% reported that "short snacking breaks during long operations improve performance." This is consistent with findings from the study "Total Fasting and Dehydration in the Operating Room," which demonstrated that prolonged fasting and dehydration negatively affect performance and well-being among surgeons and residents. Similarly, simulation-based studies evaluating hunger and stress have shown comparable detrimental effects on surgical performance. The significant difference across seniority groups in the perception that "hunger affects performance more than music" ($p=0.014$)—with stronger perceptions among junior residents—supports existing literature indicating that younger trainees may be more sensitive to physiological stressors. In terms of music and perceptions of the operating room environment, 55.7% of residents reported that music improved their concentration, whereas negative effects such as increased errors or communication difficulties were minimal (3.4%). This mirrors evidence from the systematic review "Operating room organization and surgical performance," which emphasized that workplace conditions, team stability, environmental organization, and distractors can influence surgical performance and patient safety. In this context, residents' perceptions of the operating room—music, opportunities for short nutrition breaks, communication dynamics—highlight the importance of sociological and environmental elements alongside technical performance. The progressive increase in performance scores across seniority (from 5.2 in PGY-1 to 7.9 in PGY-5; $p=0.006$), along with greater exposure to operative time, is consistent with known surgical learning curves. Interestingly, concern about making mistakes did not differ by seniority. This suggests that although experience increases, anxiety does not necessarily diminish and may remain stable due to increasing responsibility. This aligns with findings in the surgical education literature, where factors such as motivation, team support, and working conditions influence the relationship between fatigue and performance. These results reinforce the notion that surgical training should incorporate not only technical skill development but also structured attention to physiological, psychosocial, and environmental components. In conclusion, this study demonstrates meaningful associations between residents' physiological needs (sleep, nutrition), social and environmental perceptions (music, team communication, time in the operating room), and their performance perceptions. The findings highlight the importance of systematically addressing these multidimensional factors within surgical training programs to enhance both operative performance and patient safety.

**Conclusion:** Perceptions of paramedical and sociological factors were generally similar among general surgery residents. However, the seniority-related differences in perceptions regarding the impact of hunger on performance constitute a noteworthy finding. The significant increase in operating room exposure and self-rated performance with seniority—despite stable sleep duration and concern about errors—highlights that surgical training is not limited to technical competence alone. These findings suggest that systematically addressing residents' physiological needs, social conditions, and workload organization may be a critical component in improving both surgical performance and patient safety.

**Keywords:** General surgery resident, paramedical factors, hunger, music, seniority, performance

**Table 1. Demographic and performance characteristics by seniority level**

| Seniority year | n | Mean age (years) | Mean sleep duration (hours, last 24 h) | Mean operating room time (hours/day) | Mean self-rated performance score (0-10) | Mean error-related anxiety (0-10) |
|---|---|---|---|---|---|---|
| 1st year | 23 | 27.2 | 5.0 | 2.3 | 5.2 | 5.8 |
| 2nd year | 24 | 28.7 | 5.2 | 3.8 | 6.3 | 5.8 |
| 3rd year | 29 | 28.8 | 5.5 | 4.6 | 6.6 | 5.0 |
| 4th year | 4 | 29.8 | 4.7 | 6.3 | 8.3 | 7.5 |
| 5th year | 8 | 30.5 | 5.9 | 6.6 | 7.9 | 4.4 |

**Table 2. Perceptions by seniority: Likert items, communication, and suture speed**

**A. Likert items (mean scores, 1-5)**

| Seniority year | Post-call attention | Ability to have breakfast | Hunger affects performance | Error likelihood when hungry | Snacking break beneficial | Hunger affects more than music | Music improves technical skill | Music increases errors | Music impairs communication | Music taste mismatch | Combination (snack + music) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1st year | 3.82 | 1.96 | 3.83 | 3.57 | 3.91 | 3.91 | 3.70 | 2.17 | 2.17 | 2.35 | 3.74 |
| 2nd year | 3.83 | 2.12 | 3.79 | 3.62 | 4.25 | 3.75 | 3.62 | 2.25 | 2.25 | 2.52 | 4.25 |
| 3rd year | 3.97 | 2.24 | 3.25 | 3.07 | 3.52 | 2.90 | 3.55 | 1.83 | 2.31 | 2.90 | 3.97 |
| 4th year | 4.33 | 1.75 | 4.25 | 3.50 | 4.00 | 3.25 | 3.50 | 2.25 | 2.75 | 3.00 | 3.75 |
| 5th year | 4.12 | 2.62 | 3.75 | 3.88 | 4.50 | 3.50 | 3.12 | 2.38 | 2.75 | 2.88 | 4.62 |

**Table 2. Perceptions by seniority: Likert items, communication, and suture speed**

**B. Effect of hunger on communication (%)**

| Seniority year | Calmer | More irritable/sensitive | No change |
|---|---|---|---|
| 1st year | 0.0 | 65.2 | 34.8 |
| 2nd year | 0.0 | 75.0 | 25.0 |
| 3rd year | 0.0 | 69.0 | 31.0 |
| 4th year | 25.0 | 25.0 | 50.0 |
| 5th year | 12.5 | 75.0 | 12.5 |

**Table 2. Perceptions by seniority: Likert items, communication, and suture speed**

**C. Perceived suture speed (%)**

| Seniority year | Faster when hungry | No difference | Faster when well-fed |
|---|---|---|---|
| 1st year | 17.4 | 39.1 | 43.5 |
| 2nd year | 12.5 | 41.7 | 45.8 |
| 3rd year | 24.1 | 41.4 | 34.5 |
| 4th year | 25.0 | 75.0 | 0.0 |
| 5th year | 0.0 | 37.5 | 62.5 |

**Table 3. Preferences regarding the surgeon's condition during their own operation (%)**

| Seniority year | Prefer surgeon to be hungry | No preference | Prefer surgeon to be well-fed |
|---|---|---|---|
| 1st year | 0.0 | 21.7 | 78.3 |
| 2nd year | 0.0 | 4.2 | 95.8 |
| 3rd year | 3.4 | 27.6 | 69.0 |
| 4th year | 0.0 | 0.0 | 100.0 |
| 5th year | 0.0 | 25.0 | 75.0 |

**Table 4. General findings (all participants, %)**

| Variable | Agree/strongly agree (%) |
|---|---|
| Post-call surgery negatively affects my attention | 68.6 |
| Hunger affects my performance | 64.4 |
| When hungry, my likelihood of making errors increases | 54.5 |
| A snacking break improves performance | 73.9 |
| Hunger affects my performance more than music | 54.5 |
| Music improves technical performance | 55.7 |
| Music increases errors | 3.4 |
| Music impairs communication | 3.4 |
| Music increases concentration (mild/moderate increase reported) | 55.7 |
| I prefer the surgeon to be well-fed during my own operation | 80.7 |

## [S-011]

### Evaluation of quality of life using the GERD-HRQL scale in patients undergoing laparoscopic Nissen fundoplication for gastroesophageal reflux disease

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**Objective:** Gastroesophageal reflux disease (GERD) is a chronic condition that significantly impairs quality of life. In patients who are refractory to medical therapy, laparoscopic Nissen fundoplication (LNF) is considered the gold standard surgical treatment. This study aimed to evaluate postoperative changes in quality of life in GERD patients undergoing LNF using the gastroesophageal reflux disease-health related quality of life (GERD-HRQL) scale.

**Material and Methods:** This retrospective study included 300 patients who underwent LNF at Kocaeli University between June 2019 and June 2024. GERD diagnosis was confirmed by endoscopy and 24-hour pH monitoring. The validated Turkish version of the GERD-HRQL questionnaire was administered face-to-face preoperatively and at the 6th postoperative month. Score changes were analyzed. Data were evaluated using paired statistical tests as appropriate, and $p<0.05$ was considered statistically significant.

**Results:** The mean age was 44.5±12.3 years, and 68% of patients were male. The mean preoperative GERD-HRQL score was 24.8±4.7, which significantly decreased to 6.3±3.1 at 6 months postoperatively ($p<0.001$). Heartburn symptoms improved by 85%, regurgitation by 68%, and dysphagia by 74%. Clinically meaningful improvement (≥50% reduction in score) was observed in 82% of patients. Mild transient dysphagia occurred in 5% and temporary gas-related symptoms in 8%, all resolving with conservative management. Overall, 90% of patients reported satisfaction with surgical outcomes.

**Conclusion:** Laparoscopic Nissen fundoplication is an effective and safe treatment for GERD, resulting in significant improvement in symptoms and quality of life. The GERD-HRQL scale is a practical and reliable tool for objectively assessing surgical outcomes and patient-reported quality of life.

## [S-012]

### Comparison of the outcomes of laparoscopic and robotic esophagectomy

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**Objective:** To compare the short-term outcomes of laparoscopic minimally invasive esophagectomy (LMIE) and robot-assisted minimally invasive esophagectomy (RAMIE) performed in our clinic.

**Material and Methods:** A retrospective study was conducted on 27 consecutive esophagectomy patients between 2018 and 2025. Patients who underwent laparoscopic to open surgery were classified as LMIE, and those who underwent robot-assisted to open surgery were classified as RAMIE (LMIE n=13, RAMIE n=14). Primary endpoints were anastomotic leakage, pulmonary complications, and any re-intervention (surgical/endoscopic/radiological). The Mann-Whitney U test was used for continuous variables, and Fisher's exact test was used for categorical variables; odds ratios (OR) and 95% confidence intervals were reported.

**Results:** Anastomotic leakage was 5/13 (38.5%) in LMIE and 5/14 (35.7%) in RAMIE (OR 0.89; p=1.000). Pulmonary complications were 6/13 (46.2%) in LMIE and 9/14 (64.3%) in RAMIE (OR 2.10; p=0.449). Any re-intervention was 5/13 (38.5%) in LMIE and 7/14 (50.0%) in RAMIE (OR 1.60; p=0.704). In continuous variables, the RAMIE group had longer operation time [median 510 (459-569) min vs. 450 (375-480) min; p=0.007] and longer hospital stay [13 (13-22.5) days vs. 8 (8-10) days; p=0.007]. The difference in ICU days was statistically borderline significant [4 (2.2-5) vs. 2 (1-4) days; p=0.108].

**Conclusion:** In our small single-center series, the primary complication rates of LMIE and RAMIE appear to be similar. The longer operation and hospital stay times in the RAMIE group may be related to learning curves, case selection, or differences in perioperative processes. While our findings support the safety of minimally invasive approaches, prospective studies with larger sample sizes are needed.

**Keywords:** Esophagectomy, robotic surgery, laparoscopy, complication, minimally invasive surgery

## [S-015]

### Comparison of 12-month clinical outcomes of re-sleeve, Roux-en-Y, and mini gastric bypass in patients with weight regain after sleeve gastrectomy

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**Objective:** Weight regain after sleeve gastrectomy is one of the significant challenges in bariatric surgery. Consequently, the frequency of revision bariatric procedures has increased. This study aimed to compare the 12-month clinical outcomes of re-sleeve, Roux-en-Y gastric bypass (RNY), and mini gastric bypass (MGB) in patients experiencing weight regain after sleeve gastrectomy.

**Material and Methods:** This retrospective study included 100 patients who underwent revision bariatric surgery due to weight regain following sleeve gastrectomy between 2016 and 2024. Patients were grouped according to the revision procedure received: Re-sleeve, RNY, or MGB. Weight loss, nutritional deficiencies, and postoperative complications were evaluated over a 12-month follow-up period.

**Results:** At 12 months, the highest weight loss was observed in the MGB group, while the lowest was seen in the Re-sleeve group ($p<0.05$). Nutritional deficiencies, particularly vitamin D deficiency, were most frequent in the MGB group. The most common postoperative complication was bleeding, which was managed conservatively. The incidence of postoperative complications did not differ significantly among the groups.

**Conclusion:** MGB provides the greatest weight loss but carries a higher risk of nutritional deficiencies. Re-sleeve appears to be safer but less effective in achieving weight loss, whereas RNY yields intermediate outcomes. Selection of the appropriate revision procedure should consider the patient's metabolic status, presence of gastroesophageal reflux, and adherence to follow-up.

**Keywords:** Bariatric surgery, revision, re-sleeve, gastric bypass, weight regain

## [S-016]

### Peptic ulcer perforation surgery: A three-year retrospective analysis of factors affecting clinical outcomes

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**Objective:** Peptic ulcer perforation (PUP) is one of the most common complications of emergency surgery with a high mortality rate. Early diagnosis and prompt surgical intervention are critical for survival. This study examined the clinical characteristics and risk factors affecting mortality and morbidity in PUP cases operated on in our clinic.

**Material and Methods:** A retrospective analysis was conducted on 179 patients diagnosed with PUP who underwent surgery between 2022 and 2025. Patient age, gender, time from symptoms to surgery (<24 hours/≥24 hours), perforation location, surgical method, mortality, and Clavien-Dindo complication scores were recorded. Chi-square tests and independent samples t-tests were used for statistical analyses.

**Results:** The mean patient age was 52.9 years (range, 0-96), and the male/female ratio was 24/5. The overall mortality rate was 25.8%, and the serious complication rate (Clavien ≥3) was 19.3%. Delaying surgery by ≥24 hours significantly increased mortality (69.6% vs. 10.6%, $p<0.05$) and serious complication rates (69.6% vs. 11.3%, $p<0.05$). The mean age of patients who died was significantly higher than those who survived (69.8 vs. 47.3 years, $p<0.05$). The most common perforation location was the prepyloric region (65.3%), and the most common surgical method was modified Graham repair (77.6%).

**Conclusion:** The strongest predictors of mortality in PUP cases are advanced age and delay in surgery. Delays exceeding 24 hours dramatically increase the risk of mortality. Our findings demonstrate the lifesaving role of early surgical intervention and the need to consider elderly patients as high-risk groups.

## [S-017]

### Assessment of sarcopenia prevalence in obese individuals using the psoas muscle index: A current perspective on sarcopenic obesity

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**Objective:** Obesity is characterized by an increase in body weight but does not guarantee the preservation of muscle mass. The presence of sarcopenia, especially in individuals with a high body mass index (BMI), is often overlooked in nutritional assessment. This study aimed to determine the prevalence of sarcopenia in obese individuals using the psoas muscle index (PMI) measured at the L3 vertebra level, to evaluate the relationship between BMI-based nutritional classification and muscle mass, and to reveal the rate of sarcopenic obesity.

**Material and Methods:** In this retrospective study, the demographic, anthropometric, and imaging data of 30 individuals with a BMI ≥30 kg/m² were examined. The PMI (cm²/m²) was calculated by measuring the psoas muscle area at the L3 level and dividing it by the square of the height. According to the reference cut-off points for the Turkish population, values <5.40 cm²/m² in men and <3.56 cm²/m² in women were considered sarcopenia. BMI classification was performed according to World Health Organization criteria as obese (Type I), obese (Type II), and morbidly obese (Type III). The obtained data were analyzed according to age, gender, and BMI classes.

**Results:** 76.7% of participants were female (n=23). The mean age was 38.7±6.1 years, and the mean BMI was 41.5±4.3 kg/m². The BMI distribution was determined as obese (Type I) 3.3%, obese (Type II) 40%, and morbidly obese (Type III) 56.7%. L3 PMI values were found to be below the cut-off points in all cases regardless of gender, and thus all patients were classified as sarcopenic. This finding revealed the presence of sarcopenic obesity in the entire study group, indicating a significant decrease in skeletal muscle tissue despite increased fat mass. No significant differences were found between genders in terms of age and BMI.

**Conclusion:** This study strongly demonstrates that muscle mass is markedly reduced despite high BMI and that the "obese = well-nourished" approach is no longer valid. The L3 PMI is a reliable indicator for assessing true body composition independently of BMI. The findings show that classic nutritional classifications may incorrectly assess patients as "well-nourished" when they exclude muscle mass. The presence of sarcopenia in obese individuals should be defined as sarcopenic obesity, and these patients should be considered a high-risk group for malnutrition. In clinical practice, adding muscle mass measurements to routine nutritional assessments is critical for improving surgical and metabolic outcomes.

**Keywords:** Sarcopenic obesity, psoas muscle index, L3 vertebra, obesity, muscle mass, nutritional assessment, malnutrition

**Table 1. Demographic characteristics, obesity classification, and sarcopenia distribution of the study group**

| Variable | Subgroup/class | n | Mean ± SD / % | Min-max | Description |
|---|---|---|---|---|---|
| **Age (years)** | — | 30 | 38.7±6.1 | 25-50 | — |
| **BMI (kg/m²)** | — | 30 | 41.5±4.3 | 34.6-47.0 | All individuals BMI ≥30 |
| **Gender** | Male | 7 | 23.3 | — | — |
| | Female | 23 | 76.7 | — | — |
| **Obesity classification by gender** | Obesity Type I | Male 0/Female 1 | Total 1 (3.3%) | — | — |
| | Obesity Type II | Male 3/Female 9 | Total 12 (40.0%) | — | — |
| | Morbidly obese Type III | Male 4/Female 13 | Total 17 (56.7%) | — | — |
| **Sarcopenia – BMI relationship** | Obesity Type I | 1/1 | 100 | — | All individuals are sarcopenic |
| | Obesity Type II | 12/12 | 100 | — | — |
| | Morbidly obese Type III | 17/17 | 100 | — | — |
| **Overall sarcopenia rate** | — | 30/30 | **100** | — | All participants were classified as sarcopenic |

SD: Standard deviation, BMI: Body mass index, Min-max: Minimum-maximum.

**Table 2. Literature comparison table—PMI at L3 level**

| Study (year) | Population/center | Measure ment & level | Cut-off point (male/fe male, $cm^2/m^2$) | Method/definition | Notes |
|---|---|---|---|---|---|
| **Bahat et al. 2021** | Türkiye, healthy living liver donors | **L3-PMI (CT)** | **5.40/3.56** | Lower 5th percentile (additional ly mean-2S D: 4.62/2.66) | Türkiye-specific reference PMI thresholds; recommend ed as an indicator of low muscle mass consistent with GLIM. |
| **Kong et al. 2022** | Age-stratified recommendation s consistent with Japanese reference data | **L3-PMI (CT)** | 20-29 years: **5.41/3.88**; 30-39: **4.71/3.31;** 40-49: **4.65/3.17;** 50-59: **4.10/2.73** (e.g.) | Age-specific thresholds based on the lower 5% | References vary by age; thresholds are higher in young adults. |
| **Nakayama/ Shiroyamacurve (oncology)** | Solid tumor/immunoth erapy cohorts | **L3-PMI (CT)** | **6.36/3.92** | Study-internal ROC/survi val-related cut-offs | More "strict" PMI thresholds commonly used in oncology sets; for prognostic purposes. |
| **Derstine et al. 2017 (reference)** | USA, healthy population | L3 total skeletal muscle (SMI) & psoas | L3-SMI: **44.6/34.0;** L4-Psoas: **7.4/5.2** | Paint-indexed CSA cut-offs | Total L3-SMI references are also provided instead of psoas (useful for comparison). |
| **Pigneur et al. 2023 (comment)** | Multicenter | **PMI vs. L3-SMI** | — | — | Discusses that PMI may not always represent total skeletal muscle mass; highlights methodolo gical differences. |
| **ESPEN-EASO 2022 (Consensus)** | International expert panel | **Definition of sarcopeni c obesity** | — | Excess fat mass + low muscle mass/function | Definition and diagnostic framework: SO = the coexistence of obesity and sarcopenia. Associated with clinical outcomes. |
| **GLIM (2018; 5th year updates 2025)** | International consensus | **Malnutrition diagnostic approach** | — | One of the phenotypic criteria is **low muscle mass** | GLIM considers low muscle mass as a key phenotypic criterion; it recommend s validated methods, including CT, for measurement. |

PMI: Psoas muscle index, CT: Computed tomography.

## [S-019]

### Comparison of tumor and normal breast tissue microbiota in early-stage breast cancer: A prospective study

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**Objective:** Breast cancer is the most common malignancy among women worldwide. Recent evidence suggests that tissue-specific microbiota may influence carcinogenesis through modulation of inflammation and immune response. This study aimed to compare the microbiota profiles of tumor tissue and adjacent normal breast tissue in Turkish women with early-stage breast cancer and to assess their relationship with fecal microbiota.

**Material and Methods:** This prospective study included 22 women diagnosed with stage I-II invasive breast cancer who underwent breast-conserving surgery between 2022 and 2023. Tumor tissue, adjacent normal breast tissue, and preoperative stool samples were collected under aseptic conditions. DNA was extracted and *16S rRNA* gene sequencing was performed using the Ion S5 XL platform. Bioinformatic analysis was conducted with QIIME2, and taxonomic classification was based on the SILVA v138 database. Paired comparisons were analyzed using the Wilcoxon signed-rank test with Benjamini-Hochberg false discovery rate correction.

**Results:** Significant compositional differences were observed between tumor and normal breast tissue microbiota. Tumor tissues showed increased abundance of *Ruminococcus, Eubacterium, Stenotrophomonas, Actinobacteria* and *Bacillus*, whereas normal tissues were enriched in *Lactobacillus*, *Bifidobacterium* and *Faecalibacterium* ($p<0.05$ after FDR correction). No significant correlation was found between fecal microbiota and breast tissue microbiota profiles. Alpha and beta diversity analyses revealed no significant association with body mass index, menopausal status or recent antibiotic use.

**Conclusion:** Marked differences exist between tumor and adjacent normal breast tissue microbiota in early-stage breast cancer. The predominance of potentially pro-inflammatory bacteria in tumor tissue and protective commensals in normal tissue supports the presence of localized dysbiosis in breast carcinogenesis. These findings highlight the potential role of tissue-specific microbiota in breast cancer pathogenesis and warrant further investigation in larger multicenter cohorts.

## [S-020]

### Sentinel lymph node biopsy in ductal carcinoma *in situ* and its association with clinicopathological factors

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**Objective:** Ductal carcinoma *in situ* (DCIS) is a neoplastic cell proliferation that has not penetrated the basement membrane and is considered a precursor to invasive breast cancer. The primary approach in treatment is surgical excision; however, sentinel lymph node biopsy (SLNB) is also performed in some cases. There is no consensus on which patients require SLNB. This study investigated the relationship between preoperative characteristics such as tumor size, histological subtype, and grade in patients diagnosed with DCIS and the rate of SLNB application and lymph node positivity.

**Material and Methods:** Data from 100 female patients diagnosed with DCIS between 2019 and 2024 at our clinic were retrospectively reviewed. Age, preoperative histological type (comedone/non-comedone), grade (low-intermediate/high), tumor size (<3 cm/≥3 cm), surgical method used, and SLNB status were recorded. Categorical variables were analyzed using the chi-square test. $p<0.05$ was considered statistically significant.

**Results and Conclusion:** All patients were female, and the mean age was 54.2±10.6 years. The preoperative histological type was 51% comedonal and 49% non-comedonal; the grade distribution was found to be 48% high and 52% low-moderate. The rate was 71% in those with tumor size <3 cm and 29% in those with ≥3 cm (Table 1). A total of 49 (49%) patients underwent SLNB, and lymph node positivity was detected in 6 (10%) of them. The rate of SLNB application was significantly higher in patients with tumor size ≥3 cm ($p=0.001$) (Table 2). In all cases with positive lymph nodes, the tumor was ≥3 cm. While 66% comedotic and 50% high-grade lesions were detected in preoperative biopsies, these rates increased to 84% and 84%, respectively, in postoperative specimens. This indicates a tendency toward histological upstaging. It is thought that preoperative histological type and grade alone are not sufficient for decision-making, and postoperative upstaging rates should be taken into account.

**Keywords:** DCIS, SLNB, tumor size

**Table 1. Demographic and histological characteristics of patients with DCIS**

| Parameter | Value |
|---|---|
| **Age** (years) | 54.2±10.6 |
| **Sex** | |
| Female | 100 (100%) |
| **Preoperative histology** | |
| Komedo | 51 (51%) |
| Non-Komedo | 49 (49%) |
| **Preoperative grade** | |
| Low/intermediate | 52 (52%) |
| High | 48 (48%) |
| **Tumor size** | |
| <3 cm | 71 (71%) |
| ≥3 cm | 29 (29%) |
| **SLNB status** | |
| Performed | 49 (49%) |
| Not performed | 51 (51%) |
| **Postoperative histology** | |
| Komedo | 59 (59%) |
| Non-Komedo | 41 (41%) |
| **Postoperative grade** | |
| Low/intermediate | 40 (40%) |
| High | 60 (60%) |

DCIS: Ductal carcinoma *in situ*, SLNB: Sentinel lymph node biopsy.

**Table 2. Status of SLNB application according to tumor size and histological subtypes**

| Variables | | SLNB performed | SLNB not performed | *p-value |
|---|---|---|---|---|
| **Tumor size** | <3 cm | 24 | 47 | 0.001 |
| | ≥3 cm | 25 | 4 | |
| **Preoperative histology** | Komedo | 30 | 21 | 0.071 |
| | Non-Komedo | 19 | 30 | |
| **Preoperative grade** | Low/ intermediate | 20 | 32 | 0.046 |
| | High | 29 | 19 | |

*: Mann-Whitney U test, SLNB: Sentinel lymph node biopsy.

## [S-021]

## Our colonoscopy experience in lower gastrointestinal bleeding

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**Objective:** Lower gastrointestinal (LGI) bleeding encompasses hemorrhage distal to the Ligament of Treitz. The most common causes are angiodysplasias, diverticular bleeding, and malignancy-related lesions. For stable patients, colonoscopy serves as a primary tool for both diagnosis and therapy. This study aimed to discuss our center's experience with the management of LGI bleeding.

**Material and Methods:** We retrospectively included 12 patients who underwent emergency colonoscopy for LGI bleeding between January 1, 2024, and August 1, 2025, at Amasya Sabuncuoğlu Şerefeddin Training and Research Hospital. The study exclusively included procedures performed by the general surgery team.

**Results:** The cohort included 7 males (58%), with a mean age of 63. Etiologies were identified as angiodysplasia (n=7), diverticular bleeding (n=3), and malignancy-related bleeding (n=2). Endoscopic hemostasis methods for angiodysplasias included argon plasma coagulation (n=5) and hemoclip application (n=2). Diverticular bleeding was controlled with hemoclips (n=2) and adrenaline injection (n=1). In the malignancy group, one patient's bleeding was controlled with adrenaline, while the other failed colonoscopic hemostasis and required subsequent surgical treatment. A key finding was the history of anticoagulant use in all patients with angiodysplasia and diverticular bleeding, which was absent in patients with malignancy. The overall success rate of endoscopic bleeding control was found to be 91%.

**Conclusion:** Early colonoscopy in stable patients with LGI bleeding proves to be an effective therapeutic intervention, contributing to reduced morbidity and mortality. Our center actively provides colonoscopic treatment for active LGI hemorrhage.

**Keywords:** Angiodysplasia, gastrointestinal hemorrhage, colonoscopy

## [S-022]

### Learning curve and clinical outcomes in robotic surgery for rectal and sigmoid cancers: A single-surgeon CUSUM analysis

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**Objective:** Robotic colorectal surgery has become increasingly integrated into minimally invasive surgical practice due to its improved ergonomics, three-dimensional visualization, and enhanced precision in pelvic dissection. Despite its broadened adoption, objective evaluations of the learning curve in robotic rectal and sigmoid cancer surgery remain limited. Cumulative summation (CUSUM) analysis is a statistical method that enables identification of performance phases and assessment of operative proficiency. This study aimed to define the learning curve of a single surgeon using CUSUM analysis and to compare perioperative and oncologic outcomes between learning phases.

**Material and Methods:** A retrospective review was conducted of consecutive robotic rectal and sigmoid cancer surgeries performed by a single surgeon between January 2022 and September 2025. Operative time was used to generate a CUSUM curve, which identified a breakpoint at the 23rd case. Patients were categorized into Phase 1 (cases 1-23) and Phase 2 (cases 24-68). Variables compared between phases included demographics, comorbidity indices, operative time, blood transfusion, conversion, intraoperative complications, anastomotic leak, length of hospital stay, complete mesocolic excision (CME), and lymph node yield. Statistical analysis was performed using the Mann-Whitney U and Fisher or chi-square tests, with significance set at $p<0.05$.

**Results:** Sixty-eight patients were included. Although Phase 2 patients exhibited higher comorbidity scores, operative outcomes improved significantly. Median operative time decreased from 305 to 210 minutes ($p<0.001$). Intraoperative complications (13.0% vs. 0%; $p=0.035$) and anastomotic leak rates (17.4% vs. 2.2%; $p=0.041$) were markedly lower in Phase 2. Conversion, transfusion requirements, and Clavien-Dindo ≥2 complications decreased, though without statistical significance. CME rates increased from 73.9% to 91.1% ($p=0.076$). Lymph node yield and hospital stay were comparable.

**Conclusion:** The CUSUM-defined breakpoint at the 23rd case marked a clear improvement in operative performance. Shorter operative time, fewer complications, and a trend toward higher CME rates reflect enhanced efficiency and technical refinement. These findings support the progressive improvement associated with experience in robotic colorectal surgery and may contribute to structured training and competency-based credentialing.

## [S-028]

### Conversion in laparoscopic cholecystectomy: Experience at University of Health Sciences Türkiye, Ankara Etlik City Hospital and comparison with the literature

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**Objective:** Conversion to open surgery during laparoscopic cholecystectomy is not uncommon for various reasons, and its effects on patient outcomes remain controversial. In this study, cases undergoing conversion during laparoscopic cholecystectomy at the General Surgery Department of University of Health Sciences Türkiye, Ankara Etlik City Hospital were evaluated in terms of demographic characteristics, surgical findings, and postoperative outcomes and compared with the literature.

**Material and Methods:** A total of 104 patients who underwent conversion during laparoscopic cholecystectomy at our clinic between 2022 and 2025 were retrospectively reviewed. The variables examined included gender, age, reason for conversion, concomitant pathologies, and postoperative complications (Clavien-Dindo classification). Descriptive statistics were presented; chi-square test was used for categorical variables, and Pearson and Spearman correlation analyses were used for the relationship between age and complication severity.

**Results**: During the study period, a total of 6.474 cholecystectomies (6.369 laparoscopic, 105 open) were performed at our clinic. Open surgery conversion was performed in 1.6% of laparoscopic cases (n=104). Sixty-nine point two percent of patients were female, with a mean age of 55.4±14.6 years. The most common reasons for conversion were difficulty in visualization (40.4%), difficulty in dissection (26.0%), and choledocholithiasis (20.2%). Concomitant pathology was found in 16 cases (15.4%); the most frequently recorded pathology was "intestinal serosal injury". Most postoperative complications were mild: Clavien-Dindo stage 1 was 60.6%, stage 2 was 16.3%, stage 3 was 21.2%, and stage 4 was 1.0%. No significant relationship was observed between the reason for conversion and the severity of complications ($\chi^2=25.92$; $p=0.357$). There was also no difference between gender and the severity of complications ($\chi^2=3.74$; $p=0.291$). A weak positive correlation was observed between age and complication severity (Pearson $r\approx0.16$; $p\approx0.10$; Spearman $rho\approx0.15$; $p\approx0.13$), but this relationship was not statistically significant.

**Conclusion:** This study shows that conversion is most frequently performed for technical reasons such as visualization and dissection difficulties and usually results in mild complications. Age, gender, or reason for conversion did not significantly affect the severity of complications. Our findings, consistent with the general trend in the literature, reveal that conversion is not a failure of the surgeon but a proactive surgical decision that prioritizes patient safety and protects against serious complications. Therefore, not hesitating to convert when necessary is important for patient safety.

**Keywords:** Laparoscopic cholecystectomy, conversion, Clavien-Dindo, complication, patient safety

| Table 1. Demographic characteristics | |
|---|---|
| **Characteristic** | **Value** |
| Total number of patients | 104 |
| Female (n, %) | 72 (69.2%) |
| Male (n, %) | 32 (30.8%) |
| Age mean ± SD | 55.4±14.6 |
| Median age (min-max) | 57 (24-85) |
| SD: Standard deviation, min-max: Minimum-maximum. | |

| Table 2. Reasons for conversion | | |
|---|---|---|
| **Reason** | **n** | |
| Visualization | 42 | 40.4 |
| Difficulty in dissection | 27 | 26.0 |
| Choledocholithiasis | 21 | 20.2 |
| Other | 14 | 13.4 |

| Table 3. Additional pathology summary | |
|---|---|
| **Feature** | **Value** |
| Patients with additional pathology (n, %) | 16 (15.4%) |
| Most common pathology | Serosal injury |

| Table 4. Clavien-Dindo classification | | |
|---|---|---|
| **Grade** | **n** | **%** |
| 1 | 63 | 60.6 |
| 2 | 17 | 16.3 |
| 3 | 22 | 21.2 |
| 4 | 1 | 1.0 |
| Summary: Median Clavien-Dindo score 1 (1-4). | | |

## [S-029]

### Comparison of robotic and laparoscopic techniques in rectal cancer resection

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**Objective:** Robotic surgery has gained increasing popularity in rectal cancer resection in recent years. Its enhanced instrument articulation, stable three-dimensional visualization, and tremor filtration provide meaningful technical advantages in confined pelvic spaces, particularly in the narrow male pelvis. These features may facilitate meticulous dissection and improved ergonomics compared with conventional laparoscopy. This study aimed to compare robotic and laparoscopic techniques in rectal cancer operations with respect to perioperative outcomes and oncological parameters.

**Material and Methods:** Patients who underwent surgery for rectal cancer between 2023 and 2024 in our clinic were retrospectively reviewed. Individuals were divided into two groups according to the surgical approach: Laparoscopic (Group 1) and Robotic (Group 2). Demographic characteristics, perioperative findings, postoperative complications, and pathology results were analyzed. Patients with incomplete clinical data were excluded from the evaluation. All parameters were compared between groups using standardized institutional documentation.

**Results:** A total of 74 patients were included. The mean age was 60.40±10.22 years, and the female-to-male ratio was 25 (33.8%) to 49 (66.2%). Operative time was significantly longer in Group 2 ($p<0.001$), whereas hospital stay was significantly shorter ($p<0.001$). Postoperative anastomotic leakage was more frequent in Group 2 ($p=0.03$). No significant differences were observed regarding T or N staging ($p=0.859$, $p=0.942$). The median number of harvested lymph nodes was 17 (10-49), and groups showed no significant differences in total or positive lymph node counts ($p=0.121$, $p=0.632$). Overall morbidity and conversion rates were comparable, with no major difference in oncological safety indicators.

**Conclusion:** Robotic rectal resection is a safe and feasible technique, providing oncological outcomes comparable to laparoscopy. Although robotic surgery was associated with longer operative times, it offered shorter hospital stays. The higher anastomotic leakage rate in the robotic group may diminish with growing surgeon experience. These findings contribute to the expanding evidence regarding the role of robotic platforms in modern colorectal surgery, and further prospective studies are required to determine potential superiority over laparoscopic techniques.

## [S-031]

### Reliability of laparoscopic hernia repair in patients over 65 years of age

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**Objective:** Laparoscopic inguinal hernia repair is frequently preferred in younger patients due to reduced postoperative pain, faster recovery, and early mobilization. However, its use in elderly patients remains controversial because of decreased anesthesia tolerance, multiple comorbidities, and slower tissue healing. This study aimed to compare patients younger and older than 65 years regarding early postoperative complications, recurrence, and chronic pain to evaluate the safety and effectiveness of laparoscopic inguinal hernia repair in older individuals.

**Material and Methods:** Patients who underwent laparoscopic inguinal hernia repair between 2020 and 2024 were retrospectively reviewed. They were divided into two groups: <65 years and ≥65 years. Demographic characteristics, operative and hospitalization durations, comorbidities, postoperative complications, visual analogue scale (VAS) scores at 24 hours and 6 months, chronic pain, and recurrence rates were analyzed and compared.

**Results:** A total of 617 patients were included, with a mean age of 51.63±14.81 years; 6.5% were female and 93.5% male. Group 1 included 477 patients (77.3%), and Group 2 included 140 patients (22.7%). ASA I classification was significantly more common in Group 1, whereas ASA III was higher in Group 2 ($p<0.001$). Hernia diameter was larger in Group 2 ($p=0.012$). Postoperative complication rates were significantly higher in Group 2 ($p=0.013$). No significant differences were observed regarding operative time, conversion, hospital stay, or VAS scores at 24 hours and 6 months ($p>0.05$). The overall recurrence rate was 1.9%, with no significant difference between groups.

**Conclusion:** Although early postoperative complications were more frequent in patients aged 65 years and older, recurrence and chronic pain rates were comparable between age groups. These findings indicate that laparoscopic inguinal hernia repair is a safe and reliable procedure even in elderly patients.

## [S-032]

### Comparison of laparoscopic and open appendectomy in patients over 65 years of age

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**Objective:** Although acute appendicitis is most commonly observed in the second and third decades of life, its incidence has increased among the elderly population. In this study, we aimed to compare the surgical techniques used in elderly patients diagnosed with acute appendicitis.

**Material and Methods:** Patients over the age of 65 who underwent surgery in our clinic between 2019 and 2024 were retrospectively analyzed. Patients operated using the open technique were classified as Group 1, while those operated using the laparoscopic technique were classified as Group 2. Demographic data [age, gender, American Society of Anesthesiologists (ASA) scores, onset time of pain], preoperative laboratory tests, and imaging reports (ultrasound, computed tomography) were recorded. Additionally, operative duration, length of hospital stay, pathology reports, intensive care unit admission requirements, and Clavien-Dindo scores were evaluated. The two groups were compared based on all these parameters.

**Results:** A total of 275 patients were included in the study. The mean age was 73.12±6.74 years, with a female/male ratio of 120 (43.6%)/155 (56.4%). Of the patients, 210 (76.4%) underwent open appendectomy (Group 1), and 65 (23.6%) underwent laparoscopic appendectomy (Group 2). While the white blood cell count was significantly higher in Group 1, patients in Group 2 presented with a longer duration of pain ($p=0.018$, 0.040). There were no statistically significant differences in ASA scores radiological findings. Operative duration did not differ significantly between the groups ($p=0.545$), whereas the length of hospital stay was significantly shorter in Group 2 ($p=0.038$). There were no statistically significant differences between the groups regarding pathology results, Clavien-Dindo scores, or mortality rates ($p=0.867$, 0.221, 0.670).

**Conclusion:** Laparoscopic appendectomy can be safely utilized in patients over the age of 65 with acute appendicitis.

## [S-033]

### Comparison of laparoscopic and open appendectomy in elderly patients with acute appendicitis

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**Objective:** Although acute appendicitis is less common in elderly patients, delayed diagnosis and increased comorbidities may lead to higher rates of perforation, morbidity, and mortality in this population. Open appendectomy has been the standard treatment for many years; however, laparoscopic appendectomy offers advantages such as being less invasive, shorter hospital stay, and faster recovery. The aim of this study is to evaluate the safety, effectiveness, and postoperative outcomes of laparoscopic appendectomy in elderly patients.

**Material and Methods:** In this study, we analyzed the data of patients aged 65 years and older who were diagnosed with acute appendicitis and underwent surgical treatment in our hospital. Patients were divided into two groups according to the surgical technique performed (laparoscopic appendectomy vs. open appendectomy). The groups were compared in terms of demographic characteristics, operative time, intraoperative findings, length of hospital stay, postoperative complication rates (such as wound infection, intra-abdominal abscess), mortality, and postoperative analgesic use.

**Discussion:** This study demonstrates that laparoscopic appendectomy is a safe and effective method in elderly patients with acute appendicitis. The laparoscopic approach offers advantages, particularly shorter hospital stay and lower wound infection rates. In elderly patients, laparoscopic appendectomy may be considered a preferred treatment option in appropriate cases and may positively influence the postoperative recovery process.

**Results and Conclusion:** The data of a total of 55 patients were evaluated (35 laparoscopic, 20 open appendectomy). In the laparoscopic appendectomy group, the length of hospital stay was significantly shorter compared with the open appendectomy group (mean 5.1 days vs. 5.7 days; $p<0.017$), and postoperative pain scores were lower. The rate of postoperative wound infection was lower in the laparoscopic group [2 patients (5%) vs. 3 patients (15%) in the open group; $p<0.05$]. There was no statistically significant difference between the two groups in terms of intraoperative complications and mortality rates. When perforated appendicitis cases were excluded, operative time was recorded as similar or shorter in the laparoscopic group.

**Keywords:** Appendectomy, laparoscopic-open, elderly

## [S-035]

### Minimally invasive surgery in gastric cancer

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**Objective:** Minimally invasive surgery is increasingly utilized in the treatment of gastric cancer. Although laparoscopic gastrectomy has demonstrated several advantages over open surgery, it is still considered a technically demanding procedure. Robotic gastrectomy, on the other hand, is becoming progressively more common worldwide.

**Material and Methods:** Patients who underwent surgery for gastric cancer in the general surgery department of our hospital between April 2016 and September 2025 were reviewed. Patients were categorized into two groups: those who underwent laparoscopic surgery and those who underwent robotic surgery. Variables belonging to the two groups were compared.

**Results:** A total of 128 patients were included in the study: 98 in the laparoscopic gastrectomy group and 30 in the robotic gastrectomy group. The mean age was 62.6±11.6 years in the laparoscopy group and 61.5±7.6 years in the robotic group. The median operative time was significantly longer in the robotic group [385 (329-449) vs. 295 (255-350) minutes, $p<0.001$]. The number of harvested lymph nodes was significantly higher in the robotic surgery group [median 27.5 (19.5-34.8) vs. 20.5 (14-32), $p=0.042$]. The median length of hospital stay was also longer in the robotic group [11(8-15.8) vs. 7 (6-10) days, $p<0.001$]. Although the robotic group showed lower rates of anastomotic leakage and bleeding, these differences were not statistically significant. The conversion rate was significantly higher in the robotic group (30.0% vs. 4.1%, $p<0.001$).

**Conclusion:** Robotic surgery demonstrated superior lymph node dissection compared with laparoscopic surgery. However, its longer operative time and prolonged hospital stay may be related to the learning curve and the technical challenges associated with omentum majus dissection. The prolonged operative time was also associated with higher conversion rates.

**Keywords:** Laparoscopic surgery, gastric cancer, minimally invasive surgery

## [S-037]

### Comparison of laparoscopic and open appendectomies performed in a peripheral hospital: One-year clinical outcomes

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**Objective:** Acute appendicitis is one of the most frequently encountered pathologies in emergency surgery and is treated using either open appendectomy (OA) or laparoscopic appendectomy (LA). LA is known to offer several advantages, including shorter hospital stays, reduced postoperative pain, and lower complication rates. However, in peripheral hospitals, the feasibility of LA may be limited due to constraints in technical infrastructure and surgical experience. In this study,we aimed to compare the clinical outcomes of appendectomy cases performed over a one-year period in a peripheral hospital with limited resources.

**Material and Methods:** A retrospective analysis was conducted on 18 patients who underwent surgery for acute appendicitis between January 2024 and December 2024. Patients were divided into two groups according to the surgical technique: LA (n=15) and OA (n=3). Demographic characteristics, postoperative length of hospital stay, and complication rates were compared. Student's t-test and the chi-square test were used for statistical analyses, and a p-value<0.05 was considered statistically significant.

**Results:** The mean age of the patients was 30.27±7.2 years; 11 were female (61.1%) and 7 were male (38.9%). Of the patients, 83.3% (n=15) underwent LA and 16.7% (n=3) underwent OA. The postoperative length of stay was significantly shorter in the LA group (1.4±0.5 days) compared to the OA group (2.7±0.6 days) (p=0.001). As for postoperative complications, one patient in the OA group developed a wound infection, whereas no complications were observed in the LA group (p=0.045).

**Conclusion:** Our findings indicate that laparoscopic surgery can be performed safely even under peripheral hospital conditions and offers superior postoperative outcomes compared with open surgery. Despite limited technical resources, LA was associated with shorter hospital stays and lower complication rates, underscoring the importance of expanding its use. The broader adoption of minimally invasive techniques has the potential to significantly improve patient care in peripheral hospitals.Enhancing technical infrastructure and increasing surgical training opportunities will facilitate wider access to LA for a greater number of patients.

## [S-039]

### Artificial intelligence in enhanced recovery after surgery protocols: Current approaches from preoperative risk to discharge prediction

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**Objective:** Enhanced recovery after surgery (ERAS) protocols, developed to reduce perioperative morbidity and accelerate recovery, have become the standard of surgical practice in recent years. However, the diversity of patient profiles, comorbidities, and clinical variables makes it challenging to individualize these protocols. AI-supported systems now introduce a new dimension to personalized risk prediction and process management by analyzing large datasets. In particular, the use of ML and DL-based algorithms for predicting complication risk, postoperative discharge timing, and the likelihood of readmission is increasingly common.

**Material and Methods:** Within this review, 23 original articles integrating artificial intelligence into ERAS protocols published between 2020 and 2024 in PubMed, Scopus, and Web of Science were analyzed. Inclusion criteria were studies using AI-based risk analysis, complication prediction, discharge or readmission estimation in the perioperative period, particularly in gastrointestinal and colorectal surgeries. Evaluated models included logistic regression, random forest, gradient boosting, artificial neural networks, and deep learning algorithms.

**Results and Conclusion:** In 10 out of the 23 studies reviewed, AI models demonstrated significant superiority over traditional risk scoring systems in predicting complications (Park JH 2023, Kim J 2022, Guo S 2022). Seven studies reported high accuracy rates in predicting discharge timing or readmission (Zhang Y 2023, Bian Y 2020). Deep learning-based approaches, in particular, contributed to personalized ERAS planning by integrating variables such as age, comorbidities, and intraoperative parameters (Lee J 2021, Romano G 2022). Systematic reviews (Nguyen T 2022, Cho E 2020) confirmed the feasibility of AI in perioperative decision support. In conclusion, the integration of AI-supported models into ERAS protocols appears promising for providing more predictable, safer, and cost-effective perioperative care at all stages, from preoperative risk to discharge prediction.

## [S-040]

### A shortcut in data collection, a data extraction bot written in Python

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**Objective:** Healthcare professionals can experience substantial delays during the data collection phase when conducting academic research. Significant time losses can occur, especially inretrospective studies with large datasets. We developed a solution to this problem in our "Sarcopenia and Kidney Transplantation" study conducted at Ankara University Faculty of Medicine, Department of General Surgery. In many research hospitals in Türkiye, access to hospital system databases is restricted to protect data security, forcing most researchers to review patient files individually and perform manual data entry to data storage applications such as Excel. To solve this problem, we developed a data extraction and collection bot using Python and its related libraries.

**Material and Methods:** To solve this problem, we developed a data extraction and collection bot using Python and its related libraries. The main reason we chose Python was its extensive library support. Our bot used the pytesseract and OpenCV libraries to read data, PyAutoGUI and Win32API to interact with the graphical user interface, and OpenPYXL and Pandas to transfer data to Excel. The bot's main task was to access patient files, check for the presence of pelvic CT images, record the dates when the images were added to the system, add this data to Excel, and then send this data to us via e-mail. This e-mail feature allowed hospital computers, which are heavily used during the day, to autonomously utilize the system's full processing power for research purposes overnight. However, due to the hospital's data security measures, the research computer was prohibited from receiving external e-mails; consequently, we were only able to receive the data at night from the computer.

**Results and Conclusion:** When the bot completed its task, out of a combined total of 117 cadaveric and 462 living donor transplants, only 69 patients met the study criteria. Our system managed to screen these patients in just a few hours. We believe that in the future, data screening will become even faster thanks to the support of machine learning methods, moving away from rule-based algorithms. We will present the screen recordings of this process in our presentation.

**Keywords:** Python, data collection

## [S-042]

### Surgical education: effectiveness of classical, video-based, and artificial intelligence-assisted learning methods: A questionnaire-based assessment

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**Objective:** Traditional surgical education has recently been complemented by video-based and artificial intelligence (AI)-supported learning tools. This study aimed to evaluate the perceived effectiveness of classical, video-based, and AI-assisted methods on knowledge retention, skill acquisition, and motivation among surgical trainees.

**Material and Methods:** A total of 100 participants (residents, faculty members, and specialists), including those from other hospitals, were included in this cross-sectional study conducted at the Department of General Surgery, İstanbul University-Cerrahpaşa Faculty of Medicine. A 15-item Likert-type questionnaire was used to assess the domains of knowledge retention, skill acquisition, and motivation, while additional qualitative data such as case volume, prior training model experience, and digital access were also collected.

**Results:** The mean age was 32.9±8.4 years (range 25-60). Classical training scored highest in theoretical knowledge (4.2±0.6), video-based learning in technical skills (4.5±0.5), and AI-assisted methods in personalized feedback (4.0±0.7). Eighty percent of participants identified the hybrid model (classical + video + AI) as the most effective future approach.

**Conclusion:** Classical education remains essential for foundational knowledge, while video and AI-based approaches significantly enhance practical skills, motivation, and feedback quality. Integrating these methods into hybrid learning models may improve surgical training outcomes and ensure a more comprehensive educational experience.

**Keywords:** Surgical education, video-based learning, artificial intelligence, hybrid training model, simulation

## [S-045]

### The role of topical oxygen therapy in diabetic foot ulcer healing: Evidence from immunomodulatory analyses

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**Objective:** Diabetic foot ulcers (DFUs) represent one of the most severe and treatment-resistant complications of diabetes. Neuropathy and peripheral vascular insufficiency create a chronically hypoxic tissue environment that markedly delays wound healing. Although hyperbaric oxygen therapy (HBOT) increases tissue oxygenation and promotes healing, many patients with significant comorbidities are unable to undergo HBOT. Topical oxygen therapy (TOT) has emerged as a practical alternative, capable of enhancing local tissue oxygenation without systemic exposure. The aim of this study was to evaluate the healing effects of TOT in patients with chronic DFUs by correlating clinical wound improvement with cellular-level immunological changes.

**Material and Methods:** Thirty patients with chronic DFUs who received TOT were included. Tissue samples obtained from the wound bed before treatment and after the 2-week TOT protocol were analyzed by flow cytometry to assess the immune-cell profile associated with wound repair. Clinical wound dimensions were measured using digital planimetry, and pre- and post-treatment values were compared. Statistical analysis was used to evaluate the clinical and immunological effects of TOT.

**Results and Conclusion:** Clinical follow-up demonstrated a marked reduction in wound size after TOT. Of the 29 evaluable patients, most were classified as Wagner grade 3 (n=18); eight were grade 2, two were grade 4, and one patient was grade 5. According to PEDIS, the majority were category 3.Digital image-based calculations showed a mean wound-area reduction of 43.6% (≈44%). The reduction exceeded 50% in superficial Wagner grade 2 ulcers, while advanced ulcers (grades 4-5) showed reductions below 30%. Flow cytometric analysis of wound-bed tissue demonstrated significant changes in immune-cell populations consistent with an active healing response. Notably, there was an increase in both M1 macrophages ($CD38^+$) and M2 macrophages ($CD209^+$) after TOT. This shift indicates that TOT modulates the wound microenvironment and supports the transition to tissue repair. The concordance between clinical improvement and cellular-level immunomodulation provides strong evidence that TOT exerts beneficial effects on both local healing dynamics and the immune milieu of DFUs.

**Keywords** Diabetic foot ulcer, immunomodulation, wound healing, topical oxygen therapy

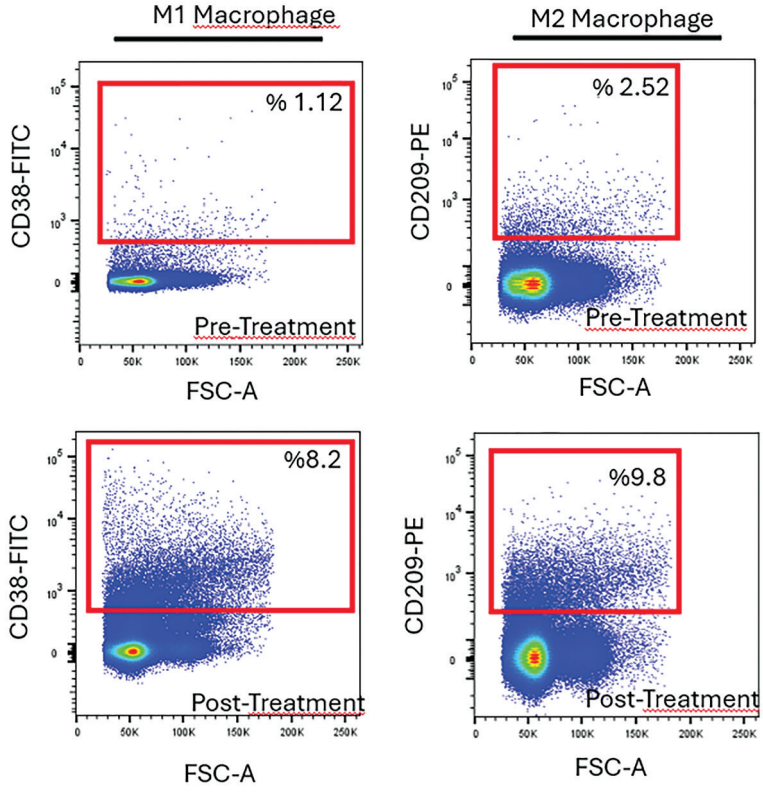


**Figure 1.** M1 ($CD38^+$) and M2 ($CD209^+$) macrophage findings.

**Figure 2.** Wound size after 2 weeks of TOT.

## [S-046]

### The role of gender in surgical specialization preferences: Factors influencing female medical students' inclinations and choices in surgical specialties

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**Objective:** How many women work in surgery depends on gender prejudices, career hierarchies, and social factors. Despite their achievements, female surgeons face discrimination, a lack of role models, and difficulty managing work and family. Female medical students' surgical speciality interests are examined in this study.

**Material and Methods:** Sakarya University D1-D6 female medical students completed an online cross-sectional survey. It contained socio-demographic questions, Likert scale surgical interest questions, and multiple-choice questions. We examined data using Kruskal-Wallis/chi-square and Spearman/Logistic trend tests ($p<0.05$).

**Results:** One hundred thirty-nine (21.7%) of 642 invited participants completed the survey. ENT (36.0%), ophthalmology (33.8%), general surgery (28.1%), and plastic-reconstructive surgery (28.1%) were sought after surgical disciplines. The average score for "future intention to pursue surgery" was 3.08±1.35, with little variation year-to-year. 38.8% agreed "If my TUS score is good enough, I would choose surgery", 39.6% disagreed, and 21.6% were unsure. 76.3% indicated they didn't want surgery because they worked long hours, and 74.1% said their work-life balance was poor. Women-bias was the least common explanation. The perception items about gender bias in surgery (3.78) and violence/malpractice risk (3.77) were widely agreed upon. Lack of mentors or role models (1.75) and parental alignment (1.94) were least agreed upon.

**Conclusion:** Lifestyle perspectives and the lack of mentors or role models affect female medical students' surgical preferences. Mentorship networks and family-friendly policies may increase surgery interest.

## [S-048]

### Temporal changes in different liver fibrosis scores after gallbladder surgery

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**Objective:** Changes in hepatic and metabolic parameters after gallbladder surgery may influence the course of liver fibrosis, but findings are inconsistent. Some studies report improvement in inflammatory markers and liver enzymes, whereas others describe worsening or no change in non-alcoholic fatty liver disease (NAFLD) and fibrosis indicators. This study aimed to investigate temporal changes and determinants of fibrosis-related scores within the first year after cholecystectomy.

**Material and Methods:** For eligibility, 462 adult patients who underwent elective laparoscopic cholecystectomy between 2021 and 2023 were retrospectively evaluated. Patients with comorbidities other than diabetes, hepatitis B/C, known cirrhosis or portal hypertension, alcohol use, active malignancy or pregnancy, significant biliary tract obstruction, use of hepatotoxic drugs or bariatric surgery, those with missing data, and those without follow-up were excluded. After applying the exclusion criteria, 64 patients were included in the analysis. Preoperative and postoperative 6th- and 12th-month fibrosis-4 index (FIB-4), APRI score (AST/ALT ratio), and NAFLD fibrosis score (NFS) were calculated using standard formulas.

**Results:** The mean age of the patients was 52±11 years; 61% were women; body mass index was 29.0±4.7 kg/m²; and the rate of diabetes was 25%. Fibrosis-related scores were higher at 6 and 12 months than preoperatively: median FIB-4 increased from 0.98 preoperatively to 1.10 at 6 months and 1.21 at 12 months (p=0.001); APRI increased from 0.34 to 0.38 and 0.41 (p=0.012); NFS increased from -1.45 to -1.25 and -1.12 (p<0.001). Consequently, a significant and consistent increase in non-invasive fibrosis indicators was detected at 6 and 12 months following cholecystectomy.

**Conclusion:** These findings support metabolic risk optimization, regular biochemical monitoring, and planning of hepatology evaluation in cases where thresholds are exceeded. The retrospective and single-center design and the lack of imaging/biopsy confirmation are the main limitations; prospective, multicenter studies are needed to increase the generalizability of the results.

**Keywords:** Liver fibrosis, NAFLD, fibrosis score, gallbladder surgery

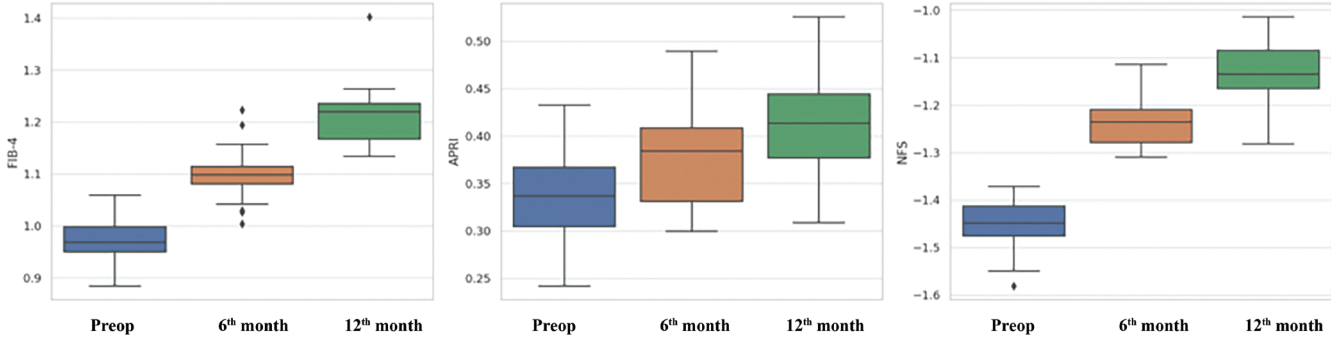


Figure 1. Temporal changes in FIB-4, APRI, and NAFLD fibrosis score (NFS) after gallbladder surgery.

## [S-050]

### Inguinal hernia management: Experience of a university training hospital

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**Objective:** Inguinal hernias account for approximately 75% of all abdominal wall hernias and affect 25-30% of the population. The updated European Hernia Society (EHS) guideline highlights that laparoscopic techniques offer faster recovery and lower rates of chronic pain in experienced centers, while open repair techniques remain safe and valid options. This study aimed to evaluate clinical outcomes of inguinal hernia repairs in our university training hospital following the publication of the updated guideline.

**Material and Methods:** Patients who underwent laparoscopic transabdominal preperitoneal (TAPP) repair or Lichtenstein hernioplasty (LH) for inguinal hernia between December 2018 and December 2024 were retrospectively analyzed. Demographics, recurrence, and complication rates were compared between the two surgical techniques. Additionally, the cohort was divided into two groups—before and after the most recent guideline published in October 2023—to assess changes in surgical practice patterns.

**Results:** A total of 429 patients were included. Of these, 398 (92.8%) were male and 31 (7.2%) were female, with a mean age of 56.82±15.75 years. TAPP was performed in 206 patients (48.0%) and LH in 223 patients (52.0%). Patients undergoing LH were significantly older than those treated with TAPP (61.7±14.9 vs. 51.6±15.0; $p<0.001$). There were no significant differences in recurrence or complication rates between the techniques. Following the 2023 guideline update, the rate of LH procedures increased significantly ($p=0.031$).

**Conclusion:** Both the 2018 and 2023 EHS guidelines state that TAPP and LH are safe and effective repair techniques, emphasizing the importance of institutional experience when choosing the surgical approach. Our findings demonstrate an increased use of open repair in our center after the guideline update. This may reflect the educational role of our high-volume training hospital, where both laparoscopic and open techniques continue to be taught. Despite the global rise of minimally invasive surgery, maintaining proficiency in open repair remains essential for surgical training programs.

## [S-051]

### Our outcomes of crystallized phenol treatment in pilonidal sinus disease

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**Objective:** Pilonidal sinus disease (PSD) is a chronic condition that mostly affects young adults, and various surgical and minimally invasive techniques have been described for its treatment in the literature. Despite the large number of surgical and minimally invasive techniques defined in the literature, there is no universally accepted gold-standard treatment for PSD. Simple excision with either primary closure or secondary healing is widely performed; however, this approach is associated with considerable recurrence and wound complication rates. To overcome these problems, flap-based procedures such as the Limberg and Karydakis techniques, which aim to flatten the natal cleft and lateralize the suture line, have been developed and have reduced recurrence rates. In addition, minimally invasive methods such as phenol instillation, sinuoscopy and endoscopic approaches have attracted attention due to shorter healing times, although their long-term efficacy remains a matter of debate.

**Material and Methods:** Between 2015 and 2025, 202 patients who were treated for PSD in the Department of General Surgery at Zonguldak Bülent Ecevit University Hospital were retrospectively reviewed. Demographic data, presenting symptoms, number of sinuses, surgical techniques, histopathological findings and recurrence rates were analyzed. The patients were followed for approximately 12 months.

**Results and Conclusion:** The mean age of the patients was 27.6±9.8 years, and 83.3% were male. The most common presenting symptom was discharge (76.8%), followed by abscess (23.2%). The mean number of sinuses was 1.9±1.2. The surgical procedures included excision with or without primary closure (42.9%), Limberg flap (27.8%) and phenol application (9.6%). All histopathological evaluations were benign. During follow-up, recurrence was observed in 5.1% of the patients. Flap-based procedures demonstrated lower recurrence rates (3.4%) compared with simple excision (5.9%) and minimally invasive approaches (6.1%). In conclusion, flap-based techniques, particularly the Limberg and Karydakis procedures, provide superior outcomes with lower recurrence rates compared to simple excision. Minimally invasive approaches may be considered in selected patients; however, they are associated with higher recurrence rates. Personalized surgical planning remains crucial, and further prospective studies are needed to establish evidence-based guidelines.

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

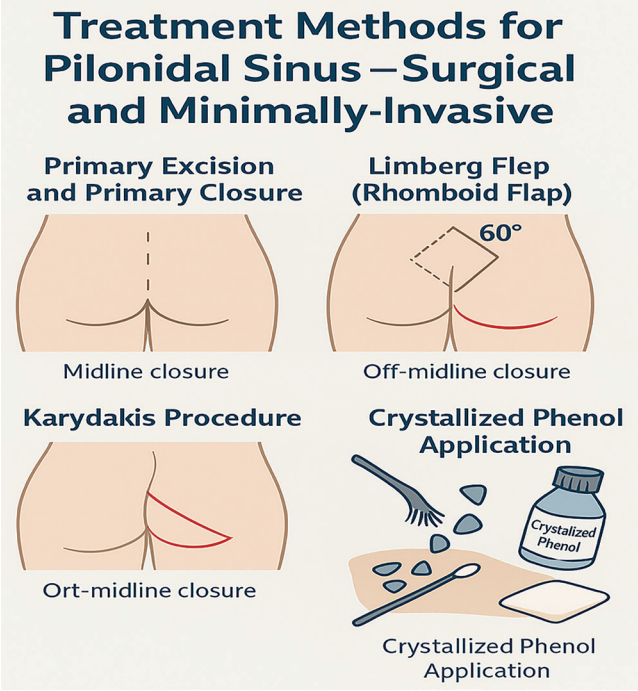


**Figure 1.** Treatment options for pilonidal sinus disease.

**Figure 2.** Limberg flap reconstruction in recurrent pilonidal sinus disease.

**Table 1. Demographic, clinical and surgical characteristics of the patients**

| Variable | Value |
|---|---|
| Mean age (years) | 27.6±9.8 |
| Sex (male) | 83.3% |
| Symptoms | Discharge: 76.8%/abscess: 23.2% |
| Mean number of sinuses | 1.9±1.2 |
| Surgical procedures | Excision (with/without primary closure): 42.9% |
| | Limberg flap: 27.8% |
| | Phenol application: 9.6% |
| Histopathology | All benign |
| Overall recurrence rate | 5.1% |
| Recurrence rates by procedure | Flap-based procedures: 3.4% |
| | Simple excision: 5.9% |
| | Minimally invasive methods: 6.1% |

## [S-052]

### A rare diagnosis behind abdominal pain: single-center experience on the diagnosis, treatment, and follow-up of mesenteric cysts

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**Objective:** Mesenteric cysts are rare, mostly benign intra-abdominal lesions. Their clinical presentation is generally non-specific, and diagnosis is often incidental during imaging studies or surgical exploration. This study aims to evaluate the demographic, clinical, surgical, and pathological characteristics of patients who underwent surgery for intra-abdominal masses and were histopathologically diagnosed with mesenteric cysts at University of Health Sciences Türkiye, Ankara Etlik City Hospital between 2022 and 2025.

**Material and Methods:** Four patients who underwent surgical treatment for an intra-abdominal mass between 2022 and 2025 and were histopathologically diagnosed with a mesenteric cyst were retrospectively analyzed. Patient age, sex, presenting symptoms, cyst localization and size, surgical approach, pathological features, length of hospital stay, complications, mortality, and follow-up data were evaluated.

**Results:** Three of the four patients were female (75%), and one was male (25%), with a mean age of 50 years (18-87). All patients presented with abdominal pain, accompanied by nausea and vomiting in two cases. The cysts were most commonly located in the mesentery of the colon and small intestine, with sizes ranging between 15 mm and 147 mm. Two cases underwent primary open surgery, while two initially laparoscopic cases required conversion to open surgery. The mean length of hospital stay was 9.5 days (7-15), and no postoperative complications or mortality were observed (Table 1). Surgical margins were negative in all cases, and no recurrence was detected during an average follow-up of 6-7 months. These findings are consistent with previously reported low complication rates (0-10%) and recurrence rates (<5%) in the literature. Complete excision was found to be crucial in preventing recurrence (Table 2).

**Conclusion:** Mesenteric cysts, with an incidence of approximately one case per 100,000 adults, are rare intra-abdominal masses. Similar to large series reported by Beahrs et al. (1950) and de Perrot et al. (2000), symptoms in our study were mainly limited to abdominal pain, no malignant transformation was detected, and complete surgical excision provided curative outcomes. While laparoscopic surgery is safe in selected cases, conversion or open surgery may be required for large or retroperitoneally extending cysts. The absence of complications or recurrence in our series emphasizes the importance of early diagnosis and complete excision. When performed with correct indication and meticulous dissection, surgical treatment of mesenteric cysts offers low morbidity and excellent long-term outcomes.

**Keywords:** Intra-abdominal mass, mesenteric cyst, abdominal pain

**Table 1. Demographic, clinical, and surgical characteristics of patients**

| Variable | Value |
|---|---|
| Total number of patients | 4 |
| Female/male | 3/1 |
| Mean age (years) | 50 |
| Age range (min-max) | 18-87 |
| Mean length of hospital stay (days) | 9.5 |
| Hospital stay range (days) | 7-15 |
| Presenting symptom | Abdominal pain (4/4, 100%) |
| Associated symptoms | Nausea and vomiting (2/4, 50%) |
| Surgical method | Open surgery: 2 (50%) |
| | Conversion (started laparoscopically, completed open): 2 (50%) |

**Table 2. Pathological findings and follow-up outcomes**

| Variable | Findings |
|---|---|
| Pathological diagnosis | Mesenteric cyst (n=2)<br>Mesothelial cyst (n=1)<br>Cystic calcification (n=1) |
| Surgical margin | Negative in all cases |
| Complication | None |
| Complication rate (%) | 0 |
| Mortality | None |
| Recurrence | None |
| Follow-up duration (mean) | 6-7 months |
| Long-term outcome | No recurrence or complications observed |

## [S-053]

### Application of silver nitrate in the treatment of pilonidal sinus

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**Objective:** Pilonidal sinus (PNS) is a prevalent condition in general surgery practice. This study aimed to assess the efficacy of silver nitrate stick application as a minimally invasive and cost-effective treatment for single-pit PNS.

**Material and Methods:** A prospective study was conducted on 21 patients (16 male, 5 female; mean age 27) presenting with single-pit PNS between March 2024 and January 2025. Patients, who complained of pain, discharge, and swelling, received silver nitrate stick application (10-second duration) at their initial clinic visit. This application was repeated 7 days later. No preoperative preparation, analgesia, or prophylactic antibiotics were used. All treatments and evaluations were performed by the same surgeon. Patients were followed up at 1, 3, and 6 months post-procedure.

**Results:** Postoperatively, none of the patients required analgesics. Complete anatomical healing was achieved in 17 patients (80.95%) at 3 months and in 18 patients (85.71%) at 6 months. Of the three patients without complete healing at 6 months, one was asymptomatic, and the remaining two, whose symptoms persisted, were offered surgery.

**Conclusion:** The silver nitrate application method demonstrated a high success rate of 85.71% at 6 months. This method is advantageous as it allows for immediate treatment upon initial presentation, is minimally invasive, virtually painless, and cosmetically acceptable. Furthermore, it prevents patient downtime and avoids the additional costs associated with extensive workup or surgical operation. Although the results are promising, this clinical study was performed on a small cohort, necessitating confirmation through controlled trials in larger populations.

**Keywords:** Silver nitrate, pilonidal sinus

## [S-056]

### Clinical outcomes of percutaneous endoscopic gastrostomy: Evaluating the prognostic impact of preoperative hemoglobin and albumin levels on 30-day mortality

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**Objective:** Percutaneous endoscopic gastrostomy (PEG) is widely performed for long-term enteral nutrition. Mortality in this population is generally unrelated to the procedure itself but is strongly influenced by clinical status and nutritional deficits. Previous studies have shown that low serum albumin and hemoglobin (Hb) levels are associated with early mortality. This study aimed to evaluate the impact of preoperative Hb and albumin levels on 30-day mortality and emphasize the importance of appropriate patient selection.

**Material and Methods:** We retrospectively reviewed patients who underwent PEG in the Endoscopy Unit of the General Surgery Clinic at Ankara Bilkent City Hospital between January 2024 and January 2025. Demographics, laboratory values, comorbidities, indications, complications and 30-day mortality were documented. Patients were categorized as those who died within 30 days (Group 1) and survivors (Group 2). The Mann-Whitney U test was used, with $p<0.05$ considered significant.

**Results and Conclusion:** Seventy-eight patients were included, with a mean age of 73.7±19.2 years; 56.4% were male. PEG indications included dementia/Alzheimer's disease (30.8%), cerebrovascular accident (23.1%) and prolonged coma (19.2%). Diabetes mellitus was present in 37.2% of patients. Mean albumin, Hb and platelet levels were 28.67 g/L, 9.95 g/dL and $311.45\times10^9$/L, respectively. The 30-day mortality rate was 14.1%. Overall complication rate was 5.1%, with one major complication (1.2%). Albumin levels were significantly lower in Group 1 (24.55 g/L vs. 29.34 g/L; p=0.006). Hb levels were also significantly lower (8.80 g/dL vs. 10.14 g/dL; p=0.003). Platelet levels showed no significant difference (p=0.693). PEG is a safe procedure with low complication rates. However, mortality is mainly determined by patients' clinical and nutritional status. Low preoperative albumin and Hb levels predict poor outcomes. Proper patient selection and optimization may reduce early mortality.

**Table 1. Demographic characteristics, clinical findings, and procedural outcomes of the patients**

| Parameter | Value |
|---|---|
| **Age (years)** | 73.71±19.22 |
| **Sex** | |
| Female | 34 (43.6%) |
| Male | 44 (56.4%) |
| **Diabetes mellitus status** | |
| Present | 29 (37.2%) |
| Absent | 49 (62.8%) |
| **PEG indications** | |
| Dementia/Alzheimer's disease | 24 (30.8%) |
| Cerebrovascular accident | 18 (23.1%) |
| Prolonged coma | 15 (19.2%) |
| Motor neuron disease | 6 (7.7%) |
| Head and neck cancer | 5 (6.4%) |
| Parkinson's disease | 4 (5.1%) |
| Head and neck trauma | 3 (3.8%) |
| Psychomotor retardation | 2 (2.6%) |
| Multiple sclerosis | 1 (1.3%) |
| **Preoperative albumin** (g/L) | 28.67±5.64 |
| **Preoperative hemoglobin** (g/dL) | 9.95±1.66 |
| **Preoperative platelets** (x10$^9$/L) | 311.45±140.48 |
| **Complication status during follow-up** | |
| None | 74 (94.9%) |
| Minor complication | 3 (3.8%) |
| Major complication | 1 (1.2%) |
| **Postoperative 30-day mortality** | |
| Survived | 67 (85.9%) |
| Died | 11 (14.1%) |

PEG: Percutaneous endoscopic gastrostomy.

**Table 2. Comparison of laboratory parameters between patients who died within 30 days and survivors after PEG**

| Variables | Group 1 (non-survivors) | Group 2 (survivors) | *p-value |
|---|---|---|---|
| **Age** (years) | 76.27±12.33 | 72.66±20.25 | 0.818 |
| **Preoperative albumin** (g/L) | 24.55±3.11 | 29.34±5.69 | **0.006** |
| **Preoperative hemoglobin** (g/dL) | 8.80±083 | 10.14±1.70 | **0.003** |
| **Preoperative platelets** (x10$^9$/L) | 275.55±108.99 | 317.34±144.82 | 0.693 |

* Mann-Whitney U test, PEG: Percutaneous endoscopic gastrostomy.

## [S-057]

### Incidental adenocarcinoma and intramucosal carcinoma detected in colonoscopic polypectomies at University of Health Sciences Türkiye, İstanbul Haseki Training and Research Hospital general surgery endoscopy unit: A five-year experience

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**Objective:** Colorectal cancers are the fourth most commonly diagnosed cancer type worldwide and rank second after lung and breast cancer in cancer-related mortality. A significant proportion of these cancers originate from colorectal polyps, and the pathological evaluation of polyps detected during colonoscopies plays a decisive role in patients' follow-up and treatment processes.

**Material and Methods:** We examined colonoscopic polypectomies performed over a 5-year period between 2020-2025 in the University of Health Sciences Türkiye, İstanbul Haseki Training and Research Hospital.

**Results and Conclusion:** Between 2020 and 2025, colonoscopic polypectomy was performed on 1,132 patients. Histopathological examination revealed tubular adenoma in 40.82%, hyperplastic polyp in 28.57%, tubulovillous adenoma in 15.99%, and villous adenoma in 5.4% of cases. Other pathology results accounted for 9.8%. However, pathology results showed intramucosal carcinoma in 14 patients, adenocarcinoma in 11 patients, and neuroendocrine tumor in three patients. Due to suspicion of submucosal invasion in the pathology results of three patients, surgery was performed. In four of the eight patients whose polypectomy results were interpreted as adenocarcinoma, surgery was decided due to submucosal invasion. In all three patients diagnosed with neuroendocrine tumor. Although the endoscopic appearance of colon polyps may provide insights regarding the characteristics of the polyp, their histopathological evaluations may lead to unexpected findings. Complete removal of the polyp during polypectomy, the continuity of the lesion with surgical margins, and the degree of differentiation are critical elements in determining the subsequent steps of treatment.

## [S-058]

### The effect of occupational radiation exposure on thyroid function: A clinical study

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**Objective:** Healthcare professionals working in nuclear medicine and radiology are routinely exposed to ionizing radiation, which may adversely affect thyroid function. The thyroid gland is particularly sensitive to radioactive iodine and X-rays. This study aimed to evaluate changes in thyroid function and morphology among healthcare workers with occupational exposure to I-131 and X-rays.

**Material and Methods:** This retrospective observational study included 101 participants divided into three groups: Group 1, nuclear medicine workers exposed to I-131 (n=35); Group 2, radiology workers exposed to low-dose X-rays (n=33); and Group 3, age- and sex-matched controls without occupational radiation exposure (n=33). Thyroid-stimulating hormone (TSH), free T3 (fT3), free T4 (fT4) levels and thyroid ultrasonography were assessed. Mean occupational exposure duration was approximately 10 years. Cumulative radiation doses were obtained from personal dosimeters. Statistical analyses were performed to compare hormonal and morphological differences and to evaluate dose-response correlations.

**Results:** Nuclear medicine workers demonstrated significantly higher TSH levels (4.1±0.9 mIU/L) and a 30% prevalence of subclinical hypothyroidism. Radiology workers showed mild hormonal changes but a higher rate of reduced thyroid volume (10%). No thyroid dysfunction was observed in the control group. A positive correlation was found between cumulative I-131 dose and TSH levels ($r=0.65$, $p<0.01$), while X-ray exposure was negatively correlated with thyroid volume ($r=-0.42$, $p<0.05$). Thyroid nodules were more frequent in the nuclear medicine group compared to controls.

**Conclusion:** Occupational exposure to I-131 is associated with clinically relevant alterations in thyroid function, particularly increased TSH levels and subclinical hypothyroidism. X-ray exposure primarily affects thyroid morphology with limited hormonal impact. Regular biochemical and ultrasonographic monitoring, strict radiation dose control and reinforced radiation safety measures are essential to protect healthcare workers from long-term thyroid complications.

## [S-059]

### Reliability of partial cecal resection with endostaplers in complicated acute appendicitis accompanied by appendiceal base necrosis or perforation

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**Objective:** Acute appendicitis is the most common surgical emergency that requires surgery. However, there is currently no consensus on how to manage appendiceal base necrosis or perforation in cases of complicated acute appendicitis involving the cecal base. In our study, we aimed to assess the effectiveness and outcomes of partial cecal resection using an endostapler in patients with appendiceal base necrosis or perforation.

**Material and Methods:** A total of 23 patients who underwent laparoscopic appendectomy at our clinic for appendiceal base necrosis or perforation between March 2021 and December 2024 were retrospectively analyzed. We analyzed intraoperative and postoperative complications, operative time, demographic data, and length of hospital stay.

**Results:** The mean age of the patients was 32.5±10.5 years. The female to male ratio was 8/15 (34.7% female, 65.2% male). The ASA score was distributed as follows: Six (26.09%) were ASA I, fourteen (60.87%) patients were ASA II, two (8.70%) patients were ASA III, one (4.35%) patient was ASA IV. Mean body mass index was 26.1±2.96 kg/m$^2$. Mean length of hospital stay was 3.0±1.0 days. The mean operative time was 90.3±20.3 minutes, and no intraoperative complications were observed. Postoperative complications occurred in 6 (26.09%) patients: Bleeding (n=1, 4.35%), ileus (n=1, 4.35%), wound infection (n=2, 8.7%), intraabdominal abscess (n=2, 8.7%). All postoperative complications were managed conservatively, and no stapler leaks were observed in any of the patients.

**Conclusion:** Partial cecal resection with endostapler is a safe and effective method for managing acute complicated appendicitis with appendiceal base necrosis or perforation.

## [S-060]

### Evaluation of reporting quality in randomized controlled trials on colorectal cancer

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**Objective:** Randomized controlled trials (RCTs) on colorectal cancer (CRC) provide the strongest evidence guiding decisions regarding surgical approaches, perioperative protocols, and oncological strategies. However, methodological challenges such as allocation concealment, blinding, intervention standardization, impartiality in outcome measurement, and selective reporting are frequently encountered in surgical RCTs. This study aims to evaluate the methodological quality and reporting adequacy of RCTs conducted in the field of CRC published between 2022 and 2025.

**Material and Methods:** This study is a cross-sectional methodological review that includes only publicly available publications. A search was planned in PubMed using the following strategy: (colorectal OR colon OR rectal) AND (cancer OR neoplas*) AND (surg* OR operat* OR resect* OR laparos* OR robot*) AND (randomized OR randomised OR "randomized controlled trial"[pt]) and publication date 01.01.2022-15.10.2025. Full-text, English RCTs conducted in the field of CC disease. The retrieved articles were analyzed using the CONSORT reporting items. The "brick.ai" data analysis program was used in the analysis.

**Results and Conclusions** One thousand three hundred and thirty-one studies were identified. Over the study period, total RCT publications showed modest growth, while reporting of core CONSORT elements improved irregularly. Blinding and registration descriptors gradually increased; protocol/design reporting lagged behind. Top-tier journals showed greater adherence to CONSORT items. A positive correlation between blinding reporting and protocol description was seen in subsequent years. Improvements in some reporting domains showed progress, but persistent deficiencies in protocol/design reporting indicate that quality issues persist. Strengthened journal policies and researcher education could increase comprehensive adherence to CONSORT and improve the transparency and reproducibility of RCTs.

## [S-061]

### Comparative analysis of emergency and elective colorectal surgeries: A three-year experience of 743 patients

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**Objective:** Colorectal cancers are among the leading causes of morbidity and mortality worldwide. Despite increasing rates of elective surgeries due to screening programs and early detection strategies, surgeries performed under emergency conditions still represent a significant clinical and societal challenge. Complications associated with malignancies are more prominent in emergency cases, negatively affecting patient prognosis and raising concerns about the effectiveness of screening systems. This study retrospectively analyzes colorectal surgeries performed in our clinic over a three-year period and compares emergency and elective cases in terms of demographic, pathological, and surgical characteristics.

**Material and Methods:** A total of 743 patients who underwent colorectal surgery at University of Health Sciences Türkiye, Ankara Etlik City Hospital between 2022 and 2025 were retrospectively evaluated. Demographic data (age, sex), urgency of surgery, type of operation, and histopathological findings were recorded. Emergency and elective cases were statistically compared.

**Results:** The mean age of the patients was 63.5±13.4 years, median 65 (range 18-97), and 61% (n=453) were male. Of all cases, 43.1% (n=320) were operated under emergency conditions, while 56.9% (n=423) were elective.

**Conclusion:** The higher-than-expected rate of emergency surgeries in our series and the predominance of malignancy-related complications suggest inadequacies in screening and early detection processes within the healthcare system. Although demographic characteristics were similar, surgical strategies differed markedly between emergency and elective cases. These findings highlight the need to strengthen population-based colorectal cancer screening programs and improve minimally invasive approaches in emergency colorectal surgery.

**Keywords:** Emergency surgery, colorectal surgery, colorectal cancer

## [S-062]

### Post-colorectal surgery ostomy revisions

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**Objective:** Ostomies are procedures frequently performed in both emergency and elective abdominal surgeries to maintain bowel function in colorectal pathologies. However, complications associated with ostomies may require revision surgery. Identifying the determinants of short-term adverse outcomes after ostomy revision is important for risk classification and improving perioperative management. In this study, we aimed to examine complications and risk factors that may require ostomy revision.

**Material and Methods:** The demographic characteristics, reasons for revision, complications, and clinical outcomes of 58 patients who underwent ostomy revision at our clinic between January 2022 and April 2025 were retrospectively reviewed.

**Results:** Fifty-eight patients were included in the study. The mean age was 61.2±13.5 years. Twenty-four patients were female (41.4%), and 34 were male (58.6%). The mean body mass index was 26.5±4.2 kg/m². Diabetes was present in 12 patients (20.7%), chronic obstructive pulmonary disease in 6 patients (10.3%), and smoking in 15 patients (25.9%). Twenty-three (39.7%) of the initial surgeries were performed under emergency conditions. Twenty-nine (50.0%) patients had ileostomy, and 29 (50.0%) had colostomy. The mean time to revision was 64.3±41.7 days. Twenty patients (34.5%) underwent revision in the early period (<30 days). The average length of hospital stay was 12.6±6.1 days. The primary cause of ostomy revision was benign in 11 patients (19.0%) and malignant in 47 patients (81.0%). Emergency surgery was performed in 3/11 (27.3%) of the benign group and in 24/47 (51.1%) of the malignant group. Preoperative hemoglobin was 10.2±1.5 g/dL and postoperative hemoglobin was 9.1±1.6 g/dL. (p=0.004). Preoperative hematocrit was 30.4±4.5%, and postoperative hematocrit was 27.1±4.9%. (p=0.006). Preoperative albumin was 31.8±5.3 g/L, and postoperative albumin was 28.2±5.7 g/L. (p=0.012). A significant decrease was observed at these levels. The neutrophil/lymphocyte ratio increased after surgery (3.1±1.4 vs. 4.2±2.1, p=0.028). When comparing early and late revisions, preoperative hemoglobin was 9.4±1.2 g/dL in the early group and 10.7±1.5 g/dL in the late group (p=0.031). Albumin was significantly lower in the early group (29.1±4.2 g/L) than in the late group (33.4±5.1 g/L) (p=0.022). The length of hospital stay was longer in the early group (15.2±7.1 vs. 11.1±5.0 days, p=0.041). Mortality was 18.2% (4/22) in the early group and 6.7% (2/30) in the late group, and the difference was statistically significant (p=0.032). There were no significant differences between the groups in terms of diabetes, COPD, and smoking (p>0.05). The reasons for revision were necrosis (n=14, 24.1%), retraction (n=7, 12.1%), stenosis/narrowing (n=6, 10.3%), and parastomal hernia (n=4, 6.9%). Hemoglobin (9.1±1.1 vs. 10.5±1.4 g/dL, p=0.018) and albumin (28.4±3.8 vs. 32.9±5.2 g/L, p=0.027) were lower in patients with ostomy necrosis. The length of hospital stay was longer (16.1±7.5 vs. 11.2±5.4 days, p=0.034). In the ROC/area under the curve (AUC) analysis, preoperative hemoglobin AUC=0.72 (threshold 9.5 g/dL, sensitivity 71%, specificity 68%), albumin AUC=0.70 (threshold 25 g/L, sensitivity 69%, specificity 65%), hematocrit AUC=0.68, and neutrophil/lymphocyte ratio AUC=0.66.

**Conclusion:** Low preoperative hemoglobin and albumin levels were associated with the need for ostomy revision in the early postoperative period after colorectal surgery and with short-term mortality.

## [S-066]

### The role of colonoscopy in colorectal cancer screening: A 13,529-case single-centre experience

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**Objective:** Colorectal cancer (CRC) remains one of the most prevalent and lethal malignancies worldwide. Early detection through screening colonoscopy enables identification and removal of premalignant adenomas, significantly reducing incidence and mortality. This study aimed to evaluate demographic and histopathologic findings among patients undergoing colonoscopy at a tertiary healthcare centre and to compare results with national screening data and international guidelines.

**Material and Methods:** This retrospective study included all patients who underwent colonoscopy at University of Health Sciences Türkiye, Ankara Etlik City Hospital between October 1, 2022 and August 1, 2025. Patients younger than 18 years and those with incomplete data were excluded. Age, sex, biopsy status, and histopathology were analyzed. Histopathological results were classified as non-neoplastic, adenomatous (tubular, tubulovillous, villous, serrated), benign non-adenomatous, or malignant. Descriptive statistics were used.

**Results:** Among 13,529 patients (mean age 54.99±14.03 years; 47.4% male, 52.6% female), biopsy was performed in 1.451 (10.7%). Of these, 45.1% (n=654) showed no neoplasia, 46.3% (n=672) had adenomas. Adenomas were predominantly tubular (n=537, 37.0%) and among the biopsy performed patients 5.0% (n=72) had malignancy as result (adenocarcinoma in 51). Adenoma and malignancy rates were higher among men.

**Conclusion:** Detection of adenomatous or malignant lesions in nearly half of biopsied patients highlights colonoscopy's central role in CRC prevention and early diagnosis. The results emphasize the need to strengthen participation in national screening programs, enhance public awareness, and integrate quality monitoring across Türkiye's healthcare system.

**Keywords:** Colonoscopy, adenoma, adenocarcinoma, colorectal cancer screening, tertiary healthcare, histopathology

Figure 1. Initial presentation showing the newly developed left heel diabetic ulcer.

## [S-068]

### Clinical outcomes of robotic and laparoscopic hiatal hernia repair and evaluation of an automated data collection system

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**Objective:** Laparoscopic surgery is the standard approach in hiatal hernia repair, while robotic surgery has emerged as an alternative offering enhanced precision and visualization. Alongside surgical outcomes, data collection remains a critical challenge in clinical research. This study aimed to compare clinical outcomes of robotic and laparoscopic hiatal hernia repair and to evaluate the efficiency and reliability of an automated data collection system versus manual data extraction.

**Material and Methods:** This retrospective study included 158 adult patients who underwent robotic or laparoscopic hiatal hernia repair between 2015 and 2025 at Acıbadem Maslak, Altunizade, and Atakent Hospitals. Ninety-seven patients underwent laparoscopic and sixty-one robotic procedures. Inclusion criteria were adults with sliding or paraesophageal hiatal hernia treated by minimally invasive surgery. Patients with incomplete records or concomitant major surgery were excluded. Patient data were extracted from the electronic health record system using a custom-developed automated software tool and exported to a structured Excel database. Parallel manual data collection was performed by medical students. Both methods were compared in terms of speed, accuracy, reliability, and data completeness. Clinical parameters included demographic characteristics, preoperative findings, postoperative complications, length of hospital stay, and proton pump inhibitor usage.

**Results:** The automated data collection system demonstrated superior performance compared to manual collection in terms of speed, accuracy, consistency, and data integrity. No statistically significant differences were found between robotic and laparoscopic approaches regarding postoperative complaints or hospital length of stay ($p>0.05$). Clinical outcomes were comparable between both surgical techniques.

**Conclusion:** Automated data collection proved to be a more efficient and reliable method than manual extraction in surgical research. Robotic and laparoscopic hiatal hernia repairs demonstrated similar short-term clinical outcomes, suggesting both approaches are safe and effective. These findings support the integration of automated systems into clinical data management and provide guidance for surgical technique selection.

## [S-069]

### Predicting the need for surgery and resection in adhesive small bowel obstruction

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**Objective:** Small bowel obstruction (SBO) is one of the leading causes of emergency general surgery admissions, with adhesions being the most common etiology. Although most cases (60-85%) can be managed non-operatively, early identification of patients who will require surgical intervention is critical to reduce morbidity and prevent bowel resection. The American Association for the Surgery of Trauma (AAST) has a grading system for severity. This study aimed to evaluate factors associated with the need for surgery and bowel resection in patients with adhesive SBO.

**Material and Methods:** We retrospectively reviewed patients hospitalized with adhesive University of Health Sciences Türkiye, Ankara Etlik City Hospital, between February 2023-February 2024. A total of 70 patients (40 male, 30 female; mean age 56.87 years, range 19-88) were included. Sixty-six patients had a history of previous abdominal surgery. The mean interval from the last abdominal operation was 81.52 months (0-540). Laboratory parameters at admission and at 48 hours (white blood count, C-reactive protein, creatinine) and computed-tomography measured small bowel dilatation were analyzed. Patients were classified according to the AAST grading system. Clinical outcomes were examined.

**Results:** Non-operative management was successful in 48 patients (68.6%), while 22 patients (31.4%) required surgery. Among them, 11 underwent bowel resection and 11 were treated with adhesiolysis alone. A significant relationship was found between AAST grade and the need for surgery ($p=0.037$), but not for resection. Small bowel dilatation ≥45.5 mm was significantly associated with surgical requirement (sensitivity 0.41, specificity 0.83; $p=0.038$) but not for resection. No significant association was observed between surgical need and laboratory parameters, time since last operation, incision type, or length of hospitalization.

**Conclusion:** AAST grading plays a valuable role in predicting surgical necessity in adhesive SBO. CT-measured bowel dilatation ≥45.5 mm may serve as a practical predictor for operation. However, neither parameter reliably predicts bowel resection.

## [S-070]

### Negative lymph node count and dissection threshold in gastric cancer after neoadjuvant therapy

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**Objective:** Neoadjuvant therapy is a standard approach in locally advanced gastric cancer. Lymph node-related parameters play a critical role in postoperative prognosis assessment. Adequate dissection directly affects both accurate staging and survival. This study aimed to determine a dissection threshold by examining the relationship between the number and rate of negative lymph nodes and survival in gastric cancer patients after neoadjuvant therapy.

**Material and Methods:** Patients with locally advanced gastric tumors who underwent surgery after neoadjuvant therapy at our clinic between January 2022 and April 2025 were retrospectively reviewed. The patients' demographic characteristics, tumor location, tumor size, histopathological findings, total number of lymph nodes removed, number of negative lymph nodes, lymph node ratio, and survival data were obtained from the medical records.

**Results:** A total of 54 patients were included in the study. The mean age of the patients was 60.4±12.2 years. The mean survival was determined to be 19.0±13.8 months. The mean number of total lymph nodes removed was 25.5±12.4. The number of positive lymph nodes was determined to be 3.1±4.3, and the number of negative lymph nodes was 22.4±13.7. The hospital stay was 12.5±8.7 days. 74.1% of patients (n=40) were male, and 25.9% (n=14) were female. The tumor was most frequently seen in the corpus (46.3%), followed by the cardia (29.6%) and antrum (24.1%). The proportion of patients with tumor size less than two centimeters was 59.3% (n=32), between two and five centimeters was 29.6% (n=16), and greater than five centimeters was 11.1% (n=6). In the pathological stage distribution, stage 2 was 40.7% (n=22), stage 1 was 29.6% (n=16), stage 3 was 27.8% (n=15), and stage 4 was 1.9% (n=1). According to the Lauren classification, 55.6% were intestinal type, 38.9% were diffuse type, and 5.6% were mixed type. Poorly differentiated tumors were observed in 46.3%, moderately differentiated tumors in 38.9%, and well-differentiated tumors in 14.8%. Lymphovascular invasion was positive in 42.6%. Perineural invasion was present in 37.0%. HER2 positivity was observed in 3.7% (n=2) of patients. The mortality rate was 83.3% for tumors larger than five centimeters, 25.0% for tumors between two and five centimeters, and 18.8% for tumors smaller than two centimeters. A significant relationship was found between tumor size and survival (p=0.005). Pathological stage was significantly associated with survival (p=0.0297); the mortality rate was 6.2% in stage 1, 27.3% in stage 2, 46.7% in stage 3, and 100% in stage 4. The number of positive lymph nodes was higher in patients with a fatal course (5.5±4.7 vs. 2.2±3.8, p=0.0024). The number of negative lymph nodes was higher in patients without a fatal course (24.6±14.0 vs. 16.4±11.2, p=0.0074). In ROC analysis, the AUC for negative lymph node count was 0.738, with the best cut-off value being 20 (sensitivity 87%, specificity 56%). The AUC for total lymph node count removed was 0.668, with the best cut-off being 20 (sensitivity 73%, specificity 64%). The total number of lymph nodes removed was similar between patients with and without mortality (26.8±13.2 vs. 21.9±9.6). There was no difference between the groups in terms of hospital stay and survival time (p>0.05).

**Conclusion:** We determined that 20 lymph nodes were sufficient during surgical dissection in patients with locally advanced gastric cancer who underwent surgery after neoadjuvant therapy. We believe that this result positively affects the oncological prognosis in the early period. Multicenter studies with larger sample sizes are needed.

## [S-072]

### Delayed diagnosis in small bowel malignancies: Lessons learned from emergency surgery

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**Objective:** Small bowel malignancies constitute less than 5% of gastrointestinal tumors and often present with non-specific symptoms such as abdominal pain, nausea, vomiting, weight loss, or iron-deficiency anemia. Because these findings mimic many benign conditions, diagnosis is frequently delayed. Many patients are identified only after complications—particularly ileus, perforation, or acute gastrointestinal bleeding—lead to emergency admissions.

**Material and Methods:** This study analyzed demographic features, surgical indications,and histopathological outcomes of patients operated for small bowel pathologies at University of Health Sciences Türkiye, Ankara Etlik City Hospital between 2022-2025, focusing on the rate of malignancies detected during emergency surgeries. A total of 302 patients who underwent surgery for small bowel diseases were retrospectively evaluated. Demographic variables (age, gender), urgency of operation (emergency vs. elective), and pathology results were reviewed. Histopathological diagnoses were categorized as malignant, benign, or non-neoplastic. Data were summarized descriptively.

**Results:** The mean age was 60.8 years (19-94), and 54.6% of patients were male. Pathology revealed malignancy in 41 patients (13.6%), benign lesions in 3 (1.0%), and no neoplasm in 258 (85.4%). Among 253 emergency surgeries, malignancies were identified in 30 patients (11.9%), benign lesions in 3 (1.2%), and no neoplasm in 220 (87.0%). Of 49 elective operations, malignancy was detected in 11 patients (22.4%) and no neoplasm in 38 (77.6%). Overall, over two-thirds of all malignant cases were diagnosed during emergency operations, reflecting a significant delay in clinical recognition.

**Conclusion:** The high rate of malignancies discovered during emergency admissions demonstrates persistent challenges in the early diagnosis of small bowel tumors. Contributing factors include the absence of screening programs, non-specific symptom profiles,and limited or delayed access to advanced diagnostic pathways. Lowering the threshold for imaging and early investigation in patients with chronic unexplained abdominal pain, recurrent subileus episodes,or unexplained anemia may improve timely detection and reduce complications related to delayed diagnosis.

**Keywords:** Small bowel, malignancy, emergency surgery, diagnostic delay, histopathology

**Table 1. General distribution of pathological diagnoses**

| Pathology group | Number | Percentage (%) |
|---|---|---|
| Malignant | 41 | 13.6 |
| Benign | 3 | 1.0 |
| No neoplasm | 258 | 85.4 |
| Total | 302 | 100 |

**Table 2. Distribution of pathological diagnoses by emergency and elective cases**

| Emergency/elective | Malignant | Benign | No neoplasm | Total |
|---|---|---|---|---|
| Emergency | 30 (11.9%) | 3 (1.2%) | 220 (87.0%) | 253 |
| Elective | 11 (22.4%) | 0 (0.0%) | 38 (77.6%) | 49 |
| Total | 41 (13.6%) | 3 (1.0%) | 258 (85.4%) | 302 |

| Table 3. Age and gender distribution | |
|---|---|
| **Characteristic** | **Value** |
| Mean age | 60.8 |
| Median age | 63.0 |
| Minimum age | 19 |
| Maximum age | 94 |
| Male | 165 (54.6%) |
| Female | 137 (45.4%) |
| Total | 302 (100%) |

## [S-073]

### Unexpected histopathological findings in sleeve gastrectomy specimens: A single-centre retrospective analysis

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**Objective:** Bariatric surgery is an effective long-term treatment for morbid obesity, with sleeve gastrectomy being a common technique for weight loss and metabolic improvement. The gastric tissue removed during surgery is routinely examined histopathologically; however, unexpected tumor lesions, such as gastrointestinal stromal tumors (GISTs), may be found even in patients with normal preoperative endoscopic results. This study aims to assess the frequency of such benign lesions, particularly GISTs, in endoscopically normal cases.

**Material and Methods:** This retrospective descriptive study included 261 patients who underwent sleeve gastrectomy for obesity at the General Surgery Department of University of Health Sciences Türkiye, Ankara Etlik City Hospital between 2022 and 2025. All patients underwent upper gastrointestinal endoscopy in the preoperative period, and no pathological findings were detected. All gastric material removed during surgery was histopathologically evaluated; the presence of neoplastic, inflammatory, or other unexpected lesions was recorded.

**Results:** Of the 261 patients included in the study, 85.1% were female (n=222) and 14.9% were male (n=39). The mean age was calculated as 39.2 years (range 19-68). Histopathological examination revealed no neoplasms in 259 cases (99.2%), while 2 patients (0.8%) were diagnosed with benign GIST. Preoperative endoscopic evaluation was normal in all of these cases, and the lesions were diagnosed incidentally. The tumours were found to be small (≤1 cm) and submucosal in location.

**Conclusion:** This study emphasizes the importance of routine histopathological examination of gastric tissue removed during sleeve gastrectomy. The detection of benign GISTs in patients with normal preoperative endoscopy shows that this examination is crucial for early identification of subclinical or asymptomatic tumors. Our findings suggest that submucosal lesions may be more common than previously recognized in bariatric surgery patients. Thus, comprehensive histopathological evaluation of all gastrectomy specimens should remain a standard practice for patient safety and long-term follow-up.

**Keywords:** Bariatric surgery, sleeve gastrectomy, gastrointestinal stromal tumour (GIST), histopathological examination, endoscopy, submucosal lesion, unexpected tumour

| Table 1. Descriptive statistics | |
|---|---|
| **Variable** | **Value** |
| Total number of patients | 261 |
| Number of male patients | 39 |
| Number of female patients | 222 |
| Average age | 39.2 |
| Minimum age | 19 |
| Maximum age | 68 |

| Table 2. Distribution of pathological findings by gender | | | |
|---|---|---|---|
| **Pathological finding** | **Male (n, %)** | **Female (n, %)** | **Total (n, %)** |
| Gastrointestinal stromal tumor, benign | 1 (2.6%) | 1 (0.5%) | 2 (0.8%) |
| No neoplasm detected | 38 (97.4%) | 221 (99.5%) | 259 (99.2%) |
| Total | 39 (100%) | 222 (100%) | 261 (100%) |

| Table 3. Comparison of the frequency of incidental GIST in sleeve gastrectomy specimens with the literature | | | | | | |
|---|---|---|---|---|---|---|
| **Author (year)** | **Study type/ center** | **Number of patients (n)** | **Incidental GIST count (n)** | **Rate (%)** | **Lesion characteristics** | **Main outcome/ recommendation** |
| Abdull Gaffar et al., 2016 (Obesity Surgery) | Retrospective, single center | 1295 | 4 | 0.3 | <1 cm, submucosal, low risk | Routine histopathological examination is recommended |
| Csendes et al., 2017 (Surgical endoscopy) | Prospective, multicenter | 2000 | 16 | 0.8 | Small, asymptomatic GISTs | Endoscopic differentiation is not possible |
| Al-Brahim et al., 2019 (Human pathology) | Retrospective, single center | 874 | 9 | 1.0 | Submucosal, low mitotic index | All specimens should be examined histopathologically |
| Yeğen et al., 2021 (Turk J Surg) | Retrospective, Türkiye | 314 | 3 | 1.0 | Benign, submucosal | The national data are consistent with the international literature |
| Current study (University of Health Sciences Türkiye, Ankara Etlik City Hospital 2025) | Retrospective, single center | 261 | 2 | 0.8 | <1 cm, submucosal, benign | Histopathological examination is essential for patient safety |

## [S-074]

### Gastric adenocarcinoma: Single-center experience with gastrectomy and concurrent multi-organ resections

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**Objective:** Curative treatment of gastric adenocarcinoma often requires radical surgical resection. In locally advanced stages, achieving negative margins may necessitate en bloc removal of adjacent organs. Although multivisceral resections increase operative complexity and perioperative risk, they may provide meaningful oncologic benefit when applied selectively. This study evaluates the clinical features, pathological findings, and short-term outcomes of patients who underwent gastrectomy combined with concurrent organ resections in a tertiary referral center.

**Material and Methods:** A retrospective analysis was conducted on 88 patients who underwent gastrectomy with additional organ resection for gastric adenocarcinoma over the past ten years. Demographic characteristics, tumor location, surgical details, extent of organ resections, perioperative parameters, and early postoperative outcomes were examined. Pathological staging followed contemporary TNM criteria. Descriptive statistics were used to summarize the findings.

**Results:** The mean age was 62.3 years, and most patients were male. Tumors were predominantly located in the corpus, followed by distal and proximal stomach. Total gastrectomy was the most frequently performed procedure, while distal and proximal gastrectomies were less common. Splenectomy represented the most common concurrent organ resection. Pancreatic, colonic, hepatic, adrenal, and small bowel resections were performed in selected cases with suspected local invasion. Cholecystectomy and diaphragm resection were required less frequently. Operative time and length of hospital stay reflected the complexity of multiorgan procedures. The perioperative mortality rate was low. Pathological evaluation showed that most patients presented with advanced T stages, and lymph node involvement was common, indicating aggressive disease biology within this surgically treated cohort.

**Conclusion:** Gastrectomy combined with multiorgan resection can be performed with acceptable short-term outcomes in carefully selected patients with advanced gastric adenocarcinoma. Despite the technical challenges associated with en bloc resections, low perioperative mortality was achieved in this series. Optimal outcomes depend on meticulous patient selection, appropriate surgical expertise, and coordinated multidisciplinary management to balance oncologic benefit with surgical risk.

## [S-076]

### Evaluation of complications in gastric cancer surgery using the Clavien-Dindo classification

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**Objective:** Gastric cancer remains a major global health problem, and postoperative morbidity continues to affect outcomes. This study evaluated early postoperative complications using the Clavien-Dindo classification in patients undergoing curative gastrectomy.

**Material and Methods:** This retrospective single-center study included patients who underwent gastrectomy between March 2020 and April 2025. Demographic features, ASA scores, type of surgery, neoadjuvant treatment, pathological stage, postoperative complications, and 30-day mortality were recorded. Complications were graded using the Clavien-Dindo system. Patients who required extended resection were analyzed separately. Chi-square and Mann-Whitney U tests were used, with $p<0.05$ considered significant.

**Results:** Of the patients, 68.6% were male, and the mean age was 60.9±11.2 years. Total gastrectomy and subtotal gastrectomy were performed in 75.6% and 24.4% of patients. Pathological evaluation showed T3-T4 tumors in 80.2% and nodal positivity in 64.0%. The mean number of retrieved lymph nodes was 34.7±12.3. Overall morbidity was 31.4%, while Clavien-Dindo grade ≥3 complications occurred in 25.6%, and 30-day mortality was 3.5%. The most common complications were intra-abdominal abscess (8.1%), anastomotic leakage (5.8%), and surgical site infection (5.8%). In extended resections (n=6, 7.0%), surgical site infection (33.3% vs. 3.8%, p=0.003), pneumonia (16.7% vs. 1.3%, p=0.016), and hospital stay (15.8 vs. 9.9 days, p=0.006) were significantly higher. No significant association was found between morbidity and age, sex, ASA score, comorbidities, or tumor stage.

**Conclusion:** Morbidity and mortality rates after gastrectomy at the study center align with published data. Infectious complications and hospitalization were markedly higher in extended resections, underscoring the importance of close postoperative monitoring in these patients.

## [S-078]

### The impact of preoperative biliary drainage methods on postoperative outcomes in patients undergoing the whipple procedure

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**Objective:** This study aimed to assess the impact of preoperative biliary drainage (PBD) methods on postoperative outcomes in patients undergoing the Whipple procedure (pancreaticoduodenectomy).

**Material and Methods:** A total of 75 patients who underwent pancreaticoduodenectomy between January 2023 and July 2025 were retrospectively analyzed. Patients were categorized into three groups according to the drainage method: Endoscopic retrograde cholangiopancreatography (ERCP), percutaneous transhepatic cholangiography (PTC), and no drainage. Demographic characteristics, serum bilirubin levels, Clavien-Dindo complication grades, pancreatic fistula rates, infectious complications and 90-day mortality were recorded.

**Results:** The mean age of the patients was 65.9±9.5 years, and 66.7% were male. Pancreatic head malignancy was the predominant diagnosis (73.3%). Serum bilirubin levels significantly decreased from 8.8 mg/dL to 3.1 mg/dL after intervention ($p<0.001$). Despite this biochemical improvement, no significant differences were observed between drained and non-drained groups in major postoperative complications (38.2% vs. 41.6%), infectious complications, pancreatic fistula, or 90-day mortality (22.2% vs. 16.7%). When ERCP and PTC were compared, postoperative outcomes were similar; however, the time interval between drainage and surgery was significantly shorter in PTC patients (22.8 vs. 42.7 days, $p<0.001$).

**Conclusion:** Preoperative biliary drainage provides biochemical improvement in liver function but does not confer significant benefits in postoperative morbidity or mortality. Routine drainage is not recommended and should be reserved for selected patients with severe hyperbilirubinemia, cholangitis, or anticipated surgical delay. The choice between ERCP and PTC should be individualized according to clinical condition, bilirubin level, and institutional experience.

**Keywords:** Biliary drainage, pancreaticoduodenectomy, postoperative outcomes

## [S-079]

### Contributions of $SUV_{max}$ and ACR-TIRADS score to biopsy decision-making in thyroid incidentalomas

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**Objective:** 18F-FDG PET/CT scans have increasingly revealed incidental focal thyroid lesions as the use of this imaging modality becomes more widespread. These incidentalomas represent a heterogeneous group, and accurate assessment of their malignancy risk is critical for determining an appropriate diagnostic approach. Proper classification helps reduce unnecessary invasive procedures while facilitating early detection of malignant lesions. Among metabolic activity indicators measured by PET/CT, $SUV_{max}$ stands out as a quantitative parameter potentially associated with malignancy risk. Additionally, the ultrasound-based ACR-TIRADS is a widely adopted scoring system that stratifies thyroid nodules into risk categories based on their morphological characteristics. The aim of this study was to evaluate the performance of $SUV_{max}$ values and ACR-TIRADS scoring in predicting malignancy in thyroid nodules demonstrating focal FDG uptake on PET/CT and to examine the correlation between these two methods.

**Material and Methods:** Between January 2023 and December 2024, 93 patients (100 nodules) with focal thyroid FDG uptake on 18F-FDG PET/CT and subsequently detected thyroid nodules on ultrasonography were prospectively evaluated from a total of 7.553 PET/CT scans. Nodules were classified according to the ACR-TIRADS system, $SUV_{max}$ values were recorded, and associations with histopathological malignancy were analyzed.

**Results and Conclusion:** The malignancy rate was 38%. Malignant nodules demonstrated significantly higher $SUV_{max}$ values ($p<0.001$). A positive correlation was observed between ACR-TIRADS classification and $SUV_{max}$ values ($r=0.359$, $p<0.001$). ROC analysis identified an optimal $SUV_{max}$ cut-off of 6.525 for predicting malignancy, with an accuracy of 72.53%. In ACR-TIRADS category 3 nodules, malignancy prediction based on this threshold exceeded 90% accuracy. Combining $SUV_{max}$ values and ACR-TIRADS scoring in the evaluation of thyroid incidentalomas detected on PET/CT may enhance biopsy decision-making, reduce unnecessary invasive procedures, and support earlier detection of malignancy. The additional value of $SUV_{max}$ is particularly useful in "gray-zone" nodules such as ACR-TIRADS 3.

**Keywords:** ACR-TIRADS, $SUV_{max}$, thyroid incidentaloma

## [S-080]

### Factors influencing the development of thyroid cancer in patients with Graves' disease: A single-center experience of 206 cases

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**Objective:** The incidence of thyroid carcinoma, particularly papillary thyroid carcinoma (PTC), has been increasingly reported in patients with Graves' disease (GD), with rates ranging between 1-21%. This study aimed to determine the prevalence of thyroid cancer in patients with GD and to identify preoperative predictive factors associated with thyroid malignancy.

**Material and Methods**: We retrospectively evaluated 206 patients who underwent thyroidectomy for GD between 2016 and 2024 at our institution. Demographic characteristics, preoperative biochemical parameters, and postoperative pathology findings were analyzed. Patients were classified into two groups based on final pathology results: Malignant (n=42) and benign (n=164). All malignant cases were consistent with papillary thyroid carcinoma. Body mass index (BMI) was categorized as normal, overweight, or obese according to World Health Organization criteria.

**Results:** The mean age of the 206 surgically treated GD patients was 42.3±13.2 years; 74.8% were female and 25.2% were male, including 4 adolescent patients. The mean BMI was 26.01±4.38 kg/m². Age did not differ significantly between the two groups. Female sex was significantly more common in the benign group compared with the malignant group (71.3% vs. 88.1%, p=0.026). Malignant group had a significantly higher mean BMI (27.9±4.2 vs. 25.5±4.3 kg/m², p=0.001), and obesity was more prevalent (35.7% vs. 15.9%, p=0.006). Thyroid nodules were significantly more frequent in the malignant group compared with the benign group (66.7% vs. 31.1%, p<0.001). Preoperative biochemical markers showed no significant differences between the groups. In multivariate logistic regression analysis, female sex [odds ratio (OR)=0.33] and presence of a thyroid nodule (OR=3.4) were identified as independent predictors of malignancy.

**Conclusion:** In patients with GD, preoperative presence of thyroid nodules increases the risk of thyroid malignancy approximately 3.4-fold. Careful evaluation of nodular GD patients and appropriate treatment planning are essential to avoid delayed diagnosis of coexisting thyroid cancer.

**Keywords:** Graves' disease, nodule, thyroid cancer

## [S-082]

### Evaluation of recurrent laryngeal nerve functions during intraoperative neuromonitorization in berry ligament entrapment during thyroidectomy

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**Objective:** The recurrent laryngeal nerve (RLN) can be entrapped by Berry ligament fibers or vascular structures before entering the larynx. This study evaluated the effect of RLN entrapment at the Berry ligament level on intraoperative findings such as reduced amplitude, prolonged latency, or the combined events (CE) where both changes are seen,and the contribution of intraoperative nerve monitoring (IONM) to the preservation of nerve functions.

**Material and Methods:** The RLN tract was identified in 913 patients (1425 nerves) who underwent thyroid surgery between January 2018 and August 2023. Nerves with Berry ligament entrapment were divided into Group 1, and those without formed Group 2. The clinical data of the patients were retrospectively evaluated. All nerves received continuous (C-IONM) or Intermittent IONM (I-IONM). Intraoperative signal loss (LOS) and postoperative vocal cord paralysis (VCP) were evaluated. C-IONM recordings including an amplitude drop >50% or latency prolongation >10% or a combined event,and subsequent recovery, were specifically examined.

**Results and Conclusion:** Berry ligament entrapment was present in 27.5% (n=392) of the nerves. C-IONM use was significantly higher in Group 1 (51.8% vs. 41.4%; p=0.0001). During dissection, the rate of amplitude dropping below 50% was significantly higher in Group 1 (70.3% vs. 59.1%; p=0.008). There was no significant difference between the groups regarding only a latency prolongation of more than 10% (53.3% vs. 47.5%; p=0.182). The rate of CE was significantly higher in Group 1 (42.6% vs. 28.5%; p=0.0001). The recovery rate in nerves that developed CE was significantly higher in Group 1 than in Group 2 (69.9% vs. 89.6%; p=0.0001). The LOS rate was significantly higher in Group 1 (19.6% vs. 3.2%; p=0.0001). Group 1 had significantly higher rates of total VCP (15.1% vs. 2.4%), and temporary VCP (14.1% vs. 2%) compared to Group 2 (p=0.0001 for all). Permanent VCP rates were similar (p=0.154). In conclusion, Berry ligament entrapment causes intraoperative EMG changes, increasing the risk of signal loss and temporary VCP. Early detection with C-IONM and subsequent surgical intervention can improve nerve preservation and postoperative nerve functions.

**Keywords:** Berry ligament, recurrent laryngeal nerve, thyroid

## [S-083]

# Results of thyroid fine-needle aspiration biopsies performed under ultrasound guidance by a single surgeon

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**Objective:** Fine-needle aspiration biopsy (FNAB) is the main diagnostic tool in the evaluation of thyroid nodules and reduces unnecessary surgery. This study evaluated the outcomes of ultrasound-guided FNABs performed by the same surgeon at a single center.

**Material and Methods:** Between November 2022 and August 2025, FNAB was performed on 162 thyroid nodules belonging to 130 patients in the General Surgery Department of University of Health Sciences Türkiye, Kocaeli Derince Training and Research Hospital. In 32 patients, more than one biopsy was performed in the same session because they had multiple suspicious nodules. Of the patients, 55 were male (42.3%) and 75 were female (57.7%). Age ranged from 19 to 87 years, with a mean of 46.6 years. All biopsied nodules were ACR TI-RADS ≥3. All procedures were performed under ultrasound guidance using a 21-gauge needle. Cytological evaluation was reported according to the Bethesda system. A repeat FNAB was performed in cases classified as Bethesda I at the first biopsy. Patients whose first biopsy was reported as Bethesda III and who underwent repeat biopsy 3-6 months later were excluded from the analysis of their second biopsy results. Patients were followed for 3 months after the biopsy procedure.

**Results:** Among the biopsies, 26 were reported as Bethesda I, 68 as Bethesda II, 40 as Bethesda III, 19 as Bethesda IV, and 9 as Bethesda V. All 17 patients with Bethesda I at the first biopsy underwent repeat biopsy. At the second biopsies, 9 cases were again reported as Bethesda I, 1 as Bethesda II, 5 as Bethesda III, and 2 as Bethesda IV. Thus, an advancement in diagnostic category was achieved in 47.1% of cases (8/17). All procedures were performed under standardized conditions, and no major complications were recorded.

**Conclusion:** In our series, the rate of Bethesda I was 16.0%, which is within the acceptable range (2-20%). The benign (Bethesda II) rate of 42.0% is consistent with the wide range reported in the literature (40-60%). The total rate of indeterminate categories (III-IV-V) was 42.0%, constituting a broad pool that guides clinical decision-making. Achieving diagnostic upgrading in 47.1% of cases with repeat FNAB facilitates practical management. To obtain more accurate results, the use of thinner needles (22-25G), rapid on-site evaluation, sampling from the wall of cystic/heterogeneous nodules or from areas deemed suspicious on ultrasound, and performing multiple passes during aspiration are recommended. It should be kept in mind that excessive numbers of passes and aspirations may cause bleeding. If ACR TI-RADS categories are further subclassified and correlated with the final pathology, the risk of cancer in suspicious (Bethesda III-IV-V) cases may be demonstrated more clearly, which we believe would strengthen clinical prediction.

**Keywords:** ACR TI-RADS, Bethesda classification, thyroid fine-needle aspiration biopsy (FNAB)

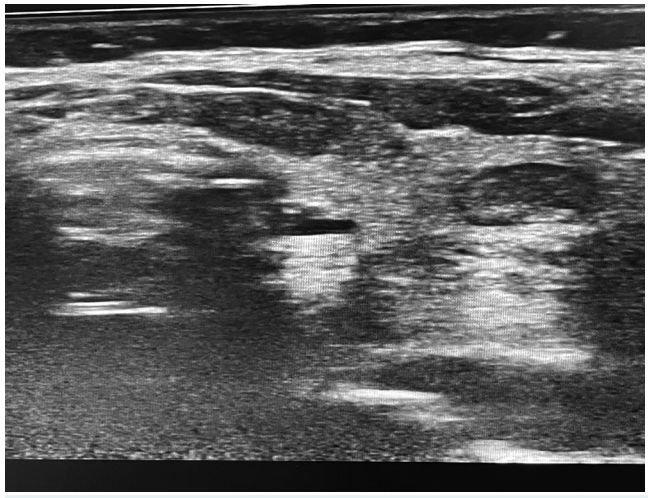

**Figure 1.** Nodule in the mid portion of the left thyroid lobe. Approximately 20×12 mm, well-circumscribed hypoechoic thyroid nodule in the left lobe.

**Figure 2.** Fine-needle aspiration of the thyroid nodule. Aspiration biopsy performed from an approximately 20×12 mm, well-circumscribed hypoechoic thyroid nodule in the left lobe.

**Table 1. Patient and procedure characteristics**

| Parameter | Value |
|---|---|
| Number of patients | 130 |
| Sex | 55 male (42.3%)-75 female (57.7%) |
| Age | 19-87 years (mean 46.6) |
| Number of FNABs | 162 |
| Number of patients with more than one suspicious nodule | 32/130 (24.6%) |
| Indication for FNAB | ACR TI-RADS ≥3 |
| Technique | Ultrasound-guided aspiration with 21G needle |
| Complication | No major complication reported |

FNAB: Fine-needle aspiration biopsy.

| Table 2. Results according to the Bethesda classification First biopsy (n=162) | | |
|---|---|---|
| **Category** | **n** | **Percentage (%)** |
| Bethesda I | 26 | 16.0 |
| Bethesda II | 68 | 42.0 |
| Bethesda III | 40 | 24.7 |
| Bethesda IV | 19 | 11.7 |
| Bethesda V | 9 | 5.6 |
| Second biopsy (only cases with Bethesda I at first biopsy; n=17) | | |
| **Category** | **n** | **Percentage (%)** |
| Bethesda I | 9 | 52.9 |
| Bethesda II | 1 | 5.9 |
| Bethesda III | 5 | 29.4 |
| Bethesda IV | 2 | 11.8 |

## [S-084]

### The relationship between monitoring type and vocal cord paralysis in thyroidectomy

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**Objective:** The use of intraoperative nerve monitoring (IONM) in thyroidectomy is increasingly common. IONM can be applied intermittently (I-IONM) or continuously (C-IONM). C-IONM provides real-time information regarding nerve function, helping to overcome the limitations of I-IONM. This study aimed to compare the outcomes of these two IONM methods concerning recurrent laryngeal nerve (RLN) paralysis.

**Material and Methods:** Data from patients who underwent thyroidectomy between 2018 and 2024, and whose data were prospectively recorded,were retrospectively analyzed. Thyroidectomy neck sides were divided into two groups: I-IONM (Group 1) and C-IONM (Group 2), and their vocal cord paralysis (VCP) rates were compared. All patients had pre- and postoperative vocal cord examinations. Postoperative VCP was defined as temporary if recovery occurred within one year and permanent if recovery did not occur within one year. High-risk thyroidectomy (HRT) for VCP risk was defined as central dissection for malignancy, reoperation, surgery for benign or malignant disease, substernal goiter, Graves disease,or thyroiditis.

**Results and Conclusion:** During the study period, I-IONM was applied to 906 neck sides (Group 1), and C-IONM was applied to 681 neck sides (Group 2). The total VCP rates were 5.1% (n=46) vs. 6% (n=41); (p=0.438), temporary VCP rates were 4.8% vs. 5.1%; (p=0.815), and permanent VCP rates were 0.3% vs. 0.9%; (p=0.185) in Group 1 and Group 2, respectively. There was no statistically significant difference between the groups in terms of these rates. However, the rates of malignancy (29.8% vs. 19.7%; p<0.001), substernal goiter (20.9% vs. 17%; p=0.057), secondary surgical intervention (8.4% vs. 3.8%; p<0.001), HRT (68.2% vs. 37.9%; p<0.001), and extralaryngeal branching (34.9% vs. 21.7%; p<0.001) were higher in Group 2 compared to Group 1. In conclusion, although the total,temporary, and permanent VCP rates of the two IONM methods were similar, the C-IONM group had significantly higher rates of HRT and extralaryngeal branching,which can increase the risk of RLN paralysis. The contribution of C-IONM suggests that thyroidectomy can be safely performed in more complex cases with a high risk of RLN paralysis with VCP rates similar to those of I-IONM. These findings suggest that preferring C-IONM, particularly in risky thyroidectomies,may provide a significant advantage in terms of VCP risk.

**Keywords:** Intraoperative nerve monitoring, recurrent laryngeal nerve, vocal cord paralysis

## [S-085]

### Classification of hypocalcemia and determination of risk factors after minimally invasive parathyroidectomy in primary hyperparathyroidism

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**Objective:** Minimally invasive parathyroidectomy (MIP) is a current surgical approach used in place of traditional neck exploration for the treatment of primary hyperparathyroidism (PHPT). Hypocalcemia following MIP can lead to a heterogeneous clinical picture. This study aimed to classify the clinical subtypes of hypocalcemia and identify risk factors for each. Furthermore, we aimed to introduce the definition of "suppressive hypoparathyroidism", a new form of hypocalcemia characterized by postoperative PTH reduction but clinical asymptomatic status.

**Material and Methods:** Patients with PHPT who underwent MIP and were diagnosed with adenomas preoperatively were evaluated retrospectively between November 2020 and December 2024. Demographic characteristics, biochemical parameters, bone mineral density, adenoma weight, and postoperative hypocalcemia findings were compared. Patients were grouped according to the development of "suppressive hypoparathyroidism" and "hungry bone syndrome (HBS)".

**Results and Conclusion:** One hundred twenty-six patients were evaluated. Preoperative serum calcium level (p=0.007), phosphorus level (p<0.001) and femoral neck T-scores were significantly higher (p=0.03) in patients who developed suppressive hypoparathyroidism. Multivariate analysis revealed that low phosphorus level [odds ratio (OR): 0.21; 95% confidence interval (CI): 0.05-0.85; p=0.029] and high femoral T-score (OR: 2.10; 95% CI: 1.22-3.62; p=0.008) were independent risk factors for suppressive hypoparathyroidism. In patients who developed HBS, preoperative PTH (p<0.001), ALP levels (p=0.01) and adenoma weight (p=0.03) were higher and femoral T-scores were lower (p=0.02). Only a high preoperative PTH level was a significant independent predictor of HBS development (OR: 1.006; 95% CI: 1.00-1.01; p=0.009). Hypocalcemia after MIP cannot be considered a single clinical entity. Suppressive hypoparathyroidism, as defined in this study, is a specific subcategory for patients with postoperative PTH decrease but who are clinically mildly symptomatic or asymptomatic. HBS, on the other hand, is characterized by more aggressive biochemical abnormalities. Differentiating these two conditions may facilitate postoperative management and patient follow-up.

**Keywords:** Minimally invasive parathyroidectomy, primary hyperparathyroidism, suppressive hypoparathyroidism


Figure 1. Determination of incision.

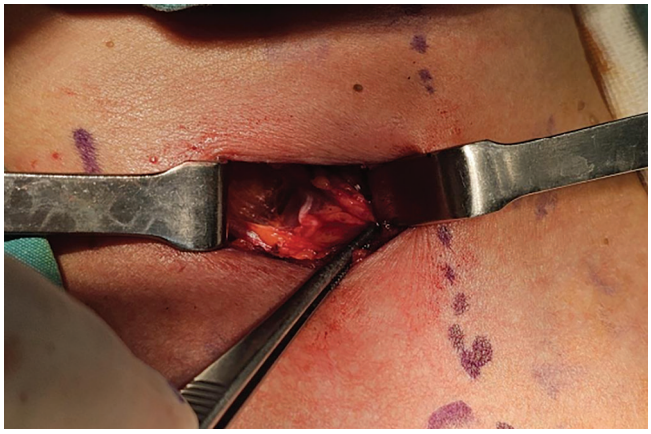

Figure 2. Parathyroid exploration and recurrent laryngeal nerve.

## [S-086]

### The relationship between the anatomical path of the recurrent laryngeal nerve and vocal cord paralysis in thyroidectomy

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**Objective:** The International RLN Anatomical Classification System, published in 2016, includes the anatomical path of the nerve,enabling surgeons to easily classify RLN anatomical variations. We aimed to evaluate the risk of RLN paralysis based on the anatomical path of the RLN according to this classification in patients who underwent thyroidectomy.

**Material and Methods:** Data from patients who underwent thyroidectomy between 2018 and 2024 were retrospectively evaluated. The anatomical path of the RLS in the neck was defined as follows: 1: Normal trajectory (right: R1, left: L1), 2: Abnormal acquired [Right: R2a (abnormal acquired-medial), R2b (abnormal acquired-ventral); left: L2a (abnormal acquired-lateral), L2b (abnormal acquired-ventral)], 3: Abnormal embryologic [right: R3 (right non-recurrent nerve), left: L3 (left non-recurrent nerve)]. The right and left sides were evaluated separately.

**Results and Conclusion:** Of the 819 right RLNs evaluated during this period, 465 (56.8%) were R1, 184 (22.5%) were R2a, 166 (20.3%) were R2b, and 4 (0.4%) were R3. Of the 768 left RLNs, 463 (60.3%) were L1, 168 (21.9%) were L2a, and 137 (17.8%) were L2b. On the right side,the rates of total, transient, and permanent vocal cord paralysis (VCP) were 8.2%, 7.5%, 0.7% in R1, 6.5%, 6%, 0.5% in R2a, 3%, 3%, 0% in R2b, 25%, 0%, 25% in R3, respectively. In the intergroup comparison,there was no difference in total (p=0.065) and transient (p=0.206) VCP, while the difference in permanent VCP was significant (p=0.0000). For permanent VCP, the differences between R2b vs. R3 (p=0.024), R1 vs. R3 (p=0.034), and R2a vs. R3 (p=0.042) were significant. On the left side, the total, transient, and permanent VCP rates were 6.3%, 5.8%, 0.5% in L1, 0.6%, 0%, 0.6% in L2a, 0.7%, 0%, 0.7% in L2b, respectively. In the intergroup comparison, the differences in total (p=0.001) and transient (p=0.0000) VCP rates were significant, while the difference in permanent VCP was not significant (p=0.903). Total and transient VCP were significant in L1 vs. L2a (p=0.001, p=0.0000) and L2a vs. L2b (p=0.006, p=0.001), respectively. Consequently,approximately 60% of nerves on the right and left sides had a normal trajectory. Total and transient VCP rates were significant on the left side but not on the right side. Total and transient VCP rates on both the right and left sides are higher in nerves with abnormal-acquired compared to nerves with normal trajectories. The risk of permanent VCP in the presence of a non-recurrent nerve on the right side is higher than in nerves with normal trajectory and abnormal-acquired.

**Keywords:** Recurrent laryngeal nerve, thyroid, vocal cord paralysis

## [S-087]

### Effect of tumor size and urinary catecholamine levels on surgical outcomes in patients with pheochromocytoma

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**Objective:** Catecholamines produced by pheochromocytomas and tumor size may influence surgical management and postoperative outcomes. In this study, the relationship between urinary normetanephrine/metanephrine levels and tumor size, operative time, and short-term postoperative outcomes was evaluated.

**Material and Methods:** The retrospective data of 19 patients who underwent surgery for pheochromocytoma between January 2015 and May 2025 were analyzed. Twenty-four-hour urinary normetanephrine and metanephrine levels, tumor size, operative time, length of hospital stay, intensive care unit (ICU) admission, and drain use were obtained from medical records. All patients received preoperative alpha-blockade with either doxazosin or phenoxybenzamine. Correlation analysis was used to assess relationships between continuous variables, and categorical variables were compared between groups.

**Results and Conclusion:** A positive correlation was found between tumor size and operative time (Spearman rho =0.467, p=0.044). Tumor size was larger in patients who required drain placement (median 7.5 cm vs. 3.15 cm; p=0.001). Urinary normetanephrine levels were higher in the drain group (median 4766 ng/24 h vs. 1393 ng/24 h; p=0.013). A significant positive correlation was also observed between tumor size and urinary normetanephrine levels (Spearman rho =0.50; p=0.03). No significant association was found between urinary normetanephrine/metanephrine levels and operative time, length of hospital stay, or ICU stay (all p>0.2). In this study, tumor size was shown to be associated with both operative time and the need for drain placement in patients with pheochromocytoma. Additionally, elevated urinary normetanephrine levels were linked to tumor size and drain requirement. No significant association was found between urinary metanephrine levels and other short-term clinical outcomes. Our findings highlight the importance of considering tumor size and biochemical markers in surgical planning, alongside the standard preoperative alpha-blockade administered to all patients. Larger confirmatory studies are warranted.

**Keywords:** Surgical outcomes, pheochromocytoma, catecholamine

## [S-090]

### Frequency of pancreaticobiliary reflux and its relationship with gallbladder diseases

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**Objective:** Pancreaticobiliary reflux (PBR) occurs when dysfunction of the sphincter of Oddi allows retrograde flow of pancreatic enzymes into the biliary system. Persistent enzymatic exposure may induce chronic inflammation, mucosal injury, and metaplastic changes, contributing to benign and malignant biliary disorders. This study aimed to determine PBR prevalence by measuring intraoperative bile amylase levels in cholecystectomy patients and to evaluate its association with gallbladder pathology.

**Material and Methods:** One hundred ten patients undergoing cholecystectomy between June 1, 2021, and October 15, 2022, were prospectively evaluated. Intraoperative gallbladder bile samples were analyzed for amylase. Bile amylase >86 U/L was considered indicative of PBR. Demographic characteristics, clinical symptoms, imaging findings, and postoperative histopathology were assessed in relation to PBR.

**Results:** The mean age was 49.4 years; 74.5% were female. Elevated bile amylase compatible with PBR was found in 10% of patients. PBR increased significantly with age ($p=0.011$), reaching 21.7% in individuals ≥60 years. No significant associations were observed between PBR and gallstones, polyps, wall thickening, or pathological findings including chronic or acute cholecystitis and intestinal metaplasia ($p>0.05$).

**Discussion and Conclusion:** PBR may promote chronic mucosal damage and contribute to a range of biliary conditions. This study shows a clear age-related rise in PBR prevalence. Early identification using accessible, minimally invasive methods may support risk stratification and prevention of biliary disease progression, especially in older patients.

**Keywords:** Pancreaticobiliary reflux, cholecystectomy, oddi sphincter

## [S-092]

### Xanthogranulomatous cholecystitis mimicking malignancy: surgical experience at University of Health Sciences Türkiye, Ankara Etlik City Hospital and three-year findings

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**Objective:** Xanthogranulomatous cholecystitis (XGC) is a rare inflammatory disease characterised by granulomatous inflammation. Preoperatively, it is often difficult to distinguish it from malignancy. This study aims to evaluate the clinical, surgical and histopathological characteristics of XGC cases and to compare the results of modern laparoscopic surgical practices with the existing literature.

**Material and Methods:** Sixty-three cases diagnosed with XGC histopathologically between 2022 and 2025 at the General Surgery Department of University of Health Sciences Türkiye, Ankara Etlik City Hospital were retrospectively reviewed. The patients' demographic data, type of referral, surgical approach, neighbouring organ adhesion, XGC prevalence, presence of concomitant carcinoma, complication grades (Clavien-Dindo classification) and hospital stay durations were analysed.

**Results and Conclusion:** The mean age of the cases was 56±15 years and 55% were male. Presentation types were chronic cholecystitis, cholelithiasis, incidental and acute cholecystitis. A preliminary diagnosis of malignancy was present in 25% of cases. The surgical approach was laparoscopic in 73% of cases, conversion in 17% and open in 9%. Adhesions to adjacent organs were observed in 68% of cases. Associated carcinoma was detected in only 4% of cases. The mean hospital stay was 1-30 days, and the total complication rate was 81%. 65% of cases were Clavien-Dindo Grade I. In the literature, conversion rates in XGC cases are generally reported as 20-40%, with an average hospital stay of 6-10 days. The significantly lower conversion rate of 17% and average hospital stay of 4-5 days in our series demonstrate that minimally invasive surgery can be safely performed by experienced hands. This series contributes significantly to the Turkish literature on XGC with its wide time span, high patient number and laparoscopic surgery rate. The findings demonstrate that the laparoscopic approach can be applied safely, effectively and with low morbidity in the management of XGC with appropriate patient selection and experienced teams.

## [S-094]

### Exandine PET-CT as an effective modality in the imaging of pancreatic insulinomas

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**Objective:** Insulinomas are rare, usually benign neuroendocrine tumors originating from the islet cells of the pancreas. They cause hypoglycemia due to excessive insulin secretion. Because these tumors are often small and located within the pancreas, localization can be challenging. The sensitivity of conventional diagnostic modalities (CT, MRI, and Ga-68 DOTA PET) may be limited. Therefore, exandine-based PET imaging, which targets glucagon-like peptide-1 (GLP-1) receptors abundantly expressed on the surface of insulinomas, holds promise as a novel diagnostic tool.

**Material and Methods:** In this study, we aimed to evaluate the diagnostic effectiveness of exandine PET imaging in 4 patients who were being followed up with a suspicion of insulinoma.

**Results and Conclusion:** Of the 4 patients we treated, 2 were female and 2 were male, with a mean age of 55 years. The tumor was located in the pancreatic head in 2 patients, in the pancreatic neck in 1 patient, and in the distal pancreas in 1 patient. Tumor sizes were 10 mm, 10 mm, 14 mm, and 13 mm, respectively. Pylorus-preserving Whipple procedure was performed in 2 patients, enucleation in 1 patient, and spleen-preserving distal pancreatectomy in 1 patient. In patients who could not be diagnosed with Ga-68 DOTA PET, EUS, CT, or MRI, postoperative pathology results were consistent with insulinoma in line with Exandine PET findings. During follow-up, hypoglycemic attacks resolved and the patients' clinical status improved.

**Discussion:** Exandine PET imaging is a highly effective and reliable diagnostic modality for the localization of insulinomas. By targeting GLP-1 receptors, it allows the detection of small tumors that may be overlooked by other imaging techniques. It can be used effectively and safely in patients who cannot be diagnosed with Ga-68 DOTA PET, CT, or MRI.

**Keywords:** Exandine PET, insulinoma, pancreatic tumor

## [S-097]

### The effect of the time elapsed from diagnosis to surgery on the Parkland score in patients diagnosed with Gallstone disease

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**Objective:** Early planning of elective surgery in patients diagnosed with cholelithiasis minimizes complications related to gallstones that may occur during the waiting period. While waiting for elective surgery, conditions such as acute cholecystitis, biliary pancreatitis, the need for ERCP, cholangitis, and empyema of the gallbladder may occur. These conditions increase both intraoperative and postoperative morbidity. In this study, we aim to determine the most appropriate time interval for surgery in patients who have been diagnosed with cholelithiasis and who have applied to the general surgery outpatient clinic.

**Material and Methods:** Patients diagnosed with cholelithiasis and scheduled for elective surgery at the General Surgery Outpatient Department of University of Health Sciences Türkiye, Ankara Etlik City Hospital were retrospectively reviewed. The patients' complete blood count, cholestatic enzymes, total and direct bilirubin values, radiological findings, and demographic characteristics at the time of diagnosis were examined. The severity of surgery was determined according to the Parkland score using the video-laparoscopy system at our hospital. The relationship between certain demographic characteristics such as age and gender, blood parameters at the time of diagnosis, radiological findings, and the time elapsed until surgery with the Parkland score was examined.

**Results:** A total of 557 patients with a mean age of 48.82±14.08 were evaluated in this study. Among the evaluated patients, those with inappropriate data for the study parameters and those with a time from diagnosis to surgery exceeding 300 days were excluded (n=51), and 506 participants were included in the study. A statistically significant difference was found between the groups in terms of age ($F=2.985$, $p=0.019$). Male gender was found to be significantly associated with the Parkland Score ($\chi^2=16.417$, $df=4$, $p=0.003$). When examining the relationship between wall thickness and PGS, an increase in wall thickness was found to be significant in those with PGS 4 and 5 ($\chi^2=41.093$, $df=12$, $p<0.001$). Elevated WBC and neutrophil counts were not found to be statistically significant.

**Discussion and Conclusion:** It was observed that as the time to surgery increased in patients diagnosed with cholelithiasis, the PGS score, which indicates the degree of surgical difficulty, increased. It can be assumed that the earlier the surgery is performed, the lower the risk of intraoperative complications and difficulties in patients.

**Keywords:** Cholelithiasis, Parkland grading scale, cholecystitis, cholecystectomy

**Table 1. Socio-demographic and clinical characteristics of the sample**

| N=506 | Characteristic statistics | Quartile range (Q1-Q3) |
|---|---|---|
| Age<br>Mean ± SD | 48.82±14.08 | 37-59 |
| Women | 360 | |
| Male | 146 | |
| Time between diagnosis and surgery, days<br>Mean ± SD | 58.47±59.82 | 17-78 |
| Wall thickness, mm<br>median | 2 | 2-2 |
| Transverse diameter, mm<br>Median | 30 | 30-30 |
| ALP, IU/L<br>Mean ± SD | 88.07±44.24 | 64-99 |
| GGT, U/L<br>Mean ± SD | 54.70±96.27 | 16-47 |
| AST, U/L<br>Mean ± SD | 31.73±56.13 | 15-27 |
| Total bilirubin, mg/dL<br>Mean ± SD | 0.58±0.51 | 0.3-0.63 |
| Direct bilirubin, mg/dL<br>Mean ± SD | 0.22±0.29 | 0.11-0.2 |
| White blood cells, $10^3$<br>Mean ± SD | 8.68±3.08 | 6.6-10 |
| Neutrophil, $10^3$<br>Mean ± SD | 6.30±7.59 | 3.7-6.8 |

SD: Standard deviation, AST: Aspartate transaminase, GGT: Gamma-glutamyl transferase.

**Table 2. Comparison of laboratory parameters according to Parkland score groups**

| | Groups according to Parkland scores | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1 (n=197) | 2 (n=170) | 3 (n=94) | 4 (n=28) | 5 (n=17) | Statistical analysisa | Post-hoc |
| Age[b] | 47.7±14.1 | 48.5±14.4 | 48.9±12.9 | 52±16.3 | 59.1±9.7 | F=2.985, p=0.019 | 5>2=1 |
| ALP, IU/L[a] | 78 (17-242) | 79 (26-272) | 81.5 (14-604) | 83.5 (45-348) | 77 (59-204) | $\chi^2$=1.429, p=0.839 | |
| GGT, U/L[a] | 23 (6-600) | 23 (4-813) | 26.5 (7-748) | 28.5 (9-395) | 25 (13-400) | $\chi^2$=4.376, p=0.358 | |
| AST, U/L[a] | 19 (7-768) | 20 (10-469) | 19 (8-376) | 18.5 (12-97) | 19 (12-221) | $\chi^2$=1.622, p=0.805 | |
| Total bilirubin, mg/dL[a] | 0.41 (0.1-2.9) | 0.45 (0.1-4.1) | 0.44 (0.2-3.2) | 0.52 (0.2-2.9) | 0.53 (0.2-6.3) | $\chi^2$=8.231, p=0.083 | |
| Direct bilirubin, mg/dL[a] | 0.14 (0.0-1.3) | 0.15 (0.0-1.6) | 0.15 (0.0-2.3) | 0.18 (0.1-1.9) | 0.24 (0.1-4.4) | $\chi^2$=14.008, p=0.007 | 5>4=3=2>1 |
| White sphere, $10^{3a}$ | 8.22 (3.4-22.9) | 8.00 (3.6-22.0) | 8.09 (4.1-18.0) | 8.30 (3.9-24.8) | 9.1 (4.4-19.7) | $\chi^2$=5.132, p=0.274 | |
| Neutrophil, $10^{3a}$ | 4.80 (1.4-8.5) | 4.7 (1.6-7.5) | 5.0 (0.3-15.0) | 4.76 (2.0-21.5) | 8.69 (2.7-16.3) | $\chi^2$=7.020, p=0.135 | |

[a]: Kruskal-Wallis test, [b]: One-Way ANOVA; post-hoc analyses Bonferroni test, AST: Aspartate transaminase, GGT: Gamma-glutamyl transferase.

## [S-104]

### Demographic and clinical characteristics of patients hospitalized for trauma in the general surgery clinic: A three-year retrospective analysis

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**Objective:** Trauma is a leading cause of morbidity and mortality worldwide, particularly among young and middle-aged adults. The type and severity of injuries vary according to the trauma mechanism, patient demographics, and initial clinical status. study provides a three-year retrospective analysis of trauma patients hospitalized in the General Surgery Department of and Surgery intensive care unit (ICU) of University of Health Sciences Türkiye, Ankara Etlik City Hospital, examining the associations between trauma mechanism, gender distribution, and ICU admission. Trauma is one of the leading causes of morbidity and mortality among young and middle-aged individuals. This study aimed to evaluate the demographic and clinical characteristics of patients who presented to the Emergency Department of University of Health Sciences Türkiye, Ankara Etlik City Hospital, due to trauma and were subsequently hospitalized in the general surgery service or general surgery ICU. Additionally, it sought to examine the relationships between types of trauma and variables such as gender and hospitalization location.

**Material and Methods:** A total of 328 patients hospitalized due to trauma between October 2022 and July 2025 were retrospectively analyzed. Data on patients' age, gender, type of trauma, and hospitalization location (clinic/ICU) were recorded. Traumas were classified as traffic accidents, falls, stab/incised wounds (penetrating injuries), gunshot wounds, assault/violence-related injuries, and animal- or sports-related mechanical traumas. Using descriptive statistics, distributions of hospitalization location and gender were compared across trauma categories.

**Results:** The mean age of the patients was 38.3±15.7 years, and 78% of the cases were male. The proportion of patients monitored in the ICU was 48.2%. The most common cause of trauma was traffic accidents (43.6%), followed by stab/incised wounds (penetrating injuries) (32.6%) and falls (10.4%). The need for intensive care was highest in the gunshot wound (75.0%) and stab/incised wound (57.9%) groups. The ICU admission rate was higher among female patients compared to males (55.6% vs. 46.1%). In terms of gender distribution, assault/violence-related traumas were more frequent among women, whereas men predominated in all other types of trauma.

**Discussion:** In this three-year retrospective analysis, the demographic and clinical characteristics of patients hospitalized due to trauma in the General Surgery Department of University of Health Sciences Türkiye, Ankara Etlik City Hospital, were evaluated, and the relationships between trauma mechanism, gender, and hospitalization location (clinic/ICU) were examined. Our findings show that the majority of trauma patients were young and middle-aged males, with traffic accidents being the most common cause of trauma. Notably, approximately half of the patients required follow-up in the intensive care unit. These results are consistent with the findings of previous studies evaluating trauma patients, particularly those monitored in intensive care settings. When the demographic characteristics of trauma patients were analyzed, a clear male predominance was observed in our study (78%), and the mean age of 38.3 years indicated that trauma was concentrated within the productive age group of the population. In a series published in the Gaziantep Medical Journal, which evaluated 115 patients monitored in the intensive care unit due to trauma, the median age was found to be higher (57 years). This difference may be attributed to the broader trauma spectrum in our study, which included not only ICU patients but also those hospitalized in general surgery clinics. Similarly, another retrospective study focusing on trauma patients admitted to an anesthesia intensive care unit reported a higher mean age and a greater prevalence of comorbidities among ICU patients. From this perspective, our study reflects a mixed trauma population predominantly composed of young and middle-aged patients, whereas ICU-centered series in the literature generally represent a more severely injured, multi-trauma, and high-risk patient group. When evaluated in terms of trauma mechanisms, traffic accidents were the most common cause of trauma in our series (43.6%), followed by stab/incised wounds (penetrating injuries) (32.6%) and falls (10.4%). Similar findings have been reported in single-center thoracic trauma series from Türkiye, where motor vehicle accidents and falls were also identified as the leading mechanisms of injury. In studies focusing on plastic surgery or maxillofacial trauma, a significant proportion of mechanical injuries have been shown to result from occupational accidents, falls, and assault/violence-related incidents. However, both penetrating injuries (stab/incised wounds) and fall-related traumas have been emphasized in thoracic and geriatric trauma series as important causes of severe morbidity, particularly among elderly patients and those with multiple comorbidities. These results suggest that while the external mechanisms of trauma may differ across disciplines, the clinical severity and systemic consequences—especially in vulnerable populations—remain a shared concern requiring multidisciplinary management. In our study, the notably high intensive care requirements observed in the stab/incised wound (57.9%) and gunshot wound (75.0%) groups suggest that these types of trauma—although they may externally appear as "low- to moderate-energy" injuries—can be accompanied by severe internal organ damage, thoracoabdominal injuries, or hemodynamic instability. Thoracic trauma series have reported that patients with multiple rib fractures experience significantly longer ICU stays and hospitalization durations, and that mortality increases when extrathoracic injuries are present. Similarly, studies evaluating trauma patients monitored in intensive care units have demonstrated higher ICU admission rates in the penetrating injury and gunshot wound groups, indicating that these mechanisms are often associated with more severe clinical courses and greater systemic compromise. These findings underline the importance of early hemodynamic assessment, focused imaging, and multidisciplinary coordination—particularly in patients with penetrating trauma—regardless of the apparent external severity of the injury. When examining the relationship between gender distribution and type of trauma, our study found that high-risk and higher-energy trauma mechanisms—such as traffic accidents, stab/incised wounds, and gunshot injuries—were predominant among male patients. In contrast, female patients were relatively more likely to experience fall-related and assault/violence-related traumas. This finding suggests a close association between trauma mechanisms and gender-specific social roles, occupational conditions, and living environments. Similarly, several series reported from different centers have shown that violence against women and interpersonal trauma account for a significant proportion of injuries within specific subgroups. Although the number of assault/violence-related cases in our study was limited, their higher proportional frequency among female patients supports these observations in the existing literature, emphasizing the role of sociocultural and environmental factors in trauma epidemiology. Another notable finding is the higher rate of intensive care unit admission in female patients (55.6%) compared to males. This may be related to the fact that female patients are exposed to trauma at an older age, and that they have a higher frequency of fall-related bone fractures and associated comorbidities (osteoporosis, cardiovascular disease, etc.). Geriatric trauma and thoracic trauma series have shown that advanced age and the presence of comorbidities increase the need for hospitalization and intensive care, and are also associated with mortality. Therefore, the lack of a detailed analysis of age and comorbidities in our study is a significant limitation, and future multivariate analyses with larger series are clearly needed. Another noteworthy finding of our study was that the rate of ICU admission among female patients (55.6%) was higher than that of male patients. This difference may be associated with the fact that women tend to experience trauma at an older age, often accompanied by fall-related fractures and a higher prevalence of comorbidities such as osteoporosis and cardiovascular diseases. Studies on geriatric and thoracic trauma have demonstrated that advanced age and the presence of comorbidities significantly increase both hospital and ICU admission rates, and are also associated with higher mortality. From this perspective, the absence of a detailed analysis regarding age and comorbidities in our study represents an important limitation. Future research with larger sample sizes and multivariate analyses is warranted to further elucidate the impact of these variables on trauma outcomes. In conclusion, consistent with national and international data, our study demonstrates that trauma is most frequently observed among young and middle-aged male populations. However, in

female patients, trauma—particularly that resulting from falls and assault/violence—may present with a more severe clinical course. Furthermore, the observation that trauma mechanisms often perceived as "relatively low-energy," such as traffic accidents, stab/incised wounds, and gunshot injuries, are associated with high intensive care admission rates underscores a critical point: effective trauma management should not rely solely on the apparent energy level of the injury. Instead, it should incorporate early risk stratification models and multidisciplinary approaches that account for trauma mechanism, age, and gender differences, thereby improving both prognostic assessment and the quality of trauma care.

**Conclusion:** The majority of trauma patients admitted to the General Surgery units from the Emergency Department of University of Health Sciences Türkiye, Ankara Etlik City Hospital were young and middle-aged males. The most common causes of trauma were traffic accidents, stab/incised wounds (penetrating injuries), and fall-related incidents. The high ICU admission rates observed in the stab/incised wound and gunshot wound groups indicate that, despite appearing as "low-to-moderate energy" traumas externally, these injury types may involve severe internal organ damage. Consistent with the literature, traffic accidents were predominant among young male patients, whereas falls and assault-related traumas were more common among female patients. These findings highlight the importance of early risk stratification in trauma management, strengthening triage algorithms, and restructuring post-trauma care processes with a focus on gender and trauma mechanisms.

**Keywords:** Trauma, type of trauma, intensive care unit, general surgery, emergency department, traffic accident, fall, stab or incised wound (penetrating injury), mechanism of injury (MOI), gender distribution, morbidity

## [S-105]

### Prognostic use of the Kocaeli fournier gangrene severity index: A retrospective comparative study

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**Objective:** Fournier gangrene is a rapidly progressive, life-threatening necrotizing fasciitis of the perineal and genital regions. Early risk stratification and timely aggressive management are crucial to reduce mortality. Several prognostic scores, including the fournier gangrene severity index (FGSI), Uludağ FGSI (UFGSI) and age-adjusted Charlson comorbidity index (ACCI), are used with variable performance. This study aimed to evaluate existing scores and to develop a new composite index, the Kocaeli fournier gangrene severity index (KFGSI), for mortality prediction in Fournier gangrene.

**Material and Methods:** This retrospective observational study included patients diagnosed with Fournier gangrene and treated at Kocaeli University Hospital between January 2017 and January 2022. Demographic, clinical, laboratory, radiological and treatment data were collected. Mortality-associated variables were identified using univariable analysis and multivariable logistic regression. Receiver operating characteristic (ROC) analysis was used to determine optimal cut-off values and to construct KFGSI. The KFGSI incorporates pulse rate, respiratory rate, body temperature, body mass index, serum lactate, radiological extent of disease and intensive care unit (ICU) requirement or length of stay; an "admission-only" variant excludes the ICU component for bedside use. Discriminative ability was compared with FGSI.

**Results:** Of 81 patients, 69 were analyzed (75.4% male, median age 58 years); overall mortality was 40.6% (n=28). Variables significantly associated with mortality included body temperature, pulse rate, respiratory rate, body mass index, lactate, radiological grade, ICU stay, and FGSI. ROC analysis showed the highest individual area under the curve (AUC) for pulse (0.935) and radiological grade (0.898). KFGSI demonstrated excellent discrimination with an AUC of 0.943 (95% confidence interval: 0.860-0.985; sensitivity 92.9%; specificity 85.4; $p<0.0001$), outperforming FGSI (AUC 0.860). A KFGSI score ≥4 identified a very high-risk mortality group.

**Conclusion:** The KFGSI integrates systemic response, tissue hypoperfusion, host factors and disease extent, and predicts mortality in Fournier gangrene with high accuracy. KFGSI is a practical tool that may support early triage, aggressive resuscitation and ICU referral decisions. Multicenter prospective validation is warranted.

## [S-106]

### Appendiceal diverticulitis associated with high perforation rate and neoplasia risk: A series of 24 cases

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**Objective:** Diverticulitis of the appendix is a rare pathology in cases of acute appendicitis, but it is of particular importance due to its clinical course and complications.Its occurrence in older age groups, high perforation rates, and association with neoplasia are noteworthy in the literature. This study evaluated the demographic, clinical, surgical, and histopathological characteristics of patients diagnosed with appendiceal diverticulitis after appendectomy and compared the findings with the literature.

**Material and Methods:** Twenty-four patients who underwent surgery for acute appendicitis between October 2022 and April 2025 and were diagnosed with appendiceal diverticulitis on pathological examination were retrospectively analyzed. Demographics, presenting symptoms, symptom duration, perforation status, Lipton classification, presence of concomitant acute appendicitis, neoplasia, postoperative complications, length of hospital stay, and need for colonoscopy or additional surgery were reviewed. Data were analyzed using descriptive statistics.

**Results:** Among 24 patients, 17 were male and 7 were female (mean age: 40.9±11.3 years). Mean symptom duration was 2.0±0.8 days. The perforation rate was 45.8%, and the rate of concomitant acute appendicitis was 66.7%. According to the Lipton classification, the cases were distributed as Type 1 (33.3%), Type 2 (29.2%), and Type 3 (37.5%), while no Type 4 cases were encountered. Neoplasia was detected in only one case (4.2%), reported as a sessile serrated lesion. LAMN, neuroendocrine tumor, or goblet cell adenocarcinoma were not detected. No postoperative complications occured.The mean length of stay was 1.4±0.7 days, and no patient required additional surgery or colonoscopy.

**Conclusion:** Appendiceal diverticulitis tends to occur in middle-aged adults and demonstrates high rates of perforation and coexistence with acute appendicitis. Although the neoplasia rate is low, the presence of sessile serrated lesions highlights the importance of pathological examination. Our findings are largely consistent with those reported in the literature and demonstrate that appendiceal diverticulitis, despite being rare, is a pathology that requires careful clinical evaluation.

**Keywords:** Appendiceal diverticulitis, acute appendicitis, perforation, Lipton classification, neoplasia

**Table 1. Patient profile (descriptive summary)**

| Measure | Value |
|---|---|
| Total cases (N) | 24 |
| Sex | Male 17/female 7 |
| Age (years) | Mean 40.9±11.3 |
| Symptom duration (days) | Mean 2.0±0.8 |
| Length of hospital stay (days) | Mean 1.4±0.7 |
| Most common presenting symptoms (first 5) | Abdominal pain: 11; abdominal pain + nausea/vomiting: 9; others less common |

**Table 2. Surgical, pathology, and neoplasia findings**

| Measure | Value |
|---|---|
| Presence of perforation | 11/24 (45.8%; 26.8-65.8%) |
| Concomitant acute appendicitis | 16/24 (66.7%; 46.7-82.0%) |
| Lipton classification Type 1 | 8 (33.3%) |
| Lipton classification Type 2 | 7 (29.2%) |
| Lipton classification Type 3 | 9 (37.5%) |
| Lipton classification Type 4 | 0 (0%) |
| Presence of any neoplasm | 1/24 (4.2%; 0.7-20.6%) |
| LAMN | 0/24 (0.0%; 0.0-14.0%) |
| NET | 0/24 (0.0%; 0.0-14.0%) |
| GCA | 0/24 (0.0%; 0.0-14.0%) |
| Other | Sessile serrated lesion (1 case) |

NET: Neuroendocrine tumor, GCA: Goblet cell adenocarcinoma.

**Table 3. Outcomes**

| Measure | Value |
|---|---|
| Presence of any complication | 0/24 (0.0%; 0.0-13.9%) |
| Clavien-Dindo grade | No complications observed |
| Length of hospital stay (days) | Mean 1.4±0.7 |
| Colonoscopy performed | 0/24 (0.0%; 0.0-13.9%) |
| Need for secondary surgery | 0/24 (0.0%; 0.0-13.9%) |

**Table 4. Findings in the literature and our study**

| Reference/year | Case count/ source | Perforation rate | Neoplasia rate (specified tumors) | Other notes |
|---|---|---|---|---|
| Bujold-Pitre et al., 2021 (PMC8557327) | Review | 27% (diverticulitis) – 66% (acute diverticulitis) | — | Perforation and mortality higher |
| Lim et al., 2025 (PMC12359278) | Review | — | — | Prevalence: 0.5-1.5% (in appendectomy series) |
| Vidović et al., 2025 (MDPI) | Clinical series | — | 4.1% (sessile serrated adenoma, NET, mucinous tumors) | Median hospital stay 6.8 days |
| Systematic review, ANZ J Surg 2020 (PMC8557327) | Systematic review | — | Diverticulitis cases: 26.9%; non-diverticulitis: 1.28% | Nearly 10× increase; most were mucinous neoplasms |
| Drew et al., 2022 (JMRS) | Review | 30-70% | — | Wide range of reported perforation rates |
| Ng et al., 2018 (JGO) | Clinical series | — | 7.1-48% (especially low-grade mucinous neoplasms) | High comorbidity rate notable |
| Our study (2025) | 24 cases, single center | 45.8% | 4.2% (1 case, sessile serrated lesion; no LAMN/NET/GCA) | Mean hospital stay 1.4±0.7 days; no complications, no additional surgery, no colonoscopy |

NET: Neuroendocrine tumor, GCA: Goblet cell adenocarcinoma.

## [S-107]

### Clinicopathological correlation between appendiceal neuroendocrine tumors and mucinous neoplasms: A retrospective analysis

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**Objective:** Appendiceal tumors are rare and heterogeneous lesions of the gastrointestinal tract. Neuroendocrine tumors and mucinous neoplasms represent the most common entities and differ markedly in their demographic characteristics, biological behavior, and surgical management. This study aimed to retrospectively evaluate the clinicopathological correlation between appendiceal neuroendocrine tumors and mucinous neoplasms in a single tertiary center.

**Material and Methods:** Patients who underwent appendectomy between 2015 and 2025 at a training and research hospital and had a final pathological diagnosis of appendiceal neuroendocrine tumor or mucinous neoplasm were retrospectively evaluated. Age, sex, type of surgery, and tumor size were recorded. Statistical analyses were performed using Student t-test, Mann-Whitney U test, and chi-square test, with $p<0.05$ considered statistically significant.

**Results:** A total of 40 patients were included, comprising 19 neuroendocrine tumors and 21 mucinous neoplasms. The mean age was 29.1±15.8 years in the neuroendocrine group and 49.7±12.3 years in the mucinous group ($p<0.001$). The proportion of women was 47.4% in the neuroendocrine group and 76.2% in the mucinous group ($p=0.04$). Mean tumor size was 6.0 cm in the neuroendocrine group and 7.5 cm in the mucinous group ($p=0.21$). All neuroendocrine tumors were treated with simple appendectomy, whereas two patients with mucinous neoplasms underwent right hemicolectomy based on pathological risk factors.

**Conclusion:** Neuroendocrine tumors tend to occur at a younger age and with smaller lesions, whereas mucinous neoplasms are more frequently observed in older and female patients. These findings underscore the importance of clinicopathological correlation in appendiceal tumors and support an individualized surgical approach tailored to tumor type and associated risk factors.

## [S-110]

### The effect of surgical methods on clinical outcomes and the prognostic value of preoperative inflammatory indices in patients undergoing right hemicolectomy: A balanced cohort analysis

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**Objective:** This study aimed to evaluate the effect of the surgical method on clinical outcomes and investigate the prognostic value of preoperative inflammatory indices (CAR, CLR, LCR, mGPS) in predicting postoperative complications in patients undergoing right hemicolectomy.

**Material and Methods:** A retrospective review was conducted on 225 patients who underwent right hemicolectomy between January 2021 and June 2025. Three balanced cohorts (total 120 patients) were established by selecting 40 patients for each surgical method (open, laparoscopic, and robotic) based on similar age, ASA score, and body mass index (BMI). Evaluated outcomes included operation time, length of hospital stay, Clavien-Dindo complication score, anastomotic leakage, and 30-day mortality. Preoperative values for CAR (CRP/albumin), CLR (CRP/lymphocyte), LCR (lymphocyte/CRP), and mGPS (modified Glasgow prognostic score) were calculated and analyzed.

**Results:** The mean age was 62.7±9.4 years, and BMI was 26.1±3.9 kg/m². No significant difference was found in 30-day mortality across the groups. Operation time was 135±28 min (open), 141±31 min (laparoscopic), and 172±39 min (robotic) ($p=0.0047$). Length of hospital stay was 9.1±3.4 days (open), 7.0±2.7 days (laparoscopic), and 6.7±2.6 days (robotic) ($p=0.0335$). Major complication rates (Clavien-Dindo >3) were 10%, 7.5%, and 10% respectively ($p>0.05$). Anastomotic leakage rates were 7.5% (open), 5% (laparoscopic), and 2.5% (robotic) ($p=0.041$). High CAR was significantly associated with complication development ($p=0.012$); CLR and LCR correlated with prolonged hospital stay ($p<0.001$). The mGPS value was significantly higher in the presence of complications ($p=0.008$).

**Conclusion:** The open surgical approach in right hemicolectomy is associated with a longer length of stay and a higher complication rate compared to minimally invasive methods. Preoperative CAR, CLR, LCR, and mGPS values can be used as simple, cost-effective, and accessible prognostic indicators for predicting postoperative morbidity.

**Keywords:** Surgical outcomes, inflammation-based prognostic index, right hemicolectomy

## [S-112]

### Comparison of perioperative and oncological outcomes of robotic versus laparoscopic total mesorectal excision in rectal cancer surgery: Experience of a high-volume center

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**Objective:** Minimally invasive techniques have become the standard approach in rectal cancer surgery; however, whether robotic total mesorectal excision (TME) provides a clinically meaningful advantage over laparoscopic surgery remains a matter of debate. While robotic systems offer three-dimensional visualization, enhanced dexterity, and improved ergonomics—features that theoretically allow for more precise pelvic dissection—the extent to which these technological benefits translate into superior patient outcomes is still unclear. This study aimed to compare perioperative and oncological results of robotic and laparoscopic TME performed in a high-volume tertiary referral center.

**Material and Methods:** Patients who underwent minimally invasive TME for rectal cancer were retrospectively analyzed. Demographic data, operative findings, and postoperative outcomes—including hospital stay, complication rates, temporary stoma creation, circumferential resection margin (CRM) status, lymph node yield, and anastomotic leak—were compared between the robotic and laparoscopic groups. Long-term oncologic endpoints, such as local recurrence during follow-up, were also evaluated.

**Results:** The length of hospital stay was significantly shorter in the robotic group compared with the laparoscopic group (5 vs. 7 days, p=0.001). Postoperative pneumonia was not observed in the robotic cohort (p=0.034). Temporary stoma creation was also lower in the robotic group (53.1% vs. 70.6%, p=0.001). No significant differences were detected between the two techniques regarding CRM positivity, lymph node dissection adequacy, or anastomotic leak rates. During follow-up, a total of nine patients developed local recurrence, with similar distribution between groups.

**Conclusion:** Robotic TME may facilitate faster postoperative recovery, reflected by shorter hospitalization and lower temporary stoma rates, while maintaining oncological safety comparable to laparoscopic surgery. These findings suggest that robotic platforms could serve as a valuable alternative in selected patients, particularly when individualized pelvic dissection and ergonomic advantages are prioritized. Nevertheless, prospective randomized studies are required to confirm these observations.

**Keywords:** Rectal cancer, robotic surgery, total mesorectal excision, minimally invasive surgery

## [S-114]

### Minimally invasive treatment of hemorrhoidal disease using the MDK technique: A retrospective analysis of 447 cases

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**Objective:** Hemorrhoidal disease significantly impairs quality of life, and the need for surgical intervention increases particularly in Grade III-IV cases. Current treatment strategies favor minimally invasive techniques that offer reduced pain and faster recovery. The MDK technique, a modified radiofrequency based procedure, provides a safe therapeutic option by creating limited thermal injury to the tissue.

**Material and Methods:** This retrospective analysis included 447 patients treated with the MDK technique between 2023 and 2024. Demographic characteristics, disease grade, preoperative and postoperative pain, bleeding, activity limitation, psychological stress scores, and complications were recorded. The procedure was performed under local anesthesia by segmenting the hemorrhoidal tissue with 2/0 Vicryl sutures followed by the application of 4 MHz radiofrequency energy. Outcomes were evaluated during follow-up visits using the visual analogue scale and the Likert satisfaction scale.

**Results:** The mean patient age was 55.3±12.5 years; 290 patients had Grade III and 157 had Grade IV disease. Pain scores decreased from 7.4±1.2 to 2.1±0.9; activity limitation from 6.3±1.4 to 1.8±0.8; and psychological stress from 6.5±1.3 to 2.0±0.7 (all p<0.001). Bleeding control was achieved in 89.6% of patients. Mean satisfaction score was 8.7±1.0. Improvement was more pronounced in Grade III patients. Anticoagulant use did not affect outcomes, and no major complications were observed.

**Conclusion:** The MDK technique is an effective, safe, and well-tolerated minimally invasive method for the treatment of Grade III-IV hemorrhoidal disease. Its low complication rate, high satisfaction scores, and safe applicability even in patients receiving anticoagulants make it a practical and accessible therapeutic option.

**Keywords:** Hemorrhoids, MDK technique, radiofrequency ablation, minimally invasive treatment

## [S-115]

### Grade 3 hemorrhoidal disease: Comparison of postoperative pain and outcomes after laser hemorrhoidoplasty and Milligan-Morgan hemorrhoidectomy

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**Objective:** Hemorrhoidal disease is a common condition encountered in general surgical practice, particularly requiring operative management in Grade 3 cases when conservative measures fail. The postoperative discomfort associated with Milligan-Morgan hemorrhoidectomy (MMH) has encouraged surgeons to consider less invasive alternatives. Laser hemorrhoidoplasty (LHP) has gained attention as a novel technique potentially offering a more comfortable postoperative recovery. This study aimed to compare LHP and MMH in terms of postoperative pain, bleeding, operative time, complications, hospital stay, and one-year recurrence rates.

**Material and Methods:** A total of 120 patients who underwent surgery between March 2020 and April 2024 were retrospectively evaluated (60 LHP, 60 MMH). Patients with Grade 1-2 or Grade 4 hemorrhoidal disease, previous anorectal surgery, or a follow-up period shorter than 12 months were excluded. Demographic variables, postoperative pain scores at 24 hours and day 7 (visual analogue scale), postoperative bleeding, operative time, hospital stay, and recurrence rates were compared between groups.

**Results:** VAS scores at both 24 hours and day 7 were significantly lower in the LHP group ($p<0.001$). Operative duration was shorter among patients undergoing LHP ($p=0.001$). Postoperative bleeding on day 7 was also less frequent in the LHP cohort ($p<0.001$). Length of hospital stay was significantly shorter in the LHP group compared with the MMH group ($p<0.001$). No significant differences were identified regarding postoperative complications, need for reoperation, or one-year recurrence rates.

**Conclusion:** LHP provides notable advantages in early postoperative outcomes, including reduced pain, decreased bleeding, and shorter hospitalization, while demonstrating comparable long-term efficacy and safety to MMH. These results support the consideration of minimally invasive techniques as a primary treatment option in appropriately selected patients, although further prospective randomized studies are necessary to validate these findings.

**Keywords:** Hemorrhoidal disease, laser hemorrhoidoplasty, Milligan-Morgan hemorrhoidectomy, postoperative pain, minimally invasive surgery

## [S-116]

### The artery of Moskowitz and intermesenteric connections: A comprehensive review of the collaterals between superior and inferior mesenteric arteries

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**Objective:** Intermesenteric arterial connections within the mesocolon between the ransverse colon and the descending colon show various variations. These vessels are formed between the branches of the superior and inferior mesenteric arteries and are called the Moskowitz artery, arch of Riolan and Drummond artery. In this study, we aimed to show the incidence of the Moskowitz artery in cadavers, as well as to show the existence of intermesenteric anastomoses between the superior and inferior mesenteric arteries.

**Material and Methods:** A total of 10 cadavers (4 male, 6 female) were included in the study. After the entire colon was mobilized from its lateral peritoneal connections, arterial dissection was performed by taking the aortic bifurcation as reference. Following the proximal part of the bifurcation, the inferior mesenteric artery and its branch, the left colic artery, were dissected. Within the mesocolon transversum, the middle colic artery dissection and the presence of intermesenteric anastomoses (Moskowitz artery and Riolan arch) was demonstrated.

**Results:** In the dissections, Moskowitz artery was detected in only 3 cadavers and the arch of Riolan was observed in 7 cadavers. Drummond artery was seen in all of the cadavers. In the study, Moskowitz artery and arch of Riolan were seen simultaneously in 2 cadavers, while only Drummond artery was seen without Moskowitz artery and Riolan arch in 2 cadavers.

**Conclusion:** The presence of intermesenteric anastomoses contributes significantly to thearterial supply of the transverse colon, splenic flexure and the descending colon. Although clinically these intermesenteric connections are seen in the population with a low incidence,these vascular structures should be carefully dissected and protected during surgical interventions to this region. Otherwise, if arterial structures are damaged, the arterial supply to these colon segments may be negatively affected and complications such as anastomotic leakage, ischemia and necrosis may occur in the postoperative period.

## [S-121]

### Factors affecting prognosis in patients with pseudomyxoma peritonei: A single-centre experience

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**Objective:** Intraluminal mucus accumulation in mucinous neoplasms of the appendix leads to the development of appendiceal mucocele. Perforation of the appendiceal mucocele results in pseudomyxoma peritonei, with an incidence of approximately 2/1,000,000.

**Material and Methods:** Our study included patients who underwent cytoreductive surgery (CRS) due to pseudomyxoma peritonei (PP) and were followed up for 2 years. The preoperative radiological imaging, tumour markers, intraoperative peritoneal carcinomatosis index (PCI) score, cytoreduction score (CC), hyperthermic agent used and duration, postoperative histopathology, mean and disease-free survival parameters of the selected patients were examined.

**Results and Conclusion:** Between July 2020 and July 2025, 8 patients meeting the criteria were included in the study. All patients had PCI >12. Seven out of eight patients (n=7/8) were CC-0, and one out of eight patients (n=1/8) was CC-1. Six out of eight patients (n=6/8) underwent a 60-minute HIPEC procedure with 360 mg/m² oxaliplatin at 42 °C, while two out of eight patients (n=2/8) did not undergo HIPEC. Histopathological examination revealed low-grade appendiceal mucinous neoplasm (LAMN) in n=2/8 patients and peritoneal mucinous carcinoma (PMCA) in n=6/8 patients. Carcinoembryonic antigen (CEA) and Ca 19-9 were examined and found to be normal in n=7/8 patients and elevated in n=1/8 patients. In our study, the mean 2-year survival rate was n=7/8 (87.5%), and the 2-year disease-free survival rate was n=5/8 (62.5%). All patients in the disease-free survival group were CC-0, histopathological results were LAMN n=2/2 (100%), PMCA n=3/6 (50%), and 4/5 patients in this group underwent a hypec procedure. The results of our study are consistent with the literature. The most important factors for survival in pseudomyxoma peritonei are tumour histology and surgical intervention to achieve a CC-0 score. The PCI score was not considered to be related to survival, and we recommend performing the HIPEC procedure.

**Keywords:** Pseudomyxoma peritonei, cytoreduction score, cytoreductive surgery

## [S-123]

### From breast imaging to pathology: The realities of malignancy in BI-RADS 4A-5 categories

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**Objective:** The breast imaging-reporting and data system (BI-RADS) links standardized imaging descriptors to category-specific malignancy risk and management. However, real-world positive predictive values (PPVs), especially for BI-RADS 4A, vary by population, modality mix, and workflow. To quantify malignancy rates across BI-RADS 4A-5 categories in a tertiary center and contextualize performance against contemporary literature, with attention to biopsy yield and modality concordance.

**Material and Methods:** Single-center retrospective diagnostic-accuracy study at a tertiary breast imaging/surgical unit (January-July 2025). Consecutive patients with final BI-RADS 4A-5 on mammography and/or ultrasonography and subsequent histopathology were included. Exclusions: Age <18 years, incomplete imaging or pathology, prior breast surgery/biopsy or neoadjuvant therapy. Imaging followed ACR BI-RADS (5th ed.). Biopsies were ultrasound-guided tru-cut or wire-localized excisions. Primary endpoint was malignancy proportion per BI-RADS subcategory; associations tested with $\chi^2$. Inter-observer agreement was assessed with Cohen's κ.

**Results:** Of 217 patients (mean age 51.4±12.6 years; 214 female), 194 (89.4%) underwent tru-cut and 23 (10.6%) excisional biopsy. Category distribution: 4A 41.5% (90/217), 4B 18.0% (39/217), 4C 13.4% (29/217), 5 27.1% (59/217). Malignancy rates increased stepwise: 4A 42.2% (38/90), 4B 46.2% (18/39), 4C 79.3% (23/29), 5 100% (59/59); overall PPV for BI-RADS 4-5 was 63.6% (95% CI, 56.8-69.9). BI-RADS category strongly associated with malignancy ($\chi^2$=59.7; p<0.001); odds of malignancy were 4.7-fold higher (95% CI, 2.3-9.8) in 4C-5 versus 4A-4B. Combined mammography+ultrasound showed higher concordance with pathology (83.9%) than ultrasound alone (71.4%). Classic malignant US features (irregular/spiculated margins, non-parallel orientation, posterior shadowing) were each associated with cancer (p<0.05). Inter-reader agreement for BI-RADS was κ=0.86 (95% CI, 0.79-0.92). No major procedural complications occurred.

**Conclusions:** BI-RADS demonstrates robust, monotonic risk discrimination in this cohort, with near-absolute PPV for category 5 and high PPV for 4C. The elevated 4A PPV (42.2%) underscores the need for local calibration and supports tiered management integrating adjunct techniques (e.g., elastography, ABUS, predictive models) to optimize cancer-to-biopsy yield without compromising detection.

**Keywords:** BI-RADS, breast cancer, ultrasound, mammography, diagnostic accuracy

## [S-124]

### The role of the surgeon in the diagnosis of axillary lymph nodes

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**Objective:** Axillary lymphadenopathies may be manifestations of various benign and malignant conditions. Histopathological evaluation plays a crucial role in establishing a definitive diagnosis. Among the available modalities, fine-needle aspiration biopsy (FNAB) and total excision of lymph nodes are frequently used. Axillary lymph nodes are commonly encountered in outpatient clinics when detected by patients themselves or referred from hematology, infectious diseases, or internal medicine departments for excisional biopsy to clarify the underlying pathology. This study aimed to evaluate the distribution of histopathological diagnoses in patients who underwent axillary lymph node excision.

**Material and Methods:** A total of 16 patients (10 females, 6 males) who underwent axillary lymph node excision were included in this study. The mean age was 42.7 years (range: 23-73). Prior to referral to general surgery clinics, all patients had undergone FNAB under local anesthesia, and those with indeterminate cytological results were selected for excision. All excisions were performed under general anesthesia. Lymph node specimens were evaluated histopathologically in all cases.

**Results and Conclusion:** Histopathological examination revealed reactive lymphoid hyperplasia in 8 patients, necrotizing granulomatous lymphadenitis in 7 patients, and caseifying granulomatous lymphadenitis in 1 patient. A significant proportion of patients who underwent axillary lymph node excision were diagnosed with reactive or granulomatous lymphadenitis. These findings highlight that infectious and inflammatory etiologies should be carefully considered in the differential diagnosis of axillary lymphadenopathies. Excisional biopsy remains an effective diagnostic approach in patients with indeterminate FNAB results.

**Keywords:** Axillary lymph node, FNAB, histopathological diagnosis

## [S-126]

### Evaluation of thyroid pathologies in patients diagnosed with breast cancer

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**Objective:** This study aimed to report thyroid pathologies detected during follow-up in patients treated for breast cancer.

**Material and Methods:** Thyroid abnormalities identified in imaging studies performed during the follow-up of patients who were treated for breast cancer in the breast diseases outpatient clinic between January 2023 and October 2025 were evaluated. Patients' demographic data, breast and thyroid pathologies, history of radiotherapy, and PET findings were analyzed.

**Results:** A total of 25 female patients with a diagnosis of breast cancer were included. The mean age was 53 years. Breast pathology was located on the left side in 19 patients, on the right side in 7 patients, and bilaterally in 1 patient. The most common breast pathology was invasive breast carcinoma, observed in 17 patients. Eighteen patients received radiotherapy. PET reports mentioned thyroid nodules in 22 patients, with FDG uptake present in 13 of these. Evaluation of thyroid pathologies revealed multinodular goiter in 14 patients, nodular goiter in 6 patients, and thyroiditis in 4 patients. Thyroid pathology was left-sided in 11 patients, bilateral in 10, and right-sided in 4. Biopsy was indicated in 13 patients. The most frequent cytological diagnosis was Bethesda II, observed in 6 patients. Three patients had Bethesda III, one had Bethesda IV, and one had Bethesda V cytology. Seven patients underwent surgery for thyroid pathology, and papillary thyroid carcinoma was detected in one of them.

**Conclusion:** The coexistence of disorders in endocrine organs such as the breast and thyroid highlights the importance of evaluating thyroid disease in breast cancer patients. Careful assessment of thyroid pathologies during follow-up may facilitate the early diagnosis of concurrent malignancies.

**Keywords:** Breast cancer, thyroid nodule

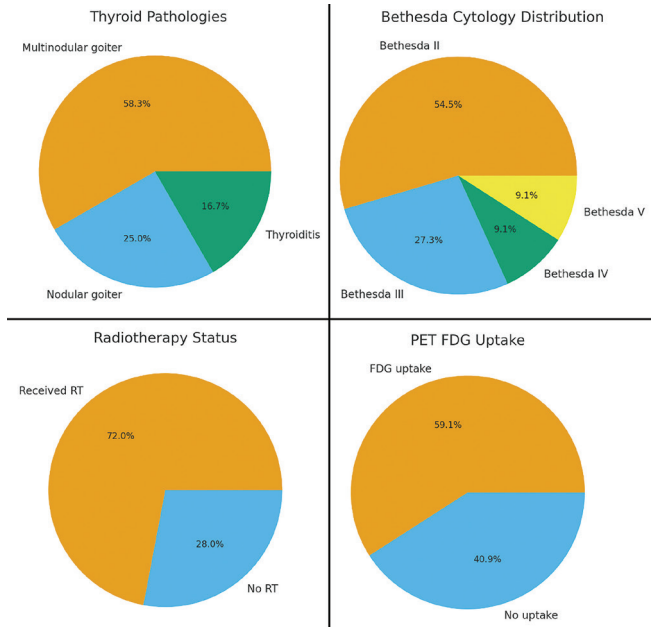


Figure 1.

## [S-127]

### Clinical and microbial characteristics of granulomatous mastitis: A comparative analysis of breast and gut microbiota

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**Objective:** Granulomatous mastitis (GM) is a rare benign inflammatory breast disease in women of reproductive age that may mimic breast cancer. Its etiology is unclear, and dysbiosis of breast and gut microbiota has been implicated. This study compared breast tissue and fecal microbiota in women with GM and controls and assessed the diagnostic value of key microbial taxa.

**Material and Method:** In this prospective observational study, 32 women with histopathologically confirmed GM and 44 controls with benign non-inflammatory or non-granulomatous inflammatory breast lesions were enrolled between June 2022 and June 2024. Granulomatous tissue, adjacent normal breast tissue and stool samples were obtained from GM patients; controls provided breast tissue and stool samples. The V3-V4 regions of the *16S rRNA* gene were sequenced on the Ion S5 XL platform. Microbiota analyses were performed using QIIME2 with SILVA 138 taxonomy. Alpha diversity indices and receiver operating characteristic (ROC) curves were calculated.

**Results:** The mean age of the GM group was 36.8 years and mean body mass index 27.6 kg/m²; 87.5% were postpartum. Granulomatous breast tissue showed increased abundance of *Corynebacterium* (especially *C. kroppenstedtii*), *Staphylococcus* and *Microbacterium*, whereas normal tissue was enriched in *Lactobacillus* and *Bifidobacterium*. Fecal samples from GM patients exhibited significantly reduced alpha diversity compared with controls. In ROC analysis, *Corynebacterium* distinguished GM from controls with high accuracy (AUC=0.87; sensitivity 87.5%; specificity 81.8). *Staphylococcus* had moderate performance (AUC=0.78), while *Lactobacillus* was inversely associated (AUC=0.11).

**Conclusion:** GM is associated with enrichment of pro-inflammatory bacteria and depletion of protective commensals in breast tissue, together with reduced gut microbial diversity. These data support a role for local and systemic dysbiosis in GM pathogenesis and identify *Corynebacterium* as a potential diagnostic microbial biomarker.

## [S-128]

### Effect of diagnostic reassurance on pain and anxiety in women with mastalgia: A prospective observational study

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**Objective:** Breast pain (mastalgia) is one of the most common breast-related complaints among women of reproductive age and is predominantly benign in nature. However, patients frequently associate the pain with malignancy, which leads to a disproportionate psychological burden and a decline in quality of life. Although current evidence indicates that mastalgia is rarely associated with breast cancer, diagnostic uncertainty increases anxiety and exacerbates pain perception. This study aimed to evaluate the impact of excluding malignancy through imaging (ultrasonography ± mammography) on pain severity and anxiety levels.

**Material and Methods:** This prospective, single-center observational study was conducted at the General Surgery Clinic of Hitit University Faculty of Medicine. Women aged 18-75 years presenting with mastalgia were included. All patients underwent bilateral breast ultrasonography, and mammography was additionally performed in those aged 40 years and older. Only BI-RADS category 1-3 cases were included in the analysis. Pain severity was assessed using the visual analogue scale (VAS), and anxiety and depression levels were measured with the hospital anxiety and depression scale (HADS). Evaluations were performed at three time points: T0 (before imaging), T1 (24-48 hours after disclosure of imaging results), and T2 (4th week).

**Resuls and Conclusion:** A total of 70 patients were included (mean age 43.2±9.6 years). The baseline VAS score was 6.1±2.0, which decreased to 4.3±1.8 at T1 and 3.2±1.6 at T2 ($p<0.001$). Clinically significant pain reduction (≥2 points or ≥30% decrease) was achieved in 82.1% of patients. HADS-A scores also decreased significantly (9.8±3.5 → 6.5±3.2; $p<0.001$). Pain reduction was more pronounced in patients who reported feeling "completely reassured" after the results (ΔVAS =3.6±1.5 vs. 2.1±1.2; $p<0.01$). Logistic regression analysis identified high reassurance level as the only independent predictor of improvement (odds ratio: 2.84; 95% confidence interval: 1.35-6.00; $p=0.006$). Excluding malignancy through imaging provides a significant and sustained reduction in both pain and anxiety levels among women with mastalgia. Diagnostic reassurance is not merely an informative step but a clinical approach with demonstrated therapeutic impact. Incorporating this psychological dimension into mastalgia management may enhance patient satisfaction and improve healthcare efficiency.

## [S-130]

### Comparison of the effects of gastrojejunal anastomosis created with manual and magnetic compression in rats with metabolic syndrome model

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**Objective:** Metabolic syndrome is a condition characterized by the coexistence of multiple metabolic disorders. It is diagnosed when at least three of the following criteria are present: hypertension, increased waist circumference, elevated triglycerides, low HDL cholesterol, and high fasting glucose. The primary approach to treatment involves lifestyle modifications; however, surgical and medical treatments may be applied when necessary. One of the surgical methods used is loop bipartition surgery, in which a connection is created between the stomach and the small intestine to reduce nutrient absorption. One of the newer techniques employed to create this connection is magnet-assisted anastomosis, where magnets are used to induce tissue compression, allowing natural fusion and the formation of a sutureless connection.

**Material and Methods:** In this study, we aimed to investigate the differences between the classical hand-sewn anastomosis technique and the magnet compression anastomosis technique in rats with experimentally induced metabolic syndrome.

**Results:** Compared to the control group, there were no statistically significant differences in body weight or most biochemical parameters at the end of the experiment among the other groups. Similarly, no significant differences were observed in the parameters measured during the oral glucose tolerance test and antioxidant level assessment.

**Conclusion:** The magnet-assisted anastomosis procedure was observed to have a shorter operation time, and histopathological examination revealed a more regular anastomotic line compared to the hand-sewn method. After one month of follow-up, the biochemical effects of both techniques were found to be similar. The shorter operation time and the relative simplicity of the magnet-assisted technique compared to hand-sewn anastomosis are among the most notable differences between the two methods. Further studies with modified experimental designs may be useful for identifying potential long-term differences or variations in other parameters between these two surgical approaches.

**Keywords:** Metabolic syndrome, metabolic surgery, gastrojejunal anastomosis, magnet, magnetic compression anastomosis


Figure 1. Magnetic anastomosis and hand sewn anastomosis.

## [S-131]

# Investigation of immune cell infiltration in metastatic lymph nodes and its impact on disease prognosis in breast cancer

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**Objective:** Breast cancer is the most common malignancy in women, and the prognostic relevance of tumor-infiltrating lymphocytes (TILs) in the tumor and stromal microenvironment is increasingly emphasized. This study evaluated immune cell infiltration in metastatic axillary lymph nodes of breast cancer patients and its relationship with immune checkpoint molecules (CTLA-4, PD-1, LAG-3). We aimed to characterize immune cell diversity and immunosuppressive mechanisms within the metastatic microenvironment.

**Material and Methods:** Metastatic axillary lymph nodes obtained during surgery were analyzed using flow cytometry and immunofluorescence techniques. After classifying patients by neoadjuvant chemotherapy status, $CD4^+$ and $CD8^+$ T-cell subsets and the expression of CTLA-4, PD-1, and LAG-3 were assessed. Findings from patients who received and did not receive neoadjuvant therapy were compared to evaluate chemotherapy-related alterations in the immune microenvironment.

**Results:** The study included 61 patients with a mean age of 52.3 years; 78.2% had received neoadjuvant chemotherapy. The proportions of CTLA-4-, PD-1-, and LAG-3-positive $CD4^+$ and $CD8^+$ cells varied among samples. Neoadjuvant therapy was associated with increased $CD4^+$ cell density and a significant tendency toward higher LAG-3 expression. $CD8^+$ T-cell infiltration was largely similar between groups; however, expression of PD-1, LAG-3, and CTLA-4 increased after neoadjuvant therapy, suggesting the development of a T-cell exhaustion phenotype within the metastatic microenvironment.

**Conclusion:** Neoadjuvant chemotherapy appears to influence immune cell organization and immune checkpoint expression in metastatic lymph nodes. Elevated CTLA-4, PD-1, and LAG-3 levels may reflect enhanced immunosuppression and tumor immune-escape processes. This study provides rare data on chemotherapy-related immune alterations at the metastatic lymph node level. Expanding the cohort and performing molecular subtype-based analyses may contribute to optimizing strategies involving immunotherapy and treatment timing.

**Keywords:** Lymph node metastasis, breast cancer, tumor microenvironment

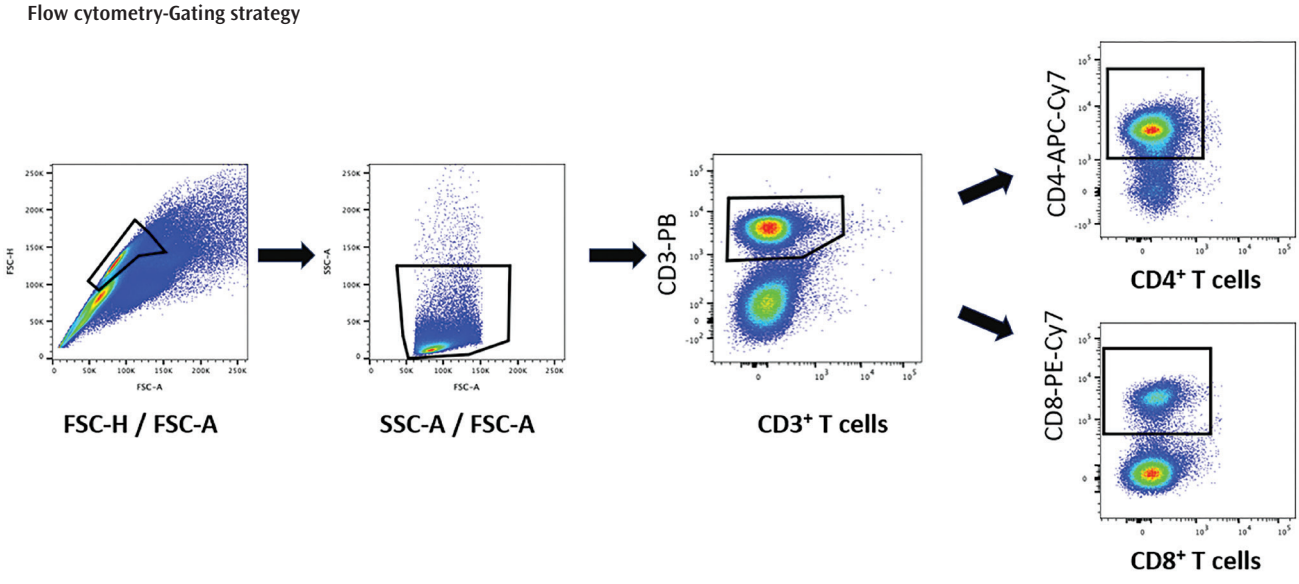


**Figure 1.** Immunofluorescence imaging.

*Tumor foci in metastatic lymph nodes were labeled in green with EpCAM, confirming the metastatic involvement of the lymph nodes by immunofluorescence. Cell nuclei were counterstained in blue.*

## [S-132]

### Immunological insights into peritoneal carcinomatosis for gastrointestinal malignancies: The role of soluble factors in malignant ascites

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**Objective:** Malignant ascites reflects the tumor microenvironment and provide valuable insights into peritoneal metastasis. This study aimed to assess soluble immune system-related molecules in the ascitic fluid of advanced gastrointestinal cancer patients with peritoneal carcinomatosis and explore potential therapeutic opportunities.

**Material and Methods:** This multicenter prospective cohort study included 48 patients with gastrointestinal adenocarcinoma (17 colorectal, 16 gastric, 15 pancreatic) with malign ascites and 15 patients for comparison requiring benign ascites drainage for advanced heart failure. Blood samples for routine parameters and ascitic fluid for cytokine and soluble immune checkpoint analysis were collected. Parameters were compared between cancer patients and comparison group, among cancer subgroups, and in correlation with survival.

**Results:** The mean age of participants was 60.2±14.9 years, with a female-to-male ratio of 11:20. The median survival of cancer patients was 84.0 days. Neutrophil, AST, ALT, TNF-α, IL-6, IL-10, IL-12p70, IL-18, IL-23, s4-1BB, and TGF-β1 were elevated in cancer patients, while albumin levels were lower. Significant intergroup differences were observed in TNF-α, IL-6, IL-8, IL-10, IL-12p70, IL-23, 4-1BB, TGF-β1, and PD-L1 levels. Survival was negatively correlated with PD-L1, TNF-α, IL-6, and IL-10 in colorectal cancer; 4-1BB, TGF-β1, IL-8, and IL-10 in gastric cancer; and TGF-β1, IL-6, and IL-10 in pancreatic cancer.

**Conclusion:** The immune system plays a critical role in the immunosuppressive environment of ascitic fluid in gastrointestinal cancers via the pathways that specific to cancer subtypes. Targeting these pathways with intraperitoneal immunotherapy could be useful to modulate the tumor microenvironment.

**Keywords:** Gastric cancer, colorectal cancer, pancreatic cancer, immune checkpoints, cytokine

## [S-133]

### Comparison of clinicopathological characteristics and survival outcomes in colon cancers with signet ring cell carcinoma and adenocarcinoma with a signet ring cell component: Results of an 80-month follow-up

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**Objective:** Signet ring cell carcinoma (SRCC) and adenocarcinoma with a signet ring cell component (SRCC-A) are rare histological subtypes of colorectal cancer characterized by aggressive biological behavior. Although these variants have been associated with poor prognosis, data regarding their clinicopathological characteristics and survival outcomes remain limited. This study aimed to compare pure SRCC and SRCC-A cases using our institutional colorectal cancer database.

**Material and Methods:** This retrospective study was conducted using an institutional colorectal cancer database comprising 3.088 patients. A total of 53 patients who underwent surgery between 2010 and 2024 and were histopathologically diagnosed with SRCC were included. Patients were categorized into two groups: Pure SRCC (n=22) and adenocarcinoma with an SRCC component (n=31). Demographic, clinical, and pathological variables were analyzed. Progression-free survival (PFS) and overall survival (OS) were estimated using the Kaplan-Meier method and compared using the log-rank test. Statistical analyses were performed using SPSS software, and a p-value <0.05 was considered statistically significant.

**Results:** No significant differences were observed between the groups regarding age (mean 59 vs. 58 years) or sex distribution. The rate of pT4 disease was significantly higher in the SRCC group (86.4% vs. 51.6%; p=0.01). Nodal metastasis was also more frequent in patients with SRCC (95.5% vs. 71%; p=0.033). No significant differences were found in distant metastasis rates or surgical approach (open vs. minimally invasive). Among patients evaluated for mismatch repair (MMR) status, the overall rate of deficient MMR (dMMR) was 24.5%, with no significant difference between the two groups. Median PFS was 28.5 months in the SRCC group and 39.8 months in the SRCC-A group (p=0.026; HR =0.38, 95% CI: 0.16-0.89). Median OS was 48.4 months for SRCC and 80.4 months for SRCC-A (p=0.039; HR =0.31, 95% CI: 0.10-0.94).

**Conclusion:** This study represents the largest patient series from Türkiye evaluating signet ring cell histology in colon cancer. The presence of a signet ring cell component within adenocarcinoma is associated with significantly improved progression-free and overall survival compared with pure signet ring cell carcinoma, highlighting the prognostic importance of histological subtype differentiation.

## [S-135]

### Low anterior resection syndrome in patients with rectal cancer: A multicenter retrospective cohort study

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**Objective:** Advances in rectal cancer treatment, including total mesorectal excision (TME) and neoadjuvant therapies, have significantly improved oncological and surgical outcomes. However, following sphincter-preserving low anterior resection (LAR), bowel dysfunction known as low anterior resection syndrome (LARS) may develop, often associated with neoadjuvant therapies. The aim of this study was to evaluate the factors that increase the risk of LARS in patients undergoing LAR, with a specific focus on the impact of neoadjuvant radiotherapy.

**Material and Methods:** This retrospective multicenter cohort study included 170 patients with rectal adenocarcinoma who underwent LAR between April 2013 and December 2023. Demographic data, oncological treatment, surgical outcomes and functional outcomes were reported. LARS was assessed using the validated Turkish version of the LARS Score and classified as "no," "minor," or "major."

**Results and Conclusion:** LARS was present in 75.9% of the 170 included patients, of whom 75.2% were classified as major LARS. In univariable analysis for overall LARS, younger age (p=0.024), neoadjuvant therapy (p=0.001), neoadjuvant chemoradiotherapy (p=0.0021), Grade 2 TME dissection (p=0.004), and presence of a protective ileostomy (p=0.013) were significantly associated. In multivariable analysis, only younger age remained an independent risk factor for overall LARS development (p=0.011, odds ratio: 1.07; 95% confidence interval: 1.02-1.13). Among patients followed for more than 2 years postoperatively, ongoing symptoms were reported in 75.8% of the major LARS group and 24.2% of the minor LARS group. Of 97 patients with major LARS, 33 (34.0%) required treatment, including medical therapy (25; 69.7%), non-pharmacological interventions (3; 9.1%), biofeedback (4; 12.1%), and surgery (1; 3%). LARS is highly prevalent after rectal cancer surgery, with increased incidence particularly in patients receiving neoadjuvant therapy or undergoing extensive dissection. Surgical precision, especially high-quality TME, may reduce the risk of severe symptoms. Early identification and targeted rehabilitation should be prioritized in high-risk groups.

**Keywords:** Low anterior resection syndrome (LARS), neoadjuvant therapy, rectal cancer

**Table 1. Demographic and clinical characteristics of the patients**

| | | n (%) |
|---|---|---|
| Age | | 57.9±11.3 |
| Age of diagnosis | <50 | 44 (25.9) |
| | ≥50 | 126 (74.1) |
| Gender | Male | 100 (58.8) |
| | Female | 70 (41.2) |
| BMI | Normal | 56 (34.1) |
| | Overweight | 108 (65.9) |
| ASA | <3 | 160 (94.1) |
| | ≥3 | 10 (5.9) |
| Comorbidity | Yes | 70 (41.2) |
| | No | 100 (58.8) |
| | Open | 9 (5.3) |
| | Laparoscopic | 36 (22.4) |
| | Robotic | 125 (77.6) |
| Neoadjuvant | No | 49 (28.8) |
| | Yes | 121 (71.2) |
| NACT | | 93 (54.7) |
| NART | | 119 (70) |
| TME | Grade 2 | 56 (32.9) |
| | Grade 3 | 114 (67.1) |
| Intersphincteric | | 22 (12.9) |
| Anastomosis | By hand | 26 (15.3) |
| | Stapler | 144 (84.7) |
| Stoma | | 142 (84) |
| Anastomosis complication | | 15 (8.8) |
| Current complaints | | 62 (39.7) |

Data are presented as number (percentage) or mean ± standard deviation.
BMI: Body mass index, ASA: American Society of Anesthesiologists, NACT: Neoadjuvant chemotherapy, NART: Neoadjuvant radiotherapy, TME: Total mesorectal excision.

**Table 2. Univariate and multivariate analysis in patients with and without LARS**

| | | | | Univariate | | Multivariate | |
|---|---|---|---|---|---|---|---|
| | | **LARS** | **No LARS** | **p-value** | **95% CI** | **p-value** | **95% CI** |
| Age | | 56.2±11.5 | 63.1±9.1 | <0.001 | | 0.011 | 1.07 (1.02-1.13) |
| Age of diagnosis | <50 | 39 (88.6) | 5 (11.4) | 0.024 | 3.12 (1.14-8.55) | 0.618 | 0.68 (0.15-3.1) |
| | ≥50 | 90 (71.4) | 36 (28.6) | | | | |
| Gender | Male | 76 (76) | 24 (24) | 0.966 | 1.02 (0.49-2.07) | | |
| | Female | 53 (75.7) | 17 (24.3) | | | | |
| BMI | Normal | 43 (76.8) | 13 (23.2) | 0.902 | 1.05 (0.49-2.25) | | |
| | Overweight | 82 (75.9) | 26 (24.1) | | | | |
| ASA | <3 | 122 (76.3) | 38 (23.8) | 0.705 | 1.38 (0.34-5.58) | | |
| | ≥3 | 7 (70) | 3 (30) | | | | |
| Comorbidity | | 49 (79) | 21 (30) | 0.134 | 0.58 (0.29-1.18) | | |
| Surgery | Open | 6 (66.7) | 3 (33.3) | 0.452 | 0.62 (0.15-2.59) | | |
| | MIS | 123 (76.4) | 38 (23.6) | | | | |
| MIS | Robotic | 97 (77.6) | 28 (22.4) | 0.503 | 0.75 (0.32-1.74) | | |
| | Laparoscopic | 26 (72.2) | 10 (27.8) | | | | |
| Neoadjuvant therapy | No | 29 (59.2) | 20 (40.8) | 0.001 | 0.31 (0.15-0.64) | 0.988 | NaN (0(0-NaN) |
| | Yes | 100 (82.6) | 21 (17.4) | | | | |
| NACT | | 77 (82.8) | 16 (17.2) | 0.021 | 2.31 (1.13-4.75) | 0.984 | 0.99 (0.3-3.29) |
| NART | | 100 (84) | 19 (16) | <0.001 | 3.99 (1.9-8.37) | 0.987 | NaN (0(0-NaN) |
| Neoadjuvant radiotherapy | Short-course | 34 (85) | 6 (15) | 0.985 | 0.99 (0.34-2.91) | | |
| | Long-course | 63 (85.1) | 11 (14.9) | | | | |
| TME | Grade 2 | 35 (62.5) | 21 (37.5) | 0.004 | 0.36 (0.17-0.73) | 0.629 | 0.78 (0.29-2.11 |
| | Grade 3 | 94 (82.5) | 20 (17.5) | | | | |
| Intersphincteric | | 19 (86.4) | 3 (13.6) | 0.290 | 2.19 (0.61-7.81) | | |
| Anastomosis | By hand | 20 (76.9) | 6 (23.1) | 0.893 | 1.07 (0.39-2.88) | | |
| | Stapler | 109 (75.7) | 35 (24.3) | | | | |
| Stoma | | 113 (79.6) | 29 (20.4) | 0.013 | 3.12 (1.32-7.38) | 0.615 | 1.4 (0.38-5.2) |
| Anastomosis complication | | 12 (80) | 3 (20) | >0.999 | 1.3 (0.35-4.85) | | |
| Current complaint | | 54 (87.1) | 8 (12.9) | 0.003 | 3.48 (1.48-8.2) | | |

Data are presented as number (percentage) and mean ± standard deviation. BMI: Body mass index, ASA: American Society of Anesthesiologists, MIS: Minimally invasive surgery, CI: Confidence interval, NACT: Neoadjuvant chemotherapy, NART: Neoadjuvant radiotherapy, TME: Total mesorectal excision.

## [S-137]

### Investigation of tumour markers in rectal lavage fluid as an alternative to colonoscopy in screening for malignant lesions of the colon

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**Objective:** Colorectal cancer (CRC) is one of the most common malignancies globally and ranks second among cancer-related deaths. Early diagnosis significantly improves treatment success and survival rates. Colonoscopy, the gold standard method, is not always feasible due to its invasive nature. Therefore, the search for less invasive and more feasible methods continues. Our study aimed to investigate the feasibility of using rectal lavage fluid levels of carcinoembryonic antigen (CEA) and carbohydrate antigen 19-9 (CA19-9) as an alternative screening tool to colonoscopy.

**Material and Methods:** The study, conducted in a prospective case-control design, included 35 patients with pathologically confirmed CRC and 35 control cases who underwent surgery for benign anorectal diseases (haemorrhoids, anal fissures, fistulas, etc.) and were excluded for malignancy. Rectal lavage fluid was collected on the morning of surgery after standard bowel preparation. CEA and CA19-9 levels in the samples were measured using the Roche Cobas 8000® device. Data were analysed using SPSS 24; parametric or non-parametric tests were used for intergroup comparisons. In addition, the relationships between tumour size, histological type, location, and TNM stage and marker levels were evaluated in the study group.

**Results and Conclusion:** There was a significant difference in mean age between the study and control groups ($p<0.05$), but the gender distribution was similar. Although the mean CEA (1109.4 vs. 842.02 ng/mL) and CA19-9 (659.41 vs. 55.23 U/mL) levels measured in rectal lavage fluid were higher in the study group, this difference was not statistically significant ($p=0.16$ and $p=0.62$, respectively). No significant difference in marker levels was found when comparing early stage (I-II) with advanced stage (III-IV) CRC patients. CEA and CA19-9 levels in rectal lavage fluid do not offer an alternative to colonoscopy in CRC screening. The higher-than-expected values observed in the control group may be related to inflammation and non-specific cross-reactions developing after bowel cleansing. The findings indicate that this method does not have diagnostic value on its own, but it may contribute to larger series and combined biomarker studies. However, their release from normal colonic mucosa is a major drawback.

**Table 1. Comparison of age, gender, CEA, and CA19-9 values between groups**

| | | Study group | Control group | p-value |
|---|---|---|---|---|
| Average age | | 67.1±12.7 | 48.6±14.6 | 0 |
| Gender | Female | 17 (48.6%) | 11 (31.4%) | 0.14 |
| | Male | 18 (51.4%) | 24 (68.6%) | |
| CEA level (ng/mL) | | 1109.4 (0.30-14430) | 842.02 (0.30-9001) | 0.16 |
| CA 19-9 level (U/mL) | | 659.41 (1.99-21.452) | 55.23 (1.99-668) | 0.62 |

**Table 2. Distribution of demographic data in the study group**

| | | Percentage (%) |
|---|---|---|
| Tumour location | Right colon | 4 (11.4%) |
| | Transverse colon | 3 (8.6%) |
| | Splenic flexure | 6 (17.1%) |
| | Descending colon + sigmoid colon | 7 (20%) |
| | Rectum | 15 (42.9%) |
| Tumour size (cm) | <5 cm | 16 (51.6%) |
| | ≥5 cm | 15 (48.4%) |
| Histological type | Adenocarcinoma | 30 (85.7%) |
| | Mucinous carcinoma | 3 (8.6%) |
| | Other | 2 (5.7%) |
| T grade | Tx | 4 (11.4%) |
| | T1 | 1 (2.9%) |
| | T2 | 4 (11.4%) |
| | T3 | 16 (45.7%) |
| | T4 | 10 (28.6%) |
| N grade | N0 | 23 (65.7%) |
| | N1 | 8 (22.9%) |
| | N2 | 4 (11.4%) |
| TNM stage | Stage X | 4 (11.4%) |
| | Stage 1 | 5 (14.3%) |
| | Stage 2 | 13 (37.1%) |
| | Stage 3 | 10 (28.6%) |
| | Stage 4 | 3 (8.6%) |

## [S-138]

### Therapeutic efficacy of autologous adipose tissue-derived mesenchymal stem cells in experimentally induced gastric ulcers in rats

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**Objective:** Gastric ulcer remains an important gastrointestinal disease associated with high morbidity and mortality. The therapeutic efficacy of proton pump inhibitors may be limited in some patients, and long-term use may lead to adverse effects. Mesenchymal stem cells (MSCs) are multipotent cells that support tissue repair through their proliferative, differentiative, and immunomodulatory properties. The aim of this study was to evaluate the therapeutic efficacy of MSCs in an experimental gastric ulcer model.

**Material and Methods:** Forty female Sprague-Dawley rats were divided into four groups: Negative control, positive control, placebo, and MSC treatment. Gastric ulcer was induced using indomethacin. Adipose tissue harvested from the inguinal region was processed, and the MSC layer was isolated. MSCs were administered intraperitoneally in the treatment group, whereas an equivalent volume of phosphate-buffered saline was administered to the negative control and placebo groups. Four days later, blood samples were collected and total gastrectomy was performed. Specimens underwent histopathological and biochemical evaluation. Data were analyzed using SPSS-25; analyses included the Kolmogorov-Smirnov test, Kruskal-Wallis and One-Way ANOVA with Dunn's tests, and Pearson/Spearman correlation analyses.

**Results and Conclusion:** Histopathological analyses revealed significantly lower inflammation, fibrosis, and vascular injury scores in the MSC treated group ($p<0.001$), with improved epithelial regeneration and mucosal integrity ($p=0.006$). Biochemically, HIF-1α and IL-6 levels were significantly reduced in the MSC group ($p=0.0006$, $p<0.0001$), whereas MMP-9 and TGF-β, markers of tissue remodeling, were significantly increased ($p<0.0001$, $p=0.0020$). TNF-α showed a non-significant decreasing trend ($p=0.0813$), and EGF levels regressed toward physiological values ($p<0.05$). Significant positive correlations were observed between inflammation score and IL-6 ($r=0.4472$) and MMP-9 ($r=0.6692$), and between TNF-α and MMP-9 ($r=0.3105$). In this study, adipose-derived MSCs reduced mucosal injury and supported healing in an experimental gastric ulcer model by attenuating inflammation. These findings suggest that MSCs have regenerative and anti-inflammatory therapeutic potential in gastric ulcer management and represent a promising candidate for future clinical research.

**Keywords:** Gastric ulcer, indomethacin, mesenchymal stem cells

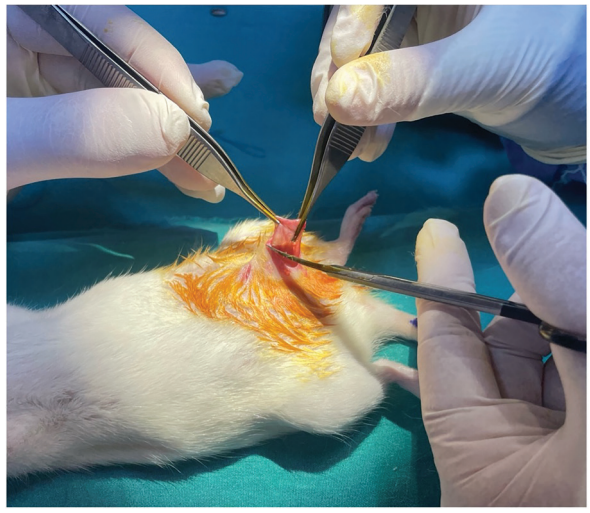

**Figure 1.** Excision of adipose tissue from the inguinal region following skin incision in rats.

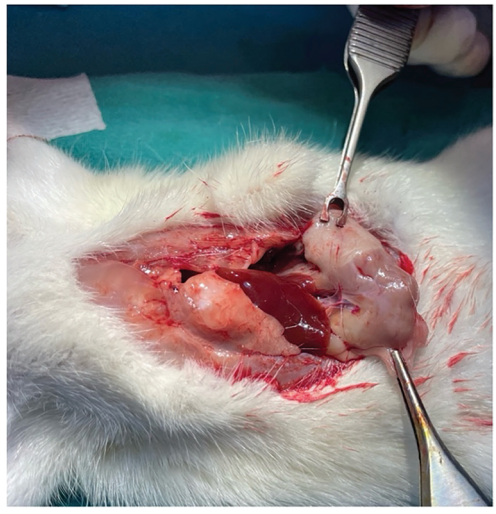

**Figure 2.** Macroscopic ulceration and deformity of the gastric tissue following indomethacin administration.

## [S-141]

### Effects of silibinin and lactulose on histopathological injury and regeneration in a partial hepatectomy model: An experimental study

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**Objective:** The aim of this experimental study was to evaluate the histopathological and regenerative effects of silibinin, lactulose, and their combination in protecting liver tissue against 70% partial hepatectomy and ischemia-reperfusion injury.

**Material and Methods:** Twenty-four male Sprague-Dawley rats (250-350 g, n=6 each group) were categorized into four groups: Sham, silibinin, lactulose, and silibinin+lactulose. On day 7, liver samples were taken and a modified Suzuki score of 0-4 was used to assess sinusoidal congestion/obstruction, hepatocyte necrosis, and vacuolization. A total Suzuki score was generated. The regeneration rate (RR, %) was computed using the Kwon formula. Statistical analysis comprised Shapiro-Wilk, Kruskal-Wallis with Dunn-Bonferroni post-hoc tests, and One-Way ANOVA ($\alpha$=0.05).

**Results:** A notable disparity was observed between groups for sinusoidal blocking (p=0.047), however no pairwise differences were detected at the post-hoc analysis; the lowest score was noted in the silibinin+lactulose group. A significant difference in vacuolization was noted (p=0.002); the Sham group had higher scores than both the lactulose and silibinin+lactulose groups (both p=0.003). No notable change was observed in hepatocyte necrosis (p=0.357). The cumulative Suzuki scores were: Sham 4.00±0.00, silibinin 1.83±1.17, lactulose 1.67±1.21, silibinin+lactulose 0.50±1.22, demonstrating a statistically significant difference among the groups (p=0.002). Histologically, the Sham group showed significant sinusoidal congestion and cellular degeneration, whereas the combination group's parenchymal architecture resembled normal physiology; the silibinin group showed mild focal vacuolization, and the lactulose group showed open sinusoids with well-organized hepatocyte arrangements. No notable difference in regeneration rates (RR%) was seen among the groups (ANOVA p=0.407; mean ± standard deviation: Lactulose 116.44±7.95, sham 128.29±15.33, silibinin 123.47±8.07, silibinin+lactulose 127.21±17.75).

**Conclusion:** Silibinin and lactulose alone protected the liver, but their combination protected histopathologically. Although liver regeneration rates were not statistically significant, histological improvements imply that combination therapy may be effective against liver ischemia-reperfusion injury after partial hepatectomy. Additional experimental investigations are necessary.

## [S-142]

### Application of a patient-specific 3D bioprinted skin substitute derived from adipose tissue in diabetic foot ulcers

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**Objective:** Diabetic foot problems are a more common reason for hospital visits than other chronic complications of diabetes. Despite conventional treatment methods such as wound care, revascularization, offloading, and wound dressings, treatment rates remain inadequate. In patients, wound healing is expected in 24-30% within 12-20 weeks. The aim of this study is to evaluate the effect of a 3D bioprinted skin substitute produced using stromal vascular fraction (SVF) derived from adipose tissue rich in mesenchymal stem cells on the wound healing process. The clinical effect of the 3D bioprinted skin substitute on wound healing and its effects on the wound microenvironment at the cellular level will be investigated.

**Material and Methods:** Seven male patients (mean age 61) were included. All underwent minor amputation and debridement procedures. After surgery, 4 patients had Wagner Type 2 and 3 patients had Wagner Type 3 wounds. Before treatment, tissue samples were collected from the wound bed. Using adipose-derived extracellular matrix rich in mesenchymal stem cells obtained via liposuction, a 3D-printed autologous wound substitute was prepared and applied to the defect. During the first week and afterward, granulation tissue samples were periodically collected for flow cytometry, and wound size and healing progression were clinically monitored.

**Results and Conclusion:** Six patients achieved complete epithelialization, with a mean healing time of 67 days. One patient received the 3D-bioprinted skin substitute a month ago and is still under follow-up. Tissue analyses showed that the reduction in wound size correlated with cellular changes, including shifts in immune cell activity and stem cell proportions. Notably, M1(CD38) and M2(CD209) macrophage levels increased. The rise in T-cell ratio and alteration of the M1-M2 balance indicate the transition of chronic wounds toward an acute-healing profile. Clinically, we use adipose-derived SVF-based 3D-printed skin substitutes in patients with delayed granulation and epithelialization. Both clinical outcomes and laboratory findings suggest that autologous SVF supports regeneration and may speed up healing compared with standard approaches (Figures 1 and 2).

**Keywords:** 3D bioprinted skin substitute, diabetic foot

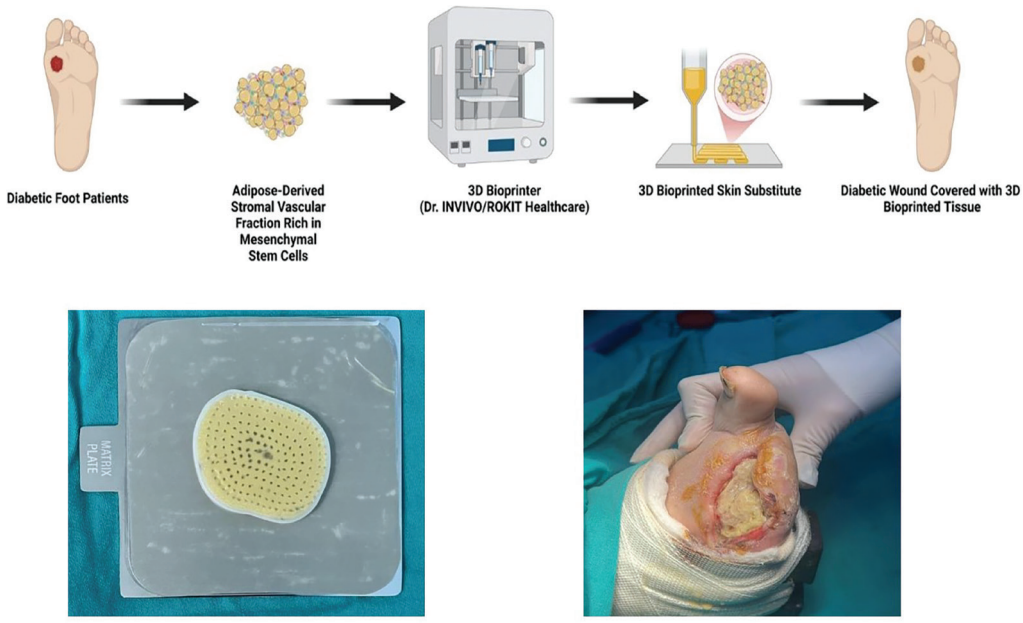


**Figure 1.** 3D bioprinted skin substitute application.

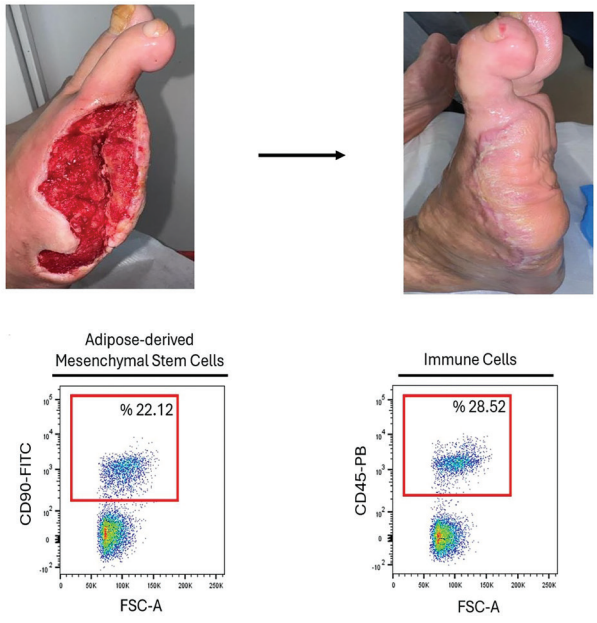


**Figure 2.** Findings following the application of 3D bioprinted autologous skin substitute.

## [S-143]

### A weighted scoring system for quality assessment of articles on abdominal hernia surgery: Article quality score (MAKAS)

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**Objective:** The recent proliferation of publications in the abdominal hernia surgery literature, driven by diverse surgical techniques such as laparoscopic, robotic, onlay, intraperitoneal, and extraperitoneal approaches, has significantly complicated the comparison of clinical studies. This complexity necessitates a standardized scoring system to objectively evaluate the adequacy of research methodology and surgical detail reporting.

**Material and Methods:** This study introduces the "article quality score (MAKAS)", a novel scale developed to assess the methodological and clinical quality of abdominal hernia surgery articles. The scale was formulated based on a comprehensive literature review and expert clinical consensus. The assessment criteria are structured under five main domains: Patient demographics, surgical technique details, material utilization, postoperative outcomes, and study design. Items are assigned weighted scores ranging from 1 to 3 points based on their clinical and methodological significance; the total maximum score is 60 points. Follow-up duration is specifically scored across defined intervals, from 0-6 months up to >36 months. Inter-rater reliability for the scale is analyzed using Cohen's kappa coefficient.

**Results:** The MAKAS system facilitates the quantification of methodological deficiencies and reporting inconsistencies prevalent in the abdominal hernia surgery literature. While limited quality assessment tools exist in related fields, most include criteria specific to general surgery or systematic reviews, and a weighted scale specifically dedicated to the abdominal hernia literature is currently unavailable. By incorporating crucial data points, including surgical approach and technical modifications, material specifics, and comprehensive postoperative follow-up data, MAKAS addresses a notable gap in the existing literature.

**Conclusion:** MAKAS is a weighted and applicable scoring system that objectively and reproducibly evaluates the quality level of abdominal hernia surgery articles. Its application can contribute to enhancing the methodological standards of clinical research and simplifying meaningful comparisons across published literature.

## [S-144]

### An evaluation of the therapeutic influence of bovine pericardium on experimental colon anastomosis integrity

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**Objective:** In rat colon, an organic bovine pericardium derived mesh loosely wrapped around an end-to-end colo-colonic anastomosis was evaluated mechanically, biochemically, and histologically; foreign-body related adhesion increase and possible sepsis were monitored.

**Material and Methods:** Sprague-Dawley rats (n=30) were randomized into 3 groups (10/group): A, laparotomy; B, full-thickness descending-colon transection + single-layer interrupted end-to-end anastomosis (5/0 polyglactin 910); C, B + 360° loose mesh wrap with single-point fixation. Murine Sepsis Score follow-up for 7 days; day-7 reoperation: macroscopic adhesion score, anastomotic bursting pressure, and sampling of anastomotic-line tissue and intracardiac blood for biochemical and histological evaluation were investigated.

**Results and Conclusion:** Adhesions were similar. In B, two cases had line thinning but preserved integrity; including them, B-C bursting pressure did not differ, excluding them, C was significantly lower. In C, six cases showed anastomotic stenosis, partial obstruction, and proximal loop distension. Serum: TOS and OSI were A<B<C; TAS was A<B<C; TT and NT were A>B≈C; DIS was similar. Tissue: TOS was A<B<C; TAS was A-B and A-C different, B-C was similar; OSI was different only between A-C. Tissue hydroxyproline was higher in C (A-B non-significant). IL-1β/IL-6/TNF-α/HIF-1α were A<B<C; VEGF (B,C)>A; EGF highest in C. Histology: neovascularization and collagen were A<B<C; inflammation was low in A, B≈C; granulation was absent in A, B≈C. Mesh wrapping increased biological activity (neovascularization, collagen, TAS) without increasing adhesions, but did not increase strength and increased stenosis tendency; longer follow-up with optimized mesh/wrap may yield mechanical benefit.

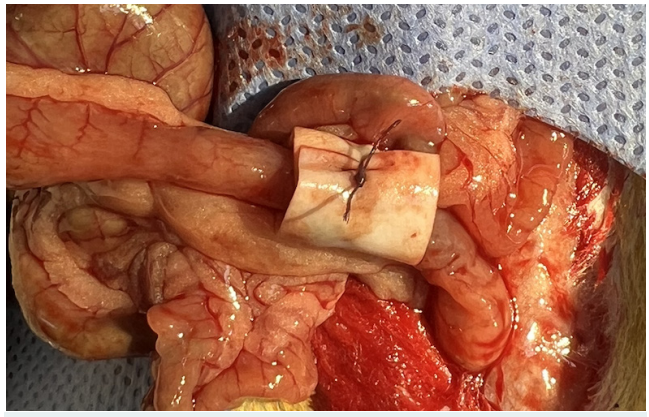

Figure 1. Loose mesh wrap around anastomosis, fixated in single point.


Figure 2. Measurement of anastomosis burst pressure.

## [S-148]

### Reflections and insights on surgical residency education from the literature: Current trends and evidence

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**Objective:** Surgical residency training has undergone a significant transformation in recent years. Reforms in working hours, the adoption of competency-based educational models, the increasing use of simulation and robotic surgery, and the impact of COVID-19 have all shaped this process. It is noted in the literature that case load and working hours alone are insufficient indicators of training quality, and that the quality of virtual education must also be assessed. This study aims to analyze global changes in surgical education and their reflections in the literature.

**Material and Methods:** This study was designed to describe the literature on general surgery residency training and was conducted as a bibliometric and thematic trend analysis based on the Web of Science (WoS) Core Collection. The search was performed in the WoS Core Collection (SCI-Expanded, SSCI) using the All Fields index with the query: "General surgery" AND (resident OR residency OR trainee OR training OR "general surgery education" OR "graduate medical education"), and restricted to the publication years 2016-2025.

**Results:** A total of 2.997 articles were identified and analyzed in the study. The annual distribution of the publications is presented in Figure 1. The journal contributing most to the surgical education literature was the Journal of Surgical Education, which accounted for 678 articles and dominated the field with 22.77% of all publications. The other leading contributing journals are presented in Figure 2. The majority of the literature consisted of publications originating from journals based in the United States.

**Discussion:** Surgical training has undergone substantial transformation over time, driven largely by technological advancements and the impact of the COVID-19 pandemic. The pandemic period accelerated digitalization, resulting in the widespread adoption of hybrid and online educational models, many of which have now become permanent components of training curricula. In the literature, the most prominent themes include robotic surgery, minimally invasive techniques, and simulation-based training modalities. Furthermore, flexible duty hours and modified work schedules have been shown to improve both the quality of training and resident satisfaction. The predominance of publications originating from the United States reflects the country's strong emphasis on standardization, quality assurance, and sustainable educational policies within surgical training systems. A substantial proportion of the educational literature was centered on themes related to robotic and minimally invasive surgery. The remaining major thematic domains are detailed in Figure 3.

**Conclusion:** Measurable performance, resident autonomy, and technology-enhanced learning modalities—particularly those involving robotic surgery, minimally invasive techniques, and simulation—are increasingly emphasized within the surgical education literature. The growing international contribution, alongside the strong dominance of U.S.-based journals, is also noteworthy. This bibliometric analysis was designed to provide insight and raise awareness regarding the evolving landscape of surgical training in the published literature.

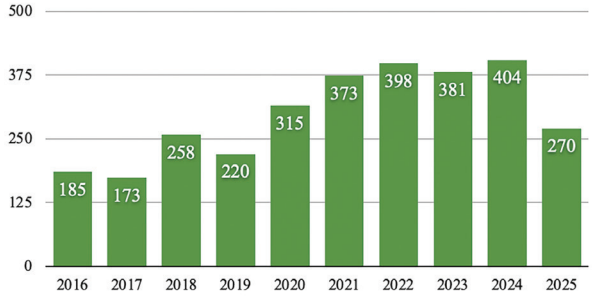


Figure 1. Yearly distribution of publications.

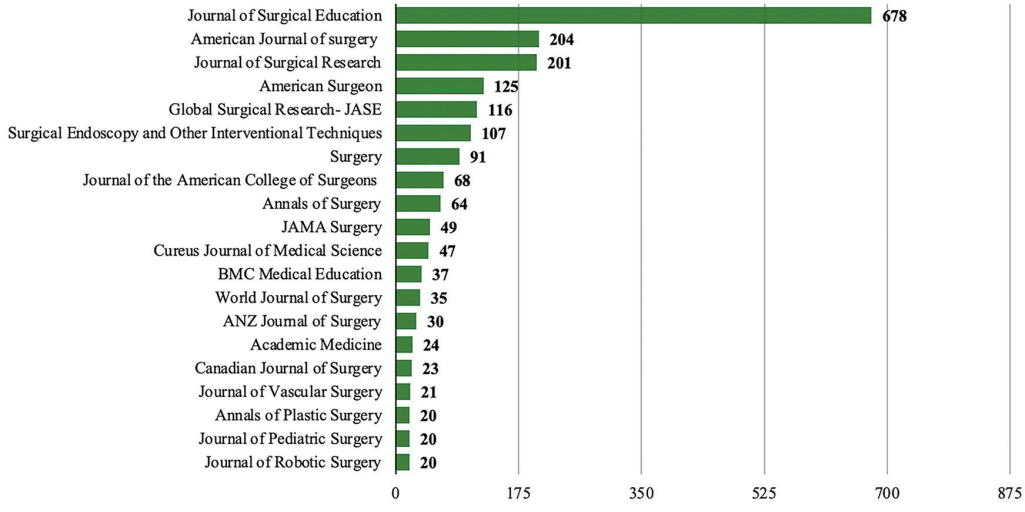


Figure 2.

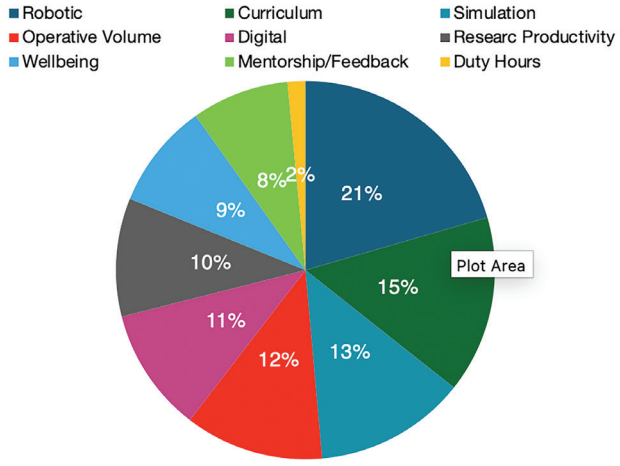


Figure 3.

## [S-153]

### The prognostic value of fibrinogen levels in patients admitted to postoperative intensive care due to abdominal sepsis

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**Objective:** Patients with abdominal sepsis requiring intensive care after emergency surgery carry a high risk of morbidity and mortality. Identifying biomarkers that predict prognosis in the early period is critically important for treatment planning and resource utilization. Fibrinogen, which indicates hemostasis and inflammation, has also demonstrated prognostic value in sepsis and peritonitis studies. The aim is to reveal the prognostic power of fibrinogen in comparison with other biomarkers and to investigate the effect of dynamic changes on prognosis.

**Material and Methods:** The study included 157 patients. The mean age was 63.6±16.0 years. BMI was 24.7±5.9 kg/m$^2$. The mean SOFA score was 5.4±3.6. The SOFA score was 9.2±3.9 in the group with mortality and 4.2±2.6 in the group without mortality (p=0.001). Similarly, the mean SOFA score was significantly higher in the groups requiring mechanical ventilation, vasopressors, and hemodialysis (p=0.001). The mean Mannheim peritonitis index was 22.7±9.7. Postoperative day 0 fibrinogen levels were found to be 570.1±210.4 mg/dL on average in all groups. In those who developed mortality, the day 0 fibrinogen level was found to be 620.5±225.3 mg/dL. This was found to be significantly higher. In those who did not develop mortality, this value was 550.2±198.7 mg/dL. (p=0.004). In the ROC analysis, the AUC value was calculated as 0.712. The cut-off value of 570.1 mg/dL was determined as the optimal point, with 71% sensitivity and 72.5% specificity in predicting mortality. This finding demonstrates that postoperative Day 0 fibrinogen is a strong predictor of mortality. Postoperative Day 1 fibrinogen levels were 405.3±197.6 mg/dL. In patients who developed mortality, Day 1 fibrinogen was 416.4±167.4 mg/dL, while in patients who did not develop mortality, it was 370.9±147.9 mg/dL (p=0.032). ROC analysis showed AUC=0.68, indicating moderate prognostic discriminatory power. The mean fibrinogen level on day 0 was significantly higher in patients requiring mechanical ventilation (474.7±223.3 mg/dL vs. 418.9±167.7 mg/dL, p<0.05). Day 0 fibrinogen levels were significantly higher in patients requiring vasopressor therapy (482.1±205.4 mg/dL) compared to 421.6±169.2 mg/dL in patients not receiving vasopressors. (p<0.05). The mean fibrinogen level on day 0 was 489.4±218.7 mg/dL in patients undergoing hemodialysis and 426.8±172.3 mg/dL in those not requiring dialysis (p<0.05).

**Conclusion:** Fibrinogen is a strong predictor of short-term prognosis in patients who require intensive care after emergency surgery due to abdominal sepsis. Elevated fibrinogen levels (≥570 mg/dL) on postoperative day 0 significantly predicted mortality risk, and high fibrinogen levels were associated with morbidities such as mechanical ventilator requirement, vasopressor use, and hemodialysis treatment. These findings may guide clinicians in early risk stratification and determining treatment strategies.

## [S-154]

### Indocyanine green angiography in the assessment of surgical amputation level in diabetic foot patients

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**Objective:** Foot ulcers that develop as a result of microvascular and macrovascular disorders and peripheral neuropathy in diabetic patients lead to multifactorial wound complications. Diabetic wound healing disorders are known to affect approximately 25% of patients with diabetes mellitus, and diabetic foot ulcer is recognized as the greatest risk factor for lower extremity amputation. Vascular assessment in diabetic foot amputations is of critical importance to ensure postoperative wound healing and to reduce the risk of reamputation. This study aimed to assess the clinical outcomes of diabetic foot patients undergoing amputation guided by indocyanine green angiography.

**Material and Methods:** In this study, patients diagnosed with diabetic foot who underwent amputation with indocyanine green angiography and SPY fluorescence imaging between 2023 and 2025 were retrospectively analyzed. Demographic characteristics, comorbid conditions, Wagner/PEDIS wound classifications, surgical procedures, and wound healing status of the patients were documented. Postoperative wound healing status was classified as healing with conventional management or requiring escalation to a higher-level amputation.

**Results and Conclusion:** The study cohort comprised a total of 50 patients. The average age of patients participating in the study was 68.5, and the patients were predominantly male (84%). The majority of cases (96%) had advanced-stage diabetic foot ulcers (Wagner grades 3-4), with a mean Wagner grade of 3.82. All patients were diagnosed with diabetes mellitus, with hypertension (76%) and coronary artery disease (28%) being the most common comorbidities. Hyperbaric oxygen therapy and peripheral angiography were performed in 50% and 44% of the patients, respectively. Minor amputation was performed in the majority of patients (84%), whereas a smaller number of patients underwent ray amputation, and one patient underwent below-knee amputation. Wound healing was achieved with conventional management in 49 patients, whereas one patient required revision to a higher-level amputation. SPY fluorescence imaging-based intraoperative evaluation of tissue perfusion seems to be a safe and reliable method for guiding amputation level selection and predicting wound healing in diabetic foot surgery. Accordingly, indocyanine green angiography may serve as a complementary adjunct to standard assessment methods in diabetic foot surgery and has the potential to reduce reamputation rates.

**Keywords:** Amputation, diabetic foot, ICG

**Figure 1.** Intraoperative vascularization assessment with indocyanine green angiography.


**Figure 2.** Indocyanine green with spy foresan imaging.

## [S-155]

### Factors influencing mortality in Fournier's gangrene

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**Objective:** The aim of this study is to investigate the factors affecting the prognosis in patients with Fournier's gangrene.

**Material and Methods:** The medical records of patients diagnosed with Fournier's gangrene in our clinic between November 2014 and December 2023 were retrospectively reviewed. Clinical presentations, demographic characteristics, laboratory data, debridement approaches, culture results, and mortality rates were recorded.

**Results:** A total of 29 patients diagnosed with Fournier's gangrene were included in this study. Of these, 17 (58.6%) were male and 12 (41.4%) were female, with ages ranging from 29 to 82 years (mean age: 61 years). Six patients (20.7%) had no comorbidities, while 23 (79.3%) had at least one comorbidity. The most common comorbidity was diabetes mellitus (n=13, 44.8%). Sixteen patients (55.2%) died as a result of Fournier's gangrene. The prevalence of diabetes mellitus in surviving patients was 23.2%, whereas in deceased patients, it was 62.5%. This difference was statistically significant (p=0.034). Although culture results varied, *Escherichia coli* was the most frequently isolated microorganism. According to laboratory results, although there were differences in variables affecting mortality such as C-reactive protein, albumin, procalcitonin levels, neutrophil/lymphocyte ratio, platelet/lymphocyte ratio, and C-reactive protein/albumin ratio between deceased and surviving patients, these differences were not statistically significant. No significant difference was observed between surviving and deceased patients in terms of sepsis risk groups.

**Conclusion:** The mortality rate in Fournier's gangrene remains high, and the metabolic status of the patients as well as their comorbid conditions play a significant role in determining the prognosis.

**Keywords:** Fournier's gangrene, mortality, prognostic factor

## [S-157]

### The clinical contribution of abdominopelvic CT in patients with inguinal hernia: A retrospective analysis

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**Objective:** In patients with inguinal hernia, the presence of alarm symptoms such as advanced age, weight loss, or changes in bowel habits may raise the possibility of accompanying intraabdominal pathology or malignancy. In our study, we aimed to investigate the value of computed tomography (CT) in detecting additional pathology and malignancy and its effect on surgical decision-making.

**Material and Methods:** Abdominopelvic CT scans were performed on patients over the age of 45 who presented to our clinic within the last year with a diagnosis of inguinal hernia to evaluate the possibility of intra-abdominal pathology or malignancy accompanying inguinal hernia. A total of 336 patients who underwent CT scans were retrospectively reviewed. The patients' demographic data, CT reports, and pathologies detected in further examinations were recorded.

**Results:** Additional pathology beyond inguinal hernia was detected on CT in 41 (12.2%) of the 336 screened patients, and these patients were analyzed. The mean age of the patients was 65.7±17.3 years; 36 were male (87.8%) and 5 were female (12.2%). In 22 patients (53.7%), the hernia was on the left side, in 15 (36.6%) on the right side, and in 4 (9.8%) it was bilateral. In further investigations, malignancy was detected in 20 patients (48.8%), and the findings seen on CT could not be clinically verified in 21 patients (51.2%). The malignancy rate was 12/22 (54.5%) in left-sided hernias, 6/15 (40.0%) in right-sided hernias, and 2/4 (50.0%) in bilateral hernias (p=0.51). Among the organs described on CT, the colon (n=18; 43.9%) and stomach (n=11; 26.8%) were the most common; followed by the pancreas (n=2; 4.9%), bladder (n=3; 7.3%), ovary (n=2; 4.9%), bile duct (n=1; 2.4%), intra-abdominal mass (n=3; 7.3%), and left renal mass (n=1; 2.4%). Malignancy confirmation rates with further examination were: Colon 9/18 (50.0%), stomach 5/11 (45.5%), pancreas 1/2 (50.0%), bladder 3/3 (100%), cholangiocarcinoma 1/1 (100%), left renal 1/1 (100%), ovary 0/2 (0%), and intra-abdominal mass 0/3 (0%). Due to CT findings, surgical timing was changed or further investigation/treatment was performed in 20 patients (48.8%).

**Conclusion:** Routine CT scanning is not necessary for all patients with inguinal hernia; however, it may be beneficial in selected patients with clinical suspicion. In our study, the diagnostic yield of CT was 12.2%, and the malignancy detection rate was 5.9%. These data support the decision to order CT in clinical practice based on patient-specific risk factors and findings.

## [S-158]

### Clinical features, treatment approaches, and prognostic factors of rectus sheath hematoma: A single-center retrospective analysis

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**Objective:** Rectus sheath hematoma (RSH) is a type of abdominal wall hemorrhage that despite being rare, can lead to serious clinical conditions. The aim of this study is to evaluate the clinical characteristics, treatment approaches, and short-term outcomes of RSH cases followed at the Department of General Surgery, University of Health Sciences Türkiye, Ankara Etlik City Hospital.

**Material and Methods: A** retrospective analysis was conducted of 25 patients diagnosed with RSH and followed up at the Department of General Surgery, University of Health Sciences Türkiye, Ankara Etlik City Hospital between 2022 and 2025.Demographic characteristics, initial laboratory values (HGB, PLT, INR, aPTT), imaging findings (extravasation, bilateral hematoma, prevesical/intraperitoneal involvement), Berna classification, treatment methods applied, transfusion requirements, intensive care unit (ICU) admission, and clinical outcomes were recorded. Findings were summarized using descriptive statistics; prognostic factors were investigated using correlation and regression analyses.

**Results:** Mean age of patients was 66.8 years, and 80% were female. Hypertension (48%) and diabetes mellitus (16%) were the most common comorbidities. At presentation, the mean HGB was 10.2 g/dL, INR was 1.9, and APTT was 33.4 seconds. Imaging revealed extravasation in 44%, prevesical/intraperitoneal involvement in 56%, and bilateral hematoma in 16%. Over half of the cases were in Berna class III. Treatment was mainly conservative (80%), while 4 patients undervent embolizarion and 1 required drainage. Transfusion was needed in 24%, ICU admission in 24%, and mortality was 4%. Increasing Berna class correlated with longer hospital stay and higher ICU need; low admission HGB increased transfusion reguirement; and elevated INR was associated with prolonged hospitalization.

**Conclusion:** RSH is more common in older women, and the predominance of Berna class III suggests many patients present with advanced disease. Berna classification serves both as a radiological framework and a prognostic indicator. Most patients were successfully treated conservatively, with limited need for interventional radiology. Low hemoglobin predicted transfusion, while high INR was linked to longer hospitalization. Approximately one-quarter required intensive care, emphasizing the need for close monitoring, particularly in advanced cases.

**Keywords:** Berna classification, prognostic factors, rectus sheath hematoma

**Table 1. Demographic and clinical characteristics**

| Variable | Result |
|---|---|
| Age (years) | 66.8±14.9, median: 68 (35-90) |
| Sex | Female: 20 (80%), male: 5 (20%) |
| Hypertension | 12 (48%) |
| Diabetes mellitus | 4 (16%) |
| Chronic kidney disease | 2 (8%) |
| Pulmonary disease | 9 (36%) |
| Extravasation | Present: 11 (44%), absent: 14 (56%) |
| Bilateral hematoma | Present: 4 (16%), absent: 21 (84%) |
| Prevesical/intraperitoneal involvement | Present: 14 (56%), absent: 11 (44%) |

**Table 2. Laboratory findings**

| Parameter | n | Mean ± SD | Median (min-max) |
|---|---|---|---|
| Admission HGB (g/dL) | 25 | 10.2±2.1 | 10.0 (6.6-16.8) |
| 6th-hour HGB (g/dL) | 25 | 9.8±2.0 | 9.8 (6.1-15.3) |
| 24th-hour HGB (g/dL) | 25 | 9.4±1.7 | 9.6 (6.8-15.1) |
| PLT ($10^3$/µL) | 25 | 223.8±98.2 | 220.0 (72.0-525.0) |
| INR | 25 | 1.9±1.7 | 1.1 (0.8-6.8) |
| aPTT (sec) | 25 | 33.4±8.0 | 30.9 (25.0-53.0) |

HGB: Hemoglobin, SD: Standard deviation, PLT: Platelet, INR: International normalised ratio, aPTT: Activated partial thromboplastin time.

**Table 3. Imaging, clinical classification, and treatment**

| Parameter | Result |
|---|---|
| Berna classification | I: 7 (28%), II: 4 (16%), III: 14 (56%) |
| Treatment approach | Conservative: 20 (80%), interventional radiology (embolization): 4 (16%), interventional radiology (drainage): 1 (4%) |
| ICU admission | Present: 6 (24%), absent: 19 (76%) |
| ICU stay (days) | 1.8±5.6, median: 0 (0-28) |
| Total hospital stay (days) | 6.1±5.9, median: 4 (1-31) |

**Table 4. Transfusion and clinical outcomes**

| Parameter | Result |
|---|---|
| Transfusion required | 6 patients (24%) |
| Mean transfusion units | 2.3 |
| 30-day mortality | Present: 1 (4%), absent: 24 (96%) |
| Cause of mortality | Pneumonia |

## [S-159]

### Our appendectomy experience: Analysis of 4.298 patients

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**Objective:** Acute appendicitis is the most common cause of acute abdominal surgery and presents a significant burden on healthcare systems. Therefore, a comprehensive understanding of its clinical and surgical aspects is important. This study aimed to present our institutional experience by analyzing a high-volume cohort of appendicitis patients.

**Material and Methods:** Patients over 18 years of age who underwent surgery for acute appendicitis between 2019 and 2024 were retrospectively reviewed. Patients who underwent additional organ resection, were diagnosed with plastron, or had incomplete records were excluded. Demographic characteristics, American Society of Anesthesiologists (ASA) scores, pain onset time, laboratory values, imaging findings [(ultrasonography (USG) and computed tomography (CT)], surgical technique (open or laparoscopic), operative duration, length of hospital stay, pathology results, intensive care unit (ICU) admission, and Clavien-Dindo complication grades were analyzed.

**Results:** A total of 4.298 patients were included. The mean age was 36.75±14.99 years; 42.8% were female, and 57.2% were male. ASA distribution was 51.3% Grade 1, 43.8% Grade 2, 4.8% Grade 3, and 0.1% Grade 4. The mean time from onset of pain to presentation was 1.64±1.67 days, and the mean white blood cell value was $13.14\pm4.33\times10^9$/L. The mean appendix diameter was 8.69±2.31 mm on USG and 10.20±3.21 mm on CT. USG confirmed appendicitis in 43.4% of patients, while CT confirmed in 72.3%. Open appendectomy was performed in 75.5% of cases, and laparoscopic in 24.5%. The mean operative time was 56.46±19.01 minutes, and hospital stay was 1.83±2.32 days. Pathology revealed 63% simple, 25% complex, and 2.2% perforated appendicitis. Negative appendectomy rate was 8.8%. Neoplastic cases included mucinous neoplasm (0.6%), neuroendocrine tumor (0.3%), and adenocarcinoma (0.1%). ICU admission occurred in 1.7%, and mortality was 0.2%.

**Conclusion:** High-volume, single-center studies provide valuable data to guide clinical practice and improve surgical outcomes.

## [S-160]

### Evaluation of the effectiveness of laser ablation in perianal fistulas

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**Objective:** Anal fistula is a chronic inflammatory condition characterized by an epithelialized tract between the anal canal and perianal skin. While conventional techniques are still in use, sphincter-sparing methods have emerged with technological advances. This study aimed to evaluate the effectiveness of laser ablation in perianal fistulas.

**Material and Methods:** We retrospectively reviewed 29 patients who underwent laser ablation for perianal fistula between January 2020 and September 2023. A 1470 nm, 10-watt laser fiber was inserted into the tract via catheter, and the internal opening was closed with sutures. Patients were evaluated at 12 months postoperatively. Data included age, gender, fistula type (based on magnetic resonance imaging and examination), Cleveland Clinic Incontinence Score, recurrence, and complete healing.

**Results and Conclusion:** Of 29 patients, 26 (89.7%) were male and 3 (10.3%) female, with a mean age of 42.3±9.7 years. Fistula types were: 55.2% intersphincteric, 34.5% transsphincteric, 3.4% suprasphincteric, and 6.9% extrasphincteric. Complications occurred in 2 patients (pain and wound infection). At 12 months, one patient (3.3%) had moderate incontinence; no complete incontinence was observed. Recurrence occurred in 7 patients (20.6%), mainly in transsphincteric types (71.4%). There was a statistically significant association between recurrence and fistula type ($p<0.05$). Full healing occurred in 79.3% of cases. Larger prospective studies are needed to confirm these findings.

## [S-161]

### Is routine histopathological examination necessary after anal fistula surgery? A single-center experience

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**Objective:** Routine histopathological examination of surgically excised tissues is traditionally considered important for diagnostic confirmation, prognostic evaluation, and guiding further treatment planning. However, with the increasing global healthcare workload, the cost-effectiveness of submitting all surgical specimens for routine pathological analysis has been questioned. Anal fistula surgery is a common procedure, yet few studies have evaluated the true diagnostic yield of routine histopathological examination. Previous reports, including those by Wijeyaratne et al. (2010) and Rao et al. (2018), demonstrated a low diagnostic contribution of approximately 1-3%. This study aimed to assess the clinical utility and necessity of routine histopathological evaluation following anal fistula surgery in our center.

**Material and Methods:** In this retrospective single-center study, 193 patients who underwent surgery for anal fistula between January 2021 and December 2024 at Hitit University Erol Olçok Training and Research Hospital, Department of General Surgery, were evaluated. Demographic characteristics, operative details, and histopathology reports were reviewed.

**Results and Conclusion:** Of the 193 patients, surgical specimens were submitted for histopathological analysis in 86 cases (44.5%). Among these, only one patient (1.1%) demonstrated a specific etiology (granulomatous inflammation suggestive of tuberculosis or Crohn's disease). All remaining samples showed non-specific chronic inflammation. No malignancy or atypical infectious pathology was identified. These findings align with previously published data reporting similarly low diagnostic yield.

Routine histopathological examination of specimens obtained during anal fistula surgery does not appear to provide additional clinical benefit in most cases. Nonetheless, selective pathological evaluation is recommended in patients with recurrent fistulas, atypical clinical presentation, or suspected tuberculosis, Crohn's disease, or malignancy. Such a selective approach may help maintain diagnostic accuracy while reducing pathology workload and associated costs.

**Keywords:** Anal fistula, granulomatous inflammation, routine examination

# POSTER PRESENTATIONS

## [P-007]

### From nutritional risk to hospital readmission: A retrospective analysis of 15,871 patients evaluating the association between NRS-2002 scores and readmission rates

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**Objective:** The aim of this study was to assess the relationship between the Nutritional Risk Screening 2002 (NRS-2002) score and the frequency of hospital readmissions.

**Material and Methods:** A retrospective analysis was conducted in the General Surgery Department of University of Health Sciences Türkiye, Ankara Etlik City Hospital between October 2022 and June 2025. Data from a total of 15.871 individual inpatients were evaluated. For each patient, the total number of hospitalizations during the study period was recorded, along with the first documented NRS-2002 score and sex. The association between the NRS-2002 score and the number of repeat admissions was analyzed using Spearman's rank correlation test due to the non-normal distribution of the variables.

**Results:** A weak but statistically significant positive correlation was identified between the NRS-2002 score and the number of hospital readmissions (Spearman's $\rho=0.181$; $p<0.001$). Although statistical significance was high owing to the large sample size, the low correlation coefficient indicates that the clinical impact of this association is limited.

**Conclusion:** Higher NRS-2002 scores were associated with an increased likelihood of repeated hospitalizations. However, the weak strength of this correlation suggests that nutritional risk alone is not a strong predictor of readmission. Evaluating additional clinical and socio-demographic factors alongside nutritional status may provide more comprehensive and reliable insights into the determinants of hospital readmissions.

**Keywords:** NRS-2002, nutritional risk, recurrent hospitalization, readmission, nutritional assessment

## [P-012]

### A rare etiology of acute appendicitis: Two cases associated with vasculitis

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**Objective:** Acute appendicitis is one of the most common surgical emergencies, typically developing on the basis of luminal obstruction. However, in rare cases, the underlying etiology may involve vasculitic processes. This study presents two cases of acute appendicitis in which histopathological examination revealed vasculitic changes and discusses these findings in light of the current literature.

**Material and Methods:** Archival records of patients who underwent appendectomy in our clinic between 2022 and 2025 were retrospectively reviewed. Cases demonstrating histopathological features compatible with vasculitis—such as fibrinoid necrosis, inflammatory infiltration of vessel walls, and luminal obliteration—were included. Demographic data, clinical presentations, intraoperative findings, and pathological results were analyzed in detail.

**Results:** Two female patients (18 and 37 years old) exhibited histopathological findings consistent with vasculitic changes. The first case presented with typical symptoms of acute appendicitis; despite a macroscopically normal appendix, histopathology demonstrated vasculitis with fibrinoid necrosis involving small- to medium-sized vessels. The second case presented with perforated and plastron appendicitis; histopathological evaluation revealed chronic active diffuse appendicitis accompanied by vasculitic alterations. No neoplastic lesions were identified, neither patient had a prior history of systemic vasculitis, and postoperative recovery was uneventful in both cases.

**Conclusion:** Vasculitis represents a very rare yet clinically significant etiology of acute appendicitis, appearing across a wide spectrum from macroscopically normal appendices to perforated cases. Therefore, histopathological evaluation of all appendectomy specimens is essential. Patients with vasculitic findings should be assessed for underlying systemic vasculitides to guide long-term follow-up and therapeutic strategies.

**Keywords:** Acute appendicitis, vasculitis, fibrinoid necrosis, systemic vasculitis

## [P-013]

### Small bowel obstruction due to left paraduodenal hernia: A rare case of internal herniation

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**Objective:** Internal hernias are rare but important causes of small bowel obstruction, accounting for approximately 0.5-5% of all cases. Paraduodenal hernias are the most common type of internal hernia and typically develop through a defect opening into the Landzert fossa adjacent to the ligament of Treitz on the left side. Clinical findings are non-specific and most commonly present with ileus. Early diagnosis and surgical treatment are crucial to preserve bowel viability and reduce mortality.

**Material and Method:** This study presents a case of a patient who was admitted to the Emergency Department of Hitit University General Surgery Clinic with symptoms of ileus. Clinical data were obtained from patient records, imaging systems, and intraoperative findings.

**Case Presentation:** A 69-year-old male patient presented to the emergency department with complaints of abdominal pain, vomiting, and abdominal distension. Evaluation revealed findings consistent with ileus, and the patient was followed for three days with nasogastric decompression and conservative management. Due to the absence of clinical improvement, surgical intervention was planned. Preoperative contrast-enhanced computed tomography demonstrated dilated small bowel loops with air-fluid levels. During laparotomy, the herniated bowel loops were found to be viable. A defect approximately 4 cm in diameter was primarily closed with four 2/0 Vicryl sutures, and no bowel resection was required. The patient was discharged without complications on postoperative day three.

**Conclusion:** Although paraduodenal hernias are rare, they represent the most common type of internal hernia. Clinical presentation is generally consistent with ileus. Surgical intervention is essential in cases that do not respond to conservative management or demonstrate clinical deterioration. Primary closure of the defect is usually sufficient. Mortality rates are very low in patients who are diagnosed and treated early. Left paraduodenal hernia is a rare but potentially serious condition and should be considered in the differential diagnosis of patients with prolonged ileus. Early CT imaging and appropriate surgical intervention are critical for preventing complications and improving survival.

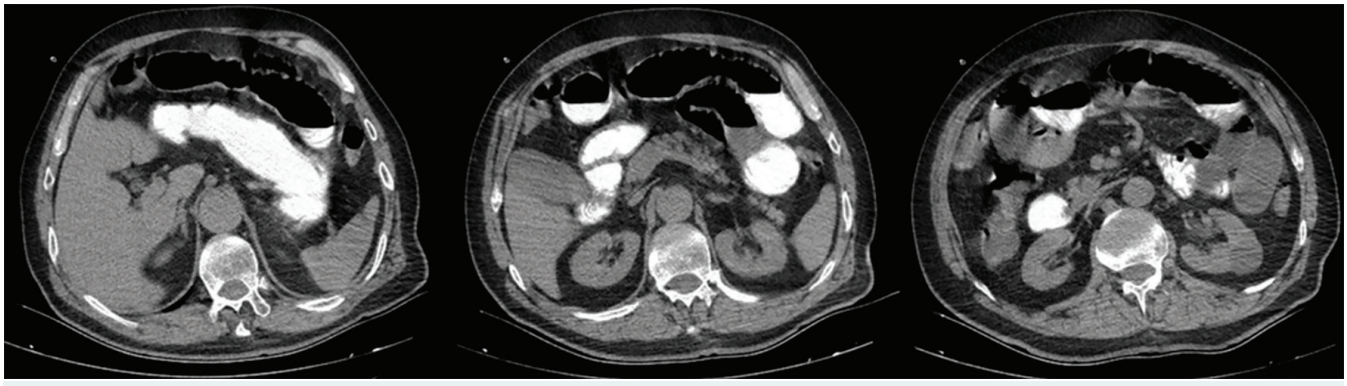

Figure 1.

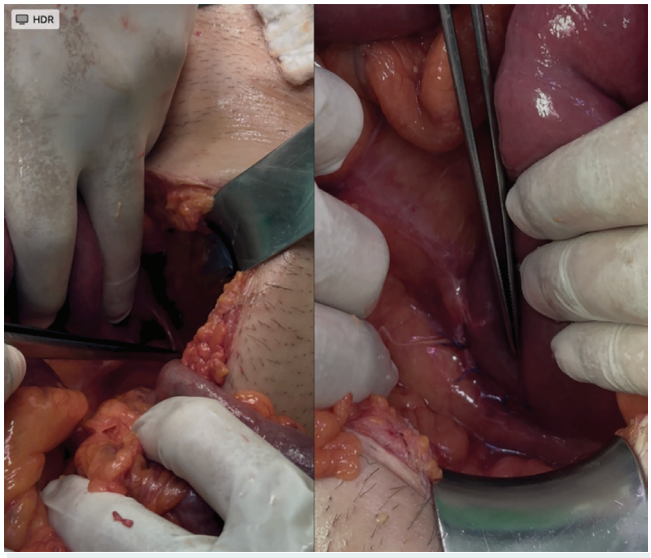


Figure 2.

## [P-015]

### NOT cure, but comfort: The silent role of surgery in triple-negative breast cancer

Mehmet Oğuzhan Polat, Ahmet Berkay Arat, Kaan Canal, Murat Kendirci

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**Objective:** Triple-negative breast cancer (TNBC) is an aggressive subtype of breast cancer characterized by the absence of hormonal receptors and HER2 expression, with a high metastatic potential. TNBC is associated with rapid progression, limited response to chemotherapy, and poor overall survival, particularly in advanced stages. Skin infiltration and external tumor exposure indicate an increased local tumor burden and may necessitate palliative approaches. Although surgery directed at the primary tumor is generally not recommended, selected cases may benefit from palliative surgical interventions to control infection and improve quality of life.

**Case Presentation:** A 54-year-old female patient presented in December 2023 with a complaint of a mass in the right breast. Clinical evaluation revealed a superficially necrotic, externally exposed mass invading the subcutaneous tissues of the right breast. Biopsy confirmed the diagnosis of triple-negative invasive ductal carcinoma. Imaging studies demonstrated metastases to the manubrium sterni and bilateral lungs. The patient was staged as stage IV disease (cT4bN1M1), and systemic chemotherapy was initiated. During follow-up, the externally exposed tumor mass developed recurrent infections accompanied by foul-smelling, draining lesions. The patient's quality of life was severely impaired due to both infection-related symptoms and cosmetic concerns. Although curative surgery for the primary tumor was not planned, local palliative mastectomy was considered to achieve infection control and aesthetic improvement. Surgical intervention involved complete excision of the right breast tissue together with infected tissue, achieving clear margins. In the postoperative period, infection was successfully controlled, the patient was discharged in a short time, and systemic therapy was continued without interruption.

**Discussion:** In patients with advanced systemic disease, locally advanced breast tumors that are ulcerated, infected, and malodorous can significantly impair quality of life. Palliative surgical intervention in such cases aims not at cure, but at symptom control, including infection management, reduction of analgesic and dressing requirements, and facilitation of uninterrupted systemic therapy.

**Conclusion:** Although surgery is generally not preferred in metastatic stage IV triple-negative breast cancer, selected patients may derive substantial quality-of-life benefits from palliative surgical interventions. Local surgical debridement or mastectomy performed for ulcerated, infected, necrotic, and malodorous tumors should be considered within a multidisciplinary decision-making process, given its potential benefits in infection control, cosmetic improvement, and adherence to systemic treatment.

Figure 1.

## [P-016]

### Umbilical hernia mesh migration to the skin surface: Surgical management of a rare late complication

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**Objective:** The use of mesh in ventral hernia repair significantly reduces recurrence rates; however, it may also lead to various complications. Mesh migration usually occurs toward intra-abdominal organs, whereas migration toward the skin surface is extremely rare. In this study, we present a case of revision surgery performed due to gradual migration of an intraperitoneal mesh to the skin surface following umbilical hernia repair, resulting in exposure to the external environment.

**Case Presentation:** A 65-year-old male patient presented with the complaint of a foreign body protruding from the surgical wound located at the midline of the abdomen. His medical history revealed that an intraperitoneal mesh had been placed five years earlier during umbilical hernia repair. Physical examination demonstrated a foreign body approximately 1 cm in diameter around the umbilicus, disrupting skin integrity and exposed to the external environment. The patient was admitted for elective surgery. During the operation, the previous mesh was carefully dissected from the surrounding tissues and reconstructed using healthy tissue.

**Discussion:** Mesh migration may occur in the early postoperative period due to technical errors or infection, while late migration may result from chronic inflammation, mechanical stress, and tissue erosion. Migration to the skin surface is exceptionally rare, with only a limited number of cases reported in the literature. In the present case, the migration was asymptomatic and the patient presented solely with the appearance of a foreign body on the skin.

**Conclusion:** In surgical management, reconstruction of a complicated but non-infected mesh using healthy tissue is recommended. Surgeons should be aware of this rare late complication, particularly in patients presenting with unusual cutaneous findings years after hernia repair.

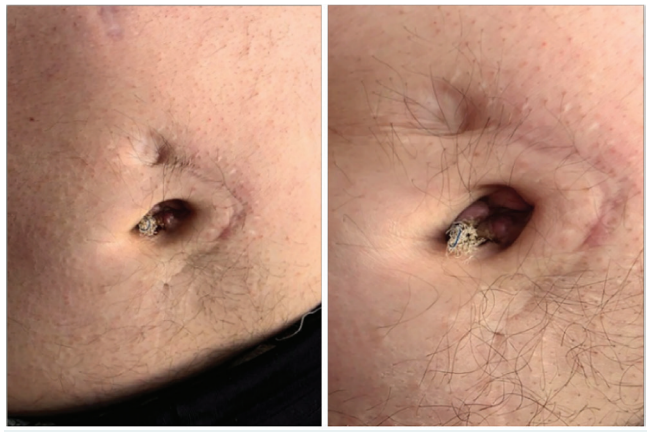

Figure 1.

Figure 2.

## [P-020]

### Laparoscopic inguinal hernia repair with the TAPP technique: Results of a single-surgeon series

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[2]*Department of General Surgery, Zonguldak Bülent Ecevit University Hospital, Zonguldak*

**Objective:** Inguinal hernia repair is among the most commonly performed operations in general surgery clinics (it is estimated that more than 20 million inguinal hernia operations are performed worldwide each year). Among inguinal hernia repair techniques, the transabdominal preperitoneal (TAPP) approach provides broad coverage in the preperitoneal plane in bilateral and recurrent groin hernias and is associated with early recovery and low pain levels. This study aims to present the outcomes of consecutive TAPP repairs performed by a single surgeon between November 2022 and September 2025 and to compare these results with current literature.

**Material and Methods:** A total of 147 consecutive TAPP repairs performed at a single-center were evaluated (32 women, 115 men). Of the cases, 67 were bilateral and 73 were recurrent hernias. In addition, 3 patients were operated on with the diagnosis of femoral hernia and 1 patient with obturator hernia. Two patients were taken to surgery with a preoperative diagnosis of inguinal hernia; however, during the operation, an incisional hernia was detected at the lower end of a subumbilical midline incision and was repaired. All patients were operated on under general anesthesia. No drains were used in any patient, and no postoperative bleeding was observed. Length of hospital stay ranged from 1 to 3 days, with a mean of 1.1 days. In 73 cases, 3D polypropylene mesh was used (52 without fixation). In the remaining 74 cases, a 15×10 cm polypropylene mesh was used (28 without fixation). In three multiple-recurrence cases, who had previously undergone inguinal hernia surgery an average of five times and in whom peritoneal dissection was not possible, repair was performed using a dual mesh. During follow-up, recurrence, seroma, and pain outcomes were recorded. Patients were followed for a postoperative period of 6 months.

**Results:** No recurrences were observed in any patient (0/147; for zero events, the crude 95% upper confidence limit is approximately 2%). Seroma developed in 13 patients (8.8%), most of which were associated with scrotal or incisional cases. No persistent chronic postoperative inguinal pain (CPIP) was detected; however, 22 patients reported intermittent sharp pain triggered by cold exposure. No mesh reaction was observed in any patient.

**Conclusion:** The findings are consistent with the reported recurrence (0.5-2%) and seroma (5-10%) rates for laparoscopic TAPP repairs in the literature. The absence of CPIP aligns with the pain-related advantages of the laparoscopic approach. In selected cases, non-fixation mesh placement may improve the pain profile without increasing the recurrence rate. A standardized TAPP technique, particularly in bilateral and recurrent cases, appears to be safe and effective, offering short hospital stays, low morbidity, and very low recurrence rates. The single-center/single-surgeon design and heterogeneity of the follow-up duration are the main limitations of this study; longer-term follow-up is recommended.

**Keywords:** TAPP, inguinal hernia, mesh fixation, seroma, recurrence, chronic groin pain


**Figure 1.** Non-fixation placement of 3D polypropylene mesh in right inguinal TAPP repair.

The mesh is positioned anatomically without using a tacker and spread out to cover the defect. The arrow indicates the point corresponding to the symphysis pubis, showing the anatomical orientation of the mesh.

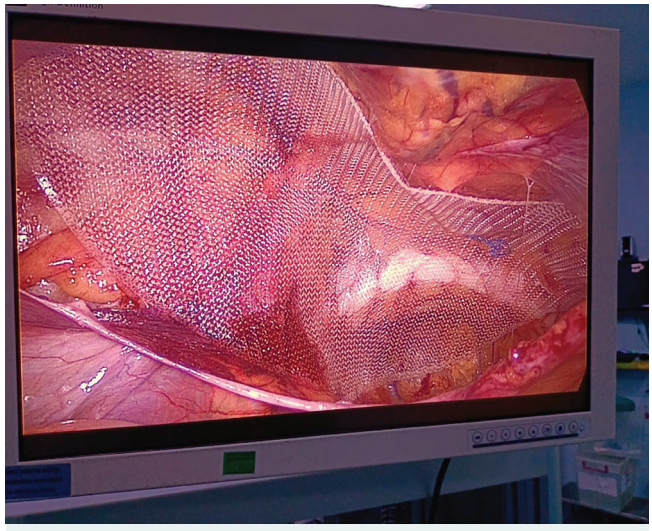

**Figure 2.** Non-fixation placement of 3D polypropylene mesh in left inguinal TAPP repair.

The mesh is positioned anatomically without using a tacker and spread out to cover the defect. The arrow indicates the point corresponding to the symphysis pubis, showing the anatomical orientation of the mesh.

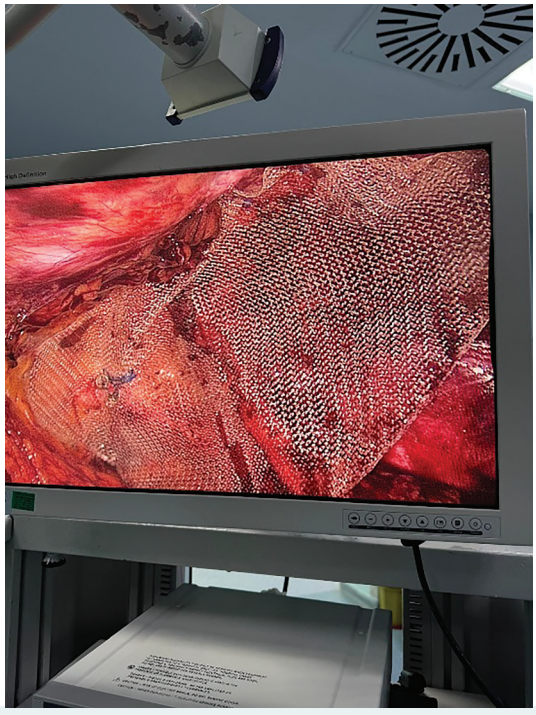

**Figure 3.** Fixation placement of polypropylene mesh in right inguinal TAPP repair.

The mesh is positioned with tacker fixation and spread out to cover the defect.

**Table. Summary of TAPP series data**

| Variable | Value |
|---|---|
| Total cases | 147 |
| Female | 32 (21.8%) |
| Male | 115 (78.2%) |
| Unilateral | 80 (54.4%) |
| Bilateral | 67 (45.6%) |
| Recurrent hernia | 73 (49.7%) |
| Length of stay (days) | 1-3 (mean 1.1) |
| Drain use | None |
| Postoperative bleeding | None |
| Mesh – 3D polypropylene (total) | 73 (49.7%) |
| └ Without fixation | 52 (71.2% of 3D mesh cases) |
| └ With fixation | 21 (28.8% of 3D mesh cases) |
| Mesh – 15×10 cm polypropylene (total) | 74 (50.3%) |
| └ With fixation | 46 (62.2% of flat mesh cases) |
| └ Without fixation | 28 (37.8% of flat mesh cases) |
| Seroma (total) | 13 (8.8%) |
| Chronic groin pain (CPIP) | None |
| Intermittent pain | 22 (15.0%) |
| Mesh reaction | None |
| Recurence | 0/147 (0%); 95% upper limit ≈ 2.0% |

## [P-023]

### Laparoscopic approach in a late-presenting case due to anorectal malignant melanoma

Turgut Anuk, Ahmet Başak

*Department of General Surgery, University of Health Sciences Türkiye, Erzurum City Hospital, Erzurum*

**Objective:** Malignant melanoma is an extremely rare and aggressive disease that primarily originates from the skin, though anorectal involvement is uncommon. It accounts for approximately 1% of all anorectal carcinomas. In this report, we aim to present an elderly female patient who was diagnosed late with anorectal malignant melanoma.

**Material and Methods:** A 72-year-old female patient presented with anorectal bleeding and a palpable anal mass, with a known general medical history. Her family history was unremarkable except for gastric cancer in her mother. Anorectal inspection revealed an outward-protruding ulcerated tumoral lesion, initially evaluated by colonoscopy. No pathology was detected in the examined colonic segments. Biopsy from the ulcerated area revealed malignant melanoma. The patient underwent computed tomography and positron emission tomography to assess possible metastases, which demonstrated liver involvement consistent with distant organ metastasis. A laparoscopic end colostomy procedure was performed. Postoperatively, the patient was referred to the medical oncology department.

**Results and Conclusion:** Anorectal malignant melanoma, although rare, typically presents at an advanced stage and often with metastatic disease, especially in late-presenting patients. Differentiation between primary and metastatic disease is essential in diagnosis. One-third of patients have distant metastasis at the time of diagnosis. Surgery is the primary treatment modality, and the choice of surgical procedure depends on disease stage and local or distant spread. Malignant melanoma should be considered in the differential diagnosis of patients presenting with an anorectal mass.

**Keywords:** Anorectal mass, malignant melanoma, distant metastasis

## [P-024]

### Laparoscopic repair of iatrogenic colonic perforations occurring during colonoscopy

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**Objective:** Colonoscopy is a diagnostic procedure commonly used when colonic pathology is suspected. The incidence of iatrogenic perforation during colonoscopy ranges between 0.03% and 0.8%. In this study, we aimed to present the management of patients who developed perforation during colonoscopy.

**Material and Methods:** Iatrogenic perforation occurred in three patients during colonoscopy. The mean age was 57.6 years; two were male and one was female. None had a prior history of abdominal surgery. One patient underwent colonoscopy due to abdominal pain and constipation, while the remaining two were evaluated diagnostically following positive fecal occult blood testing. Perforation was identified intraoperatively during colonoscopy by direct visualization of the peritoneal cavity, and all patients were taken for emergency surgery. Laparoscopic evaluation revealed no intra-abdominal contamination. Perforation sites were located in the sigmoid colon in two patients and at the rectosigmoid junction in one patient, measuring between 2-3 cm. Primary repair was performed using 3-0 vicryl sutures with a laparoscopic needle holder. A pelvic drain was placed, and the procedure was completed. No signs of leakage were observed during postoperative follow-up. Liquid diet was initiated on postoperative day 3, and all patients were discharged in good condition on day 5.

**Results and Conclusion:** Iatrogenic perforations occurring during colonoscopy may present later as an acute abdomen if overlooked and often require emergency surgery. When recognized during the procedure, early intervention is possible. Depending on the perforation size, degree of contamination, and patient comorbidities, management may include primary repair, resection, or stoma formation. In our case series, early-recognized perforations were successfully managed laparoscopically. Laparoscopic intervention should be considered as the first-line approach in similarly presenting patients.

**Keywords:** Colonoscopy, laparoscopic repair, perforation

## [P-025]

### A rare esophageal pathology: A retrospective analysis of Zenker's diverticulum cases

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**Objective:** Zenker's diverticulum is one of the rarest diverticular lesions of the esophagus and typically presents in older adults with symptoms such as dysphagia, aspiration, and weight loss. Its reported prevalence in the literature ranges between 0.01% and 0.11%. In this study, it was aimed to retrospectively evaluate the clinical features and surgical outcomes of patients who underwent surgery for Zenker's diverticulum in the Department of General Surgery, University of Health Sciences Türkiye, Ankara Etlik City Hospital.

**Material and Methods:** Between 2022 and 2025, the medical records of patients who underwent surgical treatment for Zenker's diverticulum in our clinic were retrospectively reviewed. Demographic data, presenting symptoms, comorbidities, diagnostic methods, Brombart classification, preferred surgical technique, ASA classification, complications (Clavien-Dindo), and mortality were recorded.

**Results:** Two patients were included in the study. The mean age was 76.5 years, and one patient was female while the other was male. The presenting symptoms were dysphagia and impaired oral intake. Both patients had a history of weight loss. The most common comorbidities were hypertension and cardiac diseases. Computed tomography and endoscopy were the primary diagnostic methods. Additionally, cine-esophagography was used in one case. According to the Brombart classification, the patients were evaluated as Stage 2 and Stage 3. All cases underwent diverticulectomy and cricopharyngeal myotomy. ASA scores were determined as 3 and 4. No postoperative complications occurred (Clavien-Dindo Grade 1), and no mortality was observed.

**Conclusion:** Due to its rarity, Zenker's diverticulum is generally reported in the literature through limited case series. Although the number of cases in our study was small, it was observed that advanced age and multiple comorbidities were prominent. Our findings indicate that with an appropriate surgical approach, low complication rates and mortality-free outcomes can be achieved. In this regard, our study contributes to the limited existing experience in the literature

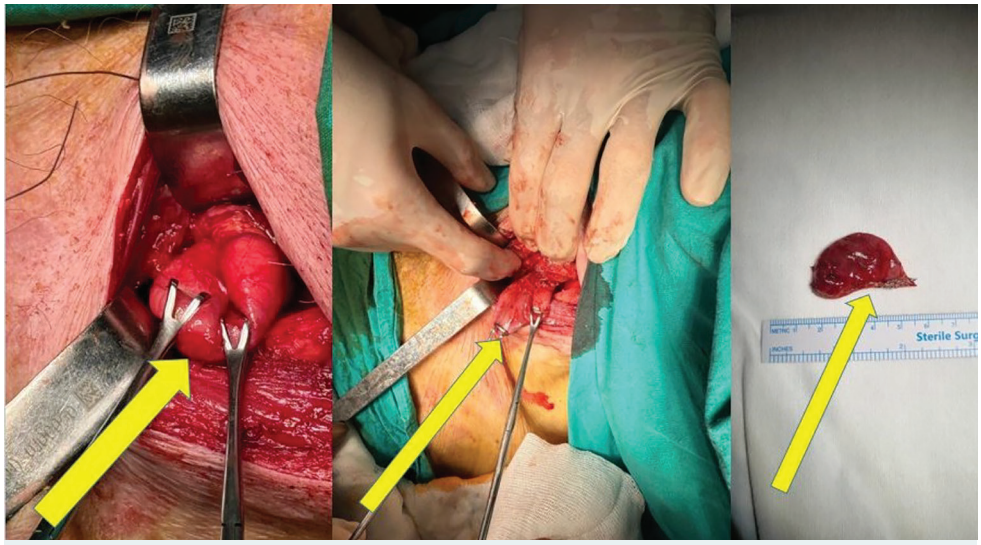

Figure 1. Intraoperative photograph of a Zenker's diverticulum.

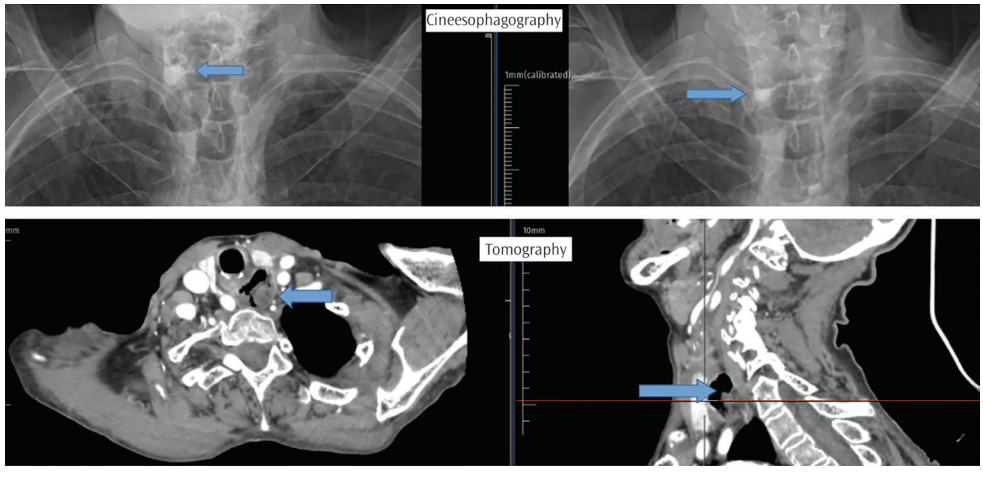


Figure 2. Zenker's diverticulum: Radiologic imaging findings.

**Table 1. Baseline characteristics of the patients**

| Variable | Value / Distribution |
|---|---|
| **Age (years)** | Mean: 76.5 ± 4.9 (range: 73–80) |
| **Sex** | Female: 1 (50%) • Male: 1 (50%) |
| **Presenting Symptoms** | Dysphagia: 1 (50%) • Impaired oral intake: 1 (50%) |
| **Dakkak–Bennett Score** | Score 1: 2 patients (100%) |
| **Aspiration / Weight Loss** | Present: 2 (100%) • Absent: 0 |
| **Comorbidities** | Cardiac disease (CABG / bypass): 2 (100%) • Hypertension: 2 (100%) • Diabetes mellitus: 1 (50%) • Carotid stenosis: 1 (50%) • Hyperthyroidism: 1 (50%) |
| **Diagnostic Methods** | CT: 2 (100%) • Endoscopy: 2 (100%) • Cine-esophagography: 1 (50%) |
| **Brombart Stage** | Stage 2: 1 (50%) • Stage 3: 1 (50%) |
| **Surgery** | Diverticulectomy + Cricopharyngeal Myotomy: 2 (100%) |
| **ASA Class** | ASA 3 + ICU follow-up: 1 (50%) • ASA 4 + ICU follow-up: 1 (50%) |
| **Clavien–Dindo Complication** | Grade I: 2 (100%) |
| **Mortality** | None: 2 (100%) |

**Table 2. Zenker's diverticulum: Comparison of clinical outcomes and approaches in the literature**

| Study / Year | Design – n | Surgical / Therapeutic Approach | Mean Age | Staging / Scoring | Complications | Mortality | Recurrence / Persistent Symptoms | Key Message |
|---|---|---|---|---|---|---|---|---|
| Our series (Etlik, 2022–2025) | Retrospective – 2 | Open diverticulectomy + cricopharyngeal myotomy | 76.5 | Brombart II–III; Dakkak–Bennett 1 | Clavien I (2/2) | None | Not reported | Advanced age, multiple comorbidities; minor complications, no mortality |
| Dell'Anna 2024 (review) | Narrative review | Focus on endoscopic techniques | Elderly population | Prevalence 0.01–0.11% | Low–moderate | Very low | High clinical success, often single session | ZD is rare; flexible/endoscopic treatments increasingly used |
| Albers 2016 (meta-analysis) | Meta-analysis | Endoscopic vs open | — | — | Lower in endoscopic | Similar | Lower recurrence/persistence in open | Endoscopy advantageous in selected patients; long-term control better with open |
| Bhatt 2021 (network MA) | Systematic review & network meta-analysis | Open vs various endoscopic techniques | — | — | — | — | Lower persistent symptoms/recurrence with open | Open surgery superior for long-term symptom control |
| Annals of Esophagus 2021 (review) | Review | Open | — | — | Higher | Slightly higher | Recurrence ~2.9%, symptom resolution ~93–95% | Open treatment effective but has relatively higher morbidity and mortality |
| StatPearls 2023 (summary) | Clinical reference | — | Elderly | Lahey / Brombart | 4–47% (wide range) | 0–1% | — | Overview of complication spectrum and risks |
| Dakkak–Bennett 1992 | Method definition | — | — | Dakkak–Bennett dysphagia score | — | — | — | Widely used scoring system for clinical success |

## [P-029]

### Are conventional imaging methods sufficient for detecting liver metastasis? A case report

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**Objective:** The most common site of metastasis in colorectal cancer is the liver. Resection of liver metastases has significantly increased survival rates and treatment chances in colorectal cancer. In cases of unresectable disease, multiple local ablation therapies in combination with chemotherapy should also be considered. In this case, we aim to present a case of rectal cancer metastasizing to the liver in which no liver metastasis was detected in preoperative examinations, but an occult lesion was diagnosed with PET-CT.

**Case Presentation:** A 71-year-old male patient with a history of laparoscopic cholecystectomy presented to the hospital with complaints of constipation. Colonoscopy detected an ulcerovegetative mass in the proximal 1/3 of the rectum. The patient's rectal biopsy revealed moderately differentiated adenocarcinoma. Preoperative imaging studies (pelvic MRI, thoracic and abdominal CT scans) showed no metastases to vital organs. However, it was determined that metallic clips from a previous surgery were superimposed on liver segment 4. PET-CT scans requested during the patient's oncological follow-up at another hospital revealed increased F-18 FDG uptake in liver segment 4 of the left lobe, suggestive of metastasis. Dynamic liver MRI revealed a lesion suspected of metastasis in liver segment 4a. The patient presented to our clinic with these test results and low anterior resection + liver metastasectomy was performed. Pathological examination revealed moderately differentiated adenocarcinoma + liver carcinoma metastasis. The drain was removed on the 8th postoperative day. The patient was discharged on the 10th postoperative day. The patient is currently undergoing oncological treatment.

**Conclusion:** Although liver metastasis is the most common metastasis in colorectal cancer, it was not visualized by CT scanning. In this case, it was thought that the metallic clips used in laparoscopic cholecystectomy prevented the visualization of the metastatic lesion in segment 4 using tomography. In colorectal cancer cases, the patient's previous surgical history should be considered when using different imaging methods for screening.

## [P-032]

### Atypically located hibernoma in the iliac region: A case report

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**Objective:** Hibernoma is a benign tumor originating from brown adipose tissue. It usually appears in areas such as the thigh, shoulder, and back. Although it is generally clinically asymptomatic and may resemble soft-tissue tumors such as lipoma, recognizing it is important due to its characteristic radiological features. In this report, we present a case of a hibernoma with an atypical localization in the iliac region.

**Material and Methods:** A 29-year-old female patient presented with a painless mass in the left iliac region that had been enlarging over several years. On physical examination, a mobile and soft mass was palpable under the skin. Computed tomography (CT) performed due to her admission demonstrated a well-circumscribed, homogeneous, hypodense lesion adjacent to the iliac wing. The mass was completely excised under general anesthesia. A surgical margin sample was sent from the posterior margin. The postoperative period was uneventful, and the patient was discharged with full recovery.

**Results:** The patient's CT scan revealed a subcutaneous nodular lesion adjacent to the anterior superior iliac spine (ASIS) on the right side of the abdomen. Histopathological examination revealed adipocytes with eosinophilic granular cytoplasm and peripheral nuclei, without cellular atypia, mitosis, or pleomorphism. Pathological examination confirmed complete removal of the tumor.

**Conclusion:** Hibernoma is a rare tumor that can often be confused with lipoma or liposarcoma. Surgical excision is both a diagnostic and curative treatment option. Although the typical locations of hibernomas in the literature are the thigh, shoulder, and back, atypical subcutaneous locations such as the inguinal region and anterior abdominal wall have also been reported. Our case, with its location in the right iliac region, is an example of one of the unusual locations of hibernomas. In conclusion, although hibernoma is benign in nature, it should be kept in mind that it can occur in atypical locations and should be considered in the differential diagnosis.

**Keywords:** Atypical localization, hibernoma, iliac region

Figure 1. Computed tomography image.

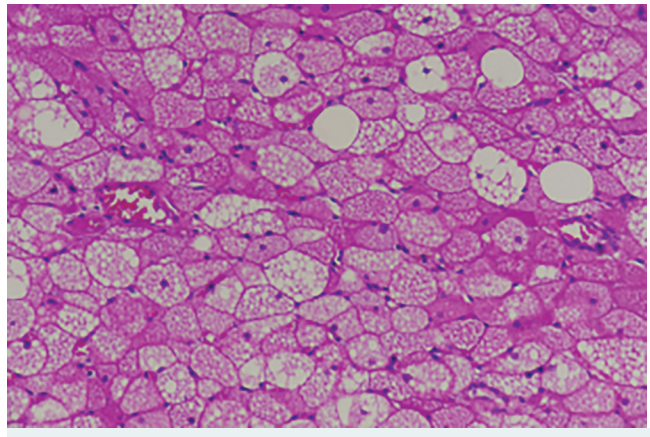

Figure 2. Histopathological appearance.

## [P-033]

### Gastric perforation secondary to gastric intubation following difficult intubation: A rare case report

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**Objective:** Gastric perforation associated with esophageal intubation is a rare but potentially fatal complication that can lead to serious consequences. Delayed diagnosis is associated with serious outcomes such as gastric perforation, peritonitis, septic shock, and death. Peptic ulcer disease is the most common cause of gastric perforation, but iatrogenic gastric perforation is rare and usually occurs during surgical procedures, cardiopulmonary resuscitation maneuvers, or gastric tube placement.

**Material and Methods:** The clinical and laboratory data of the patients included in the study were retrospectively reviewed.

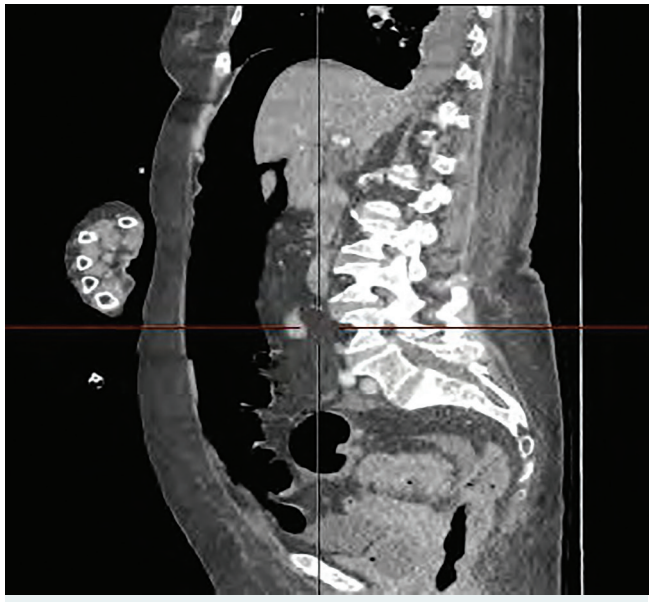
**Case Presentation-1:** A 77-year-old female patient was brought to the emergency department due to speech impairment and weakness. She was admitted to the intensive care unit with a preliminary diagnosis of pneumonia based on the CT scan. During hospitalization, the patient's feeding via PEG tube was discontinued, and due to COVID pneumonia and changes in her respiratory pattern, a decision was made to intubate her. Following intubation, due to severe abdominal distension and compromised vital signs, a general surgeon was consulted. An emergency CT scan revealed free air in the abdomen, and the patient underwent surgery. During surgery, a 4 cm perforated area and a laser area were found at the level of the lesser curvature. The defect was primarily closed with omentopexy. No additional abdominal pathology was found. A methylene blue test was performed in the postoperative period, and no leak was detected.

On the 10th postoperative day, the patient died due to cardiac arrest caused by hypotension and cardiac instability.

**Case Presentation-2:** A 73-year-old female patient presented to the emergency department with altered consciousness after falling from her own level. A CT scan performed in the emergency department revealed a subdural hematoma, and the patient was admitted to the ward by the neurosurgery department. During follow-up in the ward, the patient was transferred to the intensive care unit due to desaturation, and a decision was made to intubate due to carbon dioxide retention. Following intubation, general surgery was consulted due to the development of severe distension. A 2 cm self-contained perforated area was observed in the pre-pyloric area. After cleaning the fibrin around the perforated area, the defect was primarily closed and omentopexy was performed. A methylene blue leak test was performed during postoperative follow-up. No leak was detected.

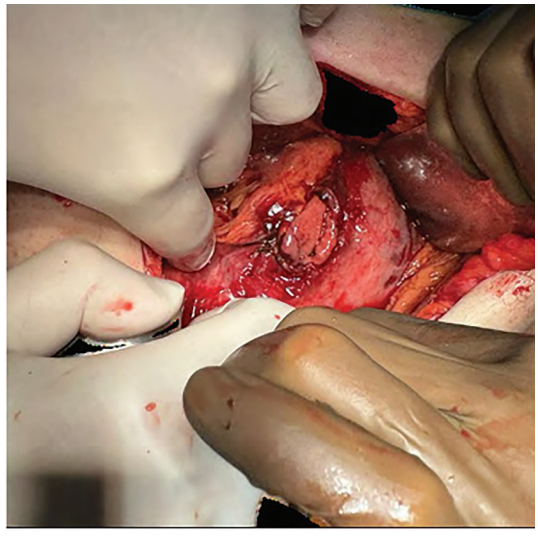
**Case Presentation-3:** A 380-year-old female patient presented to the emergency department with complaints of oral intake disorder and diarrhea. Upon admission, the patient had urosepsis and was transferred to the intensive care unit due to cognitive decline and an abdominal distension. During intensive care follow-up, the patient's general condition was moderate to poor. Non-invasive mechanical ventilation (NIMV) was initiated due to carbon dioxide retention in the blood gas, but the patient could not tolerate it and was urgently intubated. Following intubation, consultation with general surgery was sought due to abdominal distension. An abdominal-pelvic CT scan revealed free air in the abdomen, and the patient underwent emergency surgery. There was minimal purulent fluid in the abdomen. A 2 cm perforated area was present on the lesser curvature side of the stomach. It was seen extending

**Conclusion:** Gastric perforations following esophageal intubation can lead to a septic and fatal course. Abdominal distension, defense, and rebound development following intubation are situations that should raise suspicion.



Computed tomography image. Free air on CT scan after intubation, Case-1.

Computed tomography image. Free air on CT scan after intubation, Case-2.



## [P-035]

### A case report of a patient with a papillary carcinoma suspicious nodule in the right lobe of the thyroid who underwent total thyroidectomy guided by an intraoperative probe based parathyroid autofluorescence identification system and neuromonitoring

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**Objective:** The most frequently observed complications after thyroid surgeries are acute and chronic parathyroid insufficiency syndromes and associated hypocalcemia. The etiology of iatrogenic hypoparathyroidism includes decreased amount of functional parathyroid glands, mechanical or thermal injury, gland devascularization, iatrogenic parathyroid excision, and autotransplantation. The risk of developing complications depends on many factors, including the experience of the surgeon, the method used, structural problems of the thyroid gland, and differences between preoperative imaging findings and intraoperative exploration findings.

**Material and Methods:** Fourty-four year old female patient, who has been diagnosed with chronic thyroiditis since 2023 and has been diagnosed with diabetes and hypertension, underwent a fine needle aspiration biopsy in April 2025 after an 8x6 mm Tirads-5 nodule was observed in the middle part of the right lobe of the thyroid gland. The patient was scheduled for a total thyroidectomy, with the pathology report reporting "Suspicion of malignancy, primarily supporting thyroid papillary carcinoma". The patient underwent total thyroidectomy guided by intraoperative probe-based parathyroid autofluorescence identification system and neuromonitoring. At the postoperative follow-up, the patient had no active complaints and no hypocalcemia symptoms or clinical findings were observed. Chvostek and Trousseau examination findings were negative during postoperative physical examinations. Postoperative 1st day blood tests reported as Ca: 8.2 and P: 3.4. Postoperative 2nd day blood test reported as Ca: 9.5, PTH: 64.8. The patient applied for a follow-up examination on the 6th postoperative day and her blood tests revealed calcium level of 9.9. In the postoperative follow-up, the patient's physical examination and laboratory findings were normal and parathyroid gland functions were evaluated as normal.

**Results:** Studies have shown that the use of intraoperative probe-based parathyroid autofluorescence identification system provides accuracy with a positive predictive value of over 90%, increasing reliability and reducing complication rates in all operations, regardless of the surgeon's experience. The use of parathyroid autofluorescence identification systems in thyroid surgery is considered an important method to prevent iatrogenic damage and injuries that may cause parathyroid insufficiency syndromes.

**Keywords:** Parathyroid injury, parathyroid autofluorescence identification system, postthyroidectomy complications

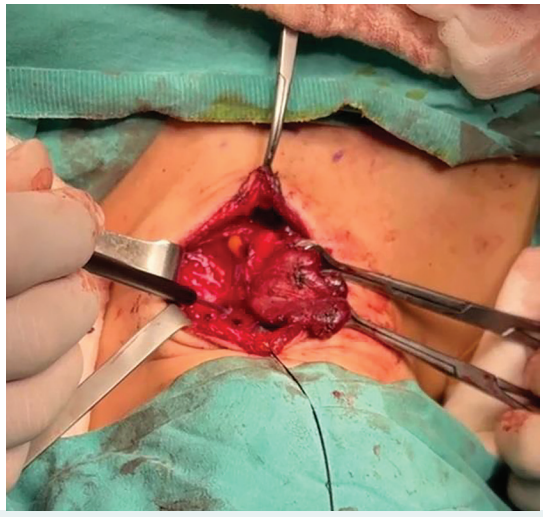

Figure 1. Determining the localizations of parathyroid glands with intraoperative probe-based parathyroid autofluorescence detector.


Figure 2. Simultaneous obtaining of NIRAF parameters with intraoperative probe-based parathyroid autofluorescence detector.

## [P-036]

### A rare synchronous tumor case: Coexistence of male breast cancer and metastatic colon adenocarcinoma

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*Department of General Surgery, University of Health Sciences Türkiye, İzmir Tepecik Education and Research Hospital, İzmir*

**Objective:** Male breast cancer is rare, accounting for less than 1% of all breast cancers, and the likelihood of a synchronous second primary tumor is even lower. Synchronous tumors are defined as independent primary malignancies that occur within six months in the same patient. In this report, we present a rare synchronous tumor case in which a lung nodule detected during staging for breast cancer was found to be a primary colorectal adenocarcinoma.

**Case Presentation:** A 67-year-old male patient presented with a palpable mass in the left breast. Physical examination revealed an approximately 4 cm retroareolar mass. After ultrasonographic confirmation, a tru-cut biopsy was performed, and the pathology result was consistent with luminal A invasive breast carcinoma. Staging imaging revealed two nodules in the right lung, measuring 16 mm and 7 mm. Due to suspicion of metastatic disease, PET/CT was performed. The patient was evaluated by the Thoracic Surgery department, and wedge resection of the malignant-appearing lung nodule was carried out. Histopathological examination revealed "adenocarcinoma, intestinal type" with CK20 (+) and CDX2 (+) staining. PET/CT also demonstrated pathological FDG uptake in a polypoid wall thickening of approximately 3×2 cm in the left upper quadrant colon segment, raising the suspicion of a colorectal primary tumor. Colonoscopy revealed a broad-based polyp in the sigmoid colon, and biopsies confirmed a malignant epithelial tumor. The patient was started on tamoxifen for breast cancer and capecitabine + oxaliplatin for colorectal cancer. After 8 cycles of chemotherapy, surgical intervention was planned. The patient subsequently underwent modified radical mastectomy for breast cancer and left hemicolectomy for colon cancer. No perioperative or postoperative complications occurred, and the patient was discharged on postoperative day 7.

**Discussion:** Male breast cancer is uncommon, and its coexistence with synchronous or metastatic colorectal cancer is extremely rare. Only a few similar cases have been reported in the literature. Factors such as advanced age, genetic predisposition, and hormonal influences may contribute to this rare combination. In our case, the simultaneous diagnosis of metastatic colorectal cancer highlights the aggressive behavior of the tumor biology. Immunohistochemistry is essential to differentiate metastatic lesions from second primary tumors.

**Conclusion:** The coexistence of male breast cancer and synchronous colorectal cancer is exceptionally rare. During staging, clinicians should consider the possibility of an additional primary tumor, and supplementary investigations such as colonoscopy should be pursued when appropriate. This case emphasizes the importance of a multidisciplinary approach in synchronous tumors and draws attention to rare tumor associations.

**Keywords:** Male breast cancer, synchronous tumor, colorectal cancer

## [P-038]

### Management of challenging cases in surgery: A case report of gastric tumor perforation

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**Objective:** Re-leak or recurrent perforation after modified Graham omental patch repair is rare but has been reported in the literature. Both early postoperative "re-leak" and late "recurrent perforation" cases have been described. Long-term follow-up shows that ulcer/perforation recurrence rates are approximately 12%. *Helicobacter pylori* eradication, smoking cessation, and avoidance of NSAIDs significantly reduce the risk of recurrence. Our case represents a high-risk and difficult-to-manage scenario due to the patient's previous surgical history, consistent with experiences described in the literature.

**Case Presentation:**

**Patient:** H.Ç., 69-year-old male. **Symptoms:** Absence of oral intake for approximately 5 days, vomiting, constipation, and abdominal pain.

**Medical history:**

- Underwent emergency surgery in 2021 for gastric perforation
- Prolonged ICU stay
- History of PEG feeding
- No malignancy detected during the first operation.

Physical examination:

- Generalized abdominal tenderness and distension
- Marked tenderness in the right upper and right lower quadrants.

Laboratory findings:

- Lactate: 8.5 mmol/L
- WBC: $20\times10^3/\mu L$
- CRP: 270 mg/L.

CT findings:

- Diffuse intra-abdominal free air densities
- Oral contrast reached the first portion of the duodenum, with minimal extraluminal leakage at this level
- Air densities observed in the gallbladder fossa
- Free fluid present throughout all abdominal quadrants.

**Procedure & Intraoperative Findings:**

- Emergency laparotomy revealed a prepyloric gastric tumor perforation.
- A distal subtotal gastrectomy with Roux-en-Y gastrojejunostomy was performed.
- The abdomen was contaminated and heavily soiled with widespread intra-abdominal contamination.

**Postoperative Management**

- Patient was admitted to the surgical ICU and remained intubated
- Due to signs of sepsis, initial antibiotic therapy (ceftriaxone + metronidazole) was escalated to piperacillin–tazobactam + fluconazole
- Oxygen support, drain management, and frequent laboratory monitoring were provided
- The patient was extubated on postoperative day 5 and transitioned to oxygen via a reservoir mask
- Drains were removed gradually
- Clinical stabilization was achieved; overall condition remained moderate.

**Discussion:** Emergency surgical outcomes in the presence of gastric tumor perforation can be extremely poor. Subtotal gastrectomy is generally preferred in cases of perforated gastric malignancy; however, long-term survival remains low. Previous laparotomies and endoscopic procedures increase technical difficulty during subsequent operations. In our patient, the prior surgical and endoscopic interventions contributed to a challenging treatment and follow-up process.

**Conclusion:** Gastric tumor perforation is a high-risk clinical condition requiring emergency surgical intervention. Previous abdominal surgery, endoscopic interventions, and prolonged ICU history significantly increase complication risk. Early diagnosis, appropriate surgical strategy, and multidisciplinary intensive care management are critical for improving prognosis.

**Figure 1.** Free air on CT imaging.

*CT: Computed tomography*

## [P-042]

### A rare mortal case of isolated distal superior mesenteric artery branch and right internal iliac vessel injury without solid organ damage following high-fall trauma

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**Objective:** Blunt abdominal trauma commonly affects solid organs such as the liver, spleen, and pancreas. However, isolated major vascular injuries without solid organ involvement are exceedingly rare and carry significant mortality due to diagnostic delay. Sudden deceleration, shearing, and traction forces may result in severe damage to mesenteric and pelvic vasculature. Although isolated injuries to branches of the superior mesenteric artery (SMA) or the internal iliac vessels have been described independently, simultaneous injury to both vascular territories is exceptionally uncommon. These injuries may remain clinically occult due to their retroperitoneal location, leading to catastrophic hemorrhage before diagnosis. This case describes a rare and fatal instance of combined distal SMA branch and right internal iliac vascular injury without solid organ damage following a high-energy fall.

**Case Presentation:** A 44-year-old woman was brought to the emergency department after falling approximately 10-12 meters. The patient was confused, tachypneic, and hemodynamically unstable, with a blood pressure of 82/55 mmHg and a heart rate of 120/min. Abdominal examination revealed no guarding, rebound tenderness, or external ecchymosis. Contrast-enhanced abdominal CT demonstrated active contrast extravasation from a distal branch of the SMA, extensive retroperitoneal hemorrhage arising from the proximal right internal iliac artery, and hemorrhagic tracking into the right gluteal muscle planes. No solid organ injury was identified. Emergency laparotomy revealed active hemorrhage from the SMA distal branch and the right internal iliac artery. The SMA branch was ligated, and the internal iliac artery was surgically controlled. A minor tear in the internal iliac vein, likely caused by shearing forces, was repaired primarily. Despite massive transfusion and surgical intervention, the patient developed refractory hemorrhagic shock and multiorgan failure, leading to death 120 minutes postoperatively.

**Conclusion:** This case highlights that isolated vascular injuries may be present despite a benign abdominal examination and absence of solid organ trauma. Early imaging and immediate surgical intervention are essential for survival.

**Keywords:** Blunt abdominal trauma, superior mesenteric artery injury, internal iliac artery, retroperitoneal hemorrhage, vascular trauma, case report

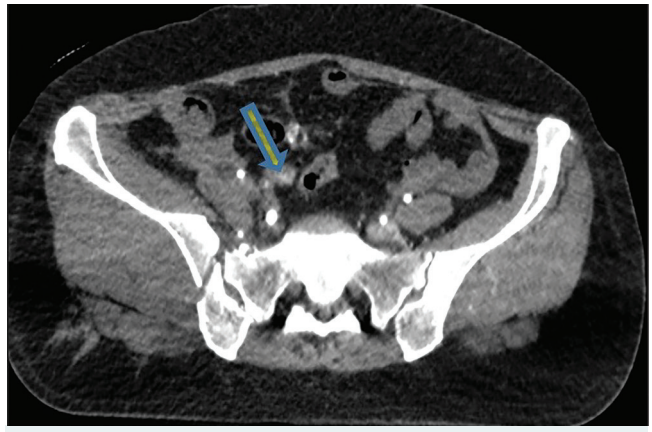

**Figure 1.** CT imaging showing active contrast extravasation.

*CT: Computed tomography*

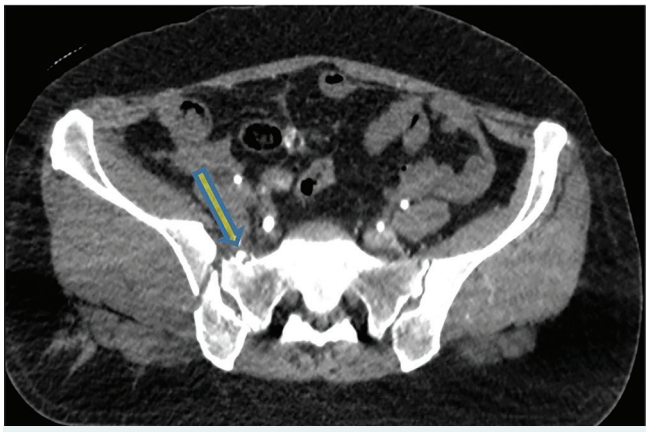

**Figure 2.** CT imaging showing active contrast extravasation.

*CT: Computed tomography*

## [P-044]

### Laparoscopic mini gastric bypass in a case of asymptomatic left paraduodenal hernia: Our surgical experience

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**Objective:** Left paraduodenal hernia is an extremely rare congenital anomaly. This anatomical variation is thought to result from the failure of a portion of the descending mesocolon to fuse with the posterior parietal peritoneum. In this situation, the jejunum and ileum are positioned behind the descending mesocolon in a region known as the Landzert fossa. The clinical presentation may vary, ranging from chronic or intermittent abdominal pain to acute abdomen, or it may remain completely asymptomatic.

**Case Presentation:** A 37-year-old female patient (body mass index: 35.4 kg/m²) with a known history of type 2 diabetes mellitus treated with metformin was admitted for elective bariatric surgery. The patient was scheduled for laparoscopic mini gastric bypass (MGB). During the procedure, an uncomplicated, incidentally discovered internal hernia was identified. Upon opening the hernia sac, small bowel loops were observed to be located behind the mesocolon, and the hernia was confirmed to be a large left paraduodenal hernia. The entire small bowel was explored from the ligament of Treitz to the cecum. MGB was performed. Paraduodenal hernia was treated by dissection and resection of the hernia sac. Closure of the hernia defect was not performed because of its large size. A leak test was performed, and the operation was concluded. The patient remained clinically stable and was discharged in good condition on postoperative day 2.

**Conclusion:** Left paraduodenal hernia is a rare congenital anomaly that may be incidentally identified during surgery. It can also be encountered during bariatric procedures and, when managed in experienced centers, does not preclude the safe completion of the intended operation.

**Keywords:** Paraduodenal hernia, bariatric surgery, mini gastric bypass

## [P-039]

### A rare case: Giant breast mass, fibromatosis

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**Objective:** Breast fibromatosis is a rare, benign but locally aggressive tumor that can mimic carcinoma. It accounts for less than 0.2% of all breast tumors, and approximately 30% of cases show recurrence. Clinically, it typically presents as a firm, painless mass. Mammography often reveals an irregular, spiculated mass, while ultrasonography shows a hypoechoic lesion with ill-defined margins. Definitive diagnosis is made through histopathological examination. Magnetic resonance imaging is valuable for assessing lesion extent and chest-wall invasion. Wide surgical excision is the preferred treatment, though data regarding radiotherapy and medical therapies remain limited. Here, we present a rare case of breast fibromatosis.

**Case Presentation:** A 31-year-old woman presented with a progressively enlarging right breast mass for two months. She had no family history or prior breast surgery. Physical examination revealed an approximately 20-cm mass occupying the entire right breast, with necrotic areas. Ultrasonography demonstrated a 172×166×95 mm lesion invading the skin and replacing most of the breast tissue, initially suggesting a phyllodes tumor. An external biopsy reported phyllodes tumor. Due to suspected pectoral muscle invasion on imaging, surgery was planned, and mastectomy was performed. Pathology was consistent with fibromatosis, with no significant atypia or necrosis.

**Discussion:** Although benign, breast fibromatosis exhibits locally aggressive behavior and may clinically mimic malignancy. Diagnosis relies on histopathology, and β-catenin positivity supports the diagnosis. Wide surgical excision is the mainstay of treatment; achieving negative surgical margins reduces recurrence risk. Adjuvant radiotherapy may be considered for positive margins or inoperable cases. Systemic treatments show limited efficacy. Appropriate surgical planning and close follow-up are essential to prevent recurrence.

**Conclusion:** Breast fibromatosis may develop spontaneously or following trauma or surgery. Due to its infiltrative nature, margin assessment is challenging. Radiotherapy may be considered in cases with positive margins or non-operable lesions. Reduction mammoplasty-based reconstruction can be an option in giant breast tumors. Clear clinical guidelines are needed to optimize treatment outcomes for this rare entity.

**Keywords:** Giant breast mass, fibromatosis

## [P-045]

### Sleeve gastrectomy complicated by spontaneous splenic rupture: A rare case presentation

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**Objective:** Sleeve gastrectomy is one of the most commonly performed surgeries worldwide. The most frequent complications following this procedure include bleeding, staple line leakage, gastroesophageal reflux, thrombosis in the portal venous system. However, though extremely rare, spontaneous splenic rupture is also among the potential complications.

**Case Presentation:** Our case involves a 36-year-old female patient with a body mass index of 42 kg/m². On postoperative day 5 following a sleeve gastrectomy, she was admitted to the hospital in hemorrhagic shock. Splenic rupture was diagnosed, and a splenectomy was subsequently performed. Histopathological examination of the spleen revealed intraparenchymal hemorrhage and focal capsular rupture. No pathological or inflammatory condition was identified. In our case, we believe the splenic rupture may have resulted from ischemia in the upper pole of the spleen due to the division of small gastric vessels during sleeve gastrectomy.

**Conclusion:** Given the widespread use of sleeve gastrectomy, spontaneous splenic rupture, despite its rarity, should always be considered in the differential diagnosis of unexplained abdominal pain and hemodynamic instability in the postoperative period due to its life-threatening nature.

**Keywords:** Bariatric surgery, splenic rupture, splenectomy

## [P-046]

### Bariatric surgery experience in patients with situs inversus totalis

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**Objective:** Situs inversus totalis (SIT) is a rare congenital condition characterized by complete mirror-image transposition of internal organs, posing technical challenges during surgery. Between January 2019 and January 2025, approximately 5000 morbidly obese patients underwent bariatric surgery at our center, among whom four patients were identified with SIT. The mean age was 42 years, mean body mass index was 43.4 kg/m², three patients were female and one male. One patient had comorbid hypertension and type 2 diabetes mellitus. All patients underwent surgery under general anesthesia. The surgical team and trocar placements were arranged as mirror images of standard positions to accommodate SIT anatomy. Three patients underwent laparoscopic sleeve gastrectomy, and one patient underwent laparoscopic mini gastric bypass. Vital parameters remained stable throughout the procedures, and no intraoperative complications occurred. Postoperatively, no complications were observed. On postoperative day 2, contrast-enhanced CT scans showed no leakage or bleeding, and all patients were safely discharged.

**Conclusion:** Laparoscopic bariatric surgery can be safely performed in patients with SIT. However, the mirrored anatomy requires heightened surgical precision and hand-eye coordination. These procedures should be conducted in centers with advanced experience in bariatric surgery to ensure optimal outcomes.

**Keywords:** Situs inversus, sleeve gastrectomy, bypass

## [P-052]

### A rare but insightful case series: Diagnostic challenges and surgical outcomes in tailgut cysts—A single-center experience

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**Objective:** Tailgut cysts are uncommon congenital lesions originating from embryonic remnants and typically present with anal or presacral pain or a palpable mass. Although imaging modalities often aid diagnosis, definitive confirmation requires histopathological evaluation. This study aimed to analyze the demographic, clinical, radiological, and pathological features of surgically treated tailgut cyst cases in our center and to compare the findings with the existing literature.

**Material and Methods:** A retrospective analysis was performed on five patients with tailgut cysts who underwent surgical treatment at University of Health Sciences Türkiye, Ankara Etlik City Hospital between 2022 and 2025. Evaluated variables included demographic characteristics, presenting symptoms, imaging modalities used (MRI, CT, US), lesion size and type, surgical approach, postoperative complications, histopathology, malignancy, recurrence, and follow-up duration. Findings were compared with previously published data.

**Results:** The cohort consisted of 60% male and 40% female patients,with a mean age of 58.8 years (range,48-69). The most common presenting symptom was anal pain with a palpable mass (60%). Imaging supported the diagnosis in 60% of patients via MRI, 80% via CT, and 40% via ultrasound. The mean lesion size was 4.6 cm, and all lesions were cystic. All patients underwent complete surgical excision; one patient (20%) developed a superficial wound infection. Histopathology confirmed benign tailgut cysts in all cases. No malignancy or recurrence occurred during a mean follow-up of 14.2 months.

**Conclusion:** Although rare, tailgut cysts require careful diagnostic assessment and precise surgical planning. Complete surgical excision was both diagnostic and curative in all patients, with no recurrence or malignant transformation. Contrary to prior reports suggesting female predominance, our male-dominant cohort highlights potential variability in demographic patterns. MRI and CT remain crucial in evaluating anatomical relationships and determining surgical strategy. Despite their benign nature, the risk of malignant transformation underscores the need for early diagnosis and complete excision. Raising awareness may reduce diagnostic delays and improve outcomes.

**Keywords:** Tailgut cyst, retrorectal tumor, congenital cystic lesion, surgical excision, malignancy

**Table 1. Descriptive table of tailgut cyst cases**

| Variable | Category / Value | Count (n) | Persantage (%) | Mean | Median | Min | Maks | SD |
|---|---|---|---|---|---|---|---|---|
| **Sex** | Male | 3 | 60.0 | | | | | |
| | Female | 2 | 40.0 | | | | | |
| **Age(Years)** | | | | 58.8 | 61 | 48 | 69 | 7.7 |
| **Presenting Complaint** | Pain+ Mass | 3 | 60.0 | | | | | |
| | Pain Only | 1 | 20.0 | | | | | |
| | Gluteal Pain | 1 | 20.0 | | | | | |
| **Imaging Supporting Diagnosis – MRI** | (+) | 3 | 60.0 | | | | | |
| | (-) | 2 | 40.0 | | | | | |
| **Imaging Supporting Diagnosis – CT** | (+) | 4 | 80.0 | | | | | |
| | (-) | 1 | 20.0 | | | | | |
| **Imaging Supporting Diagnosis – USG** | (+) | 2 | 40.0 | | | | | |
| | (-) | 3 | 60.0 | | | | | |
| **Lesion Size (cm)** | | | | 4.6 | 4.5 | 3.2 | 6.1 | 1.1 |
| **Lesion Type** | Cystic | 5 | 100.0 | | | | | |
| **Surgical Method** | Complete Excision | 5 | 100.0 | | | | | |
| **Complication** | None | 4 | 80.0 | | | | | |
| | Infection | 1 | 20.0 | | | | | |
| **Pathology** | Tailgut Cyst | 5 | 100.0 | | | | | |
| **Malignancy** | None | 5 | 100.0 | | | | | |
| **Recurrence** | None | 5 | 100.0 | | | | | |
| **Mean Follow-up Duration (months)** | | | | 14.2 | 12 | 8 | 24 | 6.1 |

## [P-060]

### Appendiceal mucinous neoplasms: Five-year clinical experiences

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**Objective:** Appendiceal mucinous neoplasms (AMNs) are rare lesions and are almost always detected incidentally after appendectomy. They are identified in approximately 0.2-0.3% of appendectomy specimens. Appendectomy alone is considered sufficient treatment in the absence of surrounding tissue invasion, regional lymphadenopathy, pseudomyxoma peritonei (PMP), or malignancy.

**Material and Methods:** Pathology reports of patients who underwent appendectomy at our center between January 2020 and October 2025 were retrospectively reviewed. For patients diagnosed with AMN, age, sex, clinical presentation, computed tomography findings, type of surgery, presence of leukocytosis, elevated C-reactive protein levels, histopathological diagnosis, and follow-up duration were retrospectively analyzed.

**Results:** Between January 2020 and October 2025, among 1.721 patients who underwent appendectomy, those with benign pathology (n=1706), low-grade goblet cell adenocarcinoma (n=1), moderately differentiated adenocarcinoma of AMN origin (n=1), and neuroendocrine tumors (n=4) were excluded from the study. Appendiceal mucinous neoplasms were identified in 9 patients (0.52%), including 2 females and 7 males. The median age was 73 years (range: 29-83). All patients presented with symptoms of acute abdomen. Computed tomography revealed perforation in 2 patients, mucocele in 4 patients, and findings consistent with acute appendicitis in 3 patients. Histopathological examination demonstrated low-grade appendiceal mucinous neoplasm in 8 patients and high-grade appendiceal mucinous neoplasm in 1 patient. During follow-up, no recurrence was observed except for one patient who died due to pneumonia in the first postoperative year.

**Conclusion:** The incidence of appendiceal mucinous neoplasms in appendectomy specimens over five years in our clinic was consistent with the literature. AMNs are rare lesions that are usually detected incidentally in appendectomy specimens. In elderly patients, and in cases with mucocele or a dilated appendix, careful dissection is essential to minimize the risk of rupture and mucous contamination. In advanced-stage tumors or in the presence of pseudomyxoma peritonei, right hemicolectomy or cytoreductive surgery with hyperthermic intraperitoneal chemotherapy is required.

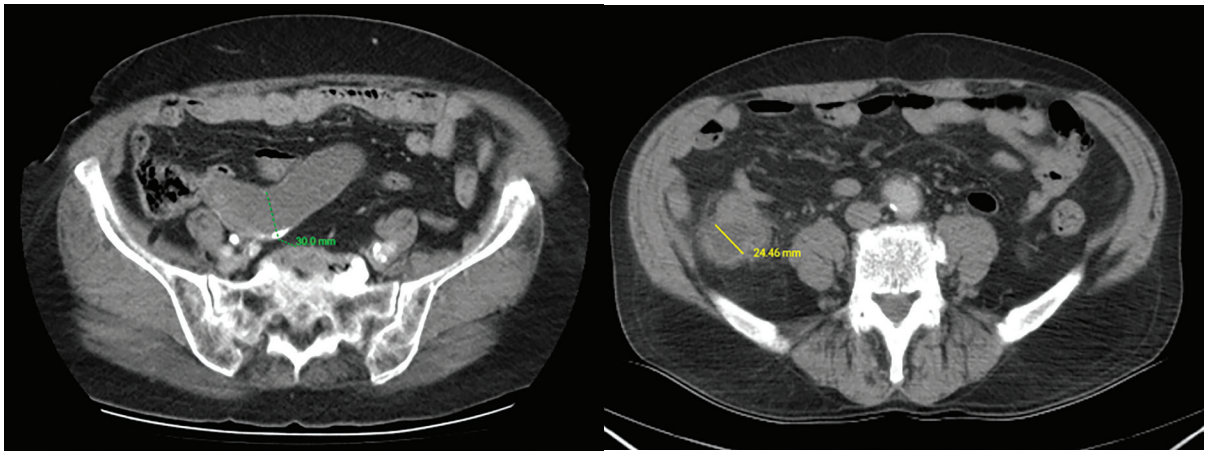


Figure 1.

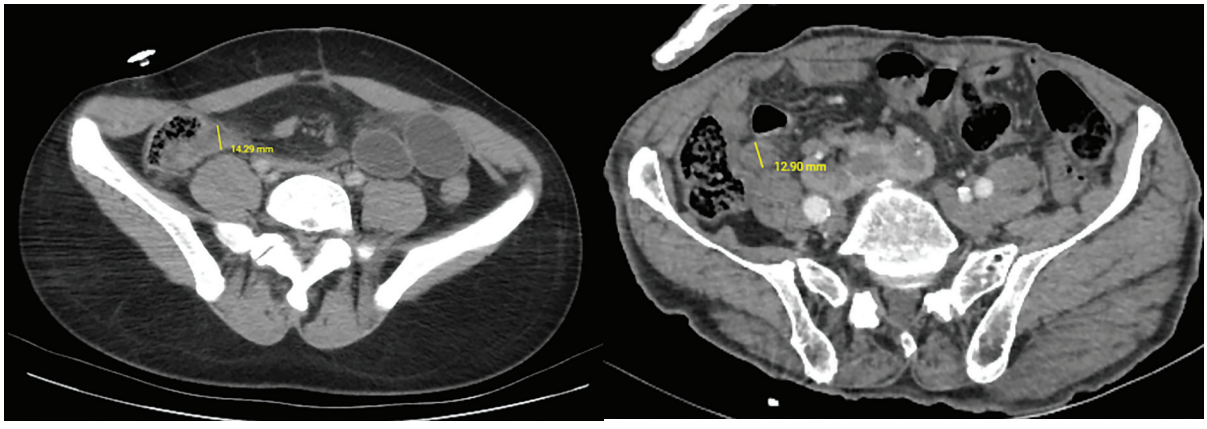


Figure 2.

**Table 2. Comparison of our tailgut cyst cases with the published literature**

| Study | Year | Number of Cases (n) | Female/Male | Mean Age | Most Common Presenting Semptom | Imaging(MR/BT) | Lesion Type | Malignancy (%) | Recurrence(%) |
|---|---|---|---|---|---|---|---|---|---|
| **De Cecco et al. (*Eur J Radiol*)** | 2011 | 8 | 6/2 | 55 | Anal Pain, Mass | MR (%100) | Cystic | 0 | 0 |
| **Mathis et al. (*Dis Colon Rectum*)** | 2014 | 9 | 7/2 | 52 | Anal Pain, Drainage | MR (%78), BT (%44) | Cystic ≥ solid | 11 | 0 |
| **Hjermstad & Helwig (*Am J Clin Pathol*)** | 1988 | 53 | 39/14 | 35 | Anal Pain, Fistula | No Radiologic Imaging | Cystic | 13 | 2 |
| **Badak et al. (*Turk J Colorectal Dis*)** | 2017 | 6 | 5/1 | 49 | Anal Pain, Mass | MR (%83), BT (%50) | Cystic | 0 | 0 |
| **Fındık et al. (*J Clin Anal Med*)** | 2019 | 7 | 6/1 | 50 | Pain | MR (%100) | Cystic | 0 | 0 |
| **Present Study** | 2025 | 5 | 2/3 | 58.8 | Anal Pain, mass | MR (%60), BT (%80) | Cystic (%100) | 0 | 0 |

## [P-063]

### Single-center experience of endoscopic submucosal dissection (ESD) and endoscopic mucosal resection (EMR) in the management of gastrointestinal superficial lesions

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**Objective:** Gastrointestinal superficial lesions are clinically significant due to their association with early malignancy and precancerous changes. Endoscopic submucosal dissection (ESD) and endoscopic mucosal resection (EMR) have become effective minimally invasive alternatives to surgery. This study aimed to evaluate patient characteristics and short-term outcomes of ESD and EMR procedures performed in a single-center.

**Material and Methods:** This retrospective study included patients aged ≥18 years who underwent ESD or EMR between January 2024 and April 2025 for superficial gastrointestinal lesions, with a minimum follow-up of six months. Demographic, clinical, pathological, and procedural data were analyzed, including lesion size, location, complications, hospitalization, recurrence, and need for surgical intervention.

**Results:** Twenty-eight patients were included (mean age 62.8 years; 53.6% female). EMR was performed in 14 patients, ESD in 13 patients, and a hybrid technique in 1 patient. Mean lesion size was comparable between ESD and EMR groups. Lesions were most commonly located in the rectum (42.9%), stomach (21.4%), and ascending colon (14.3%). In the EMR group, no complications occurred, and all patients achieved R0 resection without recurrence. Pathology revealed benign lesions in most cases, with 14.3% demonstrating high-grade dysplasia or malignancy. In the ESD group, pathology showed higher rates of advanced lesions, including high-grade dysplasia, intramucosal adenocarcinoma, and neuroendocrine tumor. Complications occurred in one patient (7.7%), requiring diagnostic laparoscopy without need for further surgery. Endoscopic clipping successfully managed subserosal defects. No recurrence was observed.

**Conclusion:** Both ESD and EMR were safe and effective in treating gastrointestinal superficial lesions. EMR was favorable for small, superficial lesions, while ESD offered curative potential for larger or high-risk lesions. These findings support endoscopic resection as a strong alternative to surgery, though larger studies with longer follow-up are needed.

**Keywords:** Endoscopic submucosal dissection (ESD), endoscopic mucosal resection (EMR), gastrointestinal tumor, minimally invasive surgery, single-center experience

## [P-064]

### Mixed adeno-neuroendocrine neoplasms (MINENs): A single-center case series on immunohistochemical profile and clinical course

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**Objective:** Mixed neuroendocrine–non-neuroendocrine neoplasms (MiNENs) are rare tumors characterized by the coexistence of epithelial non-neuroendocrine and neuroendocrine components, displaying markedly heterogeneous biological behavior. The current literature consists predominantly of case reports and small case series, limiting the understanding of their clinicopathological features and prognostic determinants. This study aimed to evaluate the demographic characteristics, histopathological and clinical findings, and postoperative follow-up and survival outcomes of nine patients with colonic and gastric MiNENs who underwent surgical treatment in our institution, in light of contemporary literature.

**Material and Methods:** A total of nine patients diagnosed with MiNENs between 2020 and 2025 were retrospectively analyzed. Demographic characteristics, clinicopathological parameters, immunohistochemical markers, and postoperative follow-up and survival data were systematically evaluated.

**Results:** Nine patients were included in the study, four with colonic and five with gastric MiNENs. The mean age of the colonic cohort was 79.7 years, and all patients were male. Three patients presented with T3 tumors and one with a T4 tumor; all were classified as N0. The neuroendocrine component was Grade 3 in three of the four colonic cases. Lymphovascular invasion (LVI) and perineural invasion (PNI) were absent in three patients but were present in the patient who died during the first postoperative month. During follow-up, liver metastases developed in two colonic patients, and one patient experienced local recurrence in the second postoperative year. In the gastric cohort, the mean age was 67.8 years (three males, two females). Staging revealed three T3 tumors, one T2 tumor, and one T1 tumor; lymph node metastasis was identified in four patients. The neuroendocrine component was Grade 3 in four of the five cases. HER2 overexpression (3+) and PD-L1 positivity (CPS ≥5) were detected in one patient. Both LVI and PNI were more frequently observed in gastric MiNENs. Synaptophysin was positive in eight of the nine cases, whereas chromogranin A expression demonstrated a heterogeneous pattern. Mismatch repair protein expression was preserved in all colonic cases and in one gastric case.

**Conclusion:** This case series contributes to the growing body of literature on gastrointestinal MiNENs by outlining their pathological and clinical characteristics. The findings underscore the heterogeneous behavior of MiNENs and highlight the need for larger, multicenter studies to better elucidate prognostic factors and guide clinical management.

**Keywords:** Gastrointestinal system, mixed adeno-neuroendocrine neoplasm, MiNEN

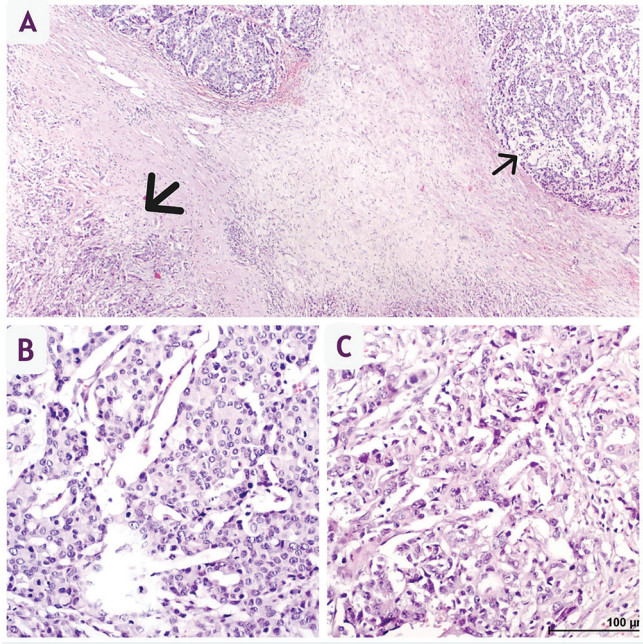


**Figure 1.** Histopathology and immunohistochemistry of mixed adeno-neuroendocrine carcinoma (patient 4).

(A) H&E staining demonstrating the neuroendocrine component (top arrow) and the adenocarcinoma component (bottom arrow), x4 (B) Neuroendocrine component, x40 (C) Adenocarcinoma component, x40.

**Table 1. Demographic characteristics and tumor features of the patients**

| | P 1 | P 2 | P 3 | P 4 | P 5 | P 6 | P 7 | P 8 | P 9 |
|---|---|---|---|---|---|---|---|---|---|
| Age | 79 | 84 | 88 | 68 | 82 | 68 | 66 | 48 | 75 |
| Gender | Male | Male | Male | Male | Male | Male | Male | Female | Female |
| Tumor location | Colon | Colon | Colon | Colon | Gastric | Gastric | Gastric | Gastric | Gastric |
| Surgery type (emergency/elective) | Emergency | Emergency | Elective | Emergency | Emergency | Elective | Elective | Elective | Elective |
| Tumor size (cm) | 5 | 8 | 5 | 3 | 3 | 4 | 5 | 5 | 0.4 |
| Lymph nodes (positive/resected) | 0/17 | 0/14 | 0/23 | 0/12 | 2/24 | 5/23 | 5/13 | 2/5 | 0/4 |
| Tumor stage | T4N0 | T3N0 | T3N0 | T3N0 | T3N2 | T3N2 | T3/N2 | T2N1 | T1N0 |
| Tumor component % (adenocarcinoma/neuroendocrine) | 55/45 | 30/70 | 60/30 | 40/60 | 30/70 | 30/70 | 30/70 | 40/60 | 50/50 |
| Adenocarcinoma tumor differentiation | Medium | Medium | Well | Medium | Medium | Medium | Well | Well | Well |
| Neuroendocrine tumor grad | G3 | G3 | G2 | G3 | G3 | G3 | G3 | G1 | G3 |
| Immunochemistry | CgA+/Syn+ | CgA-/Syn+ | CgA-/Syn- | CgA+/Syn+ | CgA-/Syn+ | CgA-/Syn+ | CgA+/Syn+ | CgA+/Syn+ | CgA+/Syn+ |
| Ki-67 index | 80 | 80 | 5 | 60 | 70 | 35 | 38 | 1 | 75 |
| Perineural invasion | No | Yes | No | No | No | Yes | Yes | No | No |
| Lymphovascular invasion | No | Yes | No | No | Yes | No | Yes | Yes | No |
| Treatment (S/S + AC/NC+S) | S+AC | S | S | S + AC | S | NC + S + AC | S+AC | S | NC + S + AC |
| Postoperative development of liver metastasisi | Yes | No | No | Yes | No | No | No | No | No |
| Outcome (mounth) : Live (L) , Died (D) | L(66) | D(1) | L(40) | D(5) | D(1) | L(33) | L(33) | L(10) | L(8) |

P: Patient, TN: Tumor/node staging, CgA: Chromogranin A, Syn: Synaptophysin, S: Surgery, S+AC: Surgery+adjuvant chemotherapy, NC+S+AC: Neoadjuvant chemotherapy+surgery+adjuvant chemotherapy.

## [P-065]

### Management of splenic trauma: A single-center experience

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**Objective:** Splenic injuries is a condition we can encounter in the emergency room. As general surgeons, we take care of these patients. A splenic injures occurs when the outer covering or inner tissue of the spleen tears, causing internal bleeding. It is a dangerous, potentially life-threatening situation.

**Material and Methods:** In this study, we discuss traumatic splenic injuries. Traumatic splenic injuries were examined between 2016 and 2025. A total of 21 patients were included in the study.

**Results:** The mean age of the patients was 40.28 years. Ten of the patients were female (47.6%) and 11 were male (52.4%). Eighteen of 21 patients had multiple trauma (85.7%), 10 of which were traffic accidents. Two had gunshot wounds. Three had penetrating wounds. There were 6 fall injuries. We used the splenic injury scale of the American Association for the Surgery of Trauma to grade injuries. Due to high-grade injury (grade 3-5) and patient hemodynamic instability, 8 of 21 patients (33.3%) underwent splenectomy; 7 of them underwent total splenectomy.

**Conclusion:** The most important takeaway from this study is how important it is to have rapid imaging; most patients had their computed tomography scans within an hour of arriving, which helps make quick decisions about whether surgery is needed. We also concluded that interventions for trauma-related injuries should be based on the patient's clinical priorities. Our results suggest that splenic trauma results best when decisions are made based on the severity of the injury, the patient's stability, and other injuries, and when the patient is treated in a multidisciplinary manner.

**Keywords:** Splenic trauma, acute abdomen, splenectomy

## [P-066]

### Use of absorbable calcium sulfate antibiotic carrier in a case with diabetic foot ulcer and pathological calcaneus fracture: A case report

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**Objective:** Diabetic foot ulcers represent one of the major complications of diabetes mellitus and are frequently associated with infection, tissue necrosis, and underlying osteomyelitis. The standard management typically includes thorough wound debridement, systemic and local antibiotic therapy, and structured wound care.However, many patients require repeated debridement sessions and prolonged antibiotic treatment, often leading to extended hospitalization, increased morbidity and mortality, higher rates of limb loss, antibiotic resistance, and medication-related adverse effects. Absorbable calcium sulfate–based antibiotic carriers have emerged as a promising adjunct in difficult diabetic foot infections, enabling localized high-concentration antibiotic delivery while minimizing systemic exposure.

**Case Presentation:** A 61-year-old male patient with known diagnosis of diabetes mellitus. He has a history of right leg below-knee amputation due to diabetic foot ulcer. He applied to our chronic wound care outpatient clinic due to a newly developed diabetic foot ulcer on his left heel. His examinations revealed a newly developed diabetic ulcer and a pathological fracture in the calcaneus of the left heel. Wound debridement was applied. Subsequently, internal fixation with a Steinmann pin was performed by the orthopedics and traumatology clinic due to the calcaneus fracture. Following the internal fixation, on the 9th post-operative day, debridement and absorbable calcium sulfate antibiotic carrier were applied, and a negative pressure wound closure system was established. The absorbable calcium sulfate antibiotic carrier was applied using vancomycin upon the recommendation of infectious diseases.

**Conclusion:** The patient was discharged on the 2nd day following the debridement application accompanied by an absorbable calcium sulfate antibiotic carrier. Currently, the patient is being followed up in the outpatient wound care clinic. During the follow-up of the patient with the applied antibiotic carriers, there was no need for new hospitalization, debridement, or antibiotic therapy. The use of absorbable calcium sulfate antibiotic carriers was observed to reduce the need for multiple debridements, systemic and local antibiotic therapy, prolonged hospital stays, increased mortality, limb loss, antibiotic resistance, and side effects related to antibiotics and medications in patients.

**Keywords:** Diabetic foot ulcer, absorbable calcium sulfate antibiotic carrier, pathological calcaneal fracture, chronic wound, local antibiotic delivery

**Figure 1.** Initial presentation showing the newly developed left heel diabetic ulcer.


**Figure 2.** Post-debridement view with absorbable calcium sulfate antibiotic carrier in place.

## [P-068]

### A giant trichobezoar in a young patient with oral intake disorder: A rare case report

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**Objective:** Trichobezoars are rare gastric masses composed of ingested hair and are most commonly seen in young women with psychiatric disorders such as trichotillomania or trichophagia. Symptoms are usually non-specific, and diagnosis is often delayed until the mass causes gastric outlet obstruction. This report presents a rare case of a giant trichobezoar in a young woman with an oral intake disorder.

**Material and Methods:** A 23-year-old female patient presented to University of Health Sciences Türkiye, Kartal Dr. Lütfi Kırdar City Hospital, with complaints of abdominal pain, nausea, and vomiting persisting for five months. The patient had a history of chronic oral intake disorder. Upper gastrointestinal endoscopy performed at an external center had failed to reach the stomach. Abdominal computed tomography performed at our center revealed a large mass consistent with a bezoar. The patient was taken for emergency surgery. Through a midline laparotomy, a 5 cm gastrotomy was performed along the greater curvature of the stomach, and a giant trichobezoar completely filling the gastric lumen was removed. The stomach was closed primarily in two layers. The postoperative course was uneventful, and the patient was discharged on the fifth postoperative day. During hospitalization, a psychiatric consultation was obtained, and the patient was referred for follow-up after discharge.

**Results and Conclusion:** Although rare, trichobezoar should be considered in patients with psychiatric history and chronic gastrointestinal complaints. Early diagnosis and surgical intervention are critical to prevent complications such as obstruction or perforation. This case highlights the importance of a multidisciplinary approach in both treatment and long-term follow-up.

**Keywords:** Oral intake disorder, trichobezoar

**Figure 1.** Bezoar.

## [P-069]

### A rare case of colon perforation with concurrent pneumothorax during colonoscopy

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**Objective:** Colonoscopy is a widely used endoscopic procedure for both diagnostic and therapeutic purposes. However, although rare, it may lead to serious complications. Colon perforation is one of the most severe complications of colonoscopy and, in very rare cases, may be accompanied by pneumothorax. In this case report, we present a 68-year-old female patient in whom pneumothorax developed following sigmoid colon perforation during colonoscopy.

**Material and Methods:** The patient was a 68-year-old woman with a history of breast cancer who had undergone right breast-conserving surgery in 2017. Colonoscopy was planned as part of routine follow-up for further evaluation. During the procedure, a perforation of the intestinal wall occurred at the 30th cm, and the patient was taken for emergency surgery. During laparotomy, an approximately 2 cm perforation was identified in the sigmoid colon, and primary repair was performed in two layers. In the postoperative period, the patient was monitored in the intensive care unit. Due to a decrease in oxygen saturation, a chest radiograph was obtained, revealing a right-sided pneumothorax. Consequently, tube thoracostomy was performed. It was noted that only room air had been used for insufflation during colonoscopy.

**Results and Conclusion:** Following tube thoracostomy, the patient's respiratory parameters improved rapidly, and she remained clinically stable. The postoperative follow-up was uneventful, and the patient was discharged on the sixth day without any additional complications. The development of pneumothorax was attributed to the passage of insufflated air from the peritoneal cavity into the thoracic cavity following colonic perforation during colonoscopy. Pneumothorax after colon perforation secondary to colonoscopy is an extremely rare but serious complication. Early recognition and timely surgical and thoracic intervention are crucial for patient prognosis. This case draws attention to rare complications that may occur during colonoscopy and emphasizes the importance of a multidisciplinary approach.

**Keywords:** Colon perforation, colonoscopy, pneumothorax

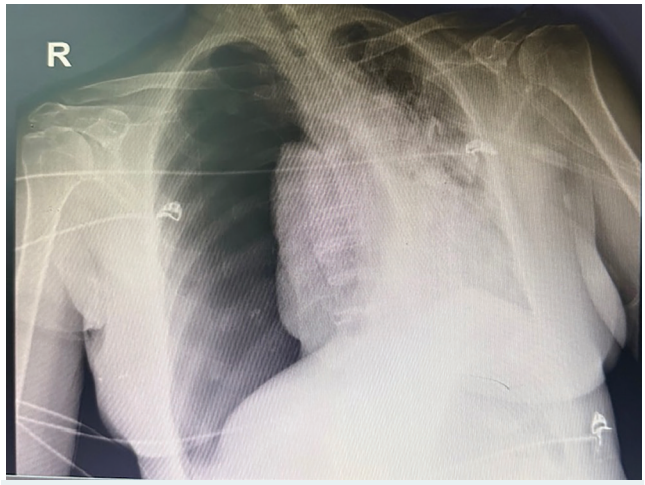


**Figure 1.** Pneumothorax.

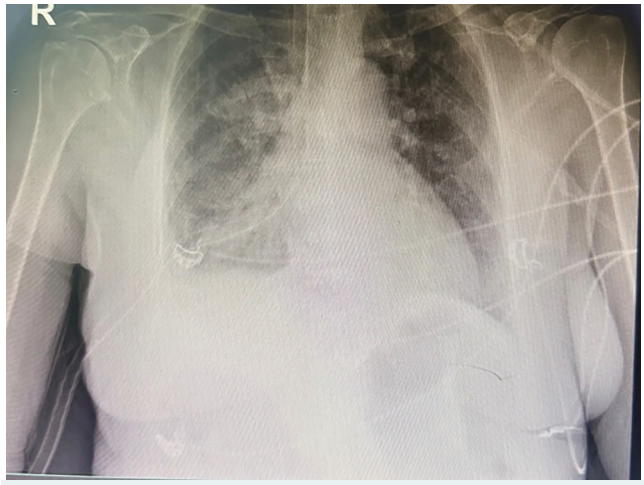


**Figure 2.** After tube thoracostomy.

## [P-070]

### Wandering spleen torsion: A rare cause of acute abdomen in a young adult male

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**Objective:** Wandering spleen is a very rare condition characterized by abnormal mobility of the spleen due to laxity or absence of its supporting ligaments. This excessive mobility may lead to torsion of the splenic pedicle, resulting in splenic infarction and acute abdomen. Early diagnosis is critical to prevent serious complications.

**Material and Methods:** A 21-year-old male patient presented to the emergency department with sudden-onset abdominal pain. Physical examination revealed tenderness and guarding in the left lower quadrant. Laboratory findings showed leukocytosis and elevated C-reactive protein and lactate levels. Abdominal ultrasonography and computed tomography demonstrated a large ectopic spleen located in the pelvis with signs of torsion and a significant amount of surrounding ascites.

**Results and Conclusion:** Emergency laparoscopy revealed a torsioned and ischemic spleen located in the pelvis. Due to unclear anatomical landmarks, conversion to laparotomy was performed. A necrotic spleen measuring approximately 15 cm, torsioned at the hilum, was identified, and splenectomy was performed. The postoperative course was uneventful, and the patient was discharged on the fourth postoperative day. Histopathological examination showed ischemic changes with no evidence of malignancy. Wandering spleen torsion is a rare but potentially life-threatening cause of acute abdomen. Diagnosis requires a high index of clinical suspicion and radiological confirmation. Although asymptomatic cases may be managed conservatively, splenic torsion usually necessitates emergency surgical intervention. This case highlights the importance of early imaging and prompt surgical management in this rare emergency condition.

**Keywords:** Acute abdomen, splenic torsion, wandering spleen

Figure 1. Torsioned spleen.

## [P-071]

### Contralateral axillary involvement in Tc-99m guided sentinel lymph node mapping in breast surgery

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**Objective:** Axillary metastasis is one of the most important prognostic factors affecting survival in patients with breast cancer. In appropriately selected cases, axillary mapping and sentinel lymph node biopsy help prevent the morbidities associated with axillary dissection by minimizing disruption of tissue integrity. Today, sentinel lymph node biopsy using Tc-99m-labeled lymph nodes and gamma-probe detection is considered the gold standard. With lymphoscintigraphy, radiotracers injected preoperatively migrate through the lymphatic drainage of the breast and reach the sentinel lymph nodes. Although contralateral axillary sentinel lymph node involvement has been reported rarely in the literature, the case encountered in our clinic highlights the importance of lymphoscintigraphy, particularly because it altered the preoperative surgical plan.

**Case:** A 51-year-old woman presented in June 2022 with a palpable mass in the left breast. Core needle biopsy revealed invasive ductal carcinoma, and imaging at diagnosis demonstrated mediastinal lymph node metastasis. Due to stage IV disease, neoadjuvant ribociclib+letrozole+zoladex therapy was initiated in November 2022. Genetic testing revealed a BRCA2 mutation. FDG-PET/MRI performed in March 2025 showed complete metabolic and anatomic regression. After discussing potential risks, the patient opted for bilateral mastectomy with sentinel lymph node biopsy from the left axilla. During preoperative lymphoscintigraphy, subcutaneous Tc-99m was injected into the left breast. Early images demonstrated radiotracer flow toward the left axilla, revealing a 4 mm sentinel lymph node at level 1. However, delayed SPECT/CT images showed increased uptake in an 8 mm lymph node in the right axilla at level 1. Contralateral sentinel lymph nodes and metastatic involvement have been previously reported in the literature. The patient underwent bilateral mastectomy with bilateral sentinel lymph node biopsy. Intraoperative frozen section analysis revealed no metastasis in the right axillary sentinel lymph node.

**Discussion:** Contralateral sentinel lymph nodes and metastatic involvement have been documented in breast cancer. Detecting aberrant lymphatic drainage through Tc-99m lymphoscintigraphy reinforces its indispensable role in modern breast cancer surgery.

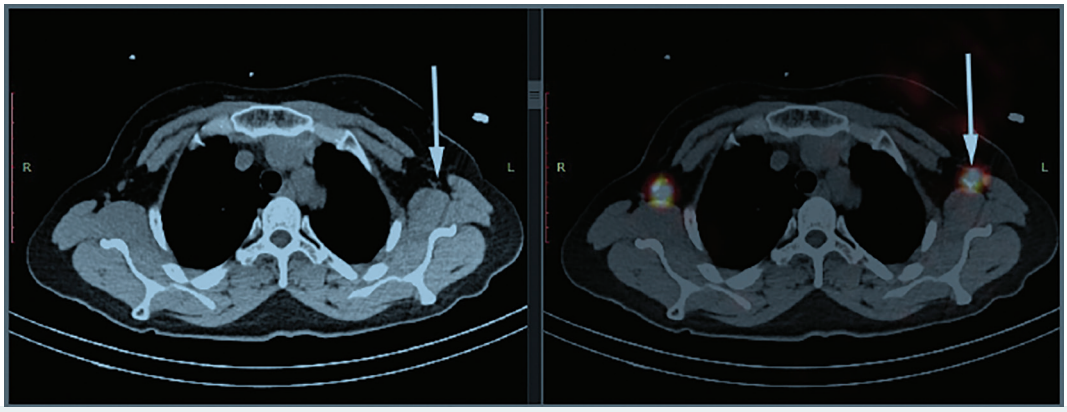


Figure 1.

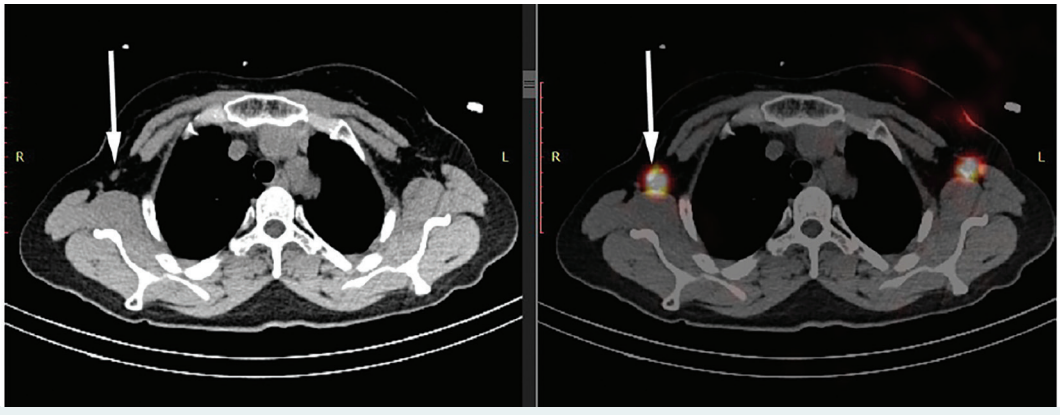


Figure 2.

## [P-074]

### A wire twister for surgical applications

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**Objective:** When the surgeon needs to twist a wire during a surgical procedure the instrument of choice is a needle holder in most cases. When a needle holder is used to twist wires for fixation the procedure is quite tiresome for the surgeons's wrist. Moreover one may experience several unexpected adverse events due to insecure use of the needle holder and the wire. In this study a new instrument designed for twisting wires in surgical procedures is presented.

**Material and Methods:** The study is performed in Sabancı University, İstanbul. SolidWorks (2015) application is used for designing the instrument. This new device can be easily used by surgeons and by anybody who performs surgical interventions such as dentists and veterinarians. The wire grasped by the tip of the device can be twisted 360 degrees by the help of the cogwheel system. As the whole system is kept closed in a cylinder, jam and tissue damage is prevented.

**Results:** Patent application is filed on 01.06.2020 (approval number: A 2020/08456). Published on 21.12.2021. Publication no: TR 2020 08456 A2. Patent is granted on 21.03.2023. Classification: A61B 17/88B21F 15/04

**Keywords:** Wire for ligation, wire twister

## [P-076]

### Primary hepatic leiomyosarcoma presenting with obstructive jaundice: From a misleading preoperative diagnosis to postoperative pathologic confirmation

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**Objective:** Primary hepatic leiomyosarcoma (PHL) is an extremely rare smooth muscle tumor of the liver. Its non-specific imaging features often resemble cholangiocarcinoma or metastatic malignancy, leading to diagnostic challenges. Biopsy frequently yields nonrepresentative necrotic tissue, making postoperative pathology essential for accurate diagnosis.

**Case Presentation:** A 71-year-old woman presented with abdominal pain and recent-onset jaundice. Imaging revealed a 129×114×109 mm heterogeneous necrotic mass involving segments 4a, 5, 6, and 8 with marked biliary dilatation. Biopsy suggested spindle cell carcinoma, prompting radical surgical intervention.

**Results:** The patient underwent right hepatectomy, extrahepatic bile duct resection, segmental portal vein resection with reconstruction, hepatoduodenal lymphadenectomy, and reconstruction with Roux-en-Y hepaticojejunostomy. Gross examination showed a large lobulated tumor replacing the right hepatic lobe. Microscopy revealed spindle cells arranged in fascicles. SMA and desmin were positive; cytokeratin negative. Final diagnosis: primary hepatic leiomyosarcoma.

**Discussion:** PHL is difficult to diagnose preoperatively due to its overlapping appearance with other spindle cell tumors. SMA and desmin positivity help differentiate PHL from sarcomatoid carcinoma and metastatic sarcomas. Radical surgery remains the definitive treatment.

**Conclusion:** This case emphasizes the diagnostic pitfalls of hepatic spindle cell tumors and highlights the critical role of postoperative immunohistochemical evaluation in establishing a definitive diagnosis.

**Figure 1.** Axial contrast-enhanced CT image.

*CT: Computed tomography*

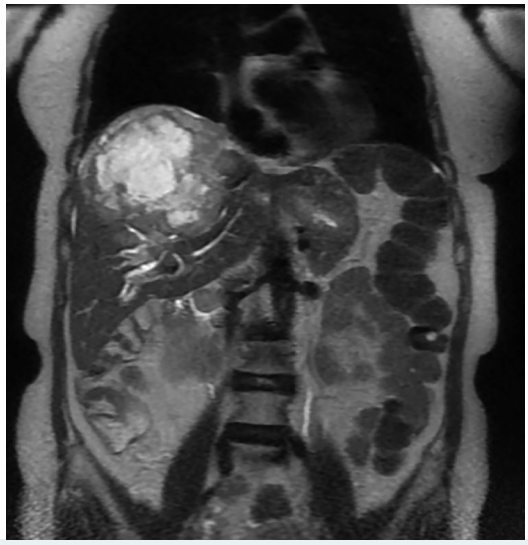

**Figure 2.** Coronal MRI image.

*MRI: Magnetic resonance imaging*

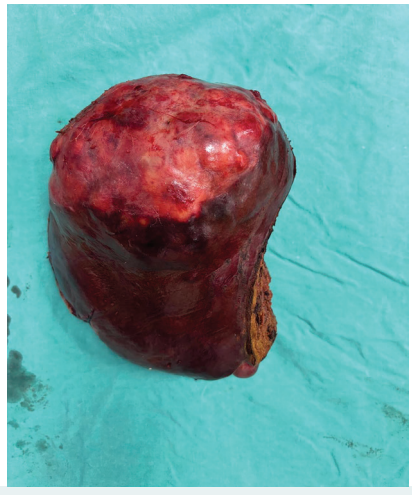

**Figure 3.** Gross surgical specimen.

## [P-077]

### Traumatic diaphragmatic hernia emerging one year after trauma: Case report

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**Objective:** Diaphragmatic hernias developing in adulthood are quite rare. Traumatic diaphragmatic hernia occurs as a result of high-energy blunt trauma or penetrating injuries. The clinical picture varies from asymptomatic to severe dyspnea. Rarely, as in our case, presentation may occur in the late period with signs of obstruction following herniation and adhesion development. The appropriate use of radiological methods, especially computed tomography (CT) and radiographs, is critical in the diagnosis in the early period.

**Material and Methods:** Case: A 61-year-old male patient with a history of rib fractures due to a fall from a tree one year prior presented to the emergency department with severe abdominal pain, nausea, and accompanying chest pain that had persisted for 4 days. Coronary angiography and CT scans performed at an external center due to chest pain revealed no significant pathology. After referral to our center, an abdominal X-ray revealed an enlarged colonic segment suggestive of volvulus. Contrast-enhanced CT showed a 15 mm defect in the left diaphragm, herniated colonic segments through this defect, 60 mm dilatation, levels, and transition zones. A diagnosis of perforated closed loop obstruction with minimal free air was made. The patient underwent emergency surgery. A defect of approximately 1 cm was observed in the left diaphragm. The colon segments within the thorax were necrotic and perforated; they were resected and anastomosed with a stapler. The thoracic surgery team was involved in the operation, and a left tube thoracostomy was performed, and the diaphragm was repaired. During follow-up in the ICU and ward, pneumothorax and increased CRP were detected on the lung X-ray on the 15th day. Collections and areas of atelectasis were observed on HRCT. The patient underwent surgery; the procedure, which began with VATS, was extended to total decortication and thoracotomy. The parietal and visceral pleura were completely decorticated, and a chest tube was placed.

**Results and Conclusion:** especially in left-sided diaphragmatic ruptures. In our case, the approximately one-year interval between the trauma and the rupture can be explained by the negative intrathoracic pressure gradually drawing bowel segments into the thoracic cavity. The absence of hernia findings on CT scans performed during follow-up after the trauma highlights the importance of clinical suspicion and repeated imaging. Comprehensive evaluation of all thoracoabdominal injuries with chest and abdominal CT, and diagnostic laparoscopy in suspicious cases, is critical to prevent complications such as strangulation and perforation that may arise in the late period.

## [P-083]

### Clinical evaluation of 11 patients diagnosed with malignant polyp after colonoscopic polypectomy

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**Objective:** The development of colorectal cancer often involves the progression of benign lesions, such as adenomatous polyps, into malignant forms over time. Patients diagnosed with malignant polyps following colonoscopic polypectomy represent a group requiring close surveillance. These polyps carry a risk of local invasion as well as the potential for recurrence and metastasis. Therefore, accurate classification of malignant polyps plays a critical role in determining treatment strategies and improving patient prognosis. The aim of this study is to present the clinical characteristics, histopathological findings, and significant follow-up results of 11 patients who were diagnosed with malignant polyps after colonoscopic polypectomy.

**Material and Methods:** A retrospective analysis was conducted on 11 patients diagnosed with malignant polyps after colonoscopic polypectomy performed by the same endoscopist between April 2017 and April 2024 at the Endoscopy Unit of the Department of General Surgery, University of Health Sciences Türkiye, İzmir Faculty of Medicine, İzmir Tepecik Education and Research Hospital. Patient age, sex, polyp location, size, histopathological characteristics, and Haggitt classification were recorded. Followup duration, recurrence rates, the need for additional intervention, and clinical outcomes were evaluated.

**Results:** The mean age of the 11 patients included in the study was 57 years (range: 31-73), with 8 males and 3 females. Polyp locations were as follows: Sigmoid colon (6 patients), rectum (3 patients), descending colon (1 patient), and transverse colon (1 patient). The mean polyp size was 2.3 cm (range: 0.8-4.8 cm). Haggitt classification was: Haggitt 0: 0 patients, Haggitt 1: 8 patients, Haggitt 2: 2 patients, Haggitt 3: 1 patient. Colonoscopic followup duration ranged from a minimum of 10 months to a maximum of 74 months.

**Conclusion:** Patients diagnosed with malignant polyps after colonoscopic polypectomy represent a highrisk group requiring close surveillance. Histological evaluation and Haggitt classification play a vital role in determining treatment strategies and improving prognosis. The long diseasefree survival observed in this study once again highlights the importance of early diagnosis, multidisciplinary assessment, and appropriate treatment of malignant polyps in preventing colorectal cancer and improving patient survival.

**Keywords:** Colonoscopic polypectomy, malignant polyp, Haggitt classification

## [P-086]

### Diffuse visceral ischemia due to simultaneous superior mesenteric artery and celiac trunk occlusion following TEVAR: A rare case and review of the literature

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**Objective:** Thoracic endovascular aortic repair (TEVAR) is an effective technique that reduces mortality in the management of aortic aneurysms. However, rare visceral arterial occlusions represent severe complications that may lead to diffuse ischemia of the entire gastrointestinal tract and can be fatal if not promptly recognized. Here, we present a case of extensive visceral ischemia secondary to simultaneous celiac trunk and superior mesenteric artery (SMA) occlusion following TEVAR.

**Material and Methods:** This report describes the clinical course, laboratory findings, and surgical exploration outcomes of a patient who presented with abdominal symptoms following TEVAR. Two similar cases have also been reported in the literature.

**Results and Conclusion:** A 75-year-old male patient underwent placement of an endovascular graft extending from the descending thoracic aorta to the abdominal aorta by the Cardiovascular Surgery department due to aortic dissection.On postoperative day four following TEVAR, the patient developed abdominal pain, nausea, and difficulty walking. Serum lactate was 16 mmol/L and LDH was 1206 U/L, while the patient remained alert and cooperative. CT angiography revealed complete occlusion of the celiac trunk and SMA, diffuse ischemia throughout the entire gastrointestinal tract, and pneumatosis intestinalis. During laparotomy, widespread ischemia was observed involving the liver, spleen, gallbladder, stomach, small intestine, colon, and the proximal of the rectum. No pulsation was detected in the SMA or the celiac trunk. It was concluded that surgical revascularization could not be achieved and the procedure was terminated in its current state. The patient was transferred from the operating room intubated and on inotropic support. During postoperative intensive care follow-up, the patient developed multiorgan failure and septic shock, and died at postoperative hour 12. In the first case reported in the literature, only the SMA was involved, and due to the limited extent of intestinal ischemia, surgical revascularization was performed and the patient survived. In the other reported case, despite the development of partial celiac trunk occlusion, the patient improved with conservative management. This case represents the first and most severe clinical example of fulminant intestinal ischemia caused by simultaneous major visceral arterial occlusion following TEVAR, demonstrating that symptoms may initially present with only mild abdominal pain. In conclusion, visceral malperfusion should be considered early in patients who develop abdominal symptoms after TEVAR and should be promptly evaluated with CT angiography. Early diagnosis and an aggressive management approach are critical for reducing mortality.

**Keywords:** Ischemia, thoracic endovascular aortic repair (TEVAR), visceral artery occlusion

**Figure 1.** Intraoperative image.

## [P-089]

### A rare complication of cholecystoduodenal fistula: Bouveret syndrome – case report

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**Objective:** Bouveret syndrome is a rare form of gallstone ileus characterized by gastrointestinal obstruction caused by a gallstone that migrates through a cholecystoduodenal fistula and becomes impacted in the duodenum or pylorus. Spontaneous resolution after conservative treatment is uncommon. Endoscopic interventions are preferred as the first-line treatment. However, in our case, due to the size of the gallstone formed by accumulated biliary sludge in the distal duodenal loop and the resulting ileus on imaging performed after the patient presented to the emergency department with ongoing nausea and vomiting for one week, surgical treatment was chosen.

**Material and Methods:** The patient's clinical evaluation, laboratory and radiological assessments, and a literature review were used to prepare the case report.

**Results and Conclusion:** In this case, a 42-year-old female patient presented to the emergency department with nausea and vomiting related to food intake for ten days. Laboratory tests revealed mildly elevated bilirubin levels (total bilirubin: 1.45, direct bilirubin: 0.37). Cross-sectional imaging demonstrated a cholecystoduodenal fistula connecting to the second part of the duodenum and a 4 cm calculus in the third part with proximal dilation, suggestive of Bouveret syndrome. The patient was scheduled for emergency surgery. During exploration, a bilioenteric fistula opening into the first part of the duodenum was identified. Primary cholecystectomy with excision of the cholecystoduodenal fistula was performed first. Subsequently, the calculus in the third part of the duodenum was removedthrough the fistula opening. The fistula tract was primarily repaired, and omentopexy was performed. The patient recovered without complications and was discharged. Postoperative pathology of the cholecystectomy specimen revealed xanthogranulomatous cholecystitis. This case highlights Bouveret syndrome as a rare cause of gallstone ileus and demonstrates that cholecystoduodenal fistula may develop in the setting of asymptomatic chronic cholecystitis.

## [P-090]

### Hydatid cyst as a rare localization in the pancreatic tail

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**Objective:** Hydatid cyst disease is an important parasitic condition in surgical practice. The causative agents are *Echinococcus granulosus* and *Echinococcus alveolaris*. The disease most commonly presents as cysts in the liver (50-70%) and lungs (20-30%). The pancreas, however, is a rare site of involvement (0.14-2%). In this case report, we present a hydatid cyst localized in the pancreatic tail.

**Case Presentation:** A 44-year-old female patient with a history of hypertension and type 2 diabetes mellitus. She had previously undergone total thyroidectomy and cystotomy operations for hepatic and pulmonary hydatid cysts. She presented to the internal medicine outpatient clinic with intermittent abdominal pain. Radiological imaging revealed a cystic lesion with solid components in the pancreatic tail. The initial radiological impression was "solid pseudopapillary neoplasm," and the patient was referred to the general surgery clinic. After preoperative preparation, the patient underwent surgery. A cystic lesion measuring 4 cm in diameter, extending from the pancreatic body to the tail and containing solid components, was identified. Distal pancreatectomy was performed. Oral intake was initiated on postoperative day 2. PO 5, 200 cc of pancreatic fluid was drained; amylase and lipase levels were elevated. Somatostatin therapy and parenteral nutrition were started. PO 10, drainage ceased and the drain was removed. Somatostatin was discontinued, and oral feeding was resumed. Control abdominal magnetic resonance imaging showed no significant collection. The patient was discharged on postoperative day 14. Pathology confirmed the diagnosis of "hydatid cyst." At the postoperative day 22 follow-up, the patient tolerated oral intake well and reported no pain.

**Conclusion:** The pancreas is an organ where cystic benign and malignant lesions (such as cystic carcinoma and pseudocyst) are frequently encountered. However, considering patients' surgical history and comorbidities, rare entities such as hydatid cysts should also be included in the differential diagnosis.

## [P-096]

### A rare pathology: Granulomatous appendicitis which surgical approach should be preferred?

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**Objective:** Chronic appendicitis is an uncommon etiology of persistent right lower quadrant pain and may arise from partial or intermittent luminal obstruction. Granulomatous appendicitis (GA), a rare histopathologic variant, can closely mimic mucinous appendiceal neoplasms on imaging and endoscopy, complicating preoperative decision-making.

**Case Presentation:** A woman with no comorbidities presented with a year-long history of intermittent right lower quadrant pain. Examination revealed localized tenderness without peritoneal signs, and laboratory tests showed no leukocytosis. CT demonstrated a cystic or mucinous-type lesion at the appendiceal base accompanied by ileocolic lymphadenopathy. Colonoscopy confirmed a lesion at the appendiceal orifice. Given the radiologic suspicion of malignancy, laparoscopic right hemicolectomy with extracorporeal anastomosis was performed after informed consent. Recovery was uneventful, and histopathology established idiopathic GA.

**Conclusion:** GA may radiologically and clinically resemble mucinous neoplasms, prompting extensive surgical resections. Preoperative endoscopy and, when feasible, intraoperative histologic verification can help limit resection extent. Nevertheless, when malignancy is strongly suspected, adherence to oncologic surgical principles remains essential.

**Keywords:** Granulomatous appendicitis, right hemicolectomy, mucinous neoplasm, chronic appendicitis, case report